

Environmental Review Record

for the
Clark Road Apartments Project

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APPENDIX A

CALEEMOD AIR QUALITY MODELING RESULTS

Clark Road Apartments Custom Report

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1. Basic Project Information

1.1. Basic Project Information

| Data Field | Value |
|-----------------------------|--|
| Project Name | Clark Road Apartments |
| Construction Start Date | 1/1/2025 |
| Operational Year | 2026 |
| Lead Agency | Town of Paradise |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.90 |
| Precipitation (days) | 36.4 |
| Location | 6462 Clark Rd, Paradise, CA 95969, USA |
| County | Butte |
| City | Paradise |
| Air District | Butte County AQMD |
| Air Basin | Sacramento Valley |
| TAZ | 216 |
| EDFZ | 3 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.18 |

1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|
|------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|

| | | | | | | | | |
|---------------------|------|---------------|------|--------|---------|---|-----|---|
| Apartments Low Rise | 72.0 | Dwelling Unit | 6.55 | 76,320 | 122,404 | — | 184 | — |
| Parking Lot | 106 | Space | 0.95 | 0.00 | 0.00 | — | — | — |

1.3. User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|----------------|--------|--|
| Construction | C-5 | Use Advanced Engine Tiers |
| Transportation | T-4 | Integrate Affordable and Below Market Rate Housing |
| Energy | E-1 | Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards |
| Energy | E-10-A | Establish Onsite Renewable Energy Systems: Generic |

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.89 | 2.98 | 11.7 | 18.2 | 0.03 | 0.46 | 0.48 | 0.94 | 0.42 | 0.11 | 0.54 | — | 3,162 | 3,162 | 0.13 | 0.06 | 2.26 | 3,184 |
| Mit. | 1.00 | 2.32 | 14.1 | 19.8 | 0.03 | 0.60 | 0.48 | 1.09 | 0.55 | 0.11 | 0.66 | — | 3,162 | 3,162 | 0.13 | 0.06 | 2.26 | 3,184 |
| % Reduced | 47% | 22% | -20% | -9% | — | -31% | — | -15% | -30% | — | -23% | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.03 | 3.39 | 31.7 | 31.0 | 0.05 | 1.37 | 19.8 | 21.1 | 1.26 | 10.1 | 11.4 | — | 5,423 | 5,423 | 0.22 | 0.06 | 0.06 | 5,443 |
| Mit. | 0.99 | 2.27 | 24.1 | 29.1 | 0.05 | 0.94 | 19.8 | 20.7 | 0.84 | 10.1 | 11.0 | — | 5,423 | 5,423 | 0.22 | 0.06 | 0.06 | 5,443 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|------|------|------|-------|
| % Reduced | 76% | 33% | 24% | 6% | — | 31% | — | 2% | 33% | — | 4% | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.49 | 2.02 | 10.2 | 13.2 | 0.02 | 0.41 | 1.55 | 1.96 | 0.38 | 0.71 | 1.09 | — | 2,358 | 2,358 | 0.10 | 0.04 | 0.59 | 2,373 |
| Mit. | 0.65 | 1.38 | 10.8 | 13.9 | 0.02 | 0.46 | 1.55 | 2.01 | 0.41 | 0.71 | 1.13 | — | 2,358 | 2,358 | 0.10 | 0.04 | 0.59 | 2,373 |
| % Reduced | 56% | 32% | -6% | -5% | — | -11% | — | -2% | -10% | — | -3% | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.27 | 0.37 | 1.85 | 2.41 | < 0.005 | 0.07 | 0.28 | 0.36 | 0.07 | 0.13 | 0.20 | — | 390 | 390 | 0.02 | 0.01 | 0.10 | 393 |
| Mit. | 0.12 | 0.25 | 1.96 | 2.54 | < 0.005 | 0.08 | 0.28 | 0.37 | 0.08 | 0.13 | 0.21 | — | 390 | 390 | 0.02 | 0.01 | 0.10 | 393 |
| % Reduced | 56% | 32% | -6% | -5% | — | -11% | — | -2% | -10% | — | -3% | — | — | — | — | — | — | — |

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.89 | 2.98 | 11.7 | 18.2 | 0.03 | 0.46 | 0.48 | 0.94 | 0.42 | 0.11 | 0.54 | — | 3,162 | 3,162 | 0.13 | 0.06 | 2.26 | 3,184 |
| 2026 | 1.78 | 2.90 | 11.1 | 17.8 | 0.03 | 0.40 | 0.48 | 0.89 | 0.37 | 0.11 | 0.49 | — | 3,149 | 3,149 | 0.13 | 0.06 | 2.08 | 3,171 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 4.03 | 3.39 | 31.7 | 31.0 | 0.05 | 1.37 | 19.8 | 21.1 | 1.26 | 10.1 | 11.4 | — | 5,423 | 5,423 | 0.22 | 0.06 | 0.06 | 5,443 |
| 2026 | 1.74 | 2.86 | 11.2 | 16.9 | 0.03 | 0.40 | 0.48 | 0.89 | 0.37 | 0.11 | 0.49 | — | 3,088 | 3,088 | 0.13 | 0.06 | 0.05 | 3,109 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|--------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|------|---------|------|-------|
| 2025 | 1.49 | 2.02 | 10.2 | 13.2 | 0.02 | 0.41 | 1.55 | 1.96 | 0.38 | 0.71 | 1.09 | — | 2,358 | 2,358 | 0.10 | 0.04 | 0.59 | 2,373 |
| 2026 | 0.73 | 1.23 | 4.64 | 7.07 | 0.01 | 0.17 | 0.20 | 0.37 | 0.15 | 0.05 | 0.20 | — | 1,292 | 1,292 | 0.05 | 0.02 | 0.38 | 1,301 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.27 | 0.37 | 1.85 | 2.41 | < 0.005 | 0.07 | 0.28 | 0.36 | 0.07 | 0.13 | 0.20 | — | 390 | 390 | 0.02 | 0.01 | 0.10 | 393 |
| 2026 | 0.13 | 0.22 | 0.85 | 1.29 | < 0.005 | 0.03 | 0.04 | 0.07 | 0.03 | 0.01 | 0.04 | — | 214 | 214 | 0.01 | < 0.005 | 0.06 | 215 |

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|---------|------|-------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.00 | 2.32 | 14.1 | 19.8 | 0.03 | 0.60 | 0.48 | 1.09 | 0.55 | 0.11 | 0.66 | — | 3,162 | 3,162 | 0.13 | 0.06 | 2.26 | 3,184 |
| 2026 | 0.96 | 2.29 | 14.1 | 19.5 | 0.03 | 0.60 | 0.48 | 1.08 | 0.55 | 0.11 | 0.66 | — | 3,149 | 3,149 | 0.13 | 0.06 | 2.08 | 3,171 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.99 | 2.27 | 24.1 | 29.1 | 0.05 | 0.94 | 19.8 | 20.7 | 0.84 | 10.1 | 11.0 | — | 5,423 | 5,423 | 0.22 | 0.06 | 0.06 | 5,443 |
| 2026 | 0.92 | 2.25 | 14.1 | 18.6 | 0.03 | 0.60 | 0.48 | 1.08 | 0.55 | 0.11 | 0.66 | — | 3,088 | 3,088 | 0.13 | 0.06 | 0.05 | 3,109 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.65 | 1.38 | 10.8 | 13.9 | 0.02 | 0.46 | 1.55 | 2.01 | 0.41 | 0.71 | 1.13 | — | 2,358 | 2,358 | 0.10 | 0.04 | 0.59 | 2,373 |
| 2026 | 0.39 | 0.98 | 5.89 | 7.77 | 0.01 | 0.25 | 0.20 | 0.45 | 0.23 | 0.05 | 0.28 | — | 1,292 | 1,292 | 0.05 | 0.02 | 0.38 | 1,301 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.12 | 0.25 | 1.96 | 2.54 | < 0.005 | 0.08 | 0.28 | 0.37 | 0.08 | 0.13 | 0.21 | — | 390 | 390 | 0.02 | 0.01 | 0.10 | 393 |
| 2026 | 0.07 | 0.18 | 1.07 | 1.42 | < 0.005 | 0.05 | 0.04 | 0.08 | 0.04 | 0.01 | 0.05 | — | 214 | 214 | 0.01 | < 0.005 | 0.06 | 215 |

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 4.02 | 5.43 | 4.72 | 39.5 | 0.08 | 0.10 | 5.96 | 6.06 | 0.10 | 1.52 | 1.62 | 33.1 | 8,044 | 8,077 | 3.64 | 0.36 | 27.3 | 8,303 |
| Mit. | 2.99 | 4.49 | 3.46 | 29.4 | 0.05 | 0.08 | 4.25 | 4.34 | 0.08 | 1.08 | 1.16 | 33.1 | 5,903 | 5,937 | 3.57 | 0.26 | 19.7 | 6,124 |
| % Reduced | 26% | 17% | 27% | 26% | 28% | 22% | 29% | 28% | 22% | 29% | 28% | — | 27% | 27% | 2% | 27% | 28% | 26% |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.31 | 4.73 | 5.42 | 28.4 | 0.07 | 0.10 | 5.96 | 6.06 | 0.10 | 1.52 | 1.62 | 33.1 | 7,393 | 7,426 | 3.67 | 0.39 | 1.24 | 7,636 |
| Mit. | 2.37 | 3.89 | 3.95 | 20.3 | 0.05 | 0.08 | 4.25 | 4.33 | 0.08 | 1.08 | 1.16 | 33.1 | 5,435 | 5,468 | 3.58 | 0.28 | 1.04 | 5,644 |
| % Reduced | 28% | 18% | 27% | 28% | 28% | 23% | 29% | 28% | 22% | 29% | 28% | — | 26% | 26% | 2% | 27% | 16% | 26% |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.51 | 4.93 | 5.12 | 30.8 | 0.07 | 0.10 | 5.82 | 5.92 | 0.10 | 1.48 | 1.58 | 33.1 | 7,541 | 7,574 | 3.65 | 0.38 | 12.1 | 7,789 |
| Mit. | 2.57 | 4.08 | 3.74 | 22.6 | 0.05 | 0.08 | 4.16 | 4.24 | 0.08 | 1.06 | 1.14 | 33.1 | 5,542 | 5,575 | 3.57 | 0.27 | 8.81 | 5,755 |
| % Reduced | 27% | 17% | 27% | 27% | 28% | 22% | 29% | 28% | 22% | 29% | 28% | — | 27% | 26% | 2% | 27% | 27% | 26% |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.64 | 0.90 | 0.94 | 5.61 | 0.01 | 0.02 | 1.06 | 1.08 | 0.02 | 0.27 | 0.29 | 5.48 | 1,248 | 1,254 | 0.60 | 0.06 | 2.01 | 1,290 |
| Mit. | 0.47 | 0.75 | 0.68 | 4.12 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.21 | 5.48 | 918 | 923 | 0.59 | 0.05 | 1.46 | 953 |
| % Reduced | 27% | 17% | 27% | 27% | 28% | 22% | 29% | 28% | 22% | 29% | 28% | — | 27% | 26% | 2% | 27% | 27% | 26% |

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|-------|---------|---------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.61 | 3.28 | 4.39 | 35.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 7,461 | 7,461 | 0.26 | 0.34 | 26.8 | 7,597 |
| Area | 0.38 | 2.13 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Energy | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 567 | 567 | 0.07 | < 0.005 | — | 570 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | 4.02 | 5.43 | 4.72 | 39.5 | 0.08 | 0.10 | 5.96 | 6.06 | 0.10 | 1.52 | 1.62 | 33.1 | 8,044 | 8,077 | 3.64 | 0.36 | 27.3 | 8,303 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.27 | 2.94 | 5.14 | 28.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 6,821 | 6,821 | 0.28 | 0.38 | 0.69 | 6,940 |
| Area | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Energy | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 567 | 567 | 0.07 | < 0.005 | — | 570 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | 3.31 | 4.73 | 5.42 | 28.4 | 0.07 | 0.10 | 5.96 | 6.06 | 0.10 | 1.52 | 1.62 | 33.1 | 7,393 | 7,426 | 3.67 | 0.39 | 1.24 | 7,636 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.29 | 2.96 | 4.82 | 28.6 | 0.07 | 0.08 | 5.82 | 5.90 | 0.08 | 1.48 | 1.56 | — | 6,963 | 6,963 | 0.27 | 0.36 | 11.6 | 7,089 |
| Area | 0.19 | 1.95 | 0.02 | 2.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 5.39 | 5.39 | < 0.005 | < 0.005 | — | 5.40 |
| Energy | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 567 | 567 | 0.07 | < 0.005 | — | 570 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |

| | | | | | | | | | | | | | | | | | | |
|---------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|------|-------|-------|---------|---------|------|-------|
| Total | 3.51 | 4.93 | 5.12 | 30.8 | 0.07 | 0.10 | 5.82 | 5.92 | 0.10 | 1.48 | 1.58 | 33.1 | 7,541 | 7,574 | 3.65 | 0.38 | 12.1 | 7,789 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.60 | 0.54 | 0.88 | 5.22 | 0.01 | 0.01 | 1.06 | 1.08 | 0.01 | 0.27 | 0.28 | — | 1,153 | 1,153 | 0.04 | 0.06 | 1.92 | 1,174 |
| Area | 0.03 | 0.36 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |
| Energy | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 93.8 | 93.8 | 0.01 | < 0.005 | — | 94.3 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | 0.64 | 0.90 | 0.94 | 5.61 | 0.01 | 0.02 | 1.06 | 1.08 | 0.02 | 0.27 | 0.29 | 5.48 | 1,248 | 1,254 | 0.60 | 0.06 | 2.01 | 1,290 |

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|-------|---------|---------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 2.58 | 2.34 | 3.14 | 25.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 5,327 | 5,327 | 0.18 | 0.25 | 19.1 | 5,424 |
| Area | 0.38 | 2.13 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Energy | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 560 | 560 | 0.06 | < 0.005 | — | 563 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | 2.99 | 4.49 | 3.46 | 29.4 | 0.05 | 0.08 | 4.25 | 4.34 | 0.08 | 1.08 | 1.16 | 33.1 | 5,903 | 5,937 | 3.57 | 0.26 | 19.7 | 6,124 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 2.34 | 2.10 | 3.67 | 20.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 4,870 | 4,870 | 0.20 | 0.27 | 0.50 | 4,955 |
| Area | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Energy | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 560 | 560 | 0.06 | < 0.005 | — | 563 |

| | | | | | | | | | | | | | | | | | | |
|---------------|------|---------|---------|------|---------|---------|------|---------|---------|------|---------|------|-------|-------|---------|---------|------|-------|
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | 2.37 | 3.89 | 3.95 | 20.3 | 0.05 | 0.08 | 4.25 | 4.33 | 0.08 | 1.08 | 1.16 | 33.1 | 5,435 | 5,468 | 3.58 | 0.28 | 1.04 | 5,644 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 2.35 | 2.12 | 3.44 | 20.4 | 0.05 | 0.06 | 4.16 | 4.21 | 0.05 | 1.06 | 1.11 | — | 4,972 | 4,972 | 0.19 | 0.26 | 8.26 | 5,061 |
| Area | 0.19 | 1.95 | 0.02 | 2.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 5.39 | 5.39 | < 0.005 | < 0.005 | — | 5.40 |
| Energy | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 560 | 560 | 0.06 | < 0.005 | — | 563 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | 2.57 | 4.08 | 3.74 | 22.6 | 0.05 | 0.08 | 4.16 | 4.24 | 0.08 | 1.06 | 1.14 | 33.1 | 5,542 | 5,575 | 3.57 | 0.27 | 8.81 | 5,755 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.43 | 0.39 | 0.63 | 3.73 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 823 | 823 | 0.03 | 0.04 | 1.37 | 838 |
| Area | 0.03 | 0.36 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |
| Energy | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 92.7 | 92.7 | 0.01 | < 0.005 | — | 93.2 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | 0.47 | 0.75 | 0.68 | 4.12 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.21 | 5.48 | 918 | 923 | 0.59 | 0.05 | 1.46 | 953 |

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|---------|------|---------|---------|------|---------|---------|---|-------|-------|---------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.86 | 2.40 | 22.2 | 19.9 | 0.03 | 0.92 | — | 0.92 | 0.84 | — | 0.84 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.16 | 0.13 | 1.22 | 1.09 | < 0.005 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 188 | 188 | 0.01 | < 0.005 | — | 188 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.02 | 0.22 | 0.20 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 31.1 | 31.1 | < 0.005 | < 0.005 | — | 31.2 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|---------|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.5 | 10.5 | < 0.005 | < 0.005 | < 0.005 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.19 | 6.19 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.58 | 0.58 | < 0.005 | < 0.005 | < 0.005 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.03 | 1.03 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | — |

3.2. Demolition (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|---------|---------|------|-------|-------|------|------|---|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.72 | 0.72 | 17.3 | 18.2 | 0.03 | 0.79 | — | 0.79 | 0.71 | — | 0.71 | — | 3,425 | 3,425 | 0.14 | 0.03 | — | 3,437 |
| Demolition | — | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|------|------|---------|---------|---------|------|---|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.04 | 0.95 | 1.00 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 188 | 188 | 0.01 | < 0.005 | — | 188 | |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — | |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Off-Road Equipment | 0.01 | 0.01 | 0.17 | 0.18 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 31.1 | 31.1 | < 0.005 | < 0.005 | — | 31.2 | |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — | |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.5 | 10.5 | < 0.005 | < 0.005 | < 0.005 | — | |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.19 | 6.19 | < 0.005 | < 0.005 | 0.01 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.58 | 0.58 | < 0.005 | < 0.005 | < 0.005 | — | |

| | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|---------|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.03 | 1.03 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | — |

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.94 | 3.31 | 31.6 | 30.2 | 0.05 | 1.37 | — | 1.37 | 1.26 | — | 1.26 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement: | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.22 | 0.18 | 1.73 | 1.65 | < 0.005 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 290 | 290 | 0.01 | < 0.005 | — | 291 |
| Dust From Material Movement: | — | — | — | — | — | — | 1.08 | 1.08 | — | 0.55 | 0.55 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|------|---------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.04 | 0.03 | 0.32 | 0.30 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 48.0 | 48.0 | < 0.005 | < 0.005 | — | 48.2 |
| Dust From Material Movement | — | — | — | — | — | — | 0.20 | 0.20 | — | 0.10 | 0.10 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.08 | 0.83 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | 0.01 | 0.01 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.23 | 7.23 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.20 | 1.20 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.4. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|---------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.90 | 0.90 | 24.0 | 28.3 | 0.05 | 0.94 | — | 0.94 | 0.84 | — | 0.84 | — | 5,295 | 5,295 | 0.21 | 0.04 | — | 5,314 |
| Dust From Material Movement: | — | — | — | — | — | — | 19.7 | 19.7 | — | 10.1 | 10.1 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.05 | 1.32 | 1.55 | < 0.005 | 0.05 | — | 0.05 | 0.05 | — | 0.05 | — | 290 | 290 | 0.01 | < 0.005 | — | 291 |
| Dust From Material Movement: | — | — | — | — | — | — | 1.08 | 1.08 | — | 0.55 | 0.55 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.24 | 0.28 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 48.0 | 48.0 | < 0.005 | < 0.005 | — | 48.2 |
| Dust From Material Movement: | — | — | — | — | — | — | 0.20 | 0.20 | — | 0.10 | 0.10 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|---|
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.08 | 0.83 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | 0.01 | 0.01 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.23 | 7.23 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.20 | 1.20 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|------|------|------|------|---------|---------|------|---------|---------|------|---------|---|-------|-------|---------|---------|------|-------|
| Off-Road Equipment | 2.07 | 1.74 | 16.3 | 17.9 | 0.03 | 0.72 | — | 0.72 | 0.66 | — | 0.66 | — | 2,959 | 2,959 | 0.12 | 0.02 | — | 2,970 |
| Dust From Material Movement | — | — | — | — | — | — | 7.08 | 7.08 | — | 3.42 | 3.42 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.06 | 0.05 | 0.45 | 0.49 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 81.1 | 81.1 | < 0.005 | < 0.005 | — | 81.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.19 | 0.19 | — | 0.09 | 0.09 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.08 | 0.09 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.4 | 13.4 | < 0.005 | < 0.005 | — | 13.5 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — |

| | | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|------|------|------|---------|---------|---------|------|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.10 | 3.10 | < 0.005 | < 0.005 | 0.01 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.51 | 0.51 | < 0.005 | < 0.005 | < 0.005 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.53 | 0.53 | 14.1 | 17.8 | 0.03 | 0.60 | — | 0.60 | 0.54 | — | 0.54 | — | 2,959 | 2,959 | 0.12 | 0.02 | — | 2,970 |
| Dust From Material Movement | — | — | — | — | — | — | 7.08 | 7.08 | — | 3.42 | 3.42 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.39 | 0.49 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 81.1 | 81.1 | < 0.005 | < 0.005 | — | 81.4 |
| Dust From Material Movement | — | — | — | — | — | — | 0.19 | 0.19 | — | 0.09 | 0.09 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.07 | 0.09 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.4 | 13.4 | < 0.005 | < 0.005 | — | 13.5 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.10 | 3.10 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

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|---------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|------|------|------|---------|---------|---------|------|---|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.51 | 0.51 | < 0.005 | < 0.005 | < 0.005 | — | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e | |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 | |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 | |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.77 | 0.64 | 5.97 | 7.45 | 0.01 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,370 | 1,370 | 0.06 | 0.01 | — | 1,375 | |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---------------------|---------|---------|------|------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|------|-----|
| Off-Road Equipment | 0.14 | 0.12 | 1.09 | 1.36 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 227 | 227 | 0.01 | < 0.005 | — | 228 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.32 | 0.29 | 0.19 | 3.26 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 431 | 431 | 0.02 | 0.02 | 1.64 | — |
| Vendor | 0.01 | 0.01 | 0.19 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 113 | 113 | < 0.005 | 0.02 | 0.29 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.27 | 0.25 | 0.24 | 2.45 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 379 | 379 | 0.03 | 0.02 | 0.04 | — |
| Vendor | 0.01 | 0.01 | 0.20 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 114 | 114 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.16 | 0.14 | 0.12 | 1.42 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 223 | 223 | 0.01 | 0.01 | 0.40 | — |
| Vendor | < 0.005 | < 0.005 | 0.11 | 0.04 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 64.9 | 64.9 | < 0.005 | 0.01 | 0.07 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.02 | 0.26 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 37.0 | 37.0 | < 0.005 | < 0.005 | 0.07 | — |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.7 | 10.7 | < 0.005 | < 0.005 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.8. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|---------|---------|------|------|---------|------|------|---|-------|-------|---------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.56 | 0.53 | 12.6 | 14.8 | 0.02 | 0.54 | — | 0.54 | 0.49 | — | 0.49 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.56 | 0.53 | 12.6 | 14.8 | 0.02 | 0.54 | — | 0.54 | 0.49 | — | 0.49 | — | 2,398 | 2,398 | 0.10 | 0.02 | — | 2,406 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.32 | 0.31 | 7.21 | 8.47 | 0.01 | 0.31 | — | 0.31 | 0.28 | — | 0.28 | — | 1,370 | 1,370 | 0.06 | 0.01 | — | 1,375 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.06 | 0.06 | 1.32 | 1.55 | < 0.005 | 0.06 | — | 0.06 | 0.05 | — | 0.05 | — | 227 | 227 | 0.01 | < 0.005 | — | 228 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.32 | 0.29 | 0.19 | 3.26 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 431 | 431 | 0.02 | 0.02 | 1.64 | — |
| Vendor | 0.01 | 0.01 | 0.19 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 113 | 113 | < 0.005 | 0.02 | 0.29 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|------|------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|------|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.27 | 0.25 | 0.24 | 2.45 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 379 | 379 | 0.03 | 0.02 | 0.04 | — |
| Vendor | 0.01 | 0.01 | 0.20 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 114 | 114 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.16 | 0.14 | 0.12 | 1.42 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 223 | 223 | 0.01 | 0.01 | 0.40 | — |
| Vendor | < 0.005 | < 0.005 | 0.11 | 0.04 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | 0.01 | — | 64.9 | 64.9 | < 0.005 | 0.01 | 0.07 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.02 | 0.26 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 37.0 | 37.0 | < 0.005 | < 0.005 | 0.07 | — |
| Vendor | < 0.005 | < 0.005 | 0.02 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 10.7 | 10.7 | < 0.005 | < 0.005 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|------|------|---------|---------|------|------|---------|---------|---------|---|-------|-------|---------|---------|------|-------|
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.53 | 0.44 | 4.09 | 5.38 | 0.01 | 0.16 | — | 0.16 | 0.14 | — | 0.14 | — | 995 | 995 | 0.04 | 0.01 | — | 998 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.08 | 0.75 | 0.98 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 165 | 165 | 0.01 | < 0.005 | — | 165 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.29 | 0.27 | 0.17 | 3.01 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 422 | 422 | 0.02 | 0.02 | 1.50 | — |
| Vendor | 0.01 | 0.01 | 0.18 | 0.07 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 111 | 111 | < 0.005 | 0.02 | 0.28 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.24 | 0.22 | 2.27 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 372 | 372 | 0.03 | 0.02 | 0.04 | — |
| Vendor | 0.01 | 0.01 | 0.19 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 111 | 111 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.08 | 0.96 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.04 | 0.04 | — | 159 | 159 | 0.01 | 0.01 | 0.27 | — |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 46.2 | 46.2 | < 0.005 | 0.01 | 0.05 | — |

| | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|------|------|---------|---------|---------|---------|---------|---------|---------|------|------|------|---------|---------|------|------|---|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 26.3 | 26.3 | < 0.005 | < 0.005 | 0.04 | — | |
| Vendor | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.64 | 7.64 | < 0.005 | < 0.005 | 0.01 | — | |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | |

3.10. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.56 | 0.53 | 12.6 | 14.8 | 0.02 | 0.54 | — | 0.54 | 0.49 | — | 0.49 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.56 | 0.53 | 12.6 | 14.8 | 0.02 | 0.54 | — | 0.54 | 0.49 | — | 0.49 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.23 | 0.22 | 5.23 | 6.15 | 0.01 | 0.22 | — | 0.22 | 0.20 | — | 0.20 | — | 995 | 995 | 0.04 | 0.01 | — | 998 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|------|------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|------|-----|
| Off-Road Equipment | 0.04 | 0.04 | 0.95 | 1.12 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 165 | 165 | 0.01 | < 0.005 | — | 165 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.29 | 0.27 | 0.17 | 3.01 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 422 | 422 | 0.02 | 0.02 | 1.50 | — |
| Vendor | 0.01 | 0.01 | 0.18 | 0.07 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 111 | 111 | < 0.005 | 0.02 | 0.28 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.26 | 0.24 | 0.22 | 2.27 | 0.00 | 0.00 | 0.38 | 0.38 | 0.00 | 0.09 | 0.09 | — | 372 | 372 | 0.03 | 0.02 | 0.04 | — |
| Vendor | 0.01 | 0.01 | 0.19 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | 0.01 | 0.01 | — | 111 | 111 | < 0.005 | 0.02 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 0.08 | 0.96 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.04 | 0.04 | — | 159 | 159 | 0.01 | 0.01 | 0.27 | — |
| Vendor | < 0.005 | < 0.005 | 0.08 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 46.2 | 46.2 | < 0.005 | 0.01 | 0.05 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 26.3 | 26.3 | < 0.005 | < 0.005 | 0.04 | — |
| Vendor | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 7.64 | 7.64 | < 0.005 | < 0.005 | 0.01 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

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|---------------------|---------|---------|------|------|---------|---------|------|---------|---------|------|---------|---|-------|-------|---------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.95 | 0.80 | 7.45 | 9.98 | 0.01 | 0.35 | — | 0.35 | 0.32 | — | 0.32 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,517 |
| Paving | — | 1.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | < 0.005 | 0.04 | 0.05 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.28 | 8.28 | < 0.005 | < 0.005 | — | 8.31 |
| Paving | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.38 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — |

| | | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|------|------|------|---------|---------|---------|------|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.62 | 0.62 | < 0.005 | < 0.005 | < 0.005 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | — | |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.32 | 0.32 | 8.62 | 10.6 | 0.01 | 0.39 | — | 0.39 | 0.36 | — | 0.36 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,517 |
| Paving | — | 1.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|---------|------|
| Off-Road Equipment | < 0.005 | < 0.005 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 8.28 | 8.28 | < 0.005 | < 0.005 | — | 8.31 |
| Paving | — | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.37 | 1.37 | < 0.005 | < 0.005 | — | 1.38 |
| Paving | — | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.07 | 0.71 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 110 | 110 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.62 | 0.62 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.10 | 0.10 | < 0.005 | < 0.005 | < 0.005 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.07 | 0.48 | 0.62 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 72.6 | 72.6 | < 0.005 | < 0.005 | — | 72.9 |
| Architect ural Coatings | — | 0.75 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|------------------------|------|------|---------|------|---------|---------|------|---------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.09 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 12.0 | 12.0 | < 0.005 | < 0.005 | — | 12.1 |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 86.2 | 86.2 | < 0.005 | < 0.005 | 0.33 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.05 | 0.49 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 75.9 | 75.9 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.02 | 0.27 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 42.5 | 42.5 | < 0.005 | < 0.005 | 0.08 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.04 | 7.04 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.05 | 1.09 | 0.96 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.05 | 1.09 | 0.96 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.03 | 0.59 | 0.52 | < 0.005 | 0.04 | — | 0.04 | 0.03 | — | 0.03 | — | 72.6 | 72.6 | < 0.005 | < 0.005 | — | 72.9 |
| Architect ural Coatings | — | 0.75 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|------------------------|------|------|---------|------|---------|------|------|------|------|---------|---------|---|------|------|---------|---------|------|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.11 | 0.10 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 12.0 | 12.0 | < 0.005 | < 0.005 | — | 12.1 |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 86.2 | 86.2 | < 0.005 | < 0.005 | 0.33 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.05 | 0.49 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 75.9 | 75.9 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.02 | 0.27 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 42.5 | 42.5 | < 0.005 | < 0.005 | 0.08 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.04 | 7.04 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.15. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.06 | 0.05 | 0.38 | 0.50 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 59.0 | 59.0 | < 0.005 | < 0.005 | — | 59.2 |
| Architectural Coatings | — | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|------|---------|---------|------|---------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.07 | 0.09 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 9.78 | 9.78 | < 0.005 | < 0.005 | — | 9.81 |
| Architectural Coatings | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.03 | 0.60 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 84.4 | 84.4 | < 0.005 | < 0.005 | 0.30 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.04 | 0.45 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 74.3 | 74.3 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.20 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 33.9 | 33.9 | < 0.005 | < 0.005 | 0.06 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 5.61 | 5.61 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

3.16. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.05 | 1.09 | 0.96 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.05 | 1.09 | 0.96 | < 0.005 | 0.07 | — | 0.07 | 0.06 | — | 0.06 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 1.38 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.48 | 0.43 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 59.0 | 59.0 | < 0.005 | < 0.005 | — | 59.2 |
| Architect ural Coatings | — | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

| | | | | | | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|------|---------|------|------|------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.09 | 0.08 | < 0.005 | 0.01 | — | 0.01 | < 0.005 | — | < 0.005 | — | 9.78 | 9.78 | < 0.005 | < 0.005 | — | 9.81 |
| Architectural Coatings | — | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.03 | 0.60 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 84.4 | 84.4 | < 0.005 | < 0.005 | 0.30 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.04 | 0.45 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 74.3 | 74.3 | 0.01 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.02 | 0.20 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 33.9 | 33.9 | < 0.005 | < 0.005 | 0.06 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 5.61 | 5.61 | < 0.005 | < 0.005 | 0.01 | — |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — |

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 3.61 | 3.28 | 4.39 | 35.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 7,461 | 7,461 | 0.26 | 0.34 | 26.8 | 7,597 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 3.61 | 3.28 | 4.39 | 35.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 7,461 | 7,461 | 0.26 | 0.34 | 26.8 | 7,597 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 3.27 | 2.94 | 5.14 | 28.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 6,821 | 6,821 | 0.28 | 0.38 | 0.69 | 6,940 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 3.27 | 2.94 | 5.14 | 28.3 | 0.07 | 0.08 | 5.96 | 6.04 | 0.08 | 1.52 | 1.59 | — | 6,821 | 6,821 | 0.28 | 0.38 | 0.69 | 6,940 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.60 | 0.54 | 0.88 | 5.22 | 0.01 | 0.01 | 1.06 | 1.08 | 0.01 | 0.27 | 0.28 | — | 1,153 | 1,153 | 0.04 | 0.06 | 1.92 | 1,174 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|---|-------|-------|------|------|------|-------|
| Total | 0.60 | 0.54 | 0.88 | 5.22 | 0.01 | 0.01 | 1.06 | 1.08 | 0.01 | 0.27 | 0.28 | — | 1,153 | 1,153 | 0.04 | 0.06 | 1.92 | 1,174 |
|-------|------|------|------|------|------|------|------|------|------|------|------|---|-------|-------|------|------|------|-------|

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 2.58 | 2.34 | 3.14 | 25.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 5,327 | 5,327 | 0.18 | 0.25 | 19.1 | 5,424 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 2.58 | 2.34 | 3.14 | 25.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 5,327 | 5,327 | 0.18 | 0.25 | 19.1 | 5,424 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 2.34 | 2.10 | 3.67 | 20.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 4,870 | 4,870 | 0.20 | 0.27 | 0.50 | 4,955 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 2.34 | 2.10 | 3.67 | 20.2 | 0.05 | 0.06 | 4.25 | 4.31 | 0.05 | 1.08 | 1.14 | — | 4,870 | 4,870 | 0.20 | 0.27 | 0.50 | 4,955 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.43 | 0.39 | 0.63 | 3.73 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 823 | 823 | 0.03 | 0.04 | 1.37 | 838 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 0.43 | 0.39 | 0.63 | 3.73 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 823 | 823 | 0.03 | 0.04 | 1.37 | 838 |

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 183 | 183 | 0.03 | < 0.005 | — | 185 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 20.3 | 20.3 | < 0.005 | < 0.005 | — | 20.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 204 | 204 | 0.03 | < 0.005 | — | 206 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 183 | 183 | 0.03 | < 0.005 | — | 185 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 20.3 | 20.3 | < 0.005 | < 0.005 | — | 20.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 204 | 204 | 0.03 | < 0.005 | — | 206 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 30.3 | 30.3 | < 0.005 | < 0.005 | — | 30.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 3.37 | 3.37 | < 0.005 | < 0.005 | — | 3.40 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 33.7 | 33.7 | 0.01 | < 0.005 | — | 34.0 |

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 183 | 183 | 0.03 | < 0.005 | — | 185 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 20.3 | 20.3 | < 0.005 | < 0.005 | — | 20.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 203 | 203 | 0.03 | < 0.005 | — | 205 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 183 | 183 | 0.03 | < 0.005 | — | 185 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 20.3 | 20.3 | < 0.005 | < 0.005 | — | 20.5 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 203 | 203 | 0.03 | < 0.005 | — | 205 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | 30.3 | 30.3 | < 0.005 | < 0.005 | — | 30.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 3.37 | 3.37 | < 0.005 | < 0.005 | — | 3.40 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 33.6 | 33.6 | 0.01 | < 0.005 | — | 34.0 |

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|---------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|------|------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 363 | 363 | 0.03 | < 0.005 | — | 364 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 363 | 363 | 0.03 | < 0.005 | — | 364 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 363 | 363 | 0.03 | < 0.005 | — | 364 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.03 | 0.02 | 0.29 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 363 | 363 | 0.03 | < 0.005 | — | 364 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 60.1 | 60.1 | 0.01 | < 0.005 | — | 60.3 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 60.1 | 60.1 | 0.01 | < 0.005 | — | 60.3 |

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|---------|------|------|---------|---------|---|---------|---------|---|---------|---|------|------|------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 357 | 357 | 0.03 | < 0.005 | — | 358 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 357 | 357 | 0.03 | < 0.005 | — | 358 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 357 | 357 | 0.03 | < 0.005 | — | 358 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.03 | 0.02 | 0.28 | 0.12 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 357 | 357 | 0.03 | < 0.005 | — | 358 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 59.0 | 59.0 | 0.01 | < 0.005 | — | 59.2 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | < 0.005 | 0.05 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 59.0 | 59.0 | 0.01 | < 0.005 | — | 59.2 |

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|--------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|------------------------|------|------|------|------|---------|---------|---|---------|---------|---|---------|------|------|------|---------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 1.64 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.38 | 0.36 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Total | 0.38 | 2.13 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 1.64 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.30 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|-----------|------|------|---------|------|---------|---------|---|---------|---------|---|---------|------|------|------|---------|---------|---|------|
| Landscape | 0.03 | 0.03 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |
| Total | 0.03 | 0.36 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------|------|------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|------|---------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 1.64 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.38 | 0.36 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Total | 0.38 | 2.13 | 0.04 | 4.08 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 10.9 | 10.9 | < 0.005 | < 0.005 | — | 11.0 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 1.64 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|------------------------|------|------|---------|------|---------|---------|---|---------|---------|---|---------|------|------|------|---------|---------|---|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Consumer Products | — | 0.30 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.03 | 0.03 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |
| Total | 0.03 | 0.36 | < 0.005 | 0.37 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.00 | 0.89 | 0.89 | < 0.005 | < 0.005 | — | 0.89 |

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---------|---|------|
| Apartments | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---------|---|------|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.45 | 5.55 | 9.99 | 0.46 | 0.01 | — | 24.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 0.74 | 0.92 | 1.65 | 0.08 | < 0.005 | — | 4.09 |

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e | |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | — | 100 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | — | 100 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | — | 100 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|------|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e | |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 | |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | |
| Total | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 | |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 | |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | |
| Total | — | — | — | — | — | — | — | — | — | — | — | 28.6 | 0.00 | 28.6 | 2.86 | 0.00 | — | 100 | |

| | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|------|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 4.74 | 0.00 | 4.74 | 0.47 | 0.00 | — | 16.6 |

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.55 | 0.55 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.09 |

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipme Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipme nt Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sequest | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

5. Activity Data

5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|-----------------------|-----------------------|------------|-----------|---------------|---------------------|-------------------|
| Demolition | Demolition | 1/1/2025 | 1/29/2025 | 5.00 | 20.0 | — |
| Site Preparation | Site Preparation | 1/30/2025 | 2/26/2025 | 5.00 | 20.0 | — |
| Grading | Grading | 2/27/2025 | 3/12/2025 | 5.00 | 10.0 | — |
| Building Construction | Building Construction | 3/15/2025 | 7/31/2026 | 5.00 | 360 | — |
| Paving | Paving | 3/13/2025 | 3/14/2025 | 5.00 | 2.00 | — |
| Architectural Coating | Architectural Coating | 3/29/2025 | 8/14/2026 | 5.00 | 360 | — |

5.2. Off-Road Equipment

5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|-----------------------|---------------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Demolition | Rubber Tired Dozers | Diesel | Average | 2.00 | 8.00 | 367 | 0.40 |
| Demolition | Excavators | Diesel | Average | 3.00 | 8.00 | 36.0 | 0.38 |
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 8.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

5.2.2. Mitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|------------|---------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Demolition | Rubber Tired Dozers | Diesel | Tier 3 | 2.00 | 8.00 | 367 | 0.40 |

| | | | | | | | |
|-----------------------|---------------------------|--------|---------|------|------|------|------|
| Demolition | Excavators | Diesel | Tier 3 | 3.00 | 8.00 | 36.0 | 0.38 |
| Demolition | Concrete/Industrial Saws | Diesel | Tier 3 | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Rubber Tired Dozers | Diesel | Tier 3 | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Tier 3 | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Tier 3 | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Excavators | Diesel | Tier 3 | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Tier 3 | 3.00 | 8.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Tier 3 | 1.00 | 8.00 | 367 | 0.40 |
| Building Construction | Forklifts | Diesel | Tier 3 | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Cranes | Diesel | Tier 3 | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Welders | Diesel | Tier 3 | 1.00 | 8.00 | 46.0 | 0.45 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Tier 3 | 3.00 | 7.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Tier 3 | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Tier 3 | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Tier 3 | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Tier 3 | 1.00 | 6.00 | 37.0 | 0.48 |

5.3. Construction Vehicles

5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|------------|-----------|-----------------------|----------------|---------------|
| Demolition | — | — | — | — |
| Demolition | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Demolition | Vendor | — | 4.50 | HHDT,MHDT |

| | | | | |
|-----------------------|--------------|------|------|---------------|
| Demolition | Hauling | 0.15 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 17.5 | 10.3 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | — | 4.50 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 4.50 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 51.8 | 10.3 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 7.70 | 4.50 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 4.50 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 10.4 | 10.3 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 4.50 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

5.3.2. Mitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|-----------------------|--------------|-----------------------|----------------|---------------|
| Demolition | — | — | — | — |
| Demolition | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Demolition | Vendor | — | 4.50 | HHDT,MHDT |
| Demolition | Hauling | 0.15 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 17.5 | 10.3 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | — | 4.50 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 4.50 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 51.8 | 10.3 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 7.70 | 4.50 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 10.3 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 4.50 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |

| | | | | |
|-----------------------|--------------|------|------|---------------|
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 10.4 | 10.3 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 4.50 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|-----------------------|--|--|--|--|-----------------------------|
| Architectural Coating | 154,548 | 51,516 | 0.00 | 0.00 | 2,493 |

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Building Square Footage) | Acres Paved (acres) |
|------------------|------------------------|------------------------|----------------------|---|---------------------|
| Demolition | 0.00 | 0.00 | 0.00 | 200 | — |
| Site Preparation | — | — | 30.0 | 0.00 | — |
| Grading | — | — | 10.0 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 |

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---------------------|--------------------|-----------|
| Apartments Low Rise | — | 0% |
| Parking Lot | 0.95 | 100% |

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|------|--------------|-----|------|---------|
| 2025 | 0.00 | 204 | 0.03 | < 0.005 |
| 2026 | 0.00 | 204 | 0.03 | < 0.005 |

5.9. Operational Mobile Sources

5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VM/Weekday | VM/Saturday | VM/Sunday | VM/Year |
|---------------------|---------------|----------------|--------------|------------|------------|-------------|-----------|-----------|
| Apartments Low Rise | 485 | 485 | 485 | 177,127 | 8,341 | 8,341 | 8,341 | 3,044,639 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

5.9.2. Mitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VM/Weekday | VM/Saturday | VM/Sunday | VM/Year |
|---------------------|---------------|----------------|--------------|------------|------------|-------------|-----------|-----------|
| Apartments Low Rise | 346 | 346 | 346 | 126,469 | 5,956 | 5,956 | 5,956 | 2,173,872 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
|---------------------------|----------------------|
| Apartments Low Rise | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 0 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 72 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 0 |
| Non-Catalytic Wood Stoves | 0 |
| Pellet Wood Stoves | 0 |

5.10.1.2. Mitigated

| Hearth Type | Unmitigated (number) |
|---------------------------|----------------------|
| Apartments Low Rise | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 0 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 72 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 0 |
| Non-Catalytic Wood Stoves | 0 |
| Pellet Wood Stoves | 0 |

5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|--|--|--|--|-----------------------------|
| 154548 | 51,516 | 0.00 | 0.00 | 2,493 |

5.10.3. Landscape Equipment

| Season | Unit | Value |
|-------------|--------|-------|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

5.10.4. Landscape Equipment - Mitigated

| Season | Unit | Value |
|-------------|--------|-------|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---------------------|----------------------|-----|--------|--------|-----------------------|
| Apartments Low Rise | 327,984 | 204 | 0.0330 | 0.0040 | 1,132,970 |
| Parking Lot | 36,403 | 204 | 0.0330 | 0.0040 | 0.00 |

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|----------|----------------------|-----|-----|-----|-----------------------|
|----------|----------------------|-----|-----|-----|-----------------------|

| | | | | | |
|---------------------|---------|-----|--------|--------|-----------|
| Apartments Low Rise | 327,094 | 204 | 0.0330 | 0.0040 | 1,112,605 |
| Parking Lot | 36,403 | 204 | 0.0330 | 0.0040 | 0.00 |

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---------------------|-------------------------|--------------------------|
| Apartments Low Rise | 2,321,050 | 1,646,615 |
| Parking Lot | 0.00 | 0.00 |

5.12.2. Mitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---------------------|-------------------------|--------------------------|
| Apartments Low Rise | 2,321,050 | 1,646,615 |
| Parking Lot | 0.00 | 0.00 |

5.13. Operational Waste Generation

5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---------------------|------------------|-------------------------|
| Apartments Low Rise | 53.2 | — |
| Parking Lot | 0.00 | — |

5.13.2. Mitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---------------------|------------------|-------------------------|
| Apartments Low Rise | 53.2 | — |
| Parking Lot | 0.00 | — |

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---------------------|---|-------------|-------|---------------|----------------------|-------------------|----------------|
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

5.14.2. Mitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---------------------|---|-------------|-------|---------------|----------------------|-------------------|----------------|
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------|-----------|-------------|----------------|---------------|------------|-------------|
|----------------|-----------|-------------|----------------|---------------|------------|-------------|

5.15.2. Mitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------|-----------|-------------|----------------|---------------|------------|-------------|
|----------------|-----------|-------------|----------------|---------------|------------|-------------|

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|----------------|-----------|----------------|---------------|----------------|------------|-------------|
|----------------|-----------|----------------|---------------|----------------|------------|-------------|

5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|

5.17. User Defined

| Equipment Type | Fuel Type |
|----------------|-----------|
|----------------|-----------|

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1.2. Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.1.2. Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.2. Sequestration

5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

5.18.2.2. Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

8. User Changes to Default Data

| Screen | Justification |
|-----------------------------------|--|
| Land Use | Lot acreage adjusted to represent total site acreage |
| Construction: Construction Phases | Phase timing adjusted based on applicant provided air quality questionnaire Based on typical construction practices, architectural coating assumed to start two weeks after the start of building construction and last for the same number of days |
| Operations: Vehicle Data | Adjusted based on project specific traffic report |
| Operations: Hearths | Applicant indicated no fireplaces proposed |

APPENDIX B

PHASE I ENVIRONMENTAL SITE ASSESSMENT



PHASE I ENVIRONMENTAL SITE ASSESSMENT ASTM 1527-21

Subject Property Information:

WLM Construction Inc.
6249 Pinecrest Drive,
6253 Pinecrest Drive,
6255 Pinecrest Drive,
6462 Clark Road,
6480 Clark Road,
6227 Melody Lane,
Paradise, CA 95969
APNs: 050-200-010, 050-200-154, 050-200-157, and 050-200-158

Prepared for:

Zen Sawyer
Zen Development Consultants LLC
(818) 653-3899

Prepared by:

Chico Environmental Science & Planning
333 Main Street, Suite 260
Chico, CA 95928
(530) 899-2900

Prepared: December 14, 2022



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FIGURE 2 – SUBJECT PROPERTY LOCATION MAP (AERIAL)

FIGURE 3 – SUBJECT PROPERTY VICINITY MAP

FIGURE 4 – SUBJECT PROPERTY SOILS MAP

APPENDICES

APPENDIX A - HISTORICAL AERIAL PHOTOS

APPENDIX B - SANBORN FIRE INSURANCE MAPS

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1.0 INTRODUCTION

This report summarizes the findings of a Phase I Environmental Site Assessment (ESA) conducted by Chico Environmental Science and Planning on behalf of Zen Sawyer. Chico Environmental conducted a Phase I Environmental Site Assessment (ESA) for the approximately 7.55-acre total properties located at 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road, and 6227 Melody Lane. The Assessor's Parcel Numbers (APNs) are 050-200-010, 050-200-154, 050-200-157, and 050-200-158 located in Paradise, Butte County, California (**Figure 1, Figure 2**).

1.1 PURPOSE

The purpose of this ESA is to review past and present land use practices, subject property operations and conditions, and nearby off-site land uses to evaluate the potential for soil and/or groundwater contamination of the subject property. The scope of services conducted for this ESA correspond to the American Society of Testing and Materials (ASTM) guidance presented in the ASTM Standard E 1527-21.

1.2 SCOPE OF WORK

This ESA was conducted in general conformance with ASTM Standards Designation E1527-21, and includes the following tasks:

- Review of pertinent, available documents and maps describing local geologic and hydrogeologic conditions;
- Review of readily available historical aerial photographs of the subject property and surrounding area. These photographs were reviewed for evidence of previous subject property activities and development which would suggest the potential presence of hazardous substances at the subject property;
- Review and interpretation of archival U.S. Geologic Survey (USGS) topographic maps of the Paradise area, for information regarding historical land use potentially involving the manufacture, generation, use, storage, and/or disposal of hazardous substances at the subject property and adjacent properties;
- Interviews of the property owner/occupants and other informed parties to assess the current and past land uses at the subject property;
- A reconnaissance of accessible portions of the subject property to assess evidence of current and/or past use or storage of toxic or hazardous materials; onsite ponds, landfills, drywells, waste streams or other disposal units; visible soil contamination, above-ground or underground storage tanks; electrical transformers containing polychlorinated biphenyls (PCBs); and drums, barrels and other storage containers;
- A visual review of adjacent properties to assess their potential to adversely impact the subject property;

- Review of the database list search conducted by Environmental Data Resources, Inc. of federal and state known or potentially hazardous waste sites or landfills, and sites currently under investigation for environmental violations;
- Inquiries to the Butte County Environmental Health Department for information regarding environmental permits, environmental violations or incidents, and/or the status of enforcement actions at the subject property or adjacent properties;
- Investigation of potential contamination from offsite migration of hazardous solids, liquids and vapors that could lead to a historical recognized environmental condition (HREC), controlled recognized environmental condition (CREC) or active recognized environmental condition (REC) in connection with the property; and
- Preparation of this report to present our findings and conclusions.

1.3 LIMITATIONS

The conclusions presented in this report are professional opinions based upon visual observations of the subject property and vicinity, and our interpretation of the available historical information and documents reviewed, as described in this report. All records were obtained by or under the supervision of an environmental professional or via a third-party vendor specializing in retrieval of such information. All provided records and information were assumed to be true and complete unless otherwise known or determined inaccurate. The conclusions are intended exclusively for the purpose outlined in this report, and at the subject property location and project indicated. This report was completed and intended solely for the use of Zen Sawyer of Zen Development Consultants LLC and their affiliates. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this document or the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

It should be recognized that this study was not intended to be a definitive investigation of potential environmental impacts at the subject property. Given that the scope of services for this investigation was limited, it is possible that currently unrecognized contamination may exist at the subject property.

Opinions and recommendations presented herein apply to the existing and reasonably foreseeable subject property conditions at the time of our assessment. They cannot necessarily apply to subject property changes of which this office is unaware and has not had the opportunity to evaluate. Changes in the conditions of this property may occur with time due to natural processes or works of man on the subject property or adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

1.4 USER RELIANCE

December 14, 2022

To:

Re: WLM Construction Inc.
6255 Pinecrest Drive
Paradise, CA 95969 (“subject property”):
APNs 050-200-010, 050-200-154, 050-200-157, 050-200-158

Dear Lender and SBA:

John Lane of Chico Environmental Science & Planning (“Environmental Professional”) meets the definition of an Environmental Professional as defined by 40 C.F.R. § 312.10(b) and has performed the following Environmental Investigation:

A Phase I Environmental Site Assessment of the Subject Property dated December 14, 2022, conducted in accordance with ASTM International’s most recent standard (currently ASTM E1527-21). In addition, the Environmental Professional has addressed the performance of the “additional inquiries” set forth at 40 C.F.R. § 312.22;

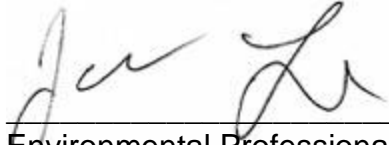
Reliance by SBA and Lender. Environmental Professional (and Environmental Professional’s firm, where applicable) understand(s) that the Property may serve as collateral for an SBA guaranteed loan, a condition for which is an Environmental Investigation of the Property by an Environmental Professional. Environmental Professional (and Environmental Professional’s firm, where applicable) authorize(s) Lender and SBA to use and rely upon the Environmental Investigation. Further, Environmental Professional (and Environmental Professional’s firm, where applicable) authorize(s) Lender and SBA to release a copy of the Environmental Investigation to the borrower for information purposes only.

Insurance Coverage. Environmental Professional (and Environmental Professional’s firm, where applicable) certifies that he or she or the firm is covered by errors and omissions liability insurance with a minimum coverage of \$1,000,000 per claim (or occurrence), that the policy includes language that will provide coverage for Lender and SBA and that evidence of this insurance is attached. As to the Lender and SBA, Environmental Professional (and Environmental Professional’s firm, where applicable) specifically waive(s) any dollar amount limitations on liability up to \$1,000,000 and further waives any right to indemnification by the Lender and SBA.

Impartiality. Environmental Professional certifies that (1) to the best of his or her knowledge, Environmental Professional is independent of and not a representative, nor an employee or affiliate of seller, borrower, operating company, or any person in which seller has an ownership interest; and (2) the Environmental Professional has not been unduly influenced

by any person with regard to the preparation of the Environmental Investigation or the contents thereof.

Acknowledgment. The undersigned acknowledge(s) and agree(s) that intentionally falsifying or concealing any material fact with regard to the subject matter of this letter or the Environmental Investigations may, in addition to other penalties, result in prosecution under applicable laws including 18 U.S.C. § 1001.



Environmental Professional
Printed Name: John Lane, Owner/Principal Scientist
Chico Environmental Science & Planning

1.5 LIMITING CONDITIONS

This report does not include a limited (i.e., non-AHERA) asbestos survey, a limited radon survey, or a limited lead paint survey.

The title search is not included in our scope of services. However, we can arrange for a title and chain-of-title search for an additional fee.

The work conducted by Chico Environmental personnel with training and experience in hazardous substances investigations and was supervised by an Environmental Professional (as defined in ASTM 1527-21) and a California Professional Geologist. It is possible that this preliminary evaluation may reveal the need to perform more detailed (Phase II) field investigations (subsurface, surface, or air) to assess the potential presence of, or demonstrate the absence of, contaminated building media, soil, or groundwater beneath the subject property. Such investigations are outside the scope of this report.

The Phase I ESA is a limited and non-exhaustive survey that is intended to evaluate whether readily available information indicates that the historic or current use of the subject property resulted in contamination by hazardous substances or waste. As a result, without a comprehensive sampling and analysis program or implementation of services beyond the original scope of work, certain potential conditions, including, but not limited to those summarized below, may not be revealed:

- Naturally occurring toxic substances or elements found in the subsurface soils, rocks, or water
- Toxic substances commonly found in current habitable environments, such as stored household products, building materials, and consumables.
- Biological or infectious agents and pathogens.
- Contaminant plumes (liquid or gaseous) below the surface from a remote or unknown source.
- Inaccessible or concealed areas that may store or contain hazardous substances or wastes.
- Unknown, unreported, and not readily visible subject property contamination, which may have been caused by "midnight" dumping and/or accidental spillage.

2.0 SUBJECT PROPERTY DESCRIPTION

The subject property is located in Paradise, CA located on Clark and Bille Road, less than two miles west of the West Branch Feather River and directly on State Route 191 which turns into Clark Road. The subject property is approximately 7.549 acres and is currently used as an area to store RVs, construction equipment vehicles, and a stockpile area for various building

materials. This ESA was performed as part of due diligence necessary for a California Environmental Quality Act Initial Study for a real estate transaction. The subject property is currently split into four parcels, including APNs 050-200-010, 050-200-154, 050-200-157, and 050-200-158, and all four parcels are included in this real estate transaction. The subject property contains trailers, RVs, material storage stockpiles, various construction equipment vehicles, and automobiles. Prior to 2019 the subject property was a residential area until it was incinerated by the 2018 campfire.

2.1 SUBJECT PROPERTY LOCATION AND LEGAL DESCRIPTION

The subject property is located in Paradise, CA located on Clark and Bille Road, less than two miles west of the West Branch Feather River and directly on State Route 191 which turns into Clark Road in Butte County, California. The subject property is situated on Assessor's Parcel Numbers (APN) 050-200-010, 050-200-154, 050-200-157, and 050-200-158. The subject property is located in Township 22N, Range 3E, Section 12 and latitude/longitude: 39.7710168, -121.5933442.

2.2 CURRENT PROPERTY USE

The subject property is approximately 7.549 acres and is currently being used to store trailers, RVs, material storage, rock and soil stockpiles, various construction equipment vehicles, and automobiles. (**Figure 3**). Prior to 2019 the subject property was a residential area until it burned in the 2018 Camp Fire.

The subject property is split into four parcels, APNs 050-200-010, 050-200-154, 050-200-157, and 050-200-158, and all four parcels are included in this real estate transaction.

2.3 CURRENT USE OF ADJACENT PROPERTIES

The subject property is surrounded by various businesses and residential homes. North of the subject property is the First Baptist Church Paradise. Northwest of the subject property is Paradise Alliance Church and Paradise Charter Middle School. Directly south of the subject property is the Tire Depot. Southwest of the subject property is the United States Postal Service, Feather River Hospital, and The Church of Jesus Christ of Latter-day Saints. East and southeast of the subject property there are various residential homes.

2.4 PHYSICAL SETTING SOURCES

See Section 9.0 REFERENCES

2.4.1 TOPOGRAPHY

The topography of the subject property is relatively flat with a general southwest topographic gradient, and 2046 feet above mean sea level (msl). The subject property is situated approximately 10 miles north of Oroville, CA and approximately 8 miles east of the city of Chico. Topographic map coverage of the subject property area is provided by the current

United States Geological Survey (USGS) Paradise East Quadrangle 7.5-minute series topographic map (2018 Paradise).

2.4.2 HYDROLOGY

The subject property is located in the Upper Dry Creek hydrologic unit in the Lower Butte Creek watershed. Groundwater would be expected to follow the topographical gradient of the ground surface and flow south toward Clear Creek.

2.4.3 GEOLOGY/SOILS

The subject property is located in Butte County within the Sierra Nevada foothills above the northeastern Sacramento Valley. The Sierra Nevada Mountain range is located between the Central Valley of California and the Great Basin. The Sacramento Valley is located within the Central Valley of California and lies north of the Sacramento-San Joaquin River Delta and is drained by the Sacramento River.

The Sacramento Valley was formed by downwarping of the west side of the Sierran block contemporaneous to uplift and erosion of the Sierra Nevada to the east, the Klamath and Cascade ranges to the north, and the Coast Ranges to the west. The valley is underlain by a basement complex composed of Paleozoic and Mesozoic granites and metamorphic rocks. The basement complex is overlain by a thick sequence of marine and non-marine sediments ranging in age from Cretaceous to Quaternary. The upper 1000 meters of the non-marine sediments are composed of sediments of volcanic origin, which were transported into the valley from the east as mudflows and stream carried sediments.

The stratigraphy of the vicinity generally consists of volcanic rocks from the Tertiary age. Rocks were formed from Tertiary pyroclastic and volcanic mudflow deposits.

The subject property soils primarily consist of Paradiso loam (**Figure 4**). Paradiso loam has a drainage class of well drained with a medium runoff class. The Paradiso loam present at the subject property has a depth to water table distance exceeding 80 inches.

2.4.4 FLOOD ZONE INFORMATION

The subject property is not within a 500-year flood zone and a part of the FEMA Flood Zone X (Protected By Levee).

3.0 HISTORICAL INFORMATION

3.1 AERIAL PHOTOGRAPH REVIEW

Historical aerial photographs of the subject property vicinity for the years 1952, 1973, 1975, 1984, 1993, 1998, 2006, 2009, 2012, and 2016 were provided by Environmental Data Resources, Inc. These photographs were reviewed and interpreted for indications of past subject property and adjacent land uses that may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. Referenced aerial photographs are included in **Appendix A** of this report.

1952 In the earliest available photograph, the subject property includes orchards surrounding the subject property in all directions. No structures are visible on the subject property.

1973 The subject property remains unchanged. Directly North of the subject property a new structure has been developed. Surrounding area east and southeast of the subject property contain newly developed structures and cleared out parcels. Area northeast of the subject property has been cleared in preparation for new development.

1975 No change on the subject property from previous image. Area northwest of the subject property that was once empty now contains many structures.

1984 The subject property now contains one visible structure. Surrounding area has continued development with many new structures. Land directly west of the subject property remains agricultural land.

1993 There is no change to the subject property. The land to the west of the subject property that was once agricultural land has been cleared out and new construction of facilities has occurred.

1998 Further development of facilities have occurred around the subject property. The subject property remains unchanged.

2006 There is little change from the previous image.

2009 There is little change from the previous image.

2012 There is little change from the previous image.

2016 There is little change from the previous image.

3.2 FIRE INSURANCE MAPS

The complete holdings of the Sanborn Library, LLC collection were searched based on the subject property information and fire insurance maps covering the subject property were not found (**Appendix B**).

3.3 CITY DIRECTORIES

City Directories for the subject property were available for the years 1992, 1995, 2000, 2005, 2010, 2014, and 2017. (**Appendix C**). The subject property was not included in the 1992, 1995, 2000, or 2017 city directories provided by EDR. The listings for each year are included below:

2005 Donohue, Travis W
2010 Marchi, Gail
2014 Schwabenland, Thomas A

3.4 HISTORICAL TOPOGRAPHIC MAPS

In order to corroborate and supplement information obtained through the review of maps and discussions with agency and other contacts, archival topographic maps were reviewed and interpreted for indication of topographic and land use change. Maps are cited by quadrangle name, scale, and year of publication. Historical topographic maps are included in **Appendix D**.

USGS California Chico Sheet, 30 Minute Series, 1:125,000 scale, 1891

The subject property is undeveloped land located north of Paradise. The subject property is located at 2041ft elevation, with a relatively flat southern-facing slope along.

USGS California Chico Sheet, 30 Minute Series, 1:125,000 scale, 1893

There is no change from the previous image.

USGS California Chico Sheet, 30 Minute Series, 1:125,000 scale, 1895

There is no change from the previous image.

USGS Paradise Quadrangle, Calif., 15 Minute Series, 1:62,500 scale, 1953

The subject property is located at 2000ft elevation, with a steep eastern-facing slope along the eastern border. Clark Road and Bille Road are located west and south of the subject property. The subject property is located south of Magalia, southwest of Concow, and southeast of Irish Town. The subject property is located approximately 4 miles west of Concow Reserve. Surrounding the subject area are numerous structures along with agricultural land.

USGS Paradise Quadrangle, Calif., 7.5 Minute Series, 1:24,000 scale, 1980

The subject property remains undeveloped and further development of the town of Paradise has occurred surrounding the subject property. Ponderosa School is located northeast of the subject property and a fire station is located northwest.

USGS Paradise East Quadrangle, Calif., 7.5 Minute Series, 1:24,000 scale, 1994

The subject property is located on Clark Road which is a secondary highway. The subject property remains undeveloped. Located adjacent from the subject property and Clark Road is Paradise Alliance Church. The site has access via Pinecrest Drive.

USGS Paradise East Quadrangle, Calif., 7.5 Minute Series, 1:24,000 scale, 2012

There is little change from the previous image. Three fire stations surround the subject property located south, northwest, and north of the site. No dwellings are indicated on the subject property.

USGS Paradise East Quadrangle, Calif., 7.5 Minute Series, 1:24,000 scale, 2015

There is little change from the previous map.

USGS Paradise East Quadrangle, Calif., 7.5 Minute Series, 1:24,000 scale, 2018

There is little change from the previous map.

4.0 REGULATORY RECORDS REVIEW

4.1 REGULATORY AGENCIES

A review of readily available agency lists was conducted for information regarding hazardous substance releases, landfills, hazardous waste facilities, or environmental investigations at or near the subject property. Inquiries were made to the local Certified Unified Program Agency (CUPA), the Butte County Environmental Health Division. A search of state and federal agency databases was obtained from Environmental Data Resources, Inc. (EDR).

4.1.1 STATE DEPARTMENT

No records pertaining to this property were available.

4.1.2 HEALTH DEPARTMENT

No records pertaining to hazardous materials for this property were available.

4.1.3 FIRE DEPARTMENT

No records pertaining to hazardous materials for this property were available.

4.1.4 AIR POLLUTION CONTROL AGENCY

No records pertaining to hazardous materials for this property were available.

4.1.5 REGIONAL WATER QUALITY AGENCY

No records pertaining to hazardous materials for this property were available.

4.1.6 DEPARTMENT OF TOXIC SUBSTANCES CONTROL

No records pertaining to hazardous materials for this property were available.

4.1.7 BUILDING DEPARTMENT

No records pertaining to hazardous materials for this property were available.

4.1.8 PLANNING DEPARTMENT

No records pertaining to hazardous materials for this property were available.

4.1.9 OIL AND GAS EXPLORATION

No records pertaining to hazardous materials for this property were available.

4.1.10 ASSESSOR'S OFFICE

No records pertaining to hazardous materials for this property were available.

4.1.11 PUBLIC WORKS DEPARTMENT

No records pertaining to hazardous materials for this property were available.

4.2 MAPPED DATABASE RECORDS SEARCH

Chico Environmental reviewed information gathered from several environmental databases through Environmental Data Resources to evaluate whether activities on or near the subject property have the potential to impact environmental conditions at the subject property. EDR reviews databases compiled by federal, state, and local governmental agencies. The complete list of reviewed databases is provided in the EDR report, included in **Appendix E** and is summarized in **Table 1**. It should be noted that this information is reported as Chico Environmental received it from EDR, which in turn reports information as it is provided in various government databases. It is not possible for either Chico Environmental or EDR to verify the accuracy or completeness of information contained in these databases. However, the use of and reliance on this information is a generally accepted practice in the conduct of environmental due diligence.

Properties located hydraulically down gradient, cross gradient and/or at an excessive distance from the subject property are unlikely to adversely impact the subject property. Sites that are located within proximity and hydraulically up gradient of the subject property were further investigated to determine project status and potential threat of offsite contamination. Many of the databases searched by EDR are informational and do not necessarily indicate incidents of contamination.

EDR database listings are summarized on the following page. A complete listing of the EDR report, including descriptions of each database can be found in **Appendix E**.

| TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY | | |
|--|------------------------|-------------------|
| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
| United States Environmental Protection Agency (EPA) National Priority List (NPL) for Superfund Sites | 1.0 mile | 0 |
| United States Environmental Protection Agency (EPA) Proposed National Priority List (NPL) for Superfund Sites | 1.0 mile | 0 |
| United States Environmental Protection Agency (EPA) National Priority List (NPL) LIENS for Superfund Sites | 1.0 mile | 0 |
| United States Environmental Protection Agency (EPA) National Priority List for Delisted Superfund Sites (Delisted NPL) | 1.0 mile | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|---|------------------------|-------------------|
| Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removals and CERCLA orders Federal Facility | 0.5 miles | 0 |
| Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removals and CERCLA orders / SEMS | 0.5 miles | 0 |
| U.S. EPA CERCLIS No Further Remedial Action Planned (NFRAP) List/SEMS Archive | 0.5 miles | 0 |
| U.S. EPA Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) List | 1.0 mile | 0 |
| U.S. EPA RCRA Permitted Treatment, Storage, and Disposal Facilities (RCRA-TSDF) | 0.5 miles | 0 |
| Federal RCRA Generators List-LQG | 0.25 miles | 0 |
| Federal RCRA Generators List-SQG | 0.25 miles | 1 |
| Federal RCRA Generators List-VSQG | 0.25 miles | 1 |
| Federal Engineering Controls Registries (LUCIS) | 0.5 miles | 0 |
| Federal Engineering Controls Registries (US ENG CONTROLS) | 0.5 miles | 0 |
| Federal Institutional Controls Registries (US INST CONTROLS) | 0.5 miles | 0 |
| U.S. EPA Emergency Response Notification System (ERNS) List | 0.001 miles | 0 |
| State - and Tribal - Equivalent NPL (RESPONSE) | 1.0 miles | 1 |
| State - and Tribal – Hazardous Waste Facilities (ENVIROSTOR) | 1.0 miles | 1 |
| State and tribal landfill and/or solid waste disposal site lists (SWF/LF) | 0.5 miles | 0 |
| State – and Tribal - Leaking Underground Storage Tank List (LUST) | 0.5 miles | 0 |
| State – and Tribal - Leaking Underground Storage Tank List (CPS-SLIC) | 0.5 miles | 0 |
| State – and Tribal - Leaking UST List (INDIAN LUST) | 0.5 miles | 0 |
| State – and Tribal – registered storage tank list (UST) | 0.25 miles | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|--|------------------------|-------------------|
| State – and Tribal – registered storage tank list (AST) | 0.25 miles | 2 |
| State – and Tribal – registered storage tank list (INDIAN UST) | 0.25 miles | 0 |
| State – and Tribal – registered storage tank list (FEMA UST) | 0.25 miles | 0 |
| State – and Tribal – voluntary cleanup sites (VCP) | 0.5 miles | 0 |
| State – and Tribal – voluntary cleanup sites (INDIAN VCP) | 0.5 miles | 0 |
| State – and Tribal – Brownfield sites (BROWNFIELDS) | 0.5 miles | 0 |
| Local Brownfield Lists (US BROWNFIELDS) | 0.5 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (ODI) | 0.5 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (DEBRIS REGION 9) | 0.5 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (WMUDS/SWAT) | 0.5 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (SWRCY) | 0.5 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (HAULERS) | 0.001 miles | 0 |
| Local Lists of Landfill / Solid Waste Disposal Sites (INDIAN ODI) | 0.5 miles | 0 |
| Local Lists of Hazardous waste / Contaminated Sites (US HIST CDL) | 0.001 miles | 0 |
| Local Lists of Hazardous waste / Contaminated Sites (HIST Cal-Sites) | 1.0 mile | 1 |
| Local Lists of Hazardous waste / Contaminated Sites (SCH) | 0.25 miles | 0 |
| Local Lists of Hazardous waste / Contaminated Sites (Toxic Pits) | 1.0 mile | 0 |
| Local Lists of Hazardous waste / Contaminated Sites (CDL) | 0.001 miles | 0 |
| Local Lists of Hazardous waste / Contaminated Sites (US HIST CDL) | 0.001 miles | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|--|------------------------|-------------------|
| Local Lists of Hazardous waste / Contaminated Sites (CERS HAZ WASTE) | 0.25 miles | 3 |
| Local Lists of Registered Storage Tanks (CERS TANKS) | 0.25 miles | 0 |
| Local Lists of Registered Storage Tanks (CA FID UST) | 0.25 miles | 0 |
| Local Lists of Registered Storage Tanks (HIST UST) | 0.25 miles | 0 |
| Local Lists of Registered Storage Tanks (SWEEPS UST) | 0.25 miles | 0 |
| Local Land Records (LIENS 2) | 0.001 miles | 0 |
| Local Land Records (LIENS) | 0.001 miles | 0 |
| Local Land Records (DEED) | 0.5 miles | 0 |
| Records of Emergency Release Reports (HMIRS) | 0.001 miles | 0 |
| Records of Emergency Release Reports (CHMIRS) | 0.001 miles | 0 |
| Records of Emergency Release Reports (LDS) | 0.001 miles | 0 |
| Military Cleanup Sites (MCS) | 0.001 miles | 0 |
| Spills 90 Data from First Search (SPILLS 90) | 0.001 miles | 0 |
| Resource Conservation and Recovery (RCRA-NonGen/NLR) | 0.25 miles | 12 |
| Incident and Accident Data (DOT OPS) | 0.001 miles | 0 |
| Department of Defense Sites (DOD) | 1.0 miles | 0 |
| Formerly Used Defense Sites (FUDS) | 1.0 miles | 0 |
| Superfund (CERCLA) Consent Decrees (CONSENT) | 1.0 miles | 0 |
| Records of Decision (ROD) | 1.0 miles | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|---|------------------------|-------------------|
| Uranium Mill Tailings Sites (UMTRA) | 0.5 miles | 0 |
| Mines Master Index File (US MINES) | 0.25 miles | 0 |
| Abandoned Mines (ABANDONED MINES) | 0.25 miles | 0 |
| Toxic Chemical Release Inventory System (TRIS) | 0.001 miles | 0 |
| Toxic Substances Control Act (TSCA) | 0.001 miles | 0 |
| FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide (FTTS) | 0.001 miles | 0 |
| FIFRA/TSCA Tracking System Administrative Case Listing (HIST FTTS) | 0.001 miles | 0 |
| Section 7 Tracking Systems (SSTS) | 0.001 miles | 0 |
| Integrated Compliance Information System (ICIS) | 0.001 miles | 0 |
| PCB Activity Database System (PADS) | 0.001 miles | 0 |
| Material Licensing Tracking System (MLTS) | 0.001 miles | 0 |
| Radiation Information Database (RADINFO) | 0.001 miles | 0 |
| Facility Index System/Facility Registry System (FINDS) | 0.001 miles | 2 |
| Unexploded ordnance (UXO) | 1.0 miles | 0 |
| Enforcement and Compliancer History (ECHO) | 0.001 miles | 2 |
| Federal Facility Hazardous Waste Compliance Docket (DOCKET HWC) | 0.001 miles | 0 |
| EPA Fuels Program Registered Listing (FUELS PROGRAM) | 0.25 miles | 0 |
| Superfund Sites with PFAS Detections Information (PFAS NPL) | 0.25 miles | 0 |
| Federal Sites PFAS Information (PFAS FEDERAL SITES) | 0.25 miles | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|--|------------------------|-------------------|
| PFAS Manufacture and Imports Information (PFAS TSCA) | 0.25 miles | 0 |
| PFAS Transfers Identified in the RCRA Database Listing (PFAS RCRA MANIFEST) | 0.25 miles | 0 |
| PFAS Contamination Site Location Listing (PFAS ATSDR) | 0.25 miles | 0 |
| Ambient Environmental Sampling for PFAS (PFAS WQP) | 0.25 miles | 0 |
| Clean Water Act Discharge Monitoring Information (PFAS NPDES) | 0.25 miles | 0 |
| Facilities in Industries that May be Handling PFAS Listing (PFAS ECHO) | 0.25 miles | 0 |
| Facilities in Industries that May Be Handling PFAS Listing (PFAS ECHO FIRE TRAINING) | 0.25 miles | 0 |
| All Certified Part 139 Airports PFAS Information Listing (PFAS PART 139 AIRPORT) | 0.25 miles | 0 |
| Aqueous Foam Related Incident Listing (AQUEOUS FOAM NRC) | 0.25 miles | 0 |
| PFAS Contaminated Site Location Listing (PFAS) | 0.25 miles | 0 |
| Former Fire Training Facility Assessments Listing (AQUEOUS FOAM) | TP | 0 |
| DRYCLEANERS | 0.25 miles | 0 |
| RCRA Administrative Action Tracking System (RAATS) | 0.001 miles | 0 |
| Risk Management Plans (RMP) | 0.001 miles | 0 |
| Bond Expenditure Plan (CA BOND EXP. PLAN) | 1.0 miles | 0 |
| UIC Listing (UIC) | 0.001 miles | 0 |
| Underground Injection Control Sites (GEOTRACKER) (UIC GEO) | 0.001 miles | 0 |
| Oil Wastewater Pits Listing (WASTEWATER PITS) | 0.5 miles | 0 |
| NPDES Permits Listing (NPDES) | 0.001 miles | 1 |

| TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY | | |
|---|------------------------|-------------------|
| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
| "Cortese" Hazardous Waste & Substances Sites List (Cortese) | 0.5 miles | 0 |
| Historical "Cortese" Hazardous Waste & Substances Sites List (HIST CORTESE) | 0.5 miles | 0 |
| CUPA List (CUPA Listings) | 0.25 miles | 0 |
| Proposition 65 Records (Notify 65) | 1.0 miles | 0 |
| Well Investigation Program Case List (WIP) | 0.25 miles | 0 |
| Military Privatized Sites (GEOTRACKER) (MILITARY PRIV SITES) | 0.001 miles | 0 |
| Project Sites (GEOTRACKER) (PROJECT) | 0.001 miles | 0 |
| Waste Discharge Requirements Listing (WDR) | 0.001 miles | 0 |
| Enforcement Action Listing (ENF) | 0.001 miles | 0 |
| Facility and Manifest Data (HAZNET) | 0.001 miles | 0 |
| Mines Site Location Listing (MINES) | 0.25 miles | 0 |
| Emissions Inventory Data (EMI) | 0.001 miles | 0 |
| Superfund (CERCLA) Consent Decrees (CONSENT) | 1.0 miles | 0 |
| Indian Reservations (INDIAN RESERV) | 1.0 miles | 0 |
| Formerly Utilized Sites Remedial Action Program (FUSRAP) | 1.0 miles | 0 |
| State Coalition for Remediation of Drycleaners Listing (SCRD DRYCLEANERS) | 0.5 miles | 0 |
| Waste Discharge System (WDS) | 0.001 miles | 0 |
| EPA Watch List (EPA WATCH LIST) | 0.001 miles | 0 |
| 2020 Corrective Action Program List (2020 CORRECTIVE ACTION) | 0.25 miles | 0 |

TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY

| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
|--|------------------------|-------------------|
| California Integrated Water Quality System (CIWQS) | 0.001 miles | 1 |
| California Environmental Reporting System (CERS) | 0.001 miles | 0 |
| Non-Case Information Sites (GEOTRACKER) (NON-CASE INFO) | 0.001 miles | 0 |
| Other Oil & Gas Project Sites (GEOTRACKER) (OTHER OIL GAS) | 0.001 miles | 0 |
| Produced Water Ponds Sites (GEOTRACKER) (PROD WATER PONDS) | 0.001 miles | 0 |
| Sampling Point Public Sites (GEOTRACKER) (SAMPLING POINT) | 0.001 miles | 0 |
| Well Stimulation Project (GEOTRACKER) (WELL STIM PROJ) | 0.001 miles | 0 |
| Hazardous Waste Tracking System (HWTS) | TP | 0 |
| Mineral Resources Data System (MINES MRDS) | 0.001 miles | 0 |
| Lead Smelter Sites (LEAD SMELTERS) | 0.001 miles | 0 |
| Financial Assurance Information Listing (FINANCIAL ASSURANCE) | 0.001 miles | 0 |
| ICE (ICE) | 0.001 miles | 0 |
| PCB Transformer Registration Database (PCB TRANSFORMER) | 0.001 miles | 0 |
| Coal Combustion Residues Surface Impoundments List (COAL ASH EPA) | 0.5 miles | 0 |
| Financial Assurance Information (US FIN ASSUR) | 0.001 miles | 0 |
| Aerometric Information Retrieval System Facility Subsystem (US AIRS) | 0.001 miles | 0 |
| Potentially Responsible Parties (PRP) | 0.001 miles | 0 |
| PROC (Certified Processors Database) | 0.5 miles | 0 |
| Medical Waste Management Program Listing (MWMP) | 0.25 miles | 0 |

| TABLE 1: ENVIRONMENTAL DATA RESOURCES RESULTS SUMMARY | | |
|--|-----------------|------------|
| STANDARD ENVIRONMENTAL DATABASES | SURVEY DISTANCE | OCCURENCES |
| Pesticide Regulation Licenses Listing (PEST LIC) | 0.001 miles | 0 |
| Registered Hazardous Waste Transporter Database (HWT) | 0.25 miles | 0 |
| EnviroStor Permitted Facilities Listing (HWP) | 1.0 miles | 0 |
| Steam-Electric Plant Operation Data (COAL ASH DOE) | 0.001 miles | 0 |
| EDR Proprietary Manufactured Gas Plants (EDR MGP) | 1.0 miles | 0 |
| EDR Exclusive Historic Gas Stations (EDR US Hist Auto) | 0.125 miles | 1 |
| EDR Exclusive Historic Dry Cleaners (US Hist Cleaners) | 0.125 miles | 0 |
| Recovered Government Archive (RGA LF) | 0.001 miles | 0 |
| Recovered Government Archive Leaking Underground Storage Tank (RGA LUST) | 0.001 miles | 0 |

Unmapped Sites: There is one unmapped site in the report (See Section 4.2.5 Orphan Listings).

4.2.1 REGULATORY DATABASE SUMMARY

The subject property was listed in the following databases following the EDR search: RCRA NonGen/NLR, FINDS, and ECHO. No violations for the subject property were found in the database search.

The EDR database search returned 17 properties within a 1-mile radius of the subject property. The properties appeared in the following databases: AST, CA FID UST, CERS HAZ WASTE, CERS TANKS, CIWQS, CUPA Listings, ECHO, EDR HIST AUTO, ENVIROSTOR, FINDS, HIST CAL-SITES, HIST UST, NPDES, RCRA NONGEN/NLR, RCRA-SQG, RCRA-VSQG, RESPONSE, and SWEEPS UST.

4.2.2 SUBJECT PROPERTY LISTINGS

The subject property was listed in the following databases following the EDR search: RCRA NonGen/NLR, FINDS, and ECHO. No violations for the subject property were found in the database searches.

There are no other listings in the EDR database search that indicate a current threat to human and environmental health that would result in a recognized environmental condition at the subject property.

4.2.3 ADJACENT PROPERTY LISTINGS

AST

There are two sites listed in the Aboveground Storage Tank (AST) database; Jiffy Lube Store #728 located at 6420 Clark Rd. and the Paradise Irrigation Corp. Yard located at 6344 Clark Rd. The Jiffy Lube Store #728 report one 5,500-gallon AST. No information regarding the AST for the Paradise Irrigation Corp. Yard is reported. There are no violations reported for these sites.

CA FID UST

There is one site listed in the Facility Inventory Database of Underground Storage Tanks (CA FID UST); K Mart Corporation located at 6600 Clark Rd. The status for the site is listed as inactive.

CERS HAZ WASTE

There are three sites listed in the California Environmental Reporting System for Hazardous Waste (CERS HAZ WASTE) database including the following:

- Dollar General #14865 located at 6574 Clark Rd.
- Paradise Irrigation Corp. Yard located at 6344 Clark Rd.
- Tractor Supply Store #2512 located at 6600 Clark Road.

These sites all currently generate hazardous waste. There are no violations reported in the CERS HAZ WASTE database for these sites.

CERS TANKS

There is one site listed in the California Environmental Reporting System for Tanks (CERS TANKS) database; the Paradise Irrigation Corp. located at 6344 Clark Rd. The CERS description for the site is aboveground petroleum storage. There are no violations reported for this site.

CIWQS

There is one site listed in the California Integrated Water Quality System Project (CIWQS) database; Crossfire Tree & Vegetation Services Inc. located at 6480 Clark Road. The site status is listed as Terminated in the database. There were zero violations or enforcement actions with five years for the site.

CUPA LISTINGS (CUPA BUTTE)

There are six locations listed in the Certified Unified Program Agency (CUPA LISTINGS) database.

The Jiffy Lube Store #728 CUPA program/element includes general aboveground tanks, B2 - Range 0 - 55 – 550-gallons, and hazardous waste generator of greater than 1,000 kg/mo. Dan's Auto & Off Road located at 1326 Bille Rd. CUPA program/element includes a hazardous waste generator of less than 100 kg/mo and B1-Range 0-55-550-gallons. The Dollar General #14865 located at 6574 Clark Rd. CUPA program/element includes a hazardous waste generator of less than 100 kg/mo and B1-Range 0-55-550-gallons. The Paradise Irrigation Corp. located at 6344 Clark Rd. CUPA program/element includes a hazardous waste generator of less than 100 kg/mo and B2-Range 1-550-5,500-gallons. Paradise Medical Imaging located at 6585 Clark Road CUPA program/element includes a hazardous waste generator of less than 100 kg/mo. The K Mart Corporation located at 6600 Clark Rd CUPA program/element includes a hazardous waste generator of less than 100 kg/mo, General UST, and B1-Range 0-55-550-gallons.

There are no violations or any indicators of concern for these properties listed in the CUPA database.

ECHO

There is one adjacent property listing in the Enforcement and Compliance History Online (ECHO) database; Crossfire Tree & Vegetation Service Inc. located at 6480 Clark Road. No violations were found for this site.

EDR HIST AUTO

There is one site listed in the EDR Historical Auto Stations (EDR HIST AUTO) database; JD Service located at 6390 Clark Rd. The site was listed as a gasoline service station from 1969-1980 and was listed as a general automotive repair shop from 1996-2003.

ENVIROSTOR

There is one site listed in the Envirostor database; World Radiator and Air Condition located at 8336 Skyway. This site remains active and has a history of discharged hazardous substances into a septic system and onto the surface soils at the facility. Contaminants of concern at the site include lead, copper, zinc, and ethylene glycol. The contamination is located in the soil and most likely the groundwater on site. Minimal remedial activities were completed by the owner/operator. This site is located approximately one-mile northwest of the subject property and lower in elevation. Therefore, this site would not result in a recognized environmental condition at the subject property.

FINDS

There are two sites listed in the Facility Index System (FINDS) database including Crossfire Tree and Vegetation Services Inc. located at 6480 Clark Road and WLM Construction located at 6249 Pinecrest Drive.

HIST CAL-SITES

There is one site listed in the Hist Cal-Sites database. This site is World Radiator and Air Condition located at 8336 Skyway. This site remains active and has a history of discharged hazardous substances into a septic system and onto the surface soils at the facility.

Contaminants of concern at the site include lead, copper, zinc, and ethylene glycol. The contamination is located in the soil and most likely the groundwater on site. Minimal remedial activities were completed by the owner/operator. This site is located approximately one-mile northwest of the subject property and lower in elevation. Therefore, this site would not result in a recognized environmental condition at the subject property.

HIST UST

There is one site listed in the Historical UST Registered database (HIST UST). This site is K-Mart Shopping Center Leachfield located at 6000 Clark Road. This site is located at a higher elevation and approximately 0.238 miles from the subject property. This site is listed in the HIST UST for one 500-gallon tank which contains waste oil. No violations are listed.

NPDES

There is one site listed in the National Pollutant Discharge Elimination System (NPDES) database. This site is Crossfire Tree and Vegetation Services Inc. located at 6480 Clark Road. The most recent facility status is that this site has been terminated.

RCRA NonGen/NLR

There are 12 sites listed in the Hazardous Waste Generators (RCRA NonGen/NLR) database. These sites include WLM Construction at 6249 Pinecrest Drive, Ridge Marine at 6171 N Libby Road, Nicki Jones at 6174 Opal, Adelaide Hardt at 6170 Alamo Way, Dollar General #14865 at 6574 Clark Road, Michael Agiolo at 1260 Fawnbrook Place, Paradise Irrigation District Corporation Yard at 6344 Clark Road, Leo Buchholy at 6244 Harvey Road, Redline-Ricann Davenport at 6225 Harvey Road, Cecelia Weeks at 1280 Wagstaff Road #67, Tractor Supply Co Store #2512 at 6600 Clark Road, and KMART #9551 at 6600 Clark Road. None of these listings include any reported violations that would indicate a potential threat to human or environmental health.

RCRA SQG

There is one site listed under the RCRA SQG database which is Jiffy Lube International 728 located at 6420 Clark Road. No violations were reported in the database for this site and therefore would pose no threat to human or environmental health.

RCRA VSQG

There is one site listed under the RCRA VSQG database which is KMART #9551 located at 6600 Clark Road. No violations were reported in the database for this site and therefore would pose no threat to human or environmental health.

RESPONSE

There is one site listed under the RESPONSE database which is World Radiator and Air Conditioning located at 8336 Skyway. A Removal Action Completion was completed at this site which consisted of the excavation of contaminated soil in 2007. This site has been remediated to commercial and industrial use.

SWEEPS UST

There is one site listed in the SWEEPS UST database which is KMART Corporation located at 6600 Clark Road. This site contains one 500-gallon tank for waste oil. No violations were reported in the database for this site and therefore would pose no threat to human or environmental health.

4.2.4 SITES OF CONCERN LISTINGS

There are no listings in the EDR database search that indicate a current threat to human and environmental health that would result in a recognized environmental condition at the subject property.

4.2.5 ORPHAN LISTINGS

An orphan site is an environmental record from various state or federal databases that can't be accurately mapped or "geocoded" based on the information provided by the data source. The EDR report for the subject property identified 1 orphan listing.

The orphan listing appeared in the Clandestine Drug Labs (CDL) database. The listing is located at Sayberg, off Clark Rd in Paradise. No facility name was provided. The listing is identified as an illegal drug lab, a location where an illegal drug lab was operated or drug lab equipment and/or materials were stored.

Chico Environmental conducted a review of the orphan site and did not find any sites of concern to human and environmental health.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

5.1 INTERVIEWS

Interviews were conducted with the site owner, WLM Construction Inc., and the Butte County Environmental Health Department, located at 202 Mira Loma Drive in Oroville, CA.

5.1.1 INTERVIEW WITH OWNER

In effort to develop a comprehensive understanding of the subject property history, a due diligence questionnaire was forwarded to the owner of the property, William Martin of WLM Construction Inc. Mr. Martin stated that the current and/or prior use of the subject property is single family homes and open ground. In addition, he stated that the current use of the adjacent properties is for temporary ground lease for a utility and gravel contractor. Mr. Martin noted in the questionnaire that the subject property is utilized for commercial use including ground leasing. He stated that he was not aware of any environmental cleanup liens and/or land use limitations against the subject property that are filed or recorded under federal, tribal, state, or local law. He also stated that the subject property has not been utilized for industrial use at any time in the past. Mr. Martin stated that the subject property had received PG&E fill dirt. He

stated that there were not any sumps, pits, ponds or lagoons related to waste treatment located on the subject property. Mr. Martin stated that there were 6 septic tanks removed from the subject property and that 1 remains. He stated that there are no existing or previously existing vent pipes, fill pipes, or unidentified cover plates or pipes. He stated that there are no existing or previously existing maintenance or shop/service areas located on the subject property. He stated that there has not been any previous disclosure of hazardous materials in any buildings located on the subject property. Mr. Martin also stated that there are no visible signs of spillage, staining, residues, or corrosion in any building located on the subject property. He stated that there are no chemicals or noxious odors on the subject property. He stated that there are no asbestos-containing materials located in buildings on the subject property. Mr. Martin also stated that the subject property is not served by any wells or other non-public water supply. He stated that the owner/tenant has not been informed of past or current existence of hazardous substances or petroleum products or environmental violations on the subject property or any facility located on it. He stated that the owner/tenant does not know of any radiation use on the subject property. Mr. Martin identified the reason for the Phase I requirement as a sale. He stated that, yes, the purchase price being paid for the subject property reasonably reflects the fair market value of it. He stated there are not any obvious indicators that point to the presence or likely presence of contamination at the subject property. Lastly, Mr. Martin explained that the subject property has Camp Fire debris removal clearance.

No other information as provided about the subject property.

The complete Due Diligence Questionnaire is included in **Appendix F**.

5.1.2 INTERVIEW WITH REPORT USER

See Section 5.1.1 INTERVIEW WITH OWNER.

5.1.3 INTERVIEW WITH KEY SITE MANAGER

See Section 5.1.1 INTERVIEW WITH OWNER.

5.1.4 INTERVIEWS WITH PAST OWNERS, OPERATORS AND OCCUPANTS

See Section 5.1.1 INTERVIEW WITH OWNER.

5.1.5 INTERVIEW WITH OTHERS

Chico Environmental contacted the Butte County Environmental Health Department on December 7, 2022, to request hazardous waste disposal and storage records for the subject property. The Butte County Environmental Health Department responded to Chico Environmental's inquiries stating that a search of their database was conducted and it showed no record of any hazardous spills, investigations, USTs, septic or wells at the subject property.

5.2 USER PROVIDED INFORMATION

No additional information for this property was provided.

5.2.1 TITLE RECORDS, ENVIRONMENTAL LEINS, AND AULS

Not applicable

5.2.2 SPECIALIZED KNOWLEDGE

Not applicable

5.2.3 ACTUAL KNOWLEDGE OF THE USER

Not applicable

5.2.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Not applicable

5.2.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Not applicable

5.2.6 PREVIOUS REPORTS AND OTHER PROVIDED DOCUMENTATION

Not applicable

6.0 SUBJECT PROPERTY RECONNAISSANCE

On December 8, Chico Environmental conducted a subject property site visit. During the site visit, the subject property boundaries were uneasily identified. Chico Environmental observed what appeared to be a soil and gravel operation on two of the subject property parcels. Stockpiles of wood chips, soil, and gravel were observed. The subject property had storage of equipment and materials including PVC fittings. The one of the subject property parcels included a long driveway from Bille Rd. A large concrete pad was observed on the subject property as well.

Please refer to the photo sheet contained in **Appendix G**.

6.1 GENERAL SUBJECT PROPERTY CHARACTERISTICS

The subject property is approximately 7.549 acres and is currently being used to store trailers, RVs, material storage, rock and soil stockpiles, various construction equipment vehicles, and automobiles. Prior to 2019 the subject property was a residential area until it burned in the 2018 Camp Fire.

6.2 POTENTIAL ENVIRONMENTAL HAZARDS

Potential environmental hazards include potential contamination of soil, groundwater and/or soil vapor beneath the subject property due to historical and/or current petroleum releases. Chico Environmental has not identified any potential environmental hazards at the subject property.

Other Environmental Considerations warrant discussion, but do not qualify as RECs as defined by the ASTM Standard Practice E1527-21. These include but are not limited to de minimis conditions and/or environmental considerations such as the presence of ACMs, LBP, radon, mold, and lead in drinking water, which can affect the liabilities and financial obligations of the client, the health and safety of subject property occupants, and the value and marketability of the subject property.

6.3 ADJACENT PROPERTY RECONAISSANCE

Surrounding buildings could be seen from the subject property including the First Baptist Church of Paradise and residential homes. The Paradise Alliance Church and parking lot with solar panels could be seen from the subject property entrance of Clark Rd.

7.0 FINDINGS AND CONCLUSIONS

Chico Environmental performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice 1527-21; exceptions to or deletions from this practice are described in Section 7.0 of this report.

Current site conditions do not present a significant risk to human or environmental health and would not be subject to enforcement action if brought to the attention of a regulatory agency. This assessment has revealed no evidence of a historical recognized environmental condition, controlled recognized environmental condition or active recognized environmental condition in connection with the property

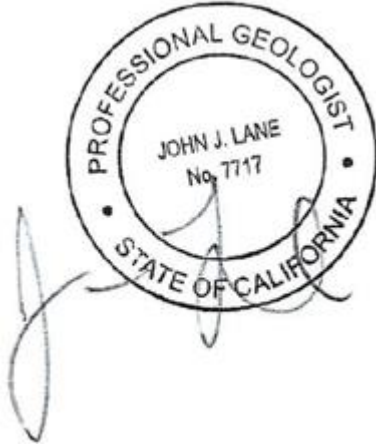
8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

I am a Professional Geologist with the State of California. Chico Environmental has performed this assessment under my supervision in accordance with generally accepted environmental practices and procedures, as of the date of this report. I have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area. The conclusions contained within this assessment are based upon subject property conditions readily observed or were reasonably ascertainable and present at the time of the subject property inspection.

The conclusions and recommendations stated in this report are based upon personal observations made by employees of Chico Environmental and upon information provided by others. I have no reason to suspect or believe that information provided is inaccurate.

I declare that, to the best of my professional knowledge and belief I meet the definition of Environmental Professional as defined in #312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to access a property of the nature, history, and setting of the subject property **(Appendix H)**.

I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



John Lane, P.G. No. 7717
Chico Environmental Science & Planning
jlane@chicoenvironmental.com
(530) 899-2900

9.0 REFERENCES

- ASTM (American Society for Testing and Materials), 2021. ASTM Standard E-1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2021.
- California Department of Conservation, Earthquake Hazards Application Map. Accessed December 14, 2022. <<https://maps.conservation.ca.gov/cgs/EQZApp/app/>>
- California Department of Conservation, Hazardous Minerals. Accessed December 14, 2022<<https://www.conservation.ca.gov/cgs/minerals/mineral-hazards>>
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- California Department of Water Resources. Best Available Map (BAM). Accessed December 12, 2022. <<https://gis.bam.water.ca.gov/bam/>>
- California Department of Water Resources. Water Data Library (WDL) Station Map. Accessed December 14, 2022. <<https://wdl.water.ca.gov/waterdatalibrary/>>
- California Geological Survey, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos. Open File Report 2000-19, 2000. Accessed December 8, 2022.
- Environmental Data Resources, Inc., Aerial Decade Package, “6255 Pinecrest Drive”, December 14, 2022

| <u>Flight Year</u> | <u>Scale</u> | <u>Source</u> |
|--------------------|--------------|---------------|
| 1952 | 1:500 | USDA |
| 1973 | 1:500 | USGS |
| 1975 | 1:500 | USGS |
| 1984 | 1:500 | USDA |
| 1993 | 1:500 | USGS/DOQQ |
| 1998 | 1:500 | USGS/DOQQ |
| 2006 | 1:500 | USDA/NAIP |
| 2009 | 1:500 | USDA/NAIP |
| 2012 | 1:500 | USDA/NAIP |
| 2016 | 1:500 | USDA/NAIP |

Environmental Data Resources, Inc., Certified Sanborn Map Report, “6255 Pinecrest Drive”, December 14, 2022

Environmental Data Resources, Inc., Historical Topo Map Report, “6255 Pinecrest Drive”, December 14, 2022

Environmental Data Resources, Inc., Radius Map Report with GeoCheck, "6255 Pinecrest Drive", December 14, 2022

Jennings, C.W., Strand, R.G., and Rogers, T.H., 1977, Geologic map of California: California Division of Mines and Geology, scale 1:750,000

Jennings, C.W. 1994, Fault Activity Map of California and Adjacent Areas, with Locations and Ages of Recent Volcanic Eruptions, Scale 1:750,000, California Division of Mines and Geology Geologic Data Map No. 6.

State Water Resources Control Board (SWRCB) Geotracker Database. Accessed December 14, 2022, 2022.

<<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=6255+Pinecrest+Drive+PARADISE> >

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey. Accessed December 14, 2022,

<<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>>

FIGURES

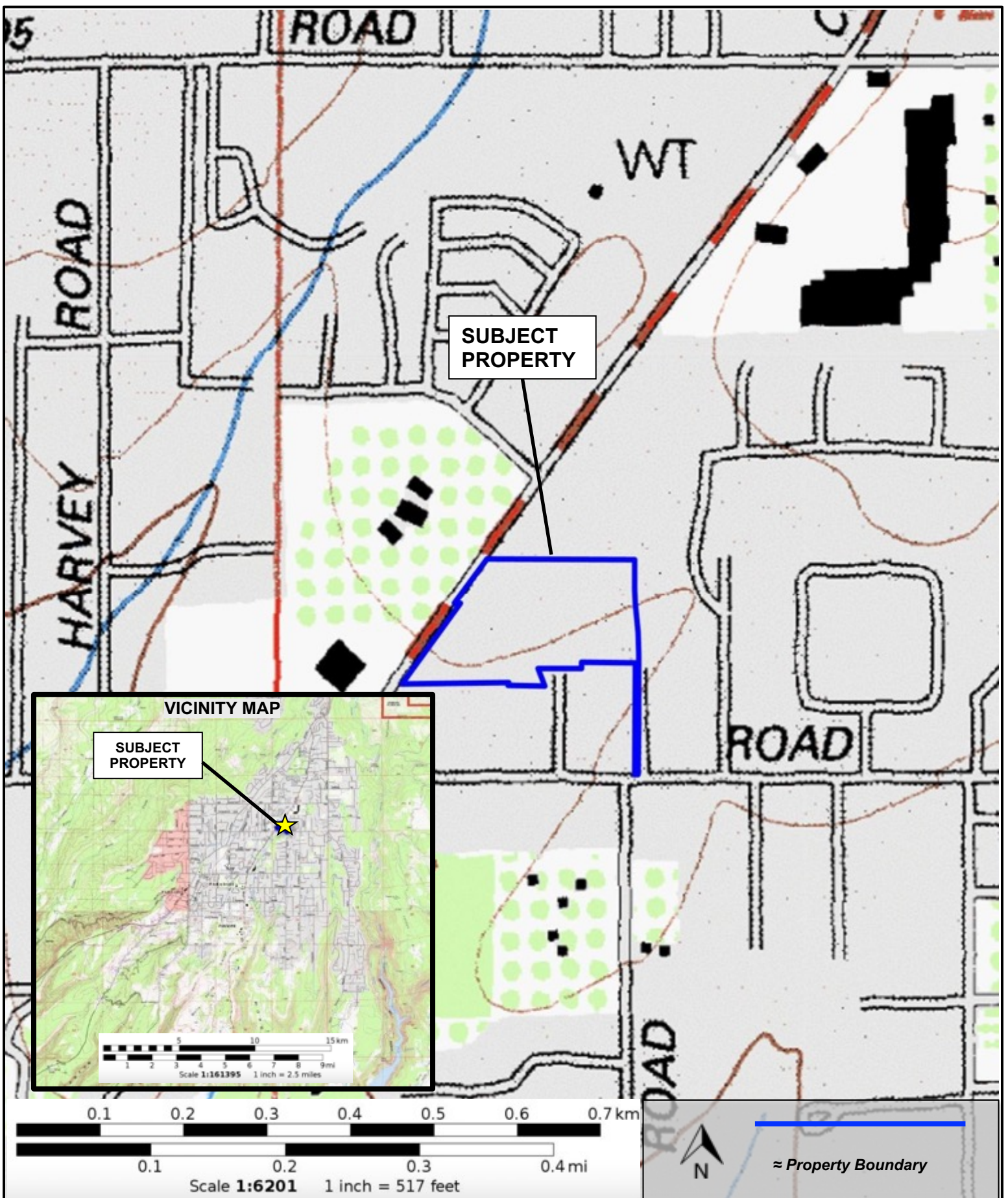


FIGURE 1: SUBJECT PROPERTY LOCATION MAP (TOPOGRAPHIC)
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road,
6227 Melody Lane
APN:050-200-010, 050-200-154, 050-200-157, and 050-200-158

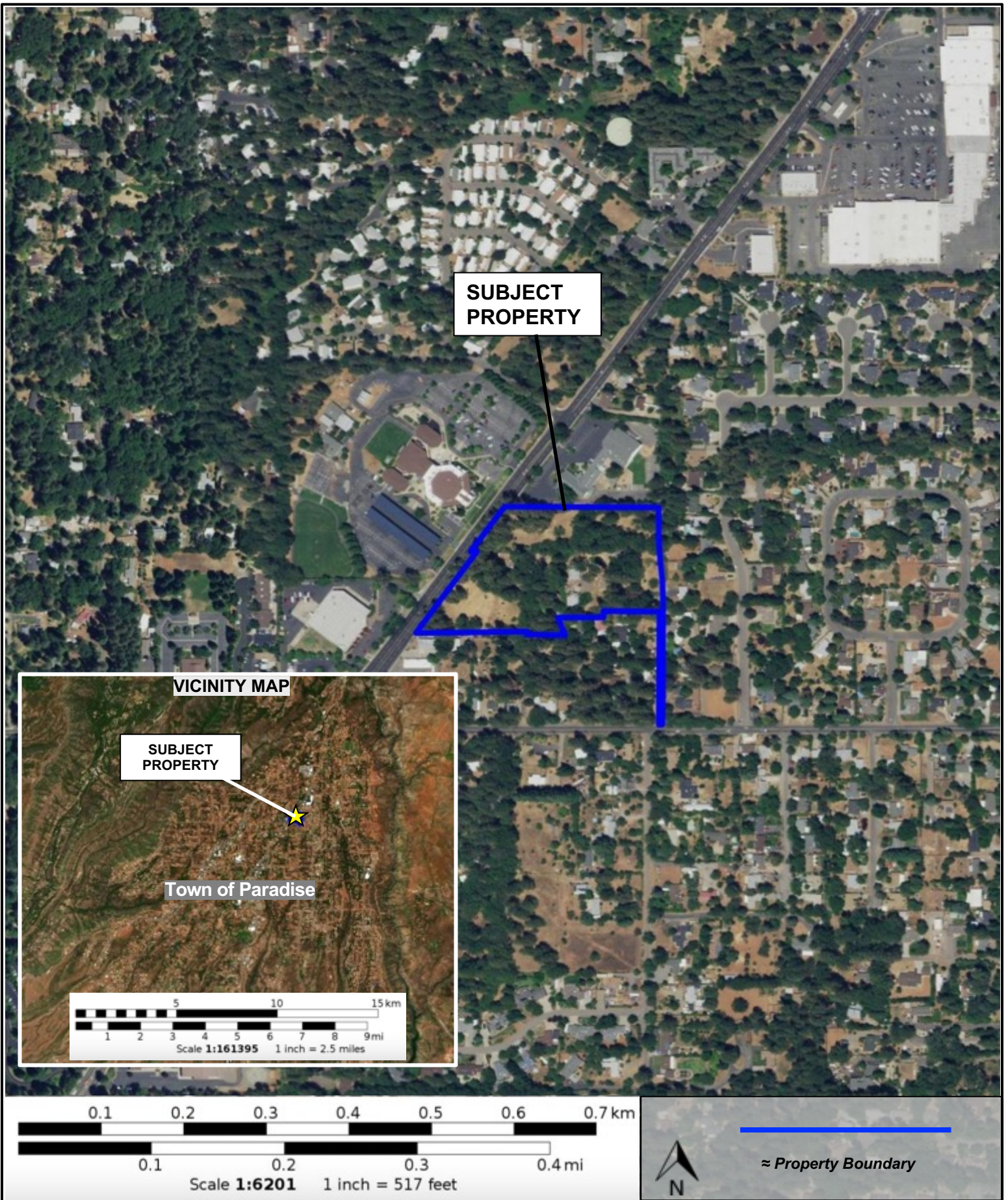


FIGURE 2: SUBJECT PROPERTY LOCATION MAP (AERIAL)
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road,
 6227 Melody Lane
APN: 050-200-010, 050-200-154, 050-200-157, and 050-200-158



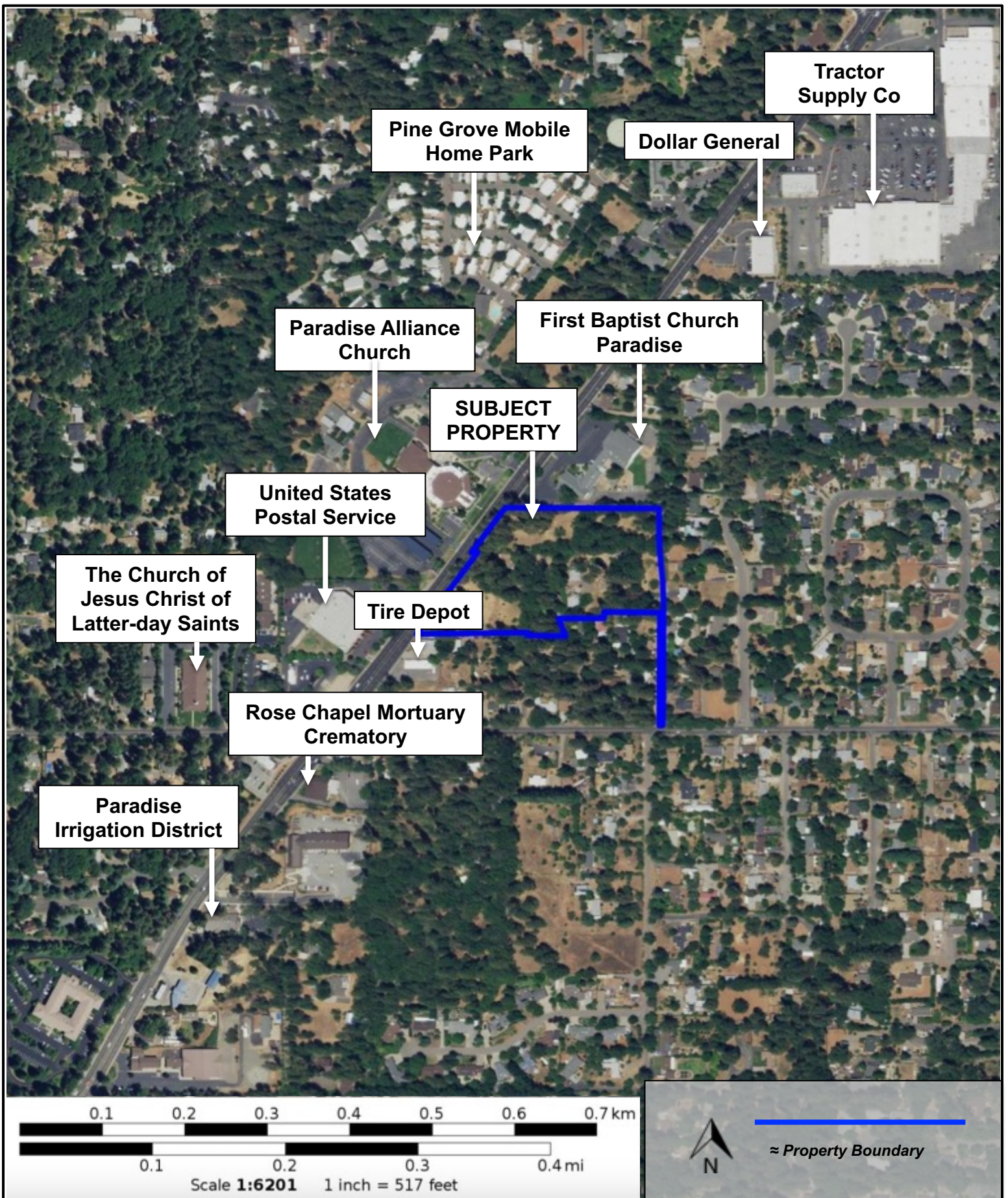


FIGURE 3: SUBJECT PROPERTY VICINITY MAP
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road, 6227 Melody Lane
APN:050-200-010, 050-200-154, 050-200-157, and 050-200-158



**SUBJECT
PROPERTY**

829

**Paradiso loam, 2 to
15 percent slopes**

USDA, NRCS, Web Soil Survey



FIGURE 4: SUBJECT PROPERTY SOILS MAP
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road,
6227 Melody Lane
APN:050-200-010, 050-200-154, 050-200-157, and 050-200-158



APPENDIX A: HISTORICAL AERIAL PHOTOS



Orchard Creek Estates

6255 Pinecrest Drive

Paradise, CA 95969

Inquiry Number: 7198289.8

December 08, 2022

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

12/08/22

Site Name:

Orchard Creek Estates
6255 Pinecrest Drive
Paradise, CA 95969
EDR Inquiry # 7198289.8

Client Name:

Chico Env. Science & Planning
333 Main Street
Chico, CA 95928
Contact: Jillian Olivar



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

| <u>Year</u> | <u>Scale</u> | <u>Details</u> | <u>Source</u> |
|-------------|--------------|------------------------------------|---------------|
| 2016 | 1"=500' | Flight Year: 2016 | USDA/NAIP |
| 2012 | 1"=500' | Flight Year: 2012 | USDA/NAIP |
| 2009 | 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2006 | 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 1998 | 1"=500' | Acquisition Date: January 01, 1998 | USGS/DOQQ |
| 1993 | 1"=500' | Acquisition Date: July 30, 1993 | USGS/DOQQ |
| 1984 | 1"=500' | Flight Date: June 29, 1984 | USDA |
| 1975 | 1"=500' | Flight Date: September 24, 1975 | USGS |
| 1973 | 1"=500' | Flight Date: June 30, 1973 | USGS |
| 1952 | 1"=500' | Flight Date: July 01, 1952 | USDA |

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INQUIRY #: 7198289.8

YEAR: 2016

— = 500'





INQUIRY #: 7198289.8

YEAR: 2012

— = 500'





INQUIRY #: 7198289.8

YEAR: 2009

— = 500'





INQUIRY #: 7198289.8

YEAR: 2006

 = 500'





INQUIRY #: 7198289.8

YEAR: 1998

 = 500'





INQUIRY #: 7198289.8

YEAR: 1993

 = 500'





INQUIRY #: 7198289.8

YEAR: 1984

— = 500'





INQUIRY #: 7198289.8

YEAR: 1975

— = 500'



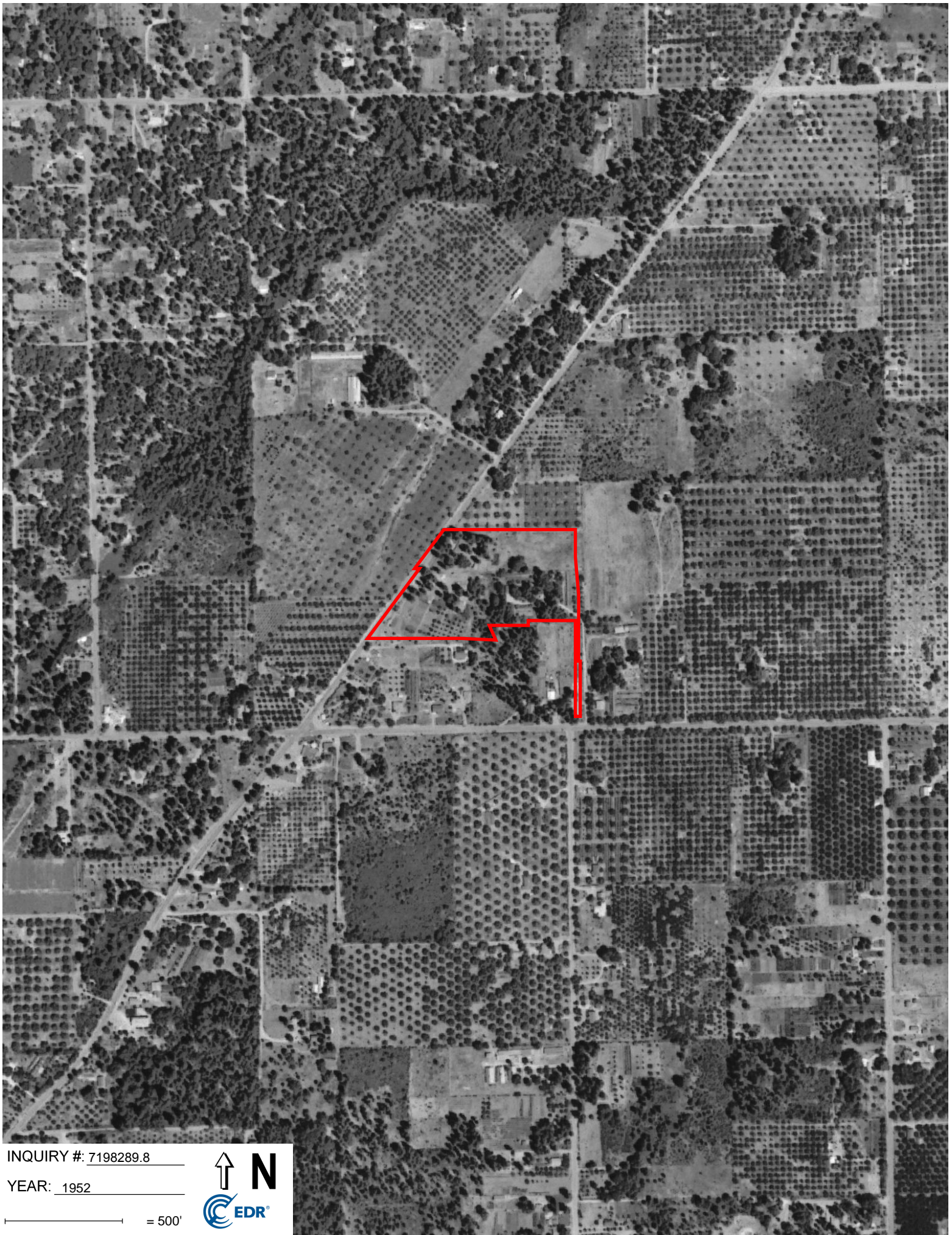


INQUIRY #: 7198289.8

YEAR: 1973

— = 500'





INQUIRY #: 7198289.8

YEAR: 1952

— = 500'



APPENDIX B: SANBORN FIRE INSURANCE MAPS

Orchard Creek Estates

6255 Pinecrest Drive

Paradise, CA 95969

Inquiry Number: 7198289.3

December 07, 2022

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

12/07/22

Site Name:

Orchard Creek Estates
6255 Pinecrest Drive
Paradise, CA 95969
EDR Inquiry # 7198289.3

Client Name:

Chico Env. Science & Planning
333 Main Street
Chico, CA 95928
Contact: Jillian Olivar



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Chico Env. Science & Planning were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 2A5C-4B90-83FA
PO # NA
Project Orchard Creek Estates

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 2A5C-4B90-83FA

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Chico Env. Science & Planning (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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APPENDIX C: CITY DIRECTORIES

Orchard Creek Estates

6255 Pinecrest Drive
Paradise, CA 95969

Inquiry Number: 7198289.5
December 12, 2022

The EDR-City Directory Image Report

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Findings

City Directory Images

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

| <u>Year</u> | <u>Target Street</u> | <u>Cross Street</u> | <u>Source</u> |
|-------------|-------------------------------------|--------------------------|------------------------------|
| 2017 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 2014 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 2010 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 2005 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 2000 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 1995 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 1992 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | EDR Digital Archive |
| 1986 | <input type="checkbox"/> | <input type="checkbox"/> | Haines Criss-Cross Directory |
| 1981 | <input type="checkbox"/> | <input type="checkbox"/> | Haines Criss-Cross Directory |
| 1975 | <input type="checkbox"/> | <input type="checkbox"/> | Haines Criss-Cross Directory |
| 1971 | <input type="checkbox"/> | <input type="checkbox"/> | Haines Criss-Cross Directory |

FINDINGS

TARGET PROPERTY STREET

6255 Pinecrest Drive
Paradise, CA 95969

| <u>Year</u> | <u>CD Image</u> | <u>Source</u> |
|-------------|-----------------|---------------|
|-------------|-----------------|---------------|

PINECREST DR

| | | | |
|------|-------|------------------------------|-----------------------------|
| 2017 | pg A1 | EDR Digital Archive | |
| 2014 | pg A2 | EDR Digital Archive | |
| 2010 | pg A3 | EDR Digital Archive | |
| 2005 | pg A4 | EDR Digital Archive | |
| 2000 | pg A5 | EDR Digital Archive | |
| 1995 | pg A6 | EDR Digital Archive | |
| 1992 | pg A7 | EDR Digital Archive | |
| 1986 | - | Haines Criss-Cross Directory | Street not listed in Source |
| 1981 | - | Haines Criss-Cross Directory | Street not listed in Source |
| 1975 | - | Haines Criss-Cross Directory | Street not listed in Source |
| 1971 | - | Haines Criss-Cross Directory | Street not listed in Source |

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

PINECREST DR 2017

6217 THOMPSON, MARCUS
6219 MOSS, CATHERINE

PINECREST DR 2014

6217 POSTOLKA, BRYAN
6219 WILLIAMS, CHRISTINE
6249 OCCUPANT UNKNOWN,
6253 KORNBLATT, RON A
6255 SCHWABENLAND, THOMAS A

PINECREST DR 2010

6217 BRAND, DONALD S
6219 OCCUPANT UNKNOWN,
6230 OCCUPANT UNKNOWN,
6249 SMITHLER, NICK
6253 OCCUPANT UNKNOWN,
6255 MARCHI, GAIL

PINECREST DR 2005

| | |
|------|-------------------|
| 6217 | THOMPSON, MATTHEW |
| 6230 | OCCUPANT UNKNOWN, |
| 6249 | ANDERSON, TRAVIS |
| 6255 | DONOHUE, TRAVIS W |

PINECREST DR 2000

6230 CROUCH, DARREL E
6235 OCCUPANT UNKNOWN,

PINECREST DR 1995

6219 HALD, IRENE M
6230 CROUCH, DARREL E
6235 OCCUPANT UNKNOWNN
6249 OCCUPANT UNKNOWNN

PINECREST DR 1992

6230 CROUCH, DARREL E
6235 COFFIN, DENZILE

APPENDIX D: TOPOGRAPHIC MAPS

Orchard Creek Estates

6255 Pinecrest Drive

Paradise, CA 95969

Inquiry Number: 7198289.4

December 07, 2022

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

12/07/22

Site Name:

Orchard Creek Estates
6255 Pincrest Drive
Paradise, CA 95969
EDR Inquiry # 7198289.4

Client Name:

Chico Env. Science & Planning
333 Main Street
Chico, CA 95928
Contact: Jillian Olivar



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Chico Env. Science & Planning were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

| | | | |
|-----------------|-----------------------|----------------------|--------------------------------|
| P.O.# | NA | Latitude: | 39.771842 39° 46' 19" North |
| Project: | Orchard Creek Estates | Longitude: | -121.594069 -121° 35' 39" West |
| | | UTM Zone: | Zone 10 North |
| | | UTM X Meters: | 620410.53 |
| | | UTM Y Meters: | 4403379.61 |
| | | Elevation: | 2041.11' above sea level |

Maps Provided:

| | |
|------|------|
| 2018 | 1891 |
| 2015 | |
| 2012 | |
| 1994 | |
| 1980 | |
| 1953 | |
| 1895 | |
| 1893 | |

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2018 Source Sheets



Paradise East
2018
7.5-minute, 24000



Cherokee
2018
7.5-minute, 24000

2015 Source Sheets



Paradise East
2015
7.5-minute, 24000



Cherokee
2015
7.5-minute, 24000

2012 Source Sheets

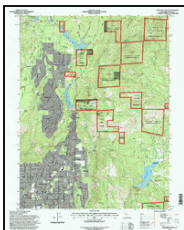


Paradise East
2012
7.5-minute, 24000



Cherokee
2012
7.5-minute, 24000

1994 Source Sheets



Paradise East
1994
7.5-minute, 24000
Aerial Photo Revised 1993



Cherokee
1994
7.5-minute, 24000
Aerial Photo Revised 1993

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1980 Source Sheets



Paradise East
1980
7.5-minute, 24000
Aerial Photo Revised 1973

1953 Source Sheets



Paradise
1953
15-minute, 62500
Aerial Photo Revised 1951

1895 Source Sheets



Chico
1895
30-minute, 125000

1893 Source Sheets



Chico
1893
30-minute, 125000

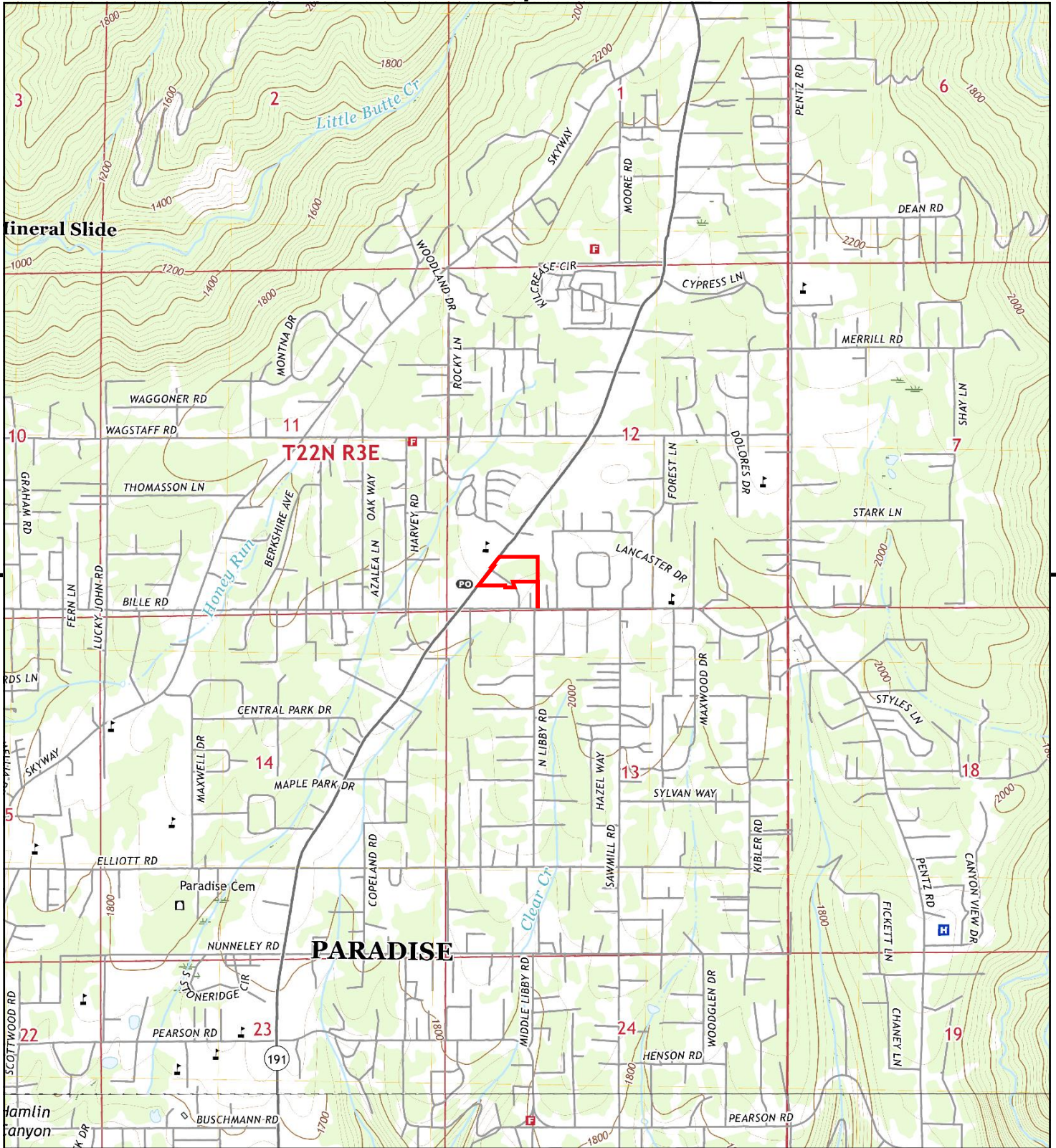
Topo Sheet Key

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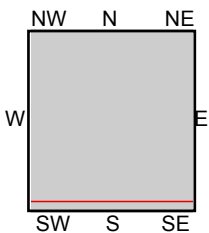
1891 Source Sheets



Chico
1891
30-minute, 125000



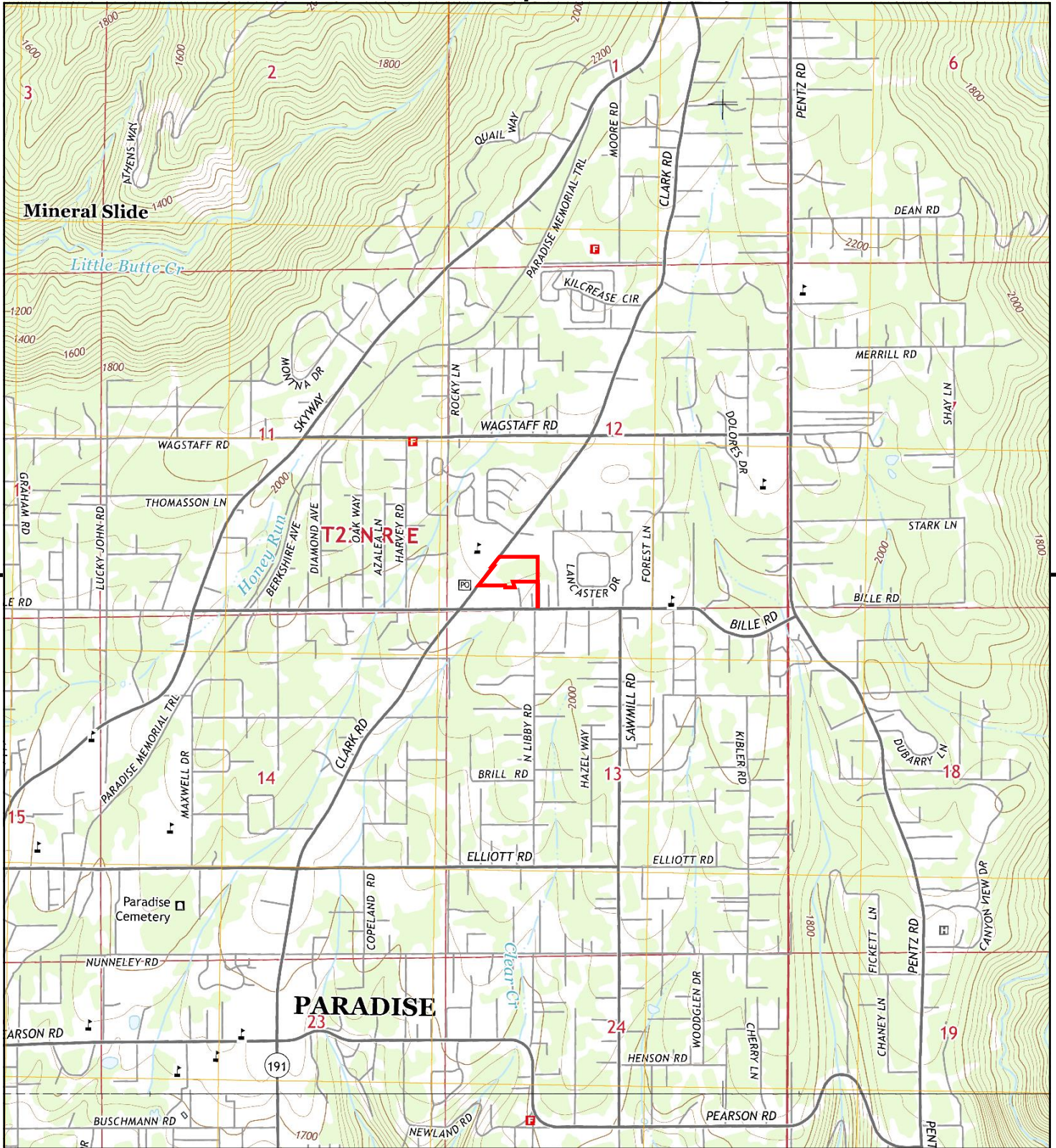
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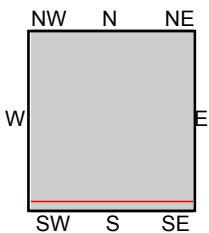
TP, Paradise East, 2018, 7.5-minute
S, Cherokee, 2018, 7.5-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
 Paradise, CA 95969
CLIENT: Chico Env. Science & Planning





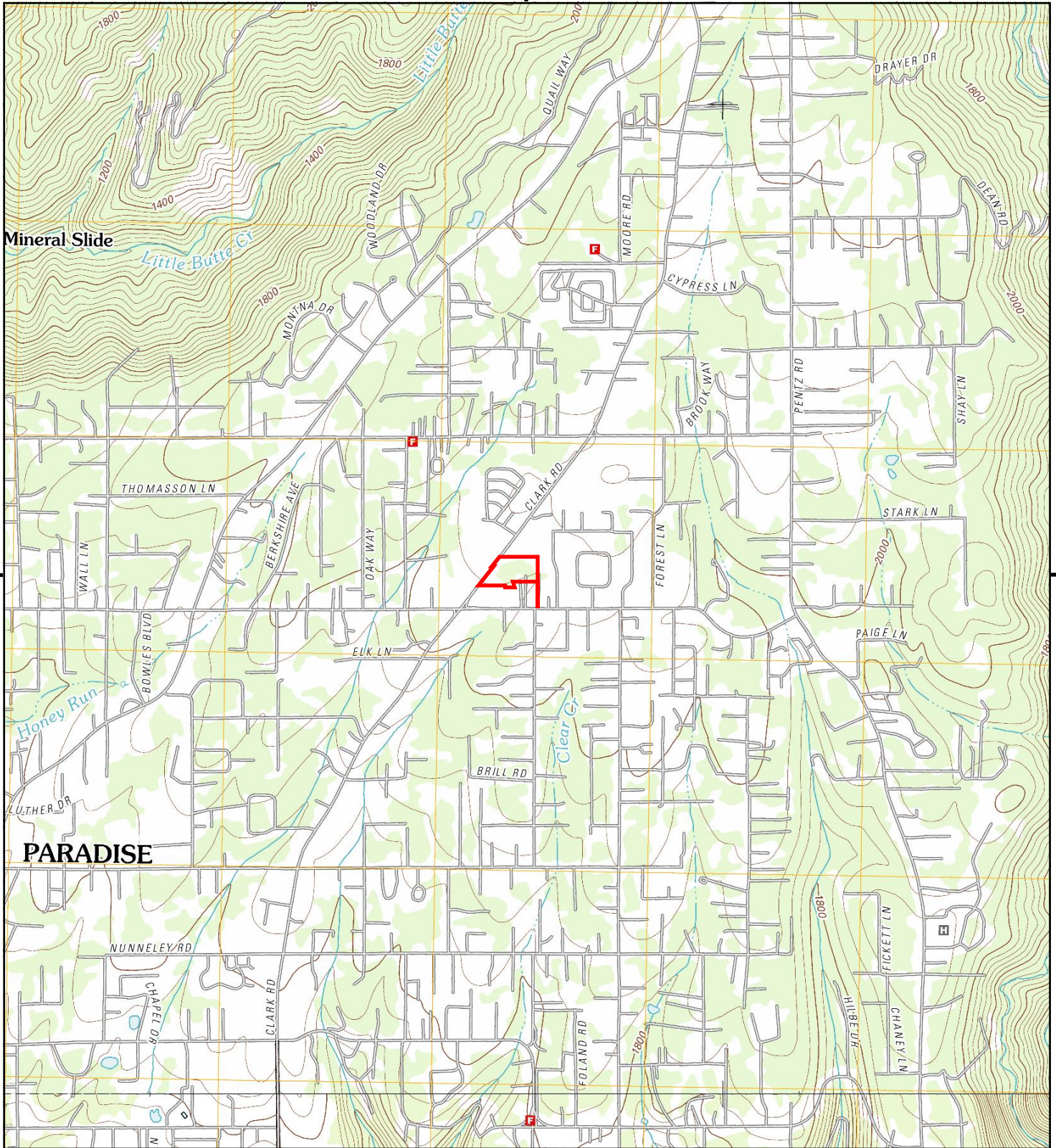
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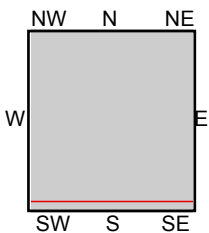
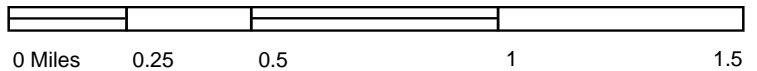
TP, Paradise East, 2015, 7.5-minute
S, Cherokee, 2015, 7.5-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
Paradise, CA 95969
CLIENT: Chico Env. Science & Planning





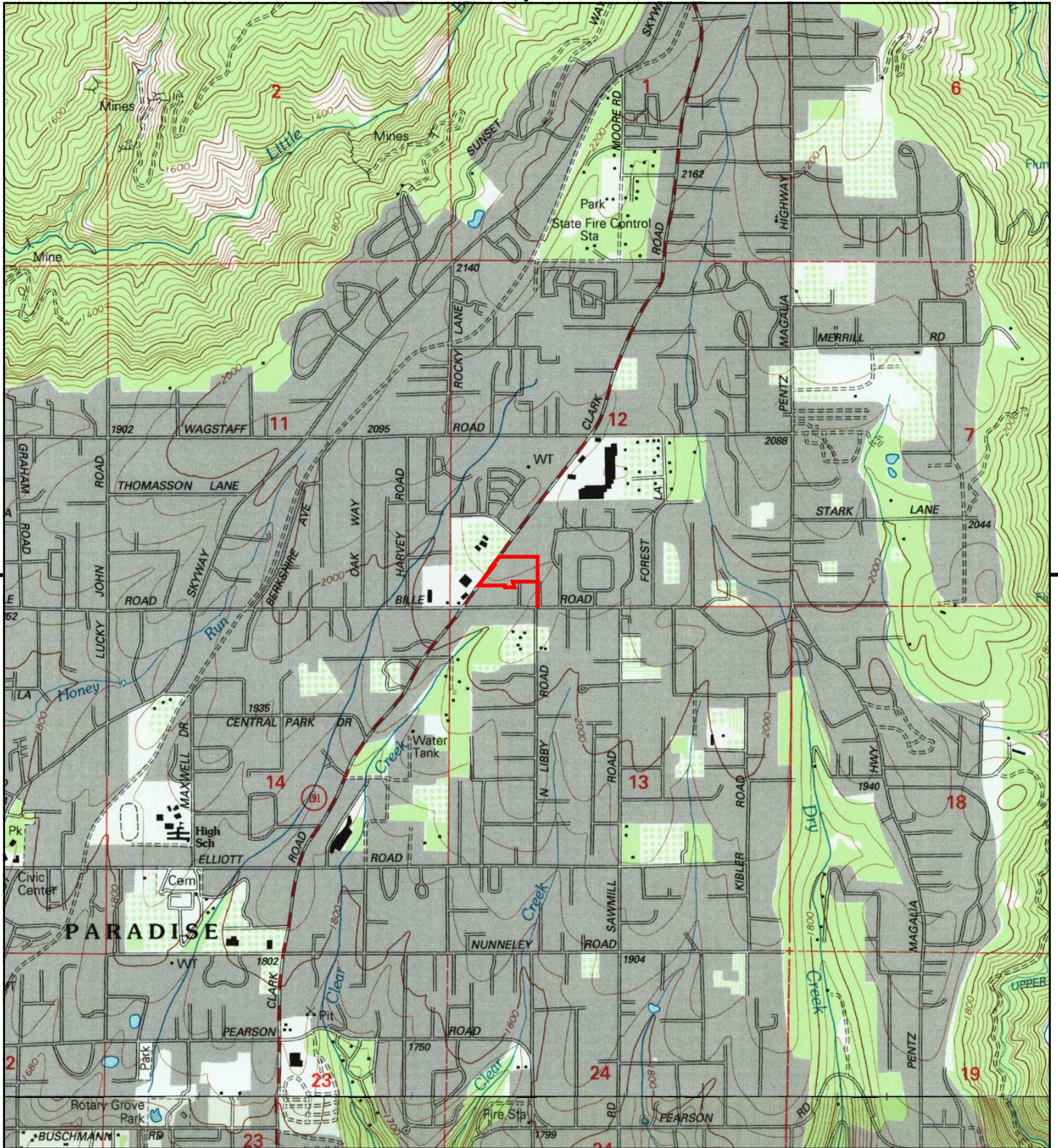
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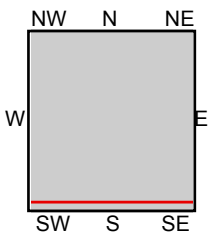
TP, Paradise East, 2012, 7.5-minute
S, Cherokee, 2012, 7.5-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
Paradise, CA 95969
CLIENT: Chico Env. Science & Planning





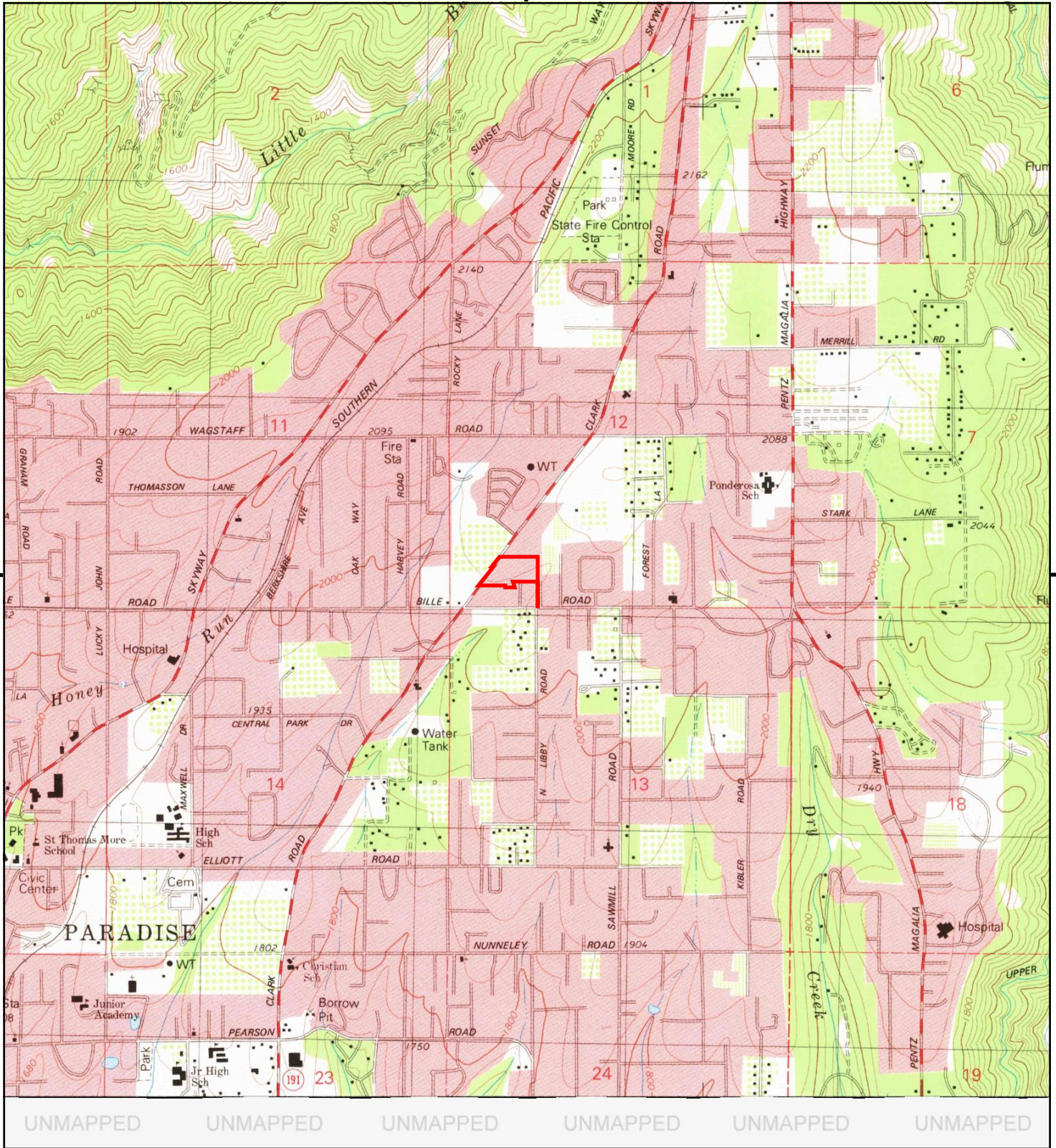
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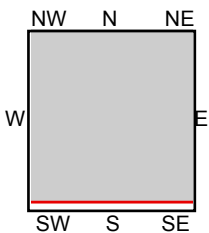
TP, Paradise East, 1994, 7.5-minute
S, Cherokee, 1994, 7.5-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
Paradise, CA 95969
CLIENT: Chico Env. Science & Planning





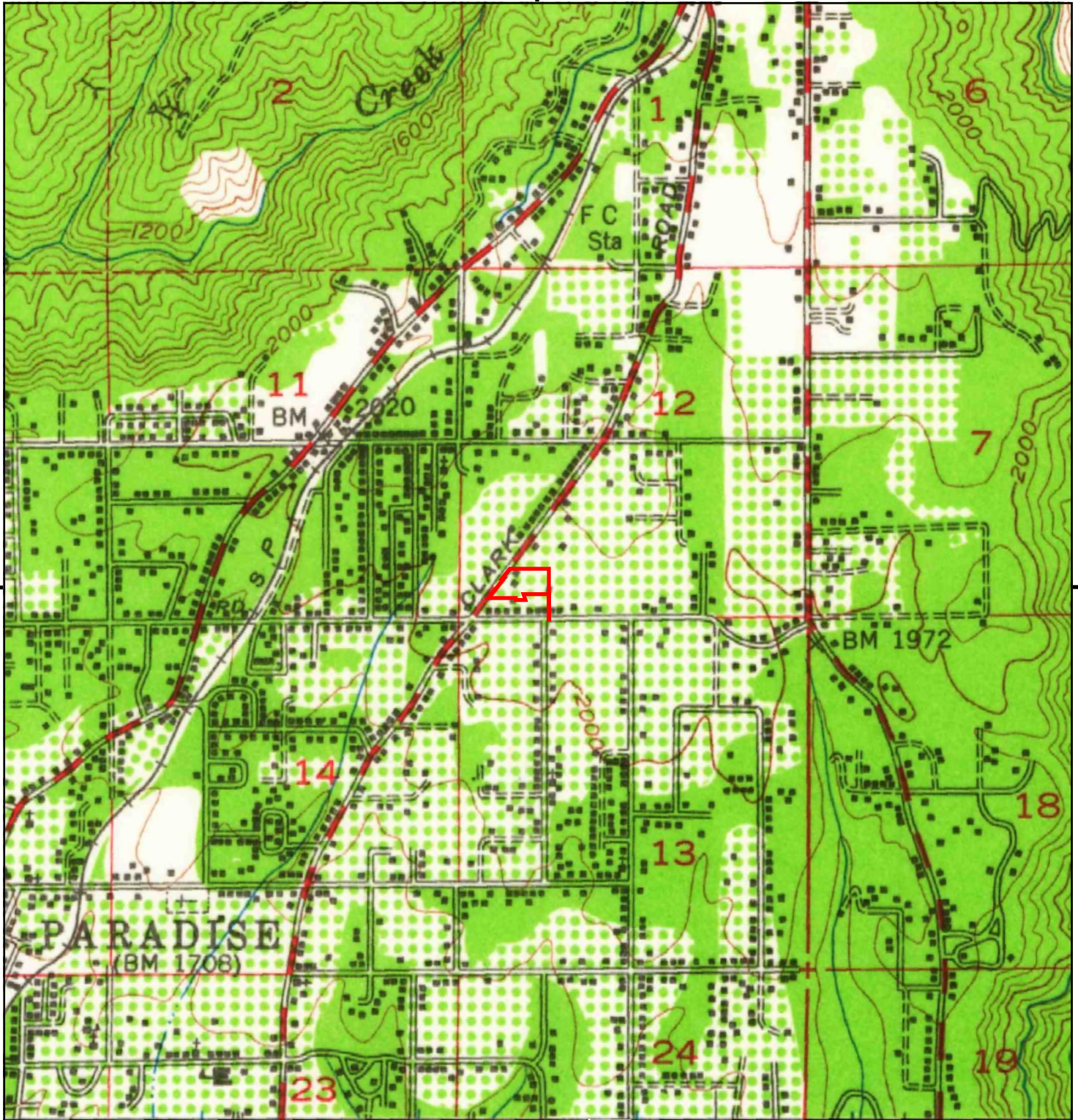
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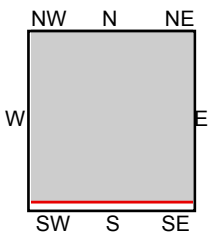
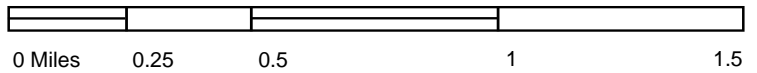
SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
 Paradise, CA 95969
CLIENT: Chico Env. Science & Planning





UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED UNMAPPED

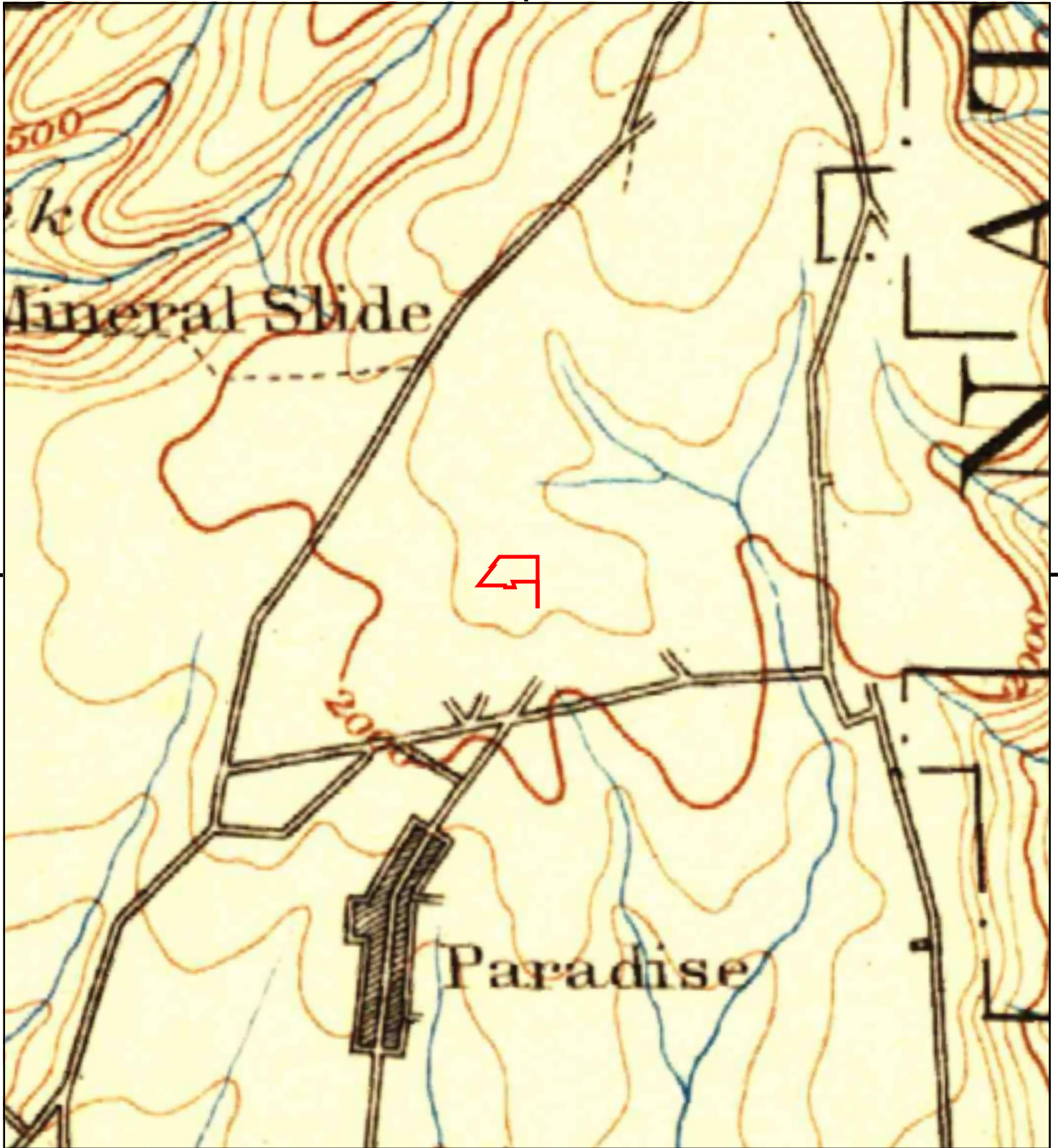
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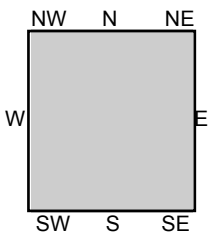
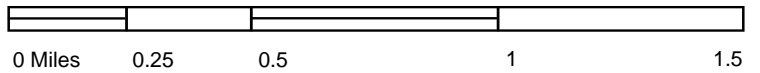
TP, Paradise, 1953, 15-minute

SITE NAME: Orchard Creek Estates
 ADDRESS: 6255 Pinecrest Drive
 Paradise, CA 95969
 CLIENT: Chico Env. Science & Planning





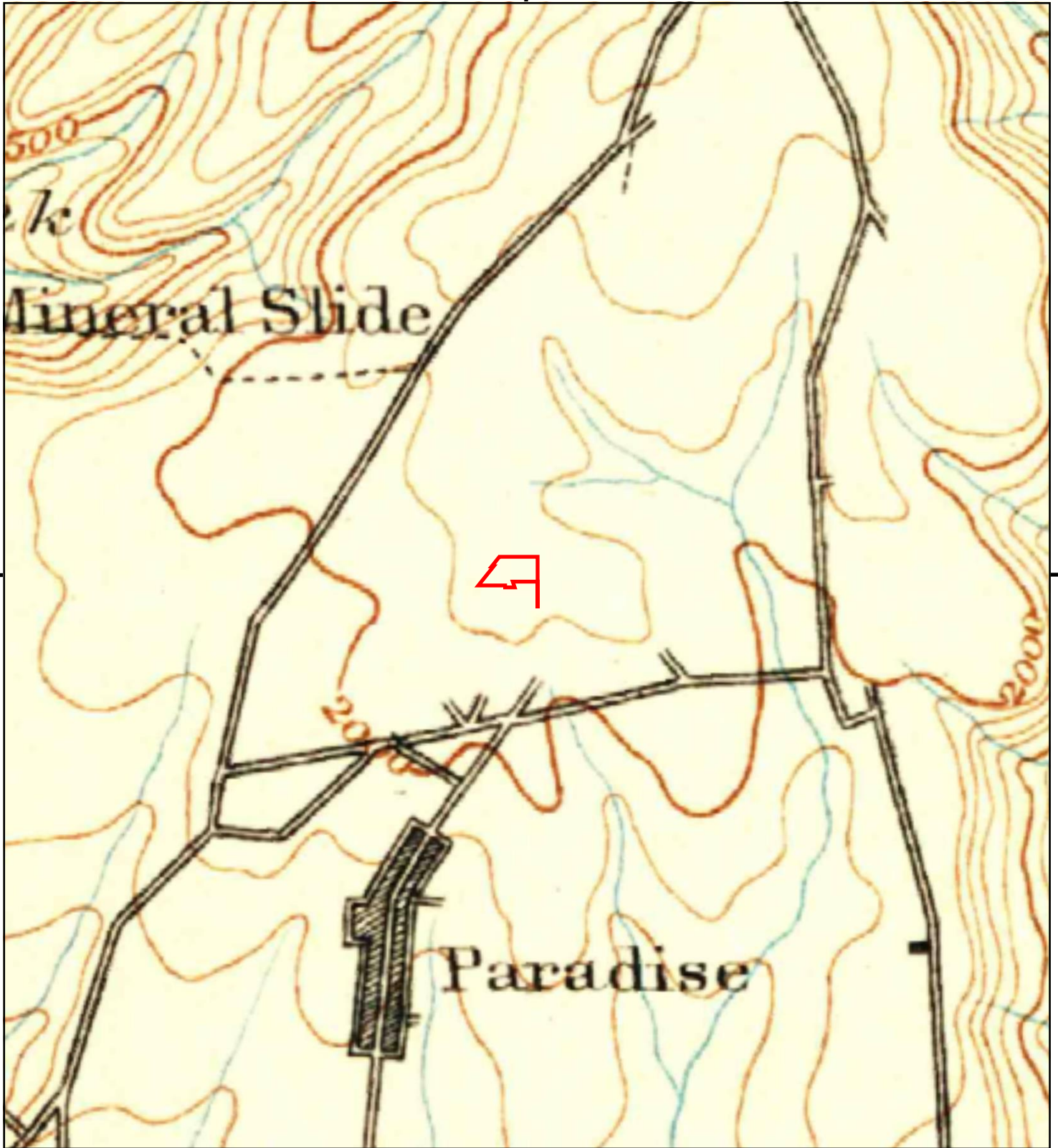
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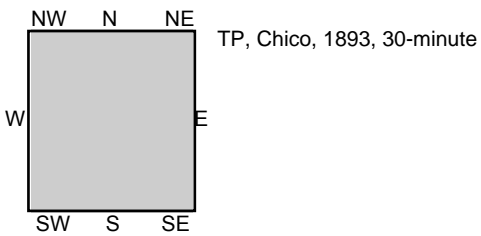
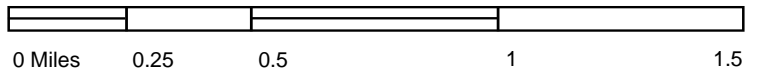
TP, Chico, 1895, 30-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
Paradise, CA 95969
CLIENT: Chico Env. Science & Planning



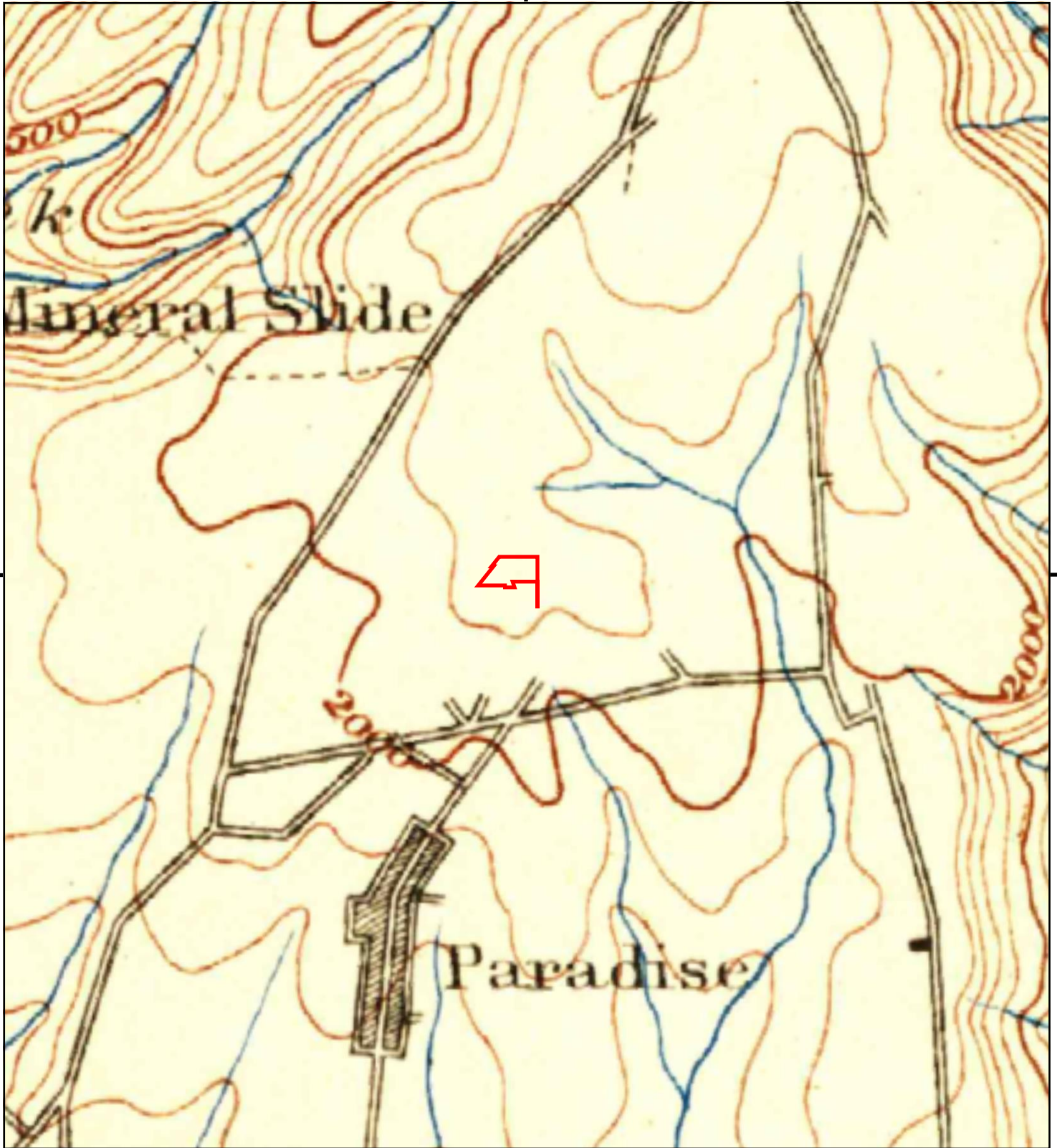


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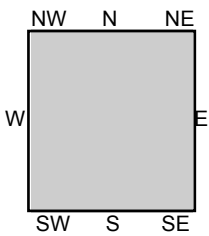
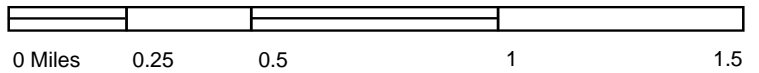


SITE NAME: Orchard Creek Estates
 ADDRESS: 6255 Pinecrest Drive
 Paradise, CA 95969
 CLIENT: Chico Env. Science & Planning





This report includes information from the following map sheet(s).



TP, Chico, 1891, 30-minute

SITE NAME: Orchard Creek Estates
ADDRESS: 6255 Pinecrest Drive
Paradise, CA 95969
CLIENT: Chico Env. Science & Planning



APPENDIX E: ENVIRONMENTAL DATA RESOURCES RADIUS REPORT

Orchard Creek Estates

6255 Pinecrest Drive
Paradise, CA 95969

Inquiry Number: 7198289.2s
December 07, 2022

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

6255 PINECREST DRIVE
PARADISE, CA 95969

COORDINATES

Latitude (North): 39.7718420 - 39° 46' 18.63"
Longitude (West): 121.5940690 - 121° 35' 38.64"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 620413.7
UTM Y (Meters): 4403170.0
Elevation: 2041 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 12016141 PARADISE EAST, CA
Version Date: 2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140725
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
6255 PINECREST DRIVE
PARADISE, CA 95969

Click on Map ID to see full detail.

| MAP ID | SITE NAME | ADDRESS | DATABASE ACRONYMS | RELATIVE ELEVATION | DIST (ft. & mi.) DIRECTION |
|---------------------|----------------------|----------------------|--|--------------------|----------------------------|
| A1 | CROSSFIRE TREE & VEG | 6480 CLARK ROAD | ECHO | Higher | 1 ft. |
| B2 | WLM CONSTRUCTION (WI | 6249 PINECREST DRIVE | RCRA NonGen / NLR | Lower | 1 ft. |
| A3 | CROSSFIRE TREE & VEG | 6480 CLARK ROAD | FINDS | Higher | 1 ft. |
| B4 | WLM CONSTRUCTION (WI | 6249 PINECREST DRIVE | FINDS | Lower | 1 ft. |
| A5 | CROSSFIRE TREE & VEG | 6480 CLARK ROAD | NPDES, CIWQS | Higher | 1 ft. |
| B6 | WLM CONSTRUCTION (WI | 6249 PINECREST DRIVE | ECHO | Lower | 1 ft. |
| C7 | JIFFY LUBE | 6420 CLARK ROAD | CUPA Listings, HAZNET, HWTS | Lower | 45, 0.009, WSW |
| C8 | JIFFY LUBE STORE # 7 | 6420 CLARK RD. | AST | Lower | 45, 0.009, WSW |
| C9 | JIFFY LUBE INTERNATI | 6420 CLARK RD | RCRA-SQG, HAZNET, HWTS | Lower | 45, 0.009, WSW |
| 10 | RIDGE MARINE | 6171 N LIBBY RD | RCRA NonGen / NLR | Higher | 291, 0.055, South |
| D11 | J D SERVICE | 6390 CLARK | EDR Hist Auto | Lower | 510, 0.097, WSW |
| D12 | DAN'S AUTO & OFF ROA | 1326 BILLE RD | CUPA Listings | Lower | 556, 0.105, SW |
| 13 | NICKI JONES | 6174 OPAL | RCRA NonGen / NLR | Lower | 578, 0.109, SE |
| 14 | ADELAIDE HARDT | 6170 ALAMO WAY | RCRA NonGen / NLR | Lower | 872, 0.165, SE |
| E15 | DOLLAR GENERAL #1486 | 6574 CLARK RD | RCRA NonGen / NLR | Higher | 908, 0.172, NNE |
| E16 | DOLLAR GENERAL #1486 | 6574 CLARK RD | CERS HAZ WASTE, CUPA Listings, HAZNET, CIWQS,... | Higher | 908, 0.172, NNE |
| F17 | MICHAEL AGLIOLO | 1260 FAWNBROOK PL | RCRA NonGen / NLR | Lower | 1000, 0.189, West |
| G18 | PARADISE IRRIGATION | 6344 CLARK RD | AST, CERS HAZ WASTE, CERS TANKS, CUPA Listings,... | Lower | 1099, 0.208, SW |
| G19 | PARADISE IRRIGATION | 6344 CLARK RD | RCRA NonGen / NLR | Lower | 1099, 0.208, SW |
| F20 | LEO BUCHHOLY | 6244 HARVEY RD | RCRA NonGen / NLR | Lower | 1099, 0.208, West |
| E21 | PARADISE MEDICAL IMA | 6585 CLARK ROAD | CUPA Listings, HAZNET, HWTS | Higher | 1154, 0.219, NNE |
| 22 | REDLINE-RICANN DAVEN | 6225 HARVEY RD. | RCRA NonGen / NLR | Lower | 1207, 0.229, West |
| 23 | CECELIA WEEKS | 1280 WAGSTAFF ROAD # | RCRA NonGen / NLR | Higher | 1240, 0.235, NW |
| H24 | TRACTOR SUPPLY CO ST | 6600 CLARK RD | RCRA NonGen / NLR | Higher | 1256, 0.238, NE |
| H25 | K MART CORPORATION | 6600 CLARK RD | SWEEPS UST, CA FID UST, CUPA Listings | Higher | 1256, 0.238, NE |
| H26 | KMART #9551 | 6600 CLARK ROAD | RCRA NonGen / NLR | Higher | 1256, 0.238, NE |
| H27 | KMART 9551 | 6600 CLARK ROAD | RCRA-VSQG | Higher | 1256, 0.238, NE |
| H28 | TRACTOR SUPPLY STORE | 6600 CLARK ROAD | CERS HAZ WASTE, HAZNET, CERS, HWTS | Higher | 1256, 0.238, NE |
| H29 | K-MART SHOPPING CTR | 6600 CLARK ROAD | HIST UST, ENF, CIWQS | Higher | 1256, 0.238, NE |
| 30 | WORLD RADIATOR & AIR | 8336 SKYWAY | RESPONSE, ENVIROSTOR, HIST Cal-Sites, DEED | Lower | 3450, 0.653, NW |

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL..... National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS..... Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG..... RCRA - Large Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

EXECUTIVE SUMMARY

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Solid Waste Information System

Lists of state and tribal leaking storage tanks

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

Lists of state and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Considered Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
SCH..... School Property Evaluation Program
CDL..... Clandestine Drug Labs
Toxic Pits..... Toxic Pits Cleanup Act Sites
US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS..... Environmental Liens Listing
LIENS 2..... CERCLA Lien Information

EXECUTIVE SUMMARY

DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
ICIS..... Integrated Compliance Information System
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS..... Material Licensing Tracking System
COAL ASH DOE..... Steam-Electric Plant Operation Data
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
RADINFO..... Radiation Information Database
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS..... Incident and Accident Data
CONSENT..... Superfund (CERCLA) Consent Decrees
INDIAN RESERV..... Indian Reservations
FUSRAP..... Formerly Utilized Sites Remedial Action Program
UMTRA..... Uranium Mill Tailings Sites
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
US MINES..... Mines Master Index File
ABANDONED MINES..... Abandoned Mines
UXO..... Unexploded Ordnance Sites
DOCKET HWC..... Hazardous Waste Compliance Docket Listing
FUELS PROGRAM..... EPA Fuels Program Registered Listing
PFAS NPL..... Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES..... Federal Sites PFAS Information
PFAS TSCA..... PFAS Manufacture and Imports Information
PFAS RCRA MANIFEST..... PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR..... PFAS Contamination Site Location Listing
PFAS WQP..... Ambient Environmental Sampling for PFAS
PFAS NPDES..... Clean Water Act Discharge Monitoring Information
PFAS ECHO..... Facilities in Industries that May Be Handling PFAS Listing

EXECUTIVE SUMMARY

| | |
|-------------------------|--|
| PFAS ECHO FIRE TRAINING | Facilities in Industries that May Be Handling PFAS Listing |
| PFAS PART 139 AIRPORT | All Certified Part 139 Airports PFAS Information Listing |
| AQUEOUS FOAM NRC | Aqueous Foam Related Incidents Listing |
| PFAS | PFAS Contamination Site Location Listing |
| AQUEOUS FOAM | Former Fire Training Facility Assessments Listing |
| CA BOND EXP. PLAN | Bond Expenditure Plan |
| Cortese | "Cortese" Hazardous Waste & Substances Sites List |
| DRYCLEANERS | Cleaner Facilities |
| EMI | Emissions Inventory Data |
| ENF | Enforcement Action Listing |
| Financial Assurance | Financial Assurance Information Listing |
| ICE | ICE |
| HIST CORTESE | Hazardous Waste & Substance Site List |
| HWP | EnviroStor Permitted Facilities Listing |
| HWT | Registered Hazardous Waste Transporter Database |
| HAZNET | Facility and Manifest Data |
| MINES | Mines Site Location Listing |
| MWMP | Medical Waste Management Program Listing |
| PEST LIC | Pesticide Regulation Licenses Listing |
| PROC | Certified Processors Database |
| Notify 65 | Proposition 65 Records |
| UIC | UIC Listing |
| UIC GEO | UIC GEO (GEOTRACKER) |
| WASTEWATER PITS | Oil Wastewater Pits Listing |
| WDS | Waste Discharge System |
| WIP | Well Investigation Program Case List |
| MILITARY PRIV SITES | MILITARY PRIV SITES (GEOTRACKER) |
| PROJECT | PROJECT (GEOTRACKER) |
| WDR | Waste Discharge Requirements Listing |
| CERS | CERS |
| NON-CASE INFO | NON-CASE INFO (GEOTRACKER) |
| OTHER OIL GAS | OTHER OIL & GAS (GEOTRACKER) |
| PROD WATER PONDS | PROD WATER PONDS (GEOTRACKER) |
| SAMPLING POINT | SAMPLING POINT (GEOTRACKER) |
| WELL STIM PROJ | Well Stimulation Project (GEOTRACKER) |
| MINES MRDS | Mineral Resources Data System |
| HWTS | Hazardous Waste Tracking System |

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

| | |
|------------------|---|
| EDR MGP | EDR Proprietary Manufactured Gas Plants |
| EDR Hist Cleaner | EDR Exclusive Historical Cleaners |

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

| | |
|----------|---|
| RGA LF | Recovered Government Archive Solid Waste Facilities List |
| RGA LUST | Recovered Government Archive Leaking Underground Storage Tank |

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal RCRA generators

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 11/21/2022 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|-----------------------------|---------------------------------------|------------------|------------------|
| <i>JIFFY LUBE INTERNATI</i> EPA ID:: CAD983636796 | <i>6420 CLARK RD</i> | <i>WSW 0 - 1/8 (0.009 mi.)</i> | <i>C9</i> | <i>21</i> |

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 11/21/2022 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|-------------------------------------|-----------------|-----------------------------|---------------|-------------|
| KMART 9551 EPA ID:: CAL000018523 | 6600 CLARK ROAD | NE 1/8 - 1/4 (0.238 mi.) | H27 | 156 |

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|--------------------|-------------------------------|---------------|-------------|
| WORLD RADIATOR & AIR Database: RESPONSE, Date of Government Version: 07/25/2022 AWP Facility Id: 04750001 Status: Certified O&M - Land Use Restrictions Only Facility Id: 04750001 | 8336 SKYWAY | NW 1/2 - 1 (0.653 mi.) | 30 | 214 |

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/25/2022 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--|--------------------|-------------------------------|---------------|-------------|
| WORLD RADIATOR & AIR Facility Id: 04750001 Status: Certified O&M - Land Use Restrictions Only | 8336 SKYWAY | NW 1/2 - 1 (0.653 mi.) | 30 | 214 |

Lists of state and tribal registered storage tanks

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--|-----------------------|---------------------------------|---------------|-------------|
| JIFFY LUBE STORE # 7 Database: AST, Date of Government Version: 07/06/2016 | 6420 CLARK RD. | WSW 0 - 1/8 (0.009 mi.) | C8 | 20 |
| PARADISE IRRIGATION Database: AST, Date of Government Version: 07/06/2016 | 6344 CLARK RD | SW 1/8 - 1/4 (0.208 mi.) | G18 | 116 |

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---------------------------------|--------------------|-------------------------------|---------------|-------------|
| WORLD RADIATOR & AIR | 8336 SKYWAY | NW 1/2 - 1 (0.653 mi.) | 30 | 214 |

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 07/18/2022 has revealed that there are 3 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|------------------------|----------------------------------|---------------|-------------|
| DOLLAR GENERAL #1486 | 6574 CLARK RD | NNE 1/8 - 1/4 (0.172 mi.) | E16 | 65 |
| TRACTOR SUPPLY STORE | 6600 CLARK ROAD | NE 1/8 - 1/4 (0.238 mi.) | H28 | 159 |
| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
| PARADISE IRRIGATION | 6344 CLARK RD | SW 1/8 - 1/4 (0.208 mi.) | G18 | 116 |

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|----------------------|---------------------------------|---------------|-------------|
| K MART CORPORATION Comp Number: 14425 | 6600 CLARK RD | NE 1/8 - 1/4 (0.238 mi.) | H25 | 152 |

EXECUTIVE SUMMARY

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--|------------------------|---------------------------------|---------------|-------------|
| K-MART SHOPPING CTR Facility Id: 00000014425 | 6600 CLARK ROAD | NE 1/8 - 1/4 (0.238 mi.) | H29 | 210 |

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|----------------------|---------------------------------|---------------|-------------|
| K MART CORPORATION Facility Id: 04000163 Status: I | 6600 CLARK RD | NE 1/8 - 1/4 (0.238 mi.) | H25 | 152 |

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

A review of the CERS TANKS list, as provided by EDR, and dated 07/18/2022 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|----------------------------|----------------------|---------------------------------|---------------|-------------|
| PARADISE IRRIGATION | 6344 CLARK RD | SW 1/8 - 1/4 (0.208 mi.) | G18 | 116 |

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 11/21/2022 has revealed that there are 12 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|----------------------|-----------------------------|---------------|-------------|
| RIDGE MARINE EPA ID:: CAL000355256 | 6171 N LIBBY RD | S 0 - 1/8 (0.055 mi.) | 10 | 54 |
| DOLLAR GENERAL #1486 EPA ID:: CAL000406267 | 6574 CLARK RD | NNE 1/8 - 1/4 (0.172 mi.) | E15 | 62 |
| CECELIA WEEKS EPA ID:: CAC003014915 | 1280 WAGSTAFF ROAD # | NW 1/8 - 1/4 (0.235 mi.) | 23 | 147 |
| TRACTOR SUPPLY CO ST | 6600 CLARK RD | NE 1/8 - 1/4 (0.238 mi.) | H24 | 150 |

EXECUTIVE SUMMARY

EPA ID:: CAL000456840
 KMART #9551 6600 CLARK ROAD NE 1/8 - 1/4 (0.238 mi.) H26 153
 EPA ID:: CAC003013054

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--|----------------------|-----------------------------|---------------|-------------|
| WLM CONSTRUCTION (WI) EPA ID:: CAC003012362 | 6249 PINECREST DRIVE | 0 - 1/8 (0.000 mi.) | B2 | 9 |
| NICKI JONES EPA ID:: CAC003002313 | 6174 OPAL | SE 0 - 1/8 (0.109 mi.) | 13 | 57 |
| ADELAIDE HARDT EPA ID:: CAC003001857 | 6170 ALAMO WAY | SE 1/8 - 1/4 (0.165 mi.) | 14 | 60 |
| MICHAEL AGLIOLO EPA ID:: CAC003038247 | 1260 FAWNBROOK PL | W 1/8 - 1/4 (0.189 mi.) | F17 | 113 |
| PARADISE IRRIGATION EPA ID:: CAL000392094 | 6344 CLARK RD | SW 1/8 - 1/4 (0.208 mi.) | G19 | 132 |
| LEO BUCHHOLY EPA ID:: CAC003061649 | 6244 HARVEY RD | W 1/8 - 1/4 (0.208 mi.) | F20 | 134 |
| REDLINE-RICANN DAVEN EPA ID:: CAC003001312 | 6225 HARVEY RD. | W 1/8 - 1/4 (0.229 mi.) | 22 | 145 |

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 08/03/2022 has revealed that there are 2 FINDS sites within approximately 0.001 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|----------------------|-----------------------------|---------------|-------------|
| CROSSFIRE TREE & VEG | 6480 CLARK ROAD | 0 - 1/8 (0.000 mi.) | A3 | 11 |
| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
| WLM CONSTRUCTION (WI) | 6249 PINECREST DRIVE | 0 - 1/8 (0.000 mi.) | B4 | 12 |

ECHO: ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

A review of the ECHO list, as provided by EDR, and dated 06/25/2022 has revealed that there are 2 ECHO sites within approximately 0.001 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|----------------------|-----------------------------|---------------|-------------|
| CROSSFIRE TREE & VEG Registry ID: 110070792468 | 6480 CLARK ROAD | 0 - 1/8 (0.000 mi.) | A1 | 9 |
| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
| WLM CONSTRUCTION (WI) | 6249 PINECREST DRIVE | 0 - 1/8 (0.000 mi.) | B6 | 13 |

EXECUTIVE SUMMARY

Registry ID: 110070577191

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 6 CUPA Listings sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|------------------------|----------------------------------|---------------|-------------|
| DOLLAR GENERAL #1486 Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0005215 | 6574 CLARK RD | NNE 1/8 - 1/4 (0.172 mi.) | E16 | 65 |
| PARADISE MEDICAL IMA Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0003828 | 6585 CLARK ROAD | NNE 1/8 - 1/4 (0.219 mi.) | E21 | 137 |
| K MART CORPORATION Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0003431 Facility ID: FA0000500 | 6600 CLARK RD | NE 1/8 - 1/4 (0.238 mi.) | H25 | 152 |

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---|------------------------|---------------------------------|---------------|-------------|
| JIFFY LUBE Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0002902 | 6420 CLARK ROAD | WSW 0 - 1/8 (0.009 mi.) | C7 | 14 |
| DAN'S AUTO & OFF ROA Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0004049 | 1326 BILLE RD | SW 0 - 1/8 (0.105 mi.) | D12 | 57 |
| PARADISE IRRIGATION Database: CUPA BUTTE, Date of Government Version: 04/21/2017 Facility ID: FA0004887 | 6344 CLARK RD | SW 1/8 - 1/4 (0.208 mi.) | G18 | 116 |

NPDES: A listing of NPDES permits, including stormwater.

A review of the NPDES list, as provided by EDR, and dated 08/08/2022 has revealed that there is 1 NPDES site within approximately 0.001 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--|------------------------|-----------------------------|---------------|-------------|
| CROSSFIRE TREE & VEG Facility Status: Terminated | 6480 CLARK ROAD | 0 - 1/8 (0.000 mi.) | A5 | 12 |

EXECUTIVE SUMMARY

CIWQS: The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

A review of the CIWQS list, as provided by EDR, and dated 08/16/2022 has revealed that there is 1 CIWQS site within approximately 0.001 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|---------------------------------|------------------------|-----------------------------|---------------|-------------|
| CROSSFIRE TREE & VEG | 6480 CLARK ROAD | 0 - 1/8 (0.000 mi.) | A5 | 12 |

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u> | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|------------------------|----------------|-----------------------------|---------------|-------------|
| J D SERVICE | 6390 CLARK | WSW 0 - 1/8 (0.097 mi.) | D11 | 57 |

EXECUTIVE SUMMARY

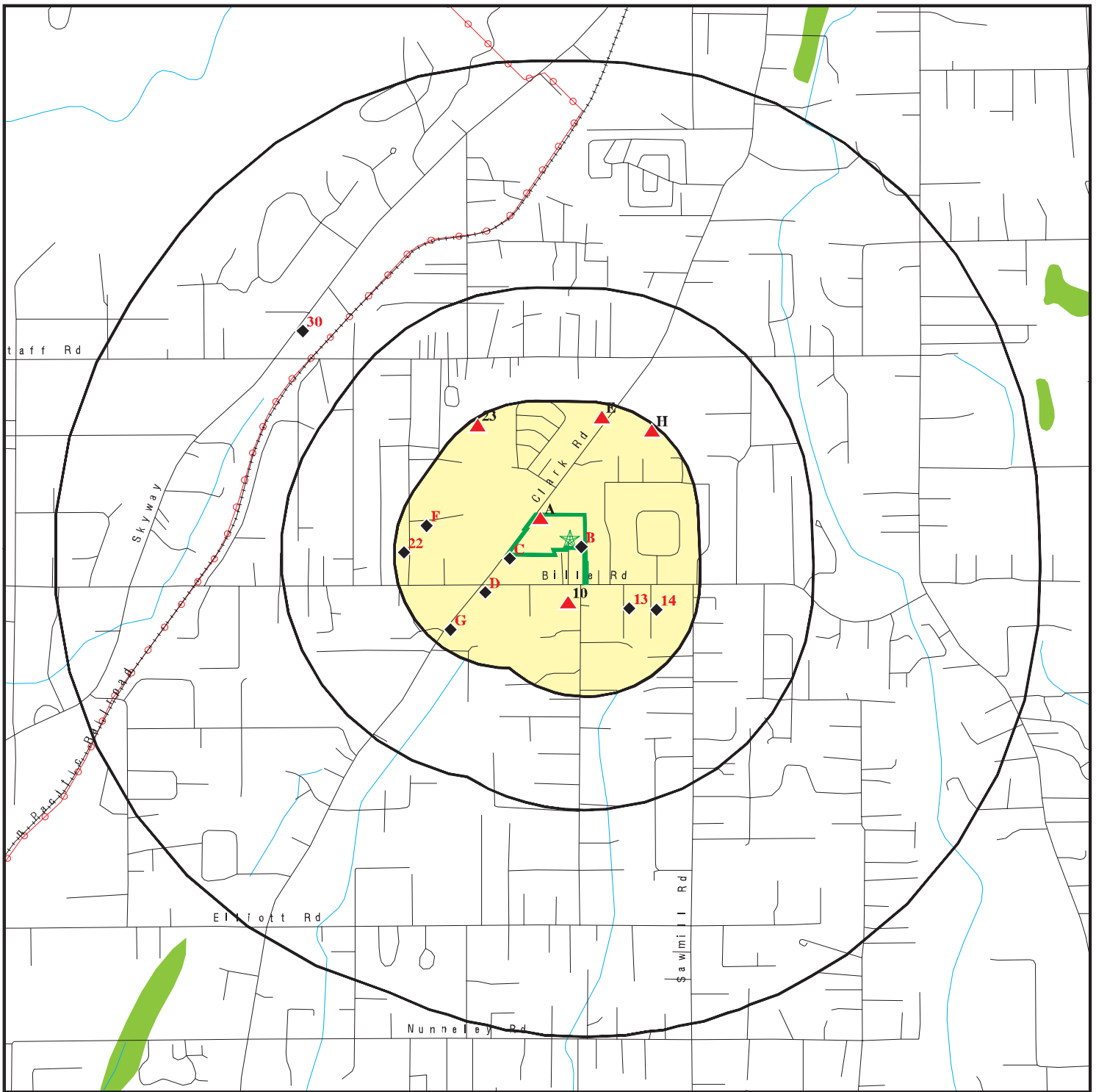
Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name

Database(s)

CDL

OVERVIEW MAP - 7198289.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

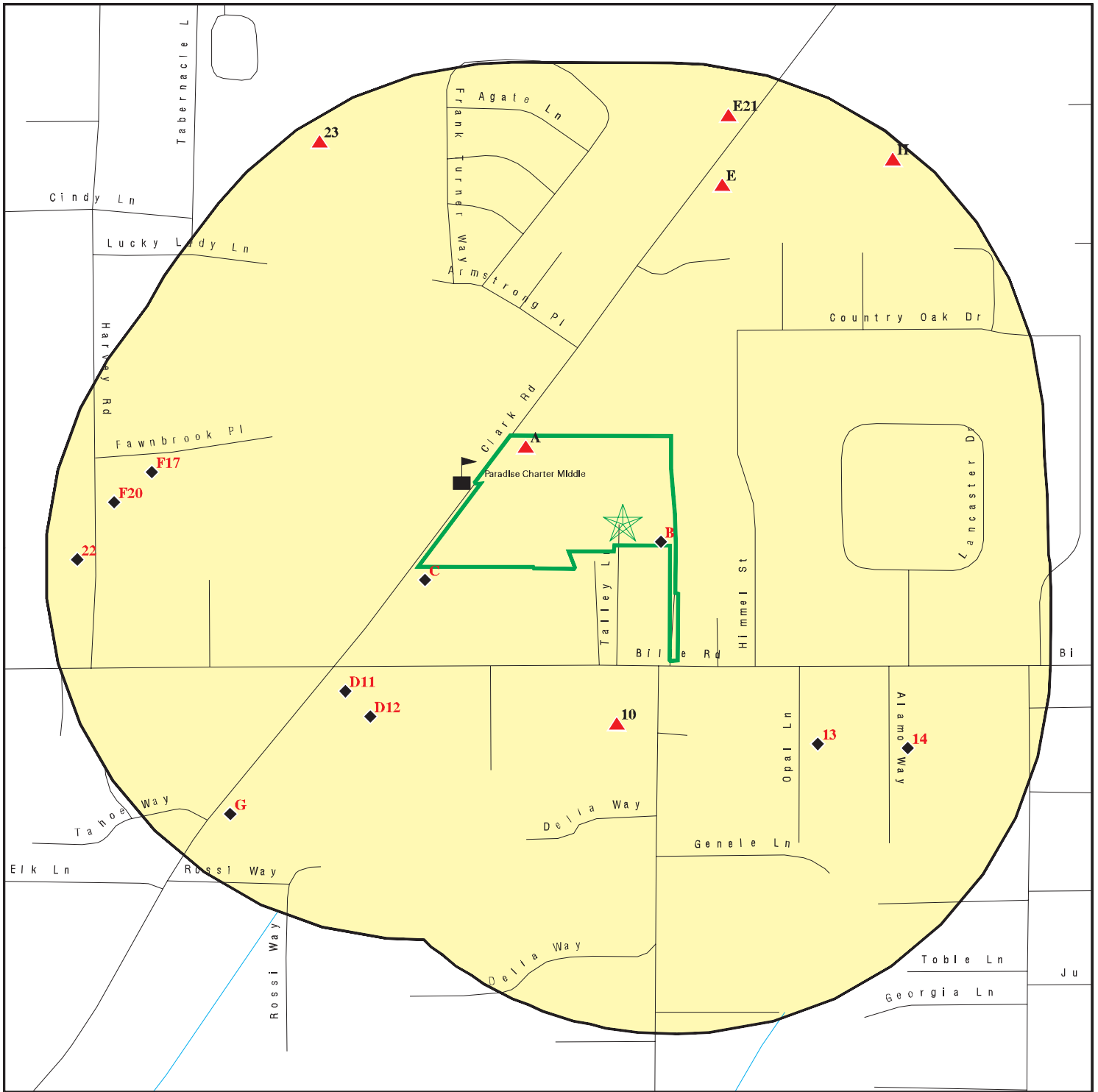









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.





SITE NAME: Orchard Creek Estates
 ADDRESS: 6255 Pinecrest Drive
 Paradise CA 95969
 LAT/LONG: 39.771842 / 121.594069

CLIENT: Chico Env. Science & Planning
 CONTACT: Jillian Olivar
 INQUIRY #: 7198289.2s
 DATE: December 07, 2022 6:19 pm

DETAIL MAP - 7198289.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  Areas of Concern
-  Special Flood Hazard Area (1%)
-  0.2% Annual Chance Flood Hazard

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Orchard Creek Estates
 ADDRESS: 6255 Pinecrest Drive
 Paradise CA 95969
 LAT/LONG: 39.771842 / 121.594069

CLIENT: Chico Env. Science & Planning
 CONTACT: Jillian Olivar
 INQUIRY #: 7198289.2s
 DATE: December 07, 2022 6:20 pm

MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|-------------------------------|--------------------|-------|-----------|-----------|---------|-----|------------------|
| STANDARD ENVIRONMENTAL RECORDS | | | | | | | | |
| <i>Lists of Federal NPL (Superfund) sites</i> | | | | | | | | |
| NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Proposed NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| NPL LIENS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| <i>Lists of Federal Delisted NPL sites</i> | | | | | | | | |
| Delisted NPL | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| <i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i> | | | | | | | | |
| FEDERAL FACILITY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SEMS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Lists of Federal CERCLA sites with NFRAP</i> | | | | | | | | |
| SEMS-ARCHIVE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Lists of Federal RCRA facilities undergoing Corrective Action</i> | | | | | | | | |
| CORRACTS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| <i>Lists of Federal RCRA TSD facilities</i> | | | | | | | | |
| RCRA-TSDF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Lists of Federal RCRA generators</i> | | | | | | | | |
| RCRA-LQG | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| RCRA-SQG | 0.250 | | 1 | 0 | NR | NR | NR | 1 |
| RCRA-VSQG | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| <i>Federal institutional controls / engineering controls registries</i> | | | | | | | | |
| LUCIS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US ENG CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US INST CONTROLS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Federal ERNS list</i> | | | | | | | | |
| ERNS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| <i>Lists of state- and tribal (Superfund) equivalent sites</i> | | | | | | | | |
| RESPONSE | 1.000 | | 0 | 0 | 0 | 1 | NR | 1 |
| <i>Lists of state- and tribal hazardous waste facilities</i> | | | | | | | | |
| ENVIROSTOR | 1.000 | | 0 | 0 | 0 | 1 | NR | 1 |
| <i>Lists of state and tribal landfills and solid waste disposal facilities</i> | | | | | | | | |
| SWF/LF | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |

MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|--|-------------------------|-----------------|-------|-----------|-----------|---------|-----|---------------|
| <i>Lists of state and tribal leaking storage tanks</i> | | | | | | | | |
| LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| INDIAN LUST | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| CPS-SLIC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Lists of state and tribal registered storage tanks</i> | | | | | | | | |
| FEMA UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| AST | 0.250 | | 1 | 1 | NR | NR | NR | 2 |
| INDIAN UST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| <i>Lists of state and tribal voluntary cleanup sites</i> | | | | | | | | |
| VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| INDIAN VCP | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Lists of state and tribal brownfield sites</i> | | | | | | | | |
| BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <u>ADDITIONAL ENVIRONMENTAL RECORDS</u> | | | | | | | | |
| <i>Local Brownfield lists</i> | | | | | | | | |
| US BROWNFIELDS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Local Lists of Landfill / Solid Waste Disposal Sites</i> | | | | | | | | |
| WMUDS/SWAT | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| SWRCY | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HAULERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| INDIAN ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| ODI | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| DEBRIS REGION 9 | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| IHS OPEN DUMPS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| <i>Local Lists of Hazardous waste / Contaminated Sites</i> | | | | | | | | |
| US HIST CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST Cal-Sites | 1.000 | | 0 | 0 | 0 | 1 | NR | 1 |
| SCH | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Toxic Pits | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| CERS HAZ WASTE | 0.250 | | 0 | 3 | NR | NR | NR | 3 |
| US CDL | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| <i>Local Lists of Registered Storage Tanks</i> | | | | | | | | |
| SWEEPS UST | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| HIST UST | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| CA FID UST | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| CERS TANKS | 0.250 | | 0 | 1 | NR | NR | NR | 1 |
| <i>Local Land Records</i> | | | | | | | | |
| LIENS | 0.001 | | 0 | NR | NR | NR | NR | 0 |

MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|-------------------------|-----------------|-------|-----------|-----------|---------|-----|---------------|
| LIENS 2 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DEED | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| Records of Emergency Release Reports | | | | | | | | |
| HMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CHMIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| LDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MCS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SPILLS 90 | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Other Ascertainable Records | | | | | | | | |
| RCRA NonGen / NLR | 0.250 | | 3 | 9 | NR | NR | NR | 12 |
| FUDS | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| DOD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| SCRD DRYCLEANERS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| US FIN ASSUR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| EPA WATCH LIST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| 2020 COR ACTION | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| TSCA | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| TRIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SSTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ROD | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| RMP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RAATS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PRP | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PADS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICIS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MLTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH DOE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| COAL ASH EPA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| PCB TRANSFORMER | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RADINFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST FTTS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| DOT OPS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CONSENT | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| INDIAN RESERV | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| FUSRAP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UMTRA | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| LEAD SMELTERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US AIRS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| US MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| ABANDONED MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| FINDS | 0.001 | | 2 | NR | NR | NR | NR | 2 |
| UXO | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| DOCKET HWC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ECHO | 0.001 | | 2 | NR | NR | NR | NR | 2 |
| FUELS PROGRAM | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS NPL | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS FEDERAL SITES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS TSCA | 0.250 | | 0 | 0 | NR | NR | NR | 0 |

MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|-------------------------|-------------------------|-----------------|-------|-----------|-----------|---------|-----|---------------|
| PFAS RCRA MANIFEST | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS ATSDR | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS WQP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS NPDES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS ECHO | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS ECHO FIRE TRAINING | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS PART 139 AIRPORT | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| AQUEOUS FOAM NRC | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| PFAS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| AQUEOUS FOAM | TP | | NR | NR | NR | NR | NR | 0 |
| CA BOND EXP. PLAN | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| Cortese | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| CUPA Listings | 0.250 | | 2 | 4 | NR | NR | NR | 6 |
| DRYCLEANERS | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| EMI | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ENF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| Financial Assurance | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| ICE | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HIST CORTESE | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| HWP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| HWT | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| HAZNET | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MINES | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MWMP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| NPDES | 0.001 | | 1 | NR | NR | NR | NR | 1 |
| PEST LIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROC | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| Notify 65 | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
| UIC | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| UIC GEO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WASTEWATER PITS | 0.500 | | 0 | 0 | 0 | NR | NR | 0 |
| WDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WIP | 0.250 | | 0 | 0 | NR | NR | NR | 0 |
| MILITARY PRIV SITES | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROJECT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WDR | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| CIWQS | 0.001 | | 1 | NR | NR | NR | NR | 1 |
| CERS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| NON-CASE INFO | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| OTHER OIL GAS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| PROD WATER PONDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| SAMPLING POINT | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| WELL STIM PROJ | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| MINES MRDS | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| HWTS | TP | | NR | NR | NR | NR | NR | 0 |

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

| | | | | | | | | |
|---------|-------|--|---|---|---|---|----|---|
| EDR MGP | 1.000 | | 0 | 0 | 0 | 0 | NR | 0 |
|---------|-------|--|---|---|---|---|----|---|

MAP FINDINGS SUMMARY

| Database | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|--|-------------------------------|--------------------|-------|-----------|-----------|---------|-----|------------------|
| EDR Hist Auto | 0.125 | | 1 | NR | NR | NR | NR | 1 |
| EDR Hist Cleaner | 0.125 | | 0 | NR | NR | NR | NR | 0 |
| <u>EDR RECOVERED GOVERNMENT ARCHIVES</u> | | | | | | | | |
| <i>Exclusive Recovered Govt. Archives</i> | | | | | | | | |
| RGA LF | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| RGA LUST | 0.001 | | 0 | NR | NR | NR | NR | 0 |
| - Totals -- | | 0 | 14 | 22 | 0 | 3 | 0 | 39 |

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

| | | | |
|------------------|---|---|-------------------|
| A1 | CROSSFIRE TREE & VEGETATION SERVICES INC | ECHO | 1026209532 |
| | 6480 CLARK ROAD | | N/A |
| < 1/8 | PARADISE, CA 95969 | | |
| 1 ft. | | | |
| | Site 1 of 3 in cluster A | | |
| Relative: | ECHO: | | |
| Higher | Envid: | 1026209532 | |
| | Registry ID: | 110070792468 | |
| Actual: | DFR URL: | http://echo.epa.gov/detailed-facility-report?fid=110070792468 | |
| 2050 ft. | Name: | CROSSFIRE TREE & VEGETATION SERVICES INC | |
| | Address: | 6480 CLARK ROAD | |
| | City,State,Zip: | PARADISE, CA 95969 | |

| | | | |
|------------------|--|-----------------------------------|---------------------|
| B2 | WLM CONSTRUCTION (WILLIAM MARTIN) | RCRA NonGen / NLR | 1025832793 |
| | 6249 PINECREST DRIVE | | CAC003012362 |
| < 1/8 | PARADISE, CA 95969 | | |
| 1 ft. | | | |
| | Site 1 of 3 in cluster B | | |
| Relative: | RCRA Listings: | | |
| Lower | Date Form Received by Agency: | 20190426 | |
| | Handler Name: | WLM CONSTRUCTION (WILLIAM MARTIN) | |
| Actual: | Handler Address: | 6249 PINECREST DRIVE | |
| 2039 ft. | Handler City,State,Zip: | PARADISE, CA 95969 | |
| | EPA ID: | CAC003012362 | |
| | Contact Name: | JEFF SNYDER | |
| | Contact Address: | PO BOX 185 | |
| | Contact City,State,Zip: | COLOMA, CA 95613 | |
| | Contact Telephone: | 530-919-3788 | |
| | Contact Fax: | Not reported | |
| | Contact Email: | OFFICE@JASPACIFICWEST.COM | |
| | Contact Title: | Not reported | |
| | EPA Region: | 09 | |
| | Land Type: | Not reported | |
| | Federal Waste Generator Description: | Not a generator, verified | |
| | Non-Notifier: | Not reported | |
| | Biennial Report Cycle: | Not reported | |
| | Accessibility: | Not reported | |
| | Active Site Indicator: | Handler Activities | |
| | State District Owner: | Not reported | |
| | State District: | Not reported | |
| | Mailing Address: | 6249 PINECREST DRIVE | |
| | Mailing City,State,Zip: | PARADISE, CA 95969 | |
| | Owner Name: | WLM CONSTRUCTION (WILLIAM MARTIN) | |
| | Owner Type: | Other | |
| | Operator Name: | JEFF SNYDER | |
| | Operator Type: | Other | |
| | Short-Term Generator Activity: | No | |
| | Importer Activity: | No | |
| | Mixed Waste Generator: | No | |
| | Transporter Activity: | No | |
| | Transfer Facility Activity: | No | |
| | Recycler Activity with Storage: | No | |
| | Small Quantity On-Site Burner Exemption: | No | |
| | Smelting Melting and Refining Furnace Exemption: | No | |
| | Underground Injection Control: | No | |
| | Off-Site Waste Receipt: | No | |
| | Universal Waste Indicator: | Yes | |
| | Universal Waste Destination Facility: | Yes | |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

WLM CONSTRUCTION (WILLIAM MARTIN) (Continued)

1025832793

| | |
|--|---------------------|
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190627 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|----------------------------------|------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: JEFF SNYDER | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | PO BOX 185 |
| Owner/Operator City,State,Zip: | COLOMA, CA 95613 |
| Owner/Operator Telephone: | 530-919-3788 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WLM CONSTRUCTION (WILLIAM MARTIN) (Continued)

1025832793

Owner/Operator Indicator: Owner
Owner/Operator Name: WLM CONSTRUCTION (WILLIAM MARTIN)
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 6249 PINECREST DRIVE
Owner/Operator City,State,Zip: PARADISE, CA 95969
Owner/Operator Telephone: 530-919-3788
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20190426
Handler Name: WLM CONSTRUCTION (WILLIAM MARTIN)
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

A3 **CROSSFIRE TREE & VEGETATION SERVICES INC**
6480 CLARK ROAD
PARADISE, CA 95969
Site 2 of 3 in cluster A

FINDS 1026436818
N/A

< 1/8
1 ft.

Relative:
Higher

FINDS:
Registry ID: 110070792468

Actual:
2050 ft.

[Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CROSSFIRE TREE & VEGETATION SERVICES INC (Continued)

1026436818

discharge does not adversely affect water quality.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B4 **WLM CONSTRUCTION (WILLIAM MARTIN)**
6249 PINECREST DRIVE
PARADISE, CA 95969

FINDS **1025967518**
N/A

< 1/8
 1 ft.

Site 2 of 3 in cluster B

Relative: **FINDS:**
Lower Registry ID: 110070577191

Actual:
2039 ft. [Click Here for FRS Facility Detail Report:](#)

Environmental Interest/Information System:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A5 **CROSSFIRE TREE & VEGETATION SERVICES INC**
6480 CLARK ROAD
PARADISE, CA 95969

NPDES **S126213948**
CIWQS **N/A**

< 1/8
 1 ft.

Site 3 of 3 in cluster A

Relative: **NPDES:**
Higher Name: CROSSFIRE TREE & VEGETATION SERVICES INC
Actual: Address: 6480 CLARK ROAD
2050 ft. City,State,Zip: PARADISE, CA 95969
 Facility Status: Terminated
 NPDES Number: CAS000001
 Region: 5R
 Agency Number: 0
 Regulatory Measure ID: 516285
 Place ID: Not reported
 Order Number: 97-03-DWQ
 WDID: 5R04I028667
 Regulatory Measure Type: Enrollee
 Program Type: Industrial
 Adoption Date Of Regulatory Measure: Not reported
 Effective Date Of Regulatory Measure: 05/27/2020
 Termination Date Of Regulatory Measure: 05/28/2021
 Expiration Date Of Regulatory Measure: Not reported
 Discharge Address: 3254 Indian Springs Rd
 Discharge Name: Crossfire Tree and Vegetation Services Inc
 Discharge City: Paradise
 Discharge State: California
 Discharge Zip: 95969
 Status: Not reported
 Status Date: Not reported
 Operator Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CROSSFIRE TREE & VEGETATION SERVICES INC (Continued)

S126213948

Operator Address: Not reported
Operator City: Not reported
Operator State: Not reported
Operator Zip: Not reported

CIWQS:

Name: CROSSFIRE TREE & VEGETATION SERVICES INC
Address: 6480 CLARK ROAD
City,State,Zip: PARADISE, CA 95969
Agency: Crossfire Tree and Vegetation Services Inc
Agency Address: 3254 Indian Springs Rd, Paradise, CA 95969
Place/Project Type: Industrial - Logging
SIC/NAICS: 2411
Region: 5R
Program: INDSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 5R04I028667
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 05/27/2020
Termination Date: 05/28/2021
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 39.77255
Longitude: -121.59517

B6 WLM CONSTRUCTION (WILLIAM MARTIN)
6249 PINECREST DRIVE
PARADISE, CA 95969

ECHO 1025500510
N/A

< 1/8
1 ft.

Site 3 of 3 in cluster B

Relative:
Lower
Actual:
2039 ft.

ECHO:
Envid: 1025500510
Registry ID: 110070577191
DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110070577191>
Name: WLM CONSTRUCTION (WILLIAM MARTIN)
Address: 6249 PINECREST DRIVE
City,State,Zip: PARADISE, CA 95969

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

C7
WSW
< 1/8
0.009 mi.
45 ft.

JIFFY LUBE
6420 CLARK ROAD
PARADISE, CA 95696

Site 1 of 3 in cluster C

CUPA Listings **S113014539**
HAZNET **N/A**
HWTS

Relative:
Lower

CUPA BUTTE:

Actual:
2037 ft.

| | |
|------------------|---|
| Name: | JIFFY LUBE STORE #728 |
| Address: | 6420 CLARK RD |
| City,State,Zip: | PARADISE, CA 95969-3502 |
| Program/Element: | GENERAL ABOVEGROUND TANKS |
| Billing Status: | INACTIVE, NON-BILLABLE |
| CERS ID: | Not reported |
| | |
| Name: | JIFFY LUBE STORE #728 |
| Address: | 6420 CLARK RD |
| City,State,Zip: | PARADISE, CA 95969-3502 |
| Program/Element: | B2 - RANGE 0 - 55 - 550 GALLONS |
| Billing Status: | INACTIVE, NON-BILLABLE |
| CERS ID: | Not reported |
| | |
| Name: | JIFFY LUBE STORE #728 |
| Address: | 6420 CLARK RD |
| City,State,Zip: | PARADISE, CA 95969-3502 |
| Program/Element: | HAZ WASTE GENERATOR >1,000 kg/mo (RCRA) |
| Billing Status: | INACTIVE, NON-BILLABLE |
| CERS ID: | Not reported |

HAZNET:

| | |
|------------------|---|
| Name: | JIFFY LUBE |
| Address: | 6420 CLARK ROAD |
| Address 2: | Not reported |
| City,State,Zip: | PARADISE, CA 956960000 |
| Contact: | PAUL SAUBOLLE |
| Telephone: | 9163325353 |
| Mailing Name: | Not reported |
| Mailing Address: | 3628 MADISON AVE SUITE 18 |
| | |
| Year: | 1994 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | Not reported |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | R01 - Recycler |
| Tons: | 3.171 |
| | |
| Year: | 1993 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | COC060042992 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | R01 - Recycler |
| Tons: | 1.764 |
| | |
| Year: | 1993 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | Not reported |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

| | |
|------------------|---|
| Disposal Method: | R01 - Recycler |
| Tons: | 1.2012 |
| Year: | 1993 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | R01 - Recycler |
| Tons: | 0.315 |
| Year: | 1993 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | CAT080025711 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | R01 - Recycler |
| Tons: | 0.483 |
| Year: | 1992 |
| Gepaid: | CAD982328924 |
| TSD EPA ID: | CAT080025711 |
| CA Waste Code: | 134 - Aqueous solution with total organic residues less than 10 percent |
| Disposal Method: | R01 - Recycler |
| Tons: | 0.5212 |

Additional Info:

| | |
|-------------------------|---|
| Year: | 1994 |
| Gen EPA ID: | CAD982328924 |
| Shipment Date: | 19940416 |
| Creation Date: | 10/10/1995 0:00:00 |
| Receipt Date: | 19940616 |
| Manifest ID: | 93201252 |
| Trans EPA ID: | CAT080011059 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSD EPA ID: | Not reported |
| Trans Name: | Not reported |
| TSD EPA ID: | Not reported |
| TSD Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 1.554 |
| Waste Quantity: | 370 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19940215 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

Creation Date: 10/10/1995 0:00:00
Receipt Date: 19940616
Manifest ID: 92694055
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: Not reported
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.924
Waste Quantity: 220
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19940104
Creation Date: 9/15/1995 0:00:00
Receipt Date: 19940226
Manifest ID: 93196242
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: CAD028277036
Trans 2 Name: Not reported
TSDf EPA ID: Not reported
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.693
Waste Quantity: 165
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 1993
Gen EPA ID: CAD982328924

Shipment Date: 19931123
Creation Date: 9/15/1995 0:00:00
Receipt Date: 19940201
Manifest ID: 93197561
Trans EPA ID: CAT080011059
Trans Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

Trans 2 EPA ID: CAD028277036
Trans 2 Name: Not reported
TSDf EPA ID: Not reported
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.5712
Waste Quantity: 136
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19931101
Creation Date: 9/14/1995 0:00:00
Receipt Date: 19931216
Manifest ID: 93197450
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: CAD028277036
Trans 2 Name: Not reported
TSDf EPA ID: Not reported
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.63
Waste Quantity: 150
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19930929
Creation Date: 9/13/1995 0:00:00
Receipt Date: 19931020
Manifest ID: 92695543
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: CAD028277036
Trans 2 Name: Not reported
TSDf EPA ID: COC060042992
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

| | |
|-------------------------|---|
| Quantity Tons: | 0.546 |
| Waste Quantity: | 130 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19930730 |
| Creation Date: | 9/13/1995 0:00:00 |
| Receipt Date: | 19931028 |
| Manifest ID: | 92695558 |
| Trans EPA ID: | CAT080011059 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | COC060042992 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | COC060042992 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.63 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19930512 |
| Creation Date: | 9/8/1995 0:00:00 |
| Receipt Date: | 19930608 |
| Manifest ID: | 92694335 |
| Trans EPA ID: | CAT080011059 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 134 - Aqueous solution with <10% total organic residues |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.315 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

Shipment Date: 19930311
Creation Date: 9/13/1995 0:00:00
Receipt Date: Not reported
Manifest ID: 92692628
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: CAD006913206
Trans 2 Name: Not reported
TSDf EPA ID: COC060042992
Trans Name: Not reported
TSDf Alt EPA ID: COC060042992
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.588
Waste Quantity: 140
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19930104
Creation Date: 9/5/1995 0:00:00
Receipt Date: 19930111
Manifest ID: 92054857
Trans EPA ID: CAT080011059
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAT080025711
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 134 - Aqueous solution with <10% total organic residues
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.483
Waste Quantity: 115
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

HWTS:

Name: JIFFY LUBE
Address: 6420 CLARK ROAD
Address 2: Not reported
City, State, Zip: PARADISE, CA 95696
EPA ID: CAD982328924
Inactive Date: 06/30/1994
Create Date: 06/17/1988
Last Act Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE (Continued)

S113014539

Mailing Name: Not reported
Mailing Address: 3628 MADISON AVE SUITE 18
Mailing Address 2: Not reported
Mailing City,State,Zip: NORTH HIGHLANDS, CA 956600000
Owner Name: Not reported
Owner Address: Not reported
Owner Address 2: Not reported
Owner City,State,Zip: Not reported
Contact Name: PAUL SAUBOLLE
Contact Address: UNDELIVERABLE PER FEES 6/94
Contact Address 2: Not reported
City,State,Zip: JAMES/GEN MNGR
Facility Status: Inactive
Facility Type: PERMANENT
Category: STATE
Latitude: 39.77125
Longitude: -121.596817

C8
WSW
< 1/8
0.009 mi.
45 ft.

JIFFY LUBE STORE # 728
6420 CLARK RD.
PARADISE, CA
Site 2 of 3 in cluster C

AST A100108783
N/A

Relative:
Lower
Actual:
2037 ft.

AST:
Name: JIFFY LUBE STORE # 728
Address: 6420 CLARK RD.
City/Zip: PARADISE,
Certified Unified Program Agencies: Butte
Owner: JIFFY LUBE INTERNATIONAL, INC.
Total Gallons: 5,500
CERSID: Not reported
Facility ID: Not reported
Business Name: Not reported
Phone: Not reported
Fax: Not reported
Mailing Address: Not reported
Mailing Address City: Not reported
Mailing Address State: Not reported
Mailing Address Zip Code: Not reported
Operator Name: Not reported
Operator Phone: Not reported
Owner Phone: Not reported
Owner Mail Address: Not reported
Owner State: Not reported
Owner Zip Code: Not reported
Owner Country: Not reported
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported
Property Owner Country: Not reported
EPAID: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

C9
WSW
< 1/8
0.009 mi.
45 ft.

JIFFY LUBE INTERNATIONAL 728
6420 CLARK RD
PARADISE, CA 95967

Site 3 of 3 in cluster C

RCRA-SQG **1000686396**
HAZNET **CAD983636796**
HWTS

Relative:
Lower

Actual:
2037 ft.

RCRA Listings:
 Date Form Received by Agency: 19920417
 Handler Name: JIFFY LUBE INTERNATIONAL 728
 Handler Address: 6420 CLARK RD
 Handler City,State,Zip: PARADISE, CA 95967
 EPA ID: CAD983636796
 Contact Name: ROBERT WILLIAMS
 Contact Address: 6420 CLARK RD
 Contact City,State,Zip: PARADISE, CA 95823
 Contact Telephone: 916-877-5823
 Contact Fax: Not reported
 Contact Email: Not reported
 Contact Title: Not reported
 EPA Region: 09
 Land Type: Private
 Federal Waste Generator Description: Small Quantity Generator
 Non-Notifier: Not reported
 Biennial Report Cycle: Not reported
 Accessibility: Not reported
 Active Site Indicator: Handler Activities
 State District Owner: Not reported
 State District: Not reported
 Mailing Address: 6420 CLARK RD
 Mailing City,State,Zip: PARADISE, CA 95967
 Owner Name: PENNZOIL COMPANY
 Owner Type: Private
 Operator Name: Not reported
 Operator Type: Not reported
 Short-Term Generator Activity: No
 Importer Activity: No
 Mixed Waste Generator: No
 Transporter Activity: No
 Transfer Facility Activity: No
 Recycler Activity with Storage: No
 Small Quantity On-Site Burner Exemption: No
 Smelting Melting and Refining Furnace Exemption: No
 Underground Injection Control: No
 Off-Site Waste Receipt: No
 Universal Waste Indicator: No
 Universal Waste Destination Facility: No
 Federal Universal Waste: No
 Active Site Fed-Reg Treatment Storage and Disposal Facility: Not reported
 Active Site Converter Treatment storage and Disposal Facility: Not reported
 Active Site State-Reg Treatment Storage and Disposal Facility: Not reported
 Active Site State-Reg Handler: ---
 Federal Facility Indicator: Not reported
 Hazardous Secondary Material Indicator: NN
 Sub-Part K Indicator: Not reported
 Commercial TSD Indicator: No
 Treatment Storage and Disposal Type: Not reported
 2018 GPRA Permit Baseline: Not on the Baseline
 2018 GPRA Renewals Baseline: Not on the Baseline
 Permit Renewals Workload Universe: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|---|------------------|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20020627 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | Not reported |
| Manifest Broker: | Not reported |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|--------------------------------|------------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | PENNZOIL COMPANY |
| Legal Status: | Private |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P O BOX 2967 FLOOR 12 |
| Owner/Operator City,State,Zip: | HOUSTON, TX 77252-2967 |
| Owner/Operator Telephone: | 713-546-4439 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|------------------------------|
| Receive Date: | 19920417 |
| Handler Name: | JIFFY LUBE INTERNATIONAL 728 |
| Federal Waste Generator Description: | Small Quantity Generator |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|--|--|
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |
| List of NAICS Codes and Descriptions: | |
| NAICS Codes: | No NAICS Codes Found |
| Facility Has Received Notices of Violations: | |
| Violations: | No Violations Found |
| Evaluation Action Summary: | |
| Evaluations: | No Evaluations Found |
| HAZNET: | |
| Name: | JIFFY LUBE INTERNATIONAL 728 |
| Address: | 6420 CLARK RD |
| Address 2: | Not reported |
| City,State,Zip: | PARADISE, CA 959693502 |
| Contact: | RICHARD GUYNN |
| Telephone: | 5308775823 |
| Mailing Name: | Not reported |
| Mailing Address: | 6420 CLARK RD |
| Year: | 2006 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 0.663 |
| Year: | 2005 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 2.873 |
| Year: | 2004 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD982444481 |
| CA Waste Code: | 352 - Other organic solids |
| Disposal Method: | R01 - Recycler |
| Tons: | 0.02 |
| Year: | 2004 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 5.729 |
| Year: | 2003 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|------------------|--|
| Disposal Method: | R01 - Recycler |
| Tons: | 6.46 |
| Year: | 2002 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 4.012 |
| Year: | 2001 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 2.839 |
| Year: | 2001 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD980694103 |
| CA Waste Code: | 223 - Unspecified oil-containing waste |
| Disposal Method: | - |
| Tons: | 1.3552 |
| Year: | 2000 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 2.482 |
| Year: | 1999 |
| Gepaid: | CAD983636796 |
| TSD EPA ID: | CAD009452657 |
| CA Waste Code: | 343 - Unspecified organic liquid mixture |
| Disposal Method: | R01 - Recycler |
| Tons: | 3.689 |

[Click this hyperlink](#) while viewing on your computer to access 6 additional CA HAZNET: record(s) in the EDR Site Report.

Additional Info:

| | |
|------------------|----------------------------------|
| Year: | 2006 |
| Gen EPA ID: | CAD983636796 |
| Shipment Date: | 20060228 |
| Creation Date: | 7/5/2006 12:04:51 |
| Receipt Date: | 20060228 |
| Manifest ID: | 22420913 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| TSDF Alt EPA ID: | CAD009452657 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.221 |
| Waste Quantity: | 65 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20060201 |
| Creation Date: | 5/27/2006 18:30:56 |
| Receipt Date: | 20060201 |
| Manifest ID: | 24692660 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.102 |
| Waste Quantity: | 30 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20060104 |
| Creation Date: | 7/11/2006 18:33:41 |
| Receipt Date: | 20060105 |
| Manifest ID: | 22421431 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECH |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECH |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |

Map ID
Direction
Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2005
Gen EPA ID: CAD983636796

Shipment Date: 20051108
Creation Date: 3/14/2007 18:30:14
Receipt Date: 20051109
Manifest ID: 24693523
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.408
Waste Quantity: 120
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20050914
Creation Date: 1/13/2006 15:15:13
Receipt Date: 20050915
Manifest ID: 24544102
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.34
Waste Quantity: 100
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20050809

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Creation Date: | 4/13/2006 18:46:51 |
| Receipt Date: | 20050811 |
| Manifest ID: | 24438296 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECH |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECH |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20050623 |
| Creation Date: | 10/11/2005 18:32:36 |
| Receipt Date: | 20050627 |
| Manifest ID: | 24536841 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20050428 |
| Creation Date: | 8/24/2005 7:27:35 |
| Receipt Date: | 20050503 |
| Manifest ID: | 24433812 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20050330 |
| Creation Date: | 7/21/2005 18:31:13 |
| Receipt Date: | 20050330 |
| Manifest ID: | 24441351 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.17 |
| Waste Quantity: | 50 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20050302 |
| Creation Date: | 5/27/2005 18:30:29 |
| Receipt Date: | 20050302 |
| Manifest ID: | 24437652 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.595 |
| Waste Quantity: | 175 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2004
Gen EPA ID: CAD983636796

Shipment Date: 20041208
Creation Date: 2/17/2005 18:31:05
Receipt Date: 20041208
Manifest ID: 23892583
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: NONE
Meth Code: R01 - Recycler
Quantity Tons: 0.442
Waste Quantity: 130
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20041102
Creation Date: 12/31/2004 18:31:40
Receipt Date: 20041102
Manifest ID: 24107027
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: NONE
Meth Code: R01 - Recycler
Quantity Tons: 0.476
Waste Quantity: 140
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Shipment Date: | 20041012 |
| Creation Date: | 1/10/2005 18:31:02 |
| Receipt Date: | 20041025 |
| Manifest ID: | 23560669 |
| Trans EPA ID: | CAR000129304 |
| Trans Name: | FILTER RECYCLING SVS INC-NO |
| Trans 2 EPA ID: | CAD982444481 |
| Trans 2 Name: | FILTER RECYCLING SERVICES INC |
| TSDf EPA ID: | CAD982444481 |
| Trans Name: | FILTER RECYCLING SERVICES INC |
| TSDf Alt EPA ID: | CAD982444481 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20041006 |
| Creation Date: | 1/6/2005 18:32:03 |
| Receipt Date: | 20041006 |
| Manifest ID: | 23891840 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.255 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20040908 |
| Creation Date: | 12/28/2004 14:46:39 |
| Receipt Date: | 20040909 |
| Manifest ID: | 23880897 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: NONE
Meth Code: R01 - Recycler
Quantity Tons: 0.153
Waste Quantity: 45
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20040824
Creation Date: 12/28/2004 14:47:40
Receipt Date: 20040827
Manifest ID: 23560493
Trans EPA ID: CAR000129304
Trans Name: FILTER RECYCLING SVS INC-NO
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD982444481
Trans Name: FILTER RECYCLING SERVICES INC
TSDf Alt EPA ID: CAD982444481
TSDf Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: NONE
Meth Code: R01 - Recycler
Quantity Tons: 0.01
Waste Quantity: 20
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20040810
Creation Date: 11/5/2004 18:30:59
Receipt Date: 20040810
Manifest ID: 23578679
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: NONE
Meth Code: R01 - Recycler
Quantity Tons: 0.17
Waste Quantity: 50
Quantity Unit: G

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20040716 |
| Creation Date: | 11/1/2004 12:36:11 |
| Receipt Date: | 20040716 |
| Manifest ID: | 23881738 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | NONE |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.595 |
| Waste Quantity: | 175 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20040611 |
| Creation Date: | 10/29/2004 7:40:51 |
| Receipt Date: | 20040611 |
| Manifest ID: | 22975324 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.187 |
| Waste Quantity: | 55 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20040513 |
| Creation Date: | 10/14/2004 15:19:37 |
| Receipt Date: | 20040513 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Manifest ID: 23435037
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.595
Waste Quantity: 175
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2003
Gen EPA ID: CAD983636796

Shipment Date: 20031204
Creation Date: 8/9/2004 8:48:13
Receipt Date: 20031205
Manifest ID: 23328693
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENT TECHNOLOGIES
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.34
Waste Quantity: 100
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20031112
Creation Date: 8/20/2004 8:27:39
Receipt Date: 20031113
Manifest ID: 23326956
Trans EPA ID: CAD009452657
Trans Name: ROMIC ENVIRONMENTAL TECHNOLOGIES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20030930 |
| Creation Date: | 7/13/2004 10:48:19 |
| Receipt Date: | 20031001 |
| Manifest ID: | 22969158 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENTAL TECHNOLOGIES |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | ROMIC ENVIRONMENT TECHNOLOGIES |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20030825 |
| Creation Date: | 7/29/2004 7:43:17 |
| Receipt Date: | 20030825 |
| Manifest ID: | 22973157 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20030806 |
| Creation Date: | 7/26/2004 18:30:41 |
| Receipt Date: | 20030807 |
| Manifest ID: | 22969864 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.425 |
| Waste Quantity: | 125 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20030715 |
| Creation Date: | 7/22/2004 9:56:39 |
| Receipt Date: | 20030716 |
| Manifest ID: | 22425733 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20030616 |
| Creation Date: | 7/20/2004 10:01:52 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Receipt Date: 20030616
Manifest ID: 22425329
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 1.275
Waste Quantity: 375
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20030410
Creation Date: 6/21/2003 18:30:56
Receipt Date: 20030411
Manifest ID: 22427707
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.68
Waste Quantity: 200
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20030311
Creation Date: 3/16/2007 18:30:32
Receipt Date: 20030312
Manifest ID: 22619196
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.425
Waste Quantity: 125
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20030206
Creation Date: 5/18/2003 14:28:17
Receipt Date: 20030207
Manifest ID: 22611972
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD009452657
Trans Name: Not reported
TSDF Alt EPA ID: CAD009452657
TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.425
Waste Quantity: 125
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2002
Gen EPA ID: CAD983636796

Shipment Date: 20021202
Creation Date: 3/15/2003 18:31:28
Receipt Date: 20021203
Manifest ID: 22172744
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD009452657
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.34

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20021111 |
| Creation Date: | 2/21/2003 10:41:38 |
| Receipt Date: | 20021112 |
| Manifest ID: | 22172172 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.68 |
| Waste Quantity: | 200 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20020911 |
| Creation Date: | 1/27/2003 18:32:25 |
| Receipt Date: | 20020912 |
| Manifest ID: | 22232902 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.289 |
| Waste Quantity: | 85 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20020819 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Creation Date: 3/13/2003 18:31:17
Receipt Date: 20020820
Manifest ID: 22234429
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.255
Waste Quantity: 75
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20020805
Creation Date: 3/12/2003 18:31:29
Receipt Date: 20020806
Manifest ID: 21750581
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.34
Waste Quantity: 100
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20020709
Creation Date: 8/29/2002 18:31:58
Receipt Date: 20020710
Manifest ID: 21753693
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.714
Waste Quantity: 210
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20020509
Creation Date: 7/17/2002 18:34:52
Receipt Date: 20020510
Manifest ID: 21380522
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD009452657
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.391
Waste Quantity: 115
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20020409
Creation Date: 7/17/2002 18:33:08
Receipt Date: 20020409
Manifest ID: 21545342
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD009452657
Trans Name: Not reported
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.255
Waste Quantity: 75
Quantity Unit: G
Additional Code 1: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

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| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20020313 |
| Creation Date: | 7/17/2002 18:31:10 |
| Receipt Date: | 20020313 |
| Manifest ID: | 21602211 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20020212 |
| Creation Date: | 6/28/2002 18:31:15 |
| Receipt Date: | 20020213 |
| Manifest ID: | 21683724 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.238 |
| Waste Quantity: | 70 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Additional Info: | |
| Year: | 2001 |
| Gen EPA ID: | CAD983636796 |

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Shipment Date: 20011108
Creation Date: 1/16/2002 0:00:00
Receipt Date: 20011109
Manifest ID: 21423925
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.374
Waste Quantity: 110
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20010913
Creation Date: 11/1/2001 0:00:00
Receipt Date: 20010914
Manifest ID: 21039354
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.765
Waste Quantity: 225
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20010627
Creation Date: 8/24/2001 0:00:00
Receipt Date: 20010629
Manifest ID: 20714132
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.799
Waste Quantity: 235
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20010615
Creation Date: 8/24/2001 0:00:00
Receipt Date: 20010615
Manifest ID: 21162411
Trans EPA ID: CAD980694103
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980694103
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 223 - Unspecified oil-containing waste
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 1.3552
Waste Quantity: 325
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20010402
Creation Date: 5/31/2001 0:00:00
Receipt Date: 20010402
Manifest ID: 20310274
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.646
Waste Quantity: 190
Quantity Unit: G

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20010117 |
| Creation Date: | 3/22/2001 0:00:00 |
| Receipt Date: | 20010119 |
| Manifest ID: | 20873354 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.255 |
| Waste Quantity: | 75 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Additional Info: | |
| Year: | 2000 |
| Gen EPA ID: | CAD983636796 |
| Shipment Date: | 20001211 |
| Creation Date: | 3/5/2001 0:00:00 |
| Receipt Date: | 20001218 |
| Manifest ID: | 20876911 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Shipment Date: 20001023
Creation Date: 1/9/2001 0:00:00
Receipt Date: 20001025
Manifest ID: 20311562
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.272
Waste Quantity: 80
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20000918
Creation Date: 11/14/2000 0:00:00
Receipt Date: 20000921
Manifest ID: 20308339
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.51
Waste Quantity: 150
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20000615
Creation Date: 8/14/2000 0:00:00
Receipt Date: 20000615
Manifest ID: 20068008
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.68 |
| Waste Quantity: | 200 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20000222 |
| Creation Date: | 6/21/2000 0:00:00 |
| Receipt Date: | 20000519 |
| Manifest ID: | 99595141 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.51 |
| Waste Quantity: | 150 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Additional Info: | |
| Year: | 1999 |
| Gen EPA ID: | CAD983636796 |
| Shipment Date: | 19991216 |
| Creation Date: | 2/28/2000 0:00:00 |
| Receipt Date: | 19991217 |
| Manifest ID: | 99549877 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | CAD009452657 |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.714 |
| Waste Quantity: | 210 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19991007 |
| Creation Date: | 1/4/2000 0:00:00 |
| Receipt Date: | 19991007 |
| Manifest ID: | 99075711 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.68 |
| Waste Quantity: | 200 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19990803 |
| Creation Date: | 9/21/1999 0:00:00 |
| Receipt Date: | 19990804 |
| Manifest ID: | 99434538 |
| Trans EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 1.02 |
| Waste Quantity: | 300 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Shipment Date: 19990513
Creation Date: 7/19/1999 0:00:00
Receipt Date: 19990514
Manifest ID: 99135194
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.391
Waste Quantity: 115
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19990329
Creation Date: 5/17/1999 0:00:00
Receipt Date: 19990331
Manifest ID: 98049041
Trans EPA ID: CAD009452657
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.884
Waste Quantity: 260
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 1998
Gen EPA ID: CAD983636796

Shipment Date: 19981203
Creation Date: 1/13/1999 0:00:00
Receipt Date: 19981208
Manifest ID: 98837254
Trans EPA ID: CAD981694664

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 1.156 |
| Waste Quantity: | 340 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19980825 |
| Creation Date: | 11/2/1998 0:00:00 |
| Receipt Date: | 19980827 |
| Manifest ID: | 98056619 |
| Trans EPA ID: | CAD981694664 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.425 |
| Waste Quantity: | 125 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19980709 |
| Creation Date: | 9/3/1998 0:00:00 |
| Receipt Date: | 19980710 |
| Manifest ID: | 98056315 |
| Trans EPA ID: | CAD981694664 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

| | |
|-------------------------|--|
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.85 |
| Waste Quantity: | 250 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19980416 |
| Creation Date: | 5/26/1998 0:00:00 |
| Receipt Date: | 19980417 |
| Manifest ID: | 96876832 |
| Trans EPA ID: | CAD981694664 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.34 |
| Waste Quantity: | 100 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19980306 |
| Creation Date: | 5/8/1998 0:00:00 |
| Receipt Date: | 19980309 |
| Manifest ID: | 96875108 |
| Trans EPA ID: | CAD981694664 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD009452657 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD009452657 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 343 - Unspecified organic liquid mixture |
| RCRA Code: | Not reported |
| Meth Code: | R01 - Recycler |
| Quantity Tons: | 0.476 |
| Waste Quantity: | 140 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Shipment Date: 19980121
Creation Date: 3/31/1998 0:00:00
Receipt Date: 19980123
Manifest ID: 96876014
Trans EPA ID: CAD981694664
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 1.02
Waste Quantity: 300
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 1997
Gen EPA ID: CAD983636796

Shipment Date: 19971021
Creation Date: 7/23/1998 0:00:00
Receipt Date: 19971022
Manifest ID: 96878920
Trans EPA ID: CAD981694664
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.68
Waste Quantity: 200
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19970729
Creation Date: 12/4/1997 0:00:00
Receipt Date: 19970730
Manifest ID: 96749565
Trans EPA ID: CAD981694664

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.476
Waste Quantity: 140
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19970530
Creation Date: 7/17/1997 0:00:00
Receipt Date: 19970602
Manifest ID: 96753575
Trans EPA ID: CAD981694664
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.374
Waste Quantity: 110
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19970407
Creation Date: 6/26/1997 0:00:00
Receipt Date: 19970408
Manifest ID: 96752167
Trans EPA ID: CAD981694664
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: CAD009452657
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Meth Code: R01 - Recycler
Quantity Tons: 0.255
Waste Quantity: 75
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19970114
Creation Date: 5/20/1997 0:00:00
Receipt Date: 19970115
Manifest ID: 96273245
Trans EPA ID: CAD981694664
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD009452657
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: R01 - Recycler
Quantity Tons: 0.544
Waste Quantity: 160
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

HWTS:

Name: JIFFY LUBE INTERNATIONAL 728
Address: 6420 CLARK RD
Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
EPA ID: CAD983636796
Inactive Date: 06/30/2005
Create Date: 04/17/1992
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 6420 CLARK RD
Mailing Address 2: Not reported
Mailing City,State,Zip: PARADISE, CA 959693502
Owner Name: JIFFY LUBE INTERNATIONAL INC
Owner Address: PO BOX 4427
Owner Address 2: Not reported
Owner City,State,Zip: PARADISE, CA 95823
Contact Name: RICHARD GUYNN
Contact Address: 6420 CLARK RD
Contact Address 2: Not reported
City,State,Zip: PARADISE, CA 959693502
Facility Status: Inactive
Facility Type: PERMANENT

Map ID
 Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

JIFFY LUBE INTERNATIONAL 728 (Continued)

1000686396

Category: FEDERAL
 Latitude: 39.771254
 Longitude: -121.596884

NAICS:
 EPA ID: CAD983636796
 Create Date: 2004-10-20 10:23:57.043
 NAICS Code: 811198
 NAICS Description: All Other Automotive Repair and Maintenance
 Issued EPA ID Date: 1992-04-17 00:00:00
 Inactive Date: 2005-06-30 00:00:00
 Facility Name: JIFFY LUBE INTERNATIONAL 728
 Facility Address: 6420 CLARK RD
 Facility Address 2: Not reported
 Facility City: PARADISE
 Facility County: Not reported
 Facility State: CA
 Facility Zip: 959693502

10
South
< 1/8
0.055 mi.
291 ft.

RIDGE MARINE
6171 N LIBBY RD
PARADISE, CA 95969

RCRA NonGen / NLR

1024826840
CAL000355256

Relative:
Higher
Actual:
2044 ft.

RCRA Listings:
 Date Form Received by Agency: 20100729
 Handler Name: RIDGE MARINE
 Handler Address: 6171 N LIBBY RD
 Handler City,State,Zip: PARADISE, CA 95969
 EPA ID: CAL000355256
 Contact Name: PAUL FLEMING
 Contact Address: 6171 N LIBBY RD
 Contact City,State,Zip: PARADISE, CA 95969
 Contact Telephone: 530-877-1766
 Contact Fax: 000-000-0000
 Contact Email: RIDGEMARINE@SBCGLOBAL.NET
 Contact Title: Not reported
 EPA Region: 09
 Land Type: Not reported
 Federal Waste Generator Description: Not a generator, verified
 Non-Notifier: Not reported
 Biennial Report Cycle: Not reported
 Accessibility: Not reported
 Active Site Indicator: Handler Activities
 State District Owner: Not reported
 State District: Not reported
 Mailing Address: 6171 N LIBBY RD
 Mailing City,State,Zip: PARADISE, CA 95969-0000
 Owner Name: RIDGE MARINE/P DANIEL FLEMING
 Owner Type: Other
 Operator Name: PAUL FLEMING
 Operator Type: Other
 Short-Term Generator Activity: No
 Importer Activity: No
 Mixed Waste Generator: No
 Transporter Activity: No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RIDGE MARINE (Continued)

1024826840

| | |
|--|---------------------|
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRC Permit Baseline: | Not on the Baseline |
| 2018 GPRC Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRC Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDs Where RCRA CA has Been Imposed Universe: | No |
| TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSD Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180905 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

| | |
|-----------------------------------|----------|
| Handler - Owner Operator: | |
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: PAUL FLEMING | |
| Legal Status: | Other |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIDGE MARINE (Continued)

1024826840

| | |
|--------------------------------|-------------------------------|
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6171 N LIBBY RD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969 |
| Owner/Operator Telephone: | 530-877-1766 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | RIDGE MARINE/P DANIEL FLEMING |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6171 N LIBBY RD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969-0000 |
| Owner/Operator Telephone: | 530-877-1766 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|---------------------------|
| Receive Date: | 20100729 |
| Handler Name: | RIDGE MARINE |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|--------------------|---------------------------|
| NAICS Code: | 811111 |
| NAICS Description: | GENERAL AUTOMOTIVE REPAIR |

Facility Has Received Notices of Violations:

| | |
|-------------|---------------------|
| Violations: | No Violations Found |
|-------------|---------------------|

Evaluation Action Summary:

| | |
|--------------|----------------------|
| Evaluations: | No Evaluations Found |
|--------------|----------------------|

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D11
WSW
< 1/8
0.097 mi.
510 ft.

J D SERVICE
6390 CLARK
PARADISE, CA 95969

EDR Hist Auto 1020709421
N/A

Relative:
Lower

EDR Hist Auto

Actual:
2019 ft.

| Year: | Name: | Type: |
|-------|--------------------------|---------------------------------|
| 1969 | DARE JOHN SERVICE | Gasoline Service Stations |
| 1970 | DARE JOHN SERVICE | Gasoline Service Stations |
| 1971 | J D SERVICE | Gasoline Service Stations |
| 1972 | J D SERVICE | Gasoline Service Stations |
| 1973 | J D SERVICE | Gasoline Service Stations |
| 1979 | MYERS AUTOMOTIVE SERVICE | Gasoline Service Stations |
| 1980 | MYERS AUTOMOTIVE SERVICE | Gasoline Service Stations |
| 1996 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 1997 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 1998 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 1999 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 2000 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 2001 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 2002 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |
| 2003 | CHARLIES AUTO REPAIR | General Automotive Repair Shops |

D12
SW
< 1/8
0.105 mi.
556 ft.

DAN'S AUTO & OFF ROAD
1326 BILLE RD
PARADISE, CA 95969

CUPA Listings S110818878
N/A

Relative:
Lower

CUPA BUTTE:

Actual:
2014 ft.

| | |
|------------------|---------------------------------|
| Name: | DAN'S AUTO & OFF ROAD |
| Address: | 1326 BILLE RD |
| City,State,Zip: | PARADISE, CA 95969 |
| Program/Element: | HAZ WASTE GEN < THAN 100 kg/mo |
| Billing Status: | ACTIVE, BILLABLE |
| CERS ID: | 10278535 |
| Name: | DAN'S AUTO & OFF ROAD |
| Address: | 1326 BILLE RD |
| City,State,Zip: | PARADISE, CA 95969 |
| Program/Element: | B1 - RANGE 0 - 55 - 550 GALLONS |
| Billing Status: | INACTIVE, NON-BILLABLE |
| CERS ID: | 10278535 |

13
SE
< 1/8
0.109 mi.
578 ft.

NICKI JONES
6174 OPAL
PARADISE, CA 95969

RCRA NonGen / NLR 1024782335
CAC003002313

Relative:
Lower

RCRA Listings:

Actual:
2040 ft.

| | |
|-------------------------------|--------------------|
| Date Form Received by Agency: | 20190222 |
| Handler Name: | NICKI JONES |
| Handler Address: | 6174 OPAL |
| Handler City,State,Zip: | PARADISE, CA 95969 |
| EPA ID: | CAC003002313 |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NICKI JONES (Continued)

1024782335

| | | |
|--|--------------|---------------------------|
| Contact Name: | | WALBERG INC. |
| Contact Address: | | 6041 99W |
| Contact City,State,Zip: | | CORNING, CA 96021 |
| Contact Telephone: | | 530-824-0773 |
| Contact Fax: | | Not reported |
| Contact Email: | | KEVIN@WARRENASBESTOS.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | P.O. BOX 367 |
| Mailing City,State,Zip: | | ORLAND, CA 95963 |
| Owner Name: | NICKI JONES | |
| Owner Type: | | Other |
| Operator Name: | WALBERG INC. | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRA Permit Baseline: | | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |
| Permit Workload Universe: | | Not reported |
| Permit Progress Universe: | | Not reported |
| Post-Closure Workload Universe: | | Not reported |
| Closure Workload Universe: | | Not reported |
| 202 GPRA Corrective Action Baseline: | | No |
| Corrective Action Workload Universe: | | No |
| Subject to Corrective Action Universe: | | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | | No |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NICKI JONES (Continued)

1024782335

| | |
|---|------------------|
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190222 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|-----------------------------------|-------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: WALBERG INC. | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6041 99W |
| Owner/Operator City,State,Zip: | CORNING, CA 96021 |
| Owner/Operator Telephone: | 530-824-0773 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|----------------------------------|------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: NICKI JONES | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P.O. BOX 367 |
| Owner/Operator City,State,Zip: | ORLAND, CA 95963 |
| Owner/Operator Telephone: | 530-520-1019 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|---------------------------|
| Receive Date: | 20190222 |
| Handler Name: NICKI JONES | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

NICKI JONES (Continued)

1024782335

Spent Lead Acid Battery Exporter: No
 Current Record: Yes
 Non Storage Recycler Activity: Not reported
 Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
 NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

14
SE
1/8-1/4
0.165 mi.
872 ft.

ADELAIDE HARDT
6170 ALAMO WAY
PARADISE, CA 95969

RCRA NonGen / NLR

1024781888
CAC003001857

Relative:
Lower
Actual:
2039 ft.

RCRA Listings:

Date Form Received by Agency: 20190220
 Handler Name: ADELAIDE HARDT
 Handler Address: 6170 ALAMO WAY
 Handler City,State,Zip: PARADISE, CA 95969
 EPA ID: CAC003001857
 Contact Name: ADELAIDE HARDT
 Contact Address: 4039 VIN ESTRELLA
 Contact City,State,Zip: MARTINEZ, CA 94553
 Contact Telephone: 925-470-5492
 Contact Fax: Not reported
 Contact Email: HIBBARD13@YAHOO.COM
 Contact Title: Not reported
 EPA Region: 09
 Land Type: Not reported
 Federal Waste Generator Description: Not a generator, verified
 Non-Notifier: Not reported
 Biennial Report Cycle: Not reported
 Accessibility: Not reported
 Active Site Indicator: Handler Activities
 State District Owner: Not reported
 State District: Not reported
 Mailing Address: 4039 VIN ESTRELLA
 Mailing City,State,Zip: MARTINEZ, CA 94553
 Owner Name: ADELAIDE HARDT
 Owner Type: Other
 Operator Name: ADELAIDE HARDT
 Operator Type: Other
 Short-Term Generator Activity: No
 Importer Activity: No
 Mixed Waste Generator: No
 Transporter Activity: No
 Transfer Facility Activity: No
 Recycler Activity with Storage: No

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ADELAIDE HARDT (Continued)

1024781888

| | |
|--|---------------------|
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | Yes |
| Universal Waste Destination Facility: | Yes |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190222 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|-------------------------------------|--------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: ADELAIDE HARDT | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ADELAIDE HARDT (Continued)

1024781888

Owner/Operator Address: 4039 VIN ESTRELLA
 Owner/Operator City,State,Zip: MARTINEZ, CA 94553
 Owner/Operator Telephone: 925-470-5492
 Owner/Operator Telephone Ext: Not reported
 Owner/Operator Fax: Not reported
 Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator

Owner/Operator Name: ADELAIDE HARDT

Legal Status: Other

Date Became Current: Not reported

Date Ended Current: Not reported

Owner/Operator Address: 4039 VIN ESTRELLA

Owner/Operator City,State,Zip: MARTINEZ, CA 94553

Owner/Operator Telephone: 925-470-5492

Owner/Operator Telephone Ext: Not reported

Owner/Operator Fax: Not reported

Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20190220
 Handler Name: ADELAIDE HARDT
 Federal Waste Generator Description: Not a generator, verified
 State District Owner: Not reported
 Large Quantity Handler of Universal Waste: No
 Recognized Trader Importer: No
 Recognized Trader Exporter: No
 Spent Lead Acid Battery Importer: No
 Spent Lead Acid Battery Exporter: No
 Current Record: Yes
 Non Storage Recycler Activity: Not reported
 Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
 NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

E15
NNE
1/8-1/4
0.172 mi.
908 ft.

DOLLAR GENERAL #14865
6574 CLARK RD
PARADISE, CA 95969
Site 1 of 3 in cluster E

RCRA NonGen / NLR 1024849543
CAL000406267

Relative:
Higher
Actual:
2079 ft.

RCRA Listings:
 Date Form Received by Agency: 20150422
 Handler Name: DOLLAR GENERAL #14865
 Handler Address: 6574 CLARK RD
 Handler City,State,Zip: PARADISE, CA 95969
 EPA ID: CAL000406267

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DOLLAR GENERAL #14865 (Continued)

1024849543

| | | |
|--|-----------------|---------------------------------|
| Contact Name: | | KRISTIN ELLIOTT |
| Contact Address: | | 100 MISSION RIDGE |
| Contact City,State,Zip: | | GOODLETTSVILLE, TN 37072 |
| Contact Telephone: | | 615-855-5365 |
| Contact Fax: | | Not reported |
| Contact Email: | | ENVCOMPLIANCE@DOLLARGENERAL.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 100 MISSION RDG |
| Mailing City,State,Zip: | | GOODLETTSVILLE, TN 37072-2171 |
| Owner Name: | DOLLAR GENERAL | |
| Owner Type: | | Other |
| Operator Name: | KRISTIN ELLIOTT | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRA Permit Baseline: | | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |
| Permit Workload Universe: | | Not reported |
| Permit Progress Universe: | | Not reported |
| Post-Closure Workload Universe: | | Not reported |
| Closure Workload Universe: | | Not reported |
| 202 GPRA Corrective Action Baseline: | | No |
| Corrective Action Workload Universe: | | No |
| Subject to Corrective Action Universe: | | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | | No |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DOLLAR GENERAL #14865 (Continued)

1024849543

| | |
|---|------------------|
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|-------------------------------------|-------------------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: DOLLAR GENERAL | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 100 MISSION RDG |
| Owner/Operator City,State,Zip: | GOODLETTSVILLE, TN 37072-2171 |
| Owner/Operator Telephone: | 615-855-4000 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|--------------------------------------|--------------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: KRISTIN ELLIOTT | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 100 MISSION RIDGE |
| Owner/Operator City,State,Zip: | GOODLETTSVILLE, TN 37072 |
| Owner/Operator Telephone: | 615-855-5365 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|---------------------------|
| Receive Date: | 20150422 |
| Handler Name: DOLLAR GENERAL #14865 | |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DOLLAR GENERAL #14865 (Continued)

1024849543

Spent Lead Acid Battery Exporter: No
 Current Record: Yes
 Non Storage Recycler Activity: Not reported
 Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
 NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

E16
NNE
1/8-1/4
0.172 mi.
908 ft.
Relative:
Higher
Actual:
2079 ft.

DOLLAR GENERAL #14865
6574 CLARK RD
PARADISE, CA 95969
Site 2 of 3 in cluster E

CERS HAZ WASTE **S116497563**
CUPA Listings **N/A**
HAZNET
CIWQS
CERS
HWTS

CERS HAZ WASTE:

Name: DOLLAR GENERAL #14865
 Address: 6574 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Site ID: 391639
 CERS ID: 10626817
 CERS Description: Hazardous Waste Generator

CUPA BUTTE:

Name: DOLLAR GENERAL #14865
 Address: 6574 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: HAZ WASTE GEN < THAN 100 kg/mo
 Billing Status: ACTIVE, BILLABLE
 CERS ID: 10626817

Name: DOLLAR GENERAL #14865
 Address: 6574 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: B1 - RANGE 0 - 55 - 550 GALLONS
 Billing Status: INACTIVE, NON-BILLABLE
 CERS ID: 10626817

Name: DOLLAR GENERAL #14865
 Address: 6574 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: B1 - RANGE 0 - 55 - 550 GALLONS
 Billing Status: INACTIVE, NON-BILLABLE
 CERS ID: 10626817

HAZNET:

Name: DOLLAR GENERAL #14865

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|------------------|--|
| Address: | 6574 CLARK RD |
| Address 2: | Not reported |
| City,State,Zip: | PARADISE, CA 95969 |
| Contact: | KRISTIN ELLIOTT |
| Telephone: | 6158555365 |
| Mailing Name: | Not reported |
| Mailing Address: | 100 MISSION RDG |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | CAD980884183 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0165 |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 122 - Alkaline solution without metals pH >= 12.5 |
| Disposal Method: | H121 - Neutralization Only |
| Tons: | 0.0035 |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | CAD008364432 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0325 |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 311 - Pharmaceutical waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0005 |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0055 |
| Year: | 2021 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | AZR000515924 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.3145 |
| Year: | 2020 |
| Gepaid: | CAL000406267 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|------------------|--|
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0015 |
| Year: | 2020 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | AZR000515924 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.172 |
| Year: | 2020 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | CAD980884183 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.141 |
| Year: | 2019 |
| Gepaid: | CAL000406267 |
| TSD EPA ID: | AZR000515924 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.63200 |

[Click this hyperlink](#) while viewing on your computer to access 19 additional CA HAZNET: record(s) in the EDR Site Report.

Detail Two:

| | |
|---------------------------------|--------------------------------------|
| Year: | 2020 |
| EM Manifest ID: | ed8b1283-6475-4503-8055-0c756a16d2f1 |
| Shipment Date: | 9/10/2019 |
| Receipt Date: | 9/16/2019 |
| Manifest Number: | 013140425FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL |
| Address: | 6574 CLARK ROAD |
| Address 2: | Not reported |
| City: | PARADISE |
| Zip: | 95969-3525 |
| Telephone: | 877-577-2669 |
| Contact: | Not reported |
| Contact Telephone: | 916-351-0980 |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | MNS000110924 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | CAD980884183 |
| TSDF Name: | GEM Rancho Cordova LLC |
| TSDF Address 1: | 11855 White Rock Road |
| TSDF Address 2: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-----------------------|--|
| TSDf City: | Rancho Cordova |
| TSDf Zip: | 95742 |
| TSDf Telephone: | Not reported |
| Federal: | |
| Year: | 2020 |
| EM Manifest ID: | ed8b1283-6475-4503-8055-0c756a16d2f1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-09-10 |
| Manifest Number: | 013140425FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| Federal Code: | P075 |
| | |
| Year: | 2020 |
| EM Manifest ID: | ed8b1283-6475-4503-8055-0c756a16d2f1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-09-10 |
| Manifest Number: | 013140425FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00150 |
| Quantity Waste: | 3.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| | |
| State: | |
| Year: | 2020 |
| EM Manifest ID: | ed8b1283-6475-4503-8055-0c756a16d2f1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-09-10 |
| Manifest Number: | 013140425FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| State Code: | 311 |
| | |
| Year: | 2020 |
| EM Manifest ID: | ed8b1283-6475-4503-8055-0c756a16d2f1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-09-10 |
| Manifest Number: | 013140425FLE |
| Line Number: | 2 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 331

Year: 2020
EM Manifest ID: 71779097-5d2d-4d42-b021-f8e3e5ec026b
Shipment Date: 5/19/2020
Receipt Date: 5/29/2020
Manifest Number: 014403627FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2020
EM Manifest ID: 71779097-5d2d-4d42-b021-f8e3e5ec026b
Generator EPA ID: CAL000406267
Shipment Date: 2020-05-19
Manifest Number: 014403627FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.12500
Quantity Waste: 250.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2020
EM Manifest ID: 80f0b05a-2954-42e6-b147-cf02cb16a374
Shipment Date: 4/3/2020
Receipt Date: 4/22/2020
Manifest Number: 014377298FLE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 775-575-2760
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: MNS000110924
Transporter 2 Emergency Number: Not reported
TSDF EPA ID: NVD980895338
TSDF Name: 21st Century Environmental Management of Nevada, LLC
TSDF Address 1: 2095 Newlands Drive East
TSDF Address 2: Not reported
TSDF City: Fernley
TSDF Zip: 89408
TSDF Telephone: Not reported

Federal:
Year: 2020
EM Manifest ID: 80f0b05a-2954-42e6-b147-cf02cb16a374
Generator EPA ID: CAL000406267
Shipment Date: 2020-04-03
Manifest Number: 014377298FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiber or plastic boxes, cartons, cases
Quantity Type: Pounds
Federal Code: D001

State:
Year: 2020
EM Manifest ID: 80f0b05a-2954-42e6-b147-cf02cb16a374
Generator EPA ID: CAL000406267
Shipment Date: 2020-04-03
Manifest Number: 014377298FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiber or plastic boxes, cartons, cases
Quantity Type: Pounds
State Code: 331

Year: 2020
EM Manifest ID: 732bec3b-e5d1-468d-aeb7-9528ce61d8d8
Shipment Date: 4/3/2020

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Receipt Date: 4/13/2020
Manifest Number: 014377299FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:
Year: 2020
EM Manifest ID: 732bec3b-e5d1-468d-aeb7-9528ce61d8d8
Generator EPA ID: CAL000406267
Shipment Date: 2020-04-03
Manifest Number: 014377299FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.04700
Quantity Waste: 94.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2020
EM Manifest ID: 916222
Shipment Date: 12/12/2019
Receipt Date: 12/30/2019
Manifest Number: 013694650FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 775-575-2760
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: MNS000110924
Transporter 2 Emergency Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

TSDF EPA ID: NVD980895338
TSDF Name: 21st Century Environmental Management of Nevada, LLC
TSDF Address 1: 2095 Newlands Drive East
TSDF Address 2: Not reported
TSDF City: Fernley
TSDF Zip: 89408
TSDF Telephone: Not reported

Federal:

Year: 2020
EM Manifest ID: 916222
Generator EPA ID: CAL000406267
Shipment Date: 2019-12-12
Manifest Number: 013694650FLE
Line Number: 1
Method Code: H121
Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
Federal Code: D002

State:

Year: 2020
EM Manifest ID: 916222
Generator EPA ID: CAL000406267
Shipment Date: 2019-12-12
Manifest Number: 013694650FLE
Line Number: 1
Method Code: H121
Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 122

Year: 2020
EM Manifest ID: 7bad8eca-b442-4f39-ab15-f9e6ca623ebc
Shipment Date: 12/12/2019
Receipt Date: 12/17/2019
Manifest Number: 013694649FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 916-351-0980
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|---------------------------------------|
| Transporter 2 EPA ID: | MNS000110924 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | CAD980884183 |
| TSDF Name: | GEM Rancho Cordova LLC |
| TSDF Address 1: | 11855 White Rock Road |
| TSDF Address 2: | Not reported |
| TSDF City: | Rancho Cordova |
| TSDF Zip: | 95742 |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2020 |
| EM Manifest ID: | 7bad8eca-b442-4f39-ab15-f9e6ca623ebc |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-12-12 |
| Manifest Number: | 013694649FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00300 |
| Quantity Waste: | 6.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| State: | |
| Year: | 2020 |
| EM Manifest ID: | 7bad8eca-b442-4f39-ab15-f9e6ca623ebc |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-12-12 |
| Manifest Number: | 013694649FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00300 |
| Quantity Waste: | 6.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| State Code: | 331 |
| Year: | |
| Year: | 2020 |
| EM Manifest ID: | 913629 |
| Shipment Date: | 12/12/2019 |
| Receipt Date: | 12/26/2019 |
| Manifest Number: | 013694651FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | 6574 CLARK RD |
| Address 2: | Not reported |
| City: | PARADISE |
| Zip: | 95969-3525 |
| Telephone: | 877-577-2669 |
| Contact: | Not reported |
| Contact Telephone: | 530-327-6010 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2020
EM Manifest ID: 913629
Generator EPA ID: CAL000406267
Shipment Date: 2019-12-12
Manifest Number: 013694651FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.11550
Quantity Waste: 231.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Detail Two:

Year: 2019
EM Manifest ID: 639576
Shipment Date: 9/5/2018
Receipt Date: 9/20/2018
Manifest Number: 012124655FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2019

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

EM Manifest ID: 639576
Generator EPA ID: CAL000406267
Shipment Date: 2018-09-05
Manifest Number: 012124655FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.04600
Quantity Waste: 92.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2019
EM Manifest ID: 768062
Shipment Date: 9/10/2019
Receipt Date: 9/30/2019
Manifest Number: 013140426FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 775-575-2760
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: MNS000110924
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: NVD980895338
TSDf Name: 21st Century Environmental Management of Nevada, LLC
TSDf Address 1: 2095 Newlands Drive East
TSDf Address 2: Not reported
TSDf City: Fernley
TSDf Zip: 89408
TSDf Telephone: Not reported

Federal:

Year: 2019
EM Manifest ID: 768062
Generator EPA ID: CAL000406267
Shipment Date: 2019-09-10
Manifest Number: 013140426FLE
Line Number: 1
Method Code: H121
Quantity Tons: 0.01500
Quantity Waste: 30.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
Federal Code: D002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

State:

Year: 2019
EM Manifest ID: 768062
Generator EPA ID: CAL000406267
Shipment Date: 2019-09-10
Manifest Number: 013140426FLE
Line Number: 1
Method Code: H121
Quantity Tons: 0.01500
Quantity Waste: 30.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 122

Year: 2019
EM Manifest ID: 6c549dff-05f8-4cb4-ab54-ca5de9cefa1b
Shipment Date: 9/10/2019
Receipt Date: 9/24/2019
Manifest Number: 013140427FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2019
EM Manifest ID: 6c549dff-05f8-4cb4-ab54-ca5de9cefa1b
Generator EPA ID: CAL000406267
Shipment Date: 2019-09-10
Manifest Number: 013140427FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.17250
Quantity Waste: 345.000000
Quantity Unit: P
Number of Containers: 3
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--|
| State Code: | 331 |
| Year: | 2019 |
| EM Manifest ID: | 573439 |
| Shipment Date: | 7/28/2018 |
| Receipt Date: | 8/10/2018 |
| Manifest Number: | 011393195FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | 6574 CLARK RD |
| Address 2: | Not reported |
| City: | PARADISE |
| Zip: | 95969 |
| Telephone: | 877-577-2669 |
| Contact: | Not reported |
| Contact Telephone: | 615-855-5365 |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES WASTE TRANSFER FACILITY |
| TSDF Address 1: | 2730 E 13TH ST |
| TSDF Address 2: | Not reported |
| TSDF City: | YUMA |
| TSDF Zip: | 85365-1901 |
| TSDF Telephone: | Not reported |
| State: | |
| Year: | 2019 |
| EM Manifest ID: | 573439 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-07-28 |
| Manifest Number: | 011393195FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00400 |
| Quantity Waste: | 8.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| State Code: | 331 |
| Year: | 2019 |
| EM Manifest ID: | 465687 |
| Shipment Date: | 6/27/2019 |
| Receipt Date: | 7/17/2019 |
| Manifest Number: | 013123382FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL |
| Address: | 6574 CLARK ROAD |
| Address 2: | Not reported |
| City: | PARADISE |
| Zip: | 95969-3525 |
| Telephone: | 877-577-2669 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--|
| Contact: | Not reported |
| Contact Telephone: | 775-575-2760 |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | MNS000110924 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21st Century Environmental Management of Nevada, LLC |
| TSDF Address 1: | 2095 Newlands Drive East |
| TSDF Address 2: | Not reported |
| TSDF City: | Fernley |
| TSDF Zip: | 89408 |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2019 |
| EM Manifest ID: | 465687 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-06-27 |
| Manifest Number: | 013123382FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00350 |
| Quantity Waste: | 7.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| Year: | 2019 |
| EM Manifest ID: | 465687 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-06-27 |
| Manifest Number: | 013123382FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| State: | |
| Year: | 2019 |
| EM Manifest ID: | 465687 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-06-27 |
| Manifest Number: | 013123382FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00350 |
| Quantity Waste: | 7.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--|
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| State Code: | 331 |
| Year: | 2019 |
| EM Manifest ID: | 465687 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-06-27 |
| Manifest Number: | 013123382FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| State Code: | 331 |
| Year: | 2019 |
| EM Manifest ID: | 458138 |
| Shipment Date: | 6/27/2019 |
| Receipt Date: | 7/18/2019 |
| Manifest Number: | 013123383FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | 6574 CLARK RD |
| Address 2: | Not reported |
| City: | PARADISE |
| Zip: | 95969 |
| Telephone: | 877-577-2669 |
| Contact: | Not reported |
| Contact Telephone: | 530-327-6010 |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES WASTE TRANSFER FACILITY |
| TSDF Address 1: | 2730 E 13TH ST |
| TSDF Address 2: | Not reported |
| TSDF City: | YUMA |
| TSDF Zip: | 85365-1901 |
| TSDF Telephone: | Not reported |
| State: | |
| Year: | 2019 |
| EM Manifest ID: | 458138 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-06-27 |
| Manifest Number: | 013123383FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.07700 |
| Quantity Waste: | 154.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2019
EM Manifest ID: 402186
Shipment Date: 5/28/2019
Receipt Date: 6/12/2019
Manifest Number: 013123174FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 775-575-2760
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: MNS000110924
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: NVD980895338
TSDf Name: 21st Century Environmental Management of Nevada, LLC
TSDf Address 1: 2095 Newlands Drive East
TSDf Address 2: Not reported
TSDf City: Fernley
TSDf Zip: 89408
TSDf Telephone: Not reported

Federal:

Year: 2019
EM Manifest ID: 402186
Generator EPA ID: CAL000406267
Shipment Date: 2019-05-28
Manifest Number: 013123174FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiber or plastic boxes, cartons, cases
Quantity Type: Pounds
Federal Code: D001

Year: 2019
EM Manifest ID: 402186
Generator EPA ID: CAL000406267
Shipment Date: 2019-05-28
Manifest Number: 013123174FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00800
Quantity Waste: 16.000000
Quantity Unit: P
Number of Containers: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-----------------------|--|
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| Year: | 2019 |
| EM Manifest ID: | 402186 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-05-28 |
| Manifest Number: | 013123174FLE |
| Line Number: | 3 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| State: | |
| Year: | 2019 |
| EM Manifest ID: | 402186 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-05-28 |
| Manifest Number: | 013123174FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00150 |
| Quantity Waste: | 3.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| State Code: | 352 |
| Year: | 2019 |
| EM Manifest ID: | 402186 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-05-28 |
| Manifest Number: | 013123174FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00800 |
| Quantity Waste: | 16.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Fiber or plastic boxes, cartons, cases |
| Quantity Type: | Pounds |
| State Code: | 331 |
| Year: | 2019 |
| EM Manifest ID: | 402186 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2019-05-28 |
| Manifest Number: | 013123174FLE |
| Line Number: | 3 |
| Method Code: | H141 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 331

Year: 2019
EM Manifest ID: 402185
Shipment Date: 5/28/2019
Receipt Date: 6/7/2019
Manifest Number: 013123173FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 323-776-6233
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: MNS000110924
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: CAD008364432
TSDf Name: Rho Chem LLC
TSDf Address 1: 425 Isis Ave.
TSDf Address 2: Not reported
TSDf City: Inglewood
TSDf Zip: 90301
TSDf Telephone: Not reported

Federal:
Year: 2019
EM Manifest ID: 402185
Generator EPA ID: CAL000406267
Shipment Date: 2019-05-28
Manifest Number: 013123173FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00600
Quantity Waste: 12.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
Federal Code: D002

State:
Year: 2019
EM Manifest ID: 402185
Generator EPA ID: CAL000406267
Shipment Date: 2019-05-28
Manifest Number: 013123173FLE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Line Number: 1
Method Code: H141
Quantity Tons: 0.00600
Quantity Waste: 12.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 122

Year: 2019
EM Manifest ID: 4407cd54-d5c6-4c1b-aa3d-205e011f0927
Shipment Date: 5/28/2019
Receipt Date: 6/7/2019
Manifest Number: 013123175FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2019
EM Manifest ID: 4407cd54-d5c6-4c1b-aa3d-205e011f0927
Generator EPA ID: CAL000406267
Shipment Date: 2019-05-28
Manifest Number: 013123175FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.07000
Quantity Waste: 140.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Year: 2019
EM Manifest ID: 372354
Shipment Date: 4/24/2019
Receipt Date: 5/10/2019

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Manifest Number: 013142641FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969-3525
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-327-6010
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDF EPA ID: AZR000515924
TSDF Name: YUMA YES WASTE TRANSFER FACILITY
TSDF Address 1: 2730 E 13TH ST
TSDF Address 2: Not reported
TSDF City: YUMA
TSDF Zip: 85365-1901
TSDF Telephone: Not reported

State:
Year: 2019
EM Manifest ID: 372354
Generator EPA ID: CAL000406267
Shipment Date: 2019-04-24
Manifest Number: 013142641FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.15000
Quantity Waste: 300.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 331

Detail Two:

Year: 2018
EM Manifest ID: 131858
Shipment Date: 9/21/2018
Receipt Date: 10/4/2018
Manifest Number: 012124835FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 615-855-5365
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|----------------------------------|
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES WASTE TRANSFER FACILITY |
| TSDF Address 1: | 2730 E 13TH ST |
| TSDF Address 2: | Not reported |
| TSDF City: | YUMA |
| TSDF Zip: | 85365-1901 |
| TSDF Telephone: | Not reported |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Shipment Date: | 8/14/2017 |
| Receipt Date: | 8/28/2017 |
| Manifest Number: | 010789629FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | NED986382133 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21ST CENTURY EMN LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |
| Manifest Number: | 010789629FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.01250 |
| Quantity Waste: | 25.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D007 |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |
| Manifest Number: | 010789629FLE |
| Line Number: | 1 |
| Method Code: | H141 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-----------------------|--------------------------|
| Quantity Tons: | 0.01250 |
| Quantity Waste: | 25.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D010 |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |
| Manifest Number: | 010789629FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.01250 |
| Quantity Waste: | 25.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D027 |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |
| Manifest Number: | 010789629FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.01250 |
| Quantity Waste: | 25.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | U072 |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |
| Manifest Number: | 010789629FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.01250 |
| Quantity Waste: | 25.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | U248 |
| Year: | 2018 |
| EM Manifest ID: | 010789629FLE20170814_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2017-08-14 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Manifest Number: 010789629FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00450
Quantity Waste: 9.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D005

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 3
Method Code: H141
Quantity Tons: 0.00100
Quantity Waste: 2.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 4
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

State:
Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.01250
Quantity Waste: 25.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 352

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00450
Quantity Waste: 9.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 3
Method Code: H141
Quantity Tons: 0.00100
Quantity Waste: 2.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 4
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010789629FLE20170814_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2017-08-14
Manifest Number: 010789629FLE
Line Number: 5
Method Code: H141
Quantity Tons: 0.02100
Quantity Waste: 42.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--------------------------|
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 010866992FLE20180322_D_1 |
| Shipment Date: | 3/22/2018 |
| Receipt Date: | 4/7/2018 |
| Manifest Number: | 010866992FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDf EPA ID: | AZR000515924 |
| TSDf Name: | YUMA YES LLC |
| TSDf Address 1: | Not reported |
| TSDf Address 2: | Not reported |
| TSDf City: | Not reported |
| TSDf Zip: | Not reported |
| TSDf Telephone: | Not reported |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 010866992FLE20180322_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-22 |
| Manifest Number: | 010866992FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.02800 |
| Quantity Waste: | 56.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 010866991FLE20180322_D_1 |
| Shipment Date: | 3/22/2018 |
| Receipt Date: | 4/5/2018 |
| Manifest Number: | 010866991FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--------------------------|
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | NED986382133 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21ST CENTURY EMN LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2018 |
| EM Manifest ID: | 010866991FLE20180322_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-22 |
| Manifest Number: | 010866991FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 010866991FLE20180322_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-22 |
| Manifest Number: | 010866991FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| | |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 010866991FLE20180322_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-22 |
| Manifest Number: | 010866991FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--------------------------|
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 010866991FLE20180322_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-22 |
| Manifest Number: | 010866991FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 010866898FLE20180302_D_1 |
| Shipment Date: | 3/2/2018 |
| Receipt Date: | 3/22/2018 |
| Manifest Number: | 010866898FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 010866898FLE20180302_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-02 |
| Manifest Number: | 010866898FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.03250 |
| Quantity Waste: | 65.000000 |
| Quantity Unit: | P |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--------------------------|
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 010866897FLE20180302_D_1 |
| Shipment Date: | 3/2/2018 |
| Receipt Date: | 3/13/2018 |
| Manifest Number: | 010866897FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | NED986382133 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21ST CENTURY EMN LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| | |
| Federal: | |
| Year: | 2018 |
| EM Manifest ID: | 010866897FLE20180302_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-02 |
| Manifest Number: | 010866897FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 010866897FLE20180302_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-03-02 |
| Manifest Number: | 010866897FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.00150 |
| Quantity Waste: | 3.000000 |
| Quantity Unit: | P |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

State:

Year: 2018
EM Manifest ID: 010866897FLE20180302_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2018-03-02
Manifest Number: 010866897FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010866897FLE20180302_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2018-03-02
Manifest Number: 010866897FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00150
Quantity Waste: 3.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 008656668FLE20180112_D_1
Shipment Date: 1/12/2018
Receipt Date: 2/2/2018
Manifest Number: 008656668FLE
Generator EPA ID: CAL000406267
Name: DOLLAR GENERAL #14865
Address: Not reported
Address 2: Not reported
City: Not reported
Zip: Not reported
Telephone: Not reported
Contact: Not reported
Contact Telephone: Not reported
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDF EPA ID: AZR000515924
TSDF Name: YUMA YES LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|---------------------------------|--------------------------|
| TSDf Address 1: | Not reported |
| TSDf Address 2: | Not reported |
| TSDf City: | Not reported |
| TSDf Zip: | Not reported |
| TSDf Telephone: | Not reported |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 008656668FLE20180112_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-01-12 |
| Manifest Number: | 008656668FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.03500 |
| Quantity Waste: | 70.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 008656667FLE20180112_D_1 |
| Shipment Date: | 1/12/2018 |
| Receipt Date: | 2/12/2018 |
| Manifest Number: | 008656667FLE |
| Generator EPA ID: | CAL000406267 |
| Name: | DOLLAR GENERAL #14865 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | NED986382133 |
| Transporter 2 Emergency Number: | Not reported |
| TSDf EPA ID: | NVD980895338 |
| TSDf Name: | 21ST CENTURY EMN LLC |
| TSDf Address 1: | Not reported |
| TSDf Address 2: | Not reported |
| TSDf City: | Not reported |
| TSDf Zip: | Not reported |
| TSDf Telephone: | Not reported |
| Federal: | |
| Year: | 2018 |
| EM Manifest ID: | 008656667FLE20180112_D_1 |
| Generator EPA ID: | CAL000406267 |
| Shipment Date: | 2018-01-12 |
| Manifest Number: | 008656667FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

Year: 2018
EM Manifest ID: 008656667FLE20180112_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2018-01-12
Manifest Number: 008656667FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00100
Quantity Waste: 2.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

State:
Year: 2018
EM Manifest ID: 008656667FLE20180112_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2018-01-12
Manifest Number: 008656667FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 008656667FLE20180112_D_1
Generator EPA ID: CAL000406267
Shipment Date: 2018-01-12
Manifest Number: 008656667FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.00100
Quantity Waste: 2.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Additional Info:
Year: 2017

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|--|
| Gen EPA ID: | CAL000406267 |
| Shipment Date: | 20170814 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20170828 |
| Manifest ID: | 010789629FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.001 |
| Waste Quantity: | 2 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170814 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20170828 |
| Manifest ID: | 010789629FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170814 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20170828 |
| Manifest ID: | 010789629FLE |
| Trans EPA ID: | MNS000110924 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|--|
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | U248 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0125 |
| Waste Quantity: | 25 |
| Quantity Unit: | P |
| Additional Code 1: | U072 |
| Additional Code 2: | D027 |
| Additional Code 3: | D010 |
| Additional Code 4: | D007 |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170814 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 010789629FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.021 |
| Waste Quantity: | 42 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170814 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20170828 |
| Manifest ID: | 010789629FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D005
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0045
Waste Quantity: 9
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20170531
Creation Date: 5/17/2018 18:30:51
Receipt Date: 20170608
Manifest ID: 008656093FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0555
Waste Quantity: 111
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20170531
Creation Date: 5/17/2018 18:30:51
Receipt Date: 20170608
Manifest ID: 008656093FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.003
Waste Quantity: 6
Quantity Unit: P

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|--|
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170324 |
| Creation Date: | 5/25/2017 18:31:01 |
| Receipt Date: | 20170406 |
| Manifest ID: | 008655854FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0045 |
| Waste Quantity: | 9 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170324 |
| Creation Date: | 5/25/2017 18:31:01 |
| Receipt Date: | 20170406 |
| Manifest ID: | 008655854FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.038 |
| Waste Quantity: | 76 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170324 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Creation Date: 5/25/2017 18:31:01
Receipt Date: 20170406
Manifest ID: 008655854FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0005
Waste Quantity: 1
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2016
Gen EPA ID: CAL000406267

Shipment Date: 20151124
Creation Date: 5/12/2016 10:00:07
Receipt Date: 20151124
Manifest ID: 014311709JJK
Trans EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 311 - Pharmaceutical waste
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 0.005
Waste Quantity: 10
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20151124
Creation Date: 5/12/2016 10:00:07
Receipt Date: 20151124
Manifest ID: 014311709JJK
Trans EPA ID: OKD982293334

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Trans Name: ENVIRONMENTAL MANAGEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 0.0015
Waste Quantity: 3
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20151124
Creation Date: 5/12/2016 10:00:07
Receipt Date: 20151124
Manifest ID: 014311709JJK
Trans EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 0.0005
Waste Quantity: 1
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20151124
Creation Date: 5/12/2016 10:00:07
Receipt Date: 20151124
Manifest ID: 014311709JJK
Trans EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 311 - Pharmaceutical waste
RCRA Code: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|---|
| Meth Code: | - Not reported |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | 2/4/2016 22:15:46 |
| Receipt Date: | 20150803 |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0075 |
| Waste Quantity: | 15 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|--|
| Shipment Date: | 20150713 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0075 |
| Waste Quantity: | 15 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | 2/4/2016 22:15:46 |
| Receipt Date: | 20150803 |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

TSDF EPA ID: ARD981057870
Trans Name: RINECO
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 352 - Other organic solids
RCRA Code: D035
Meth Code: H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons: 0.005
Waste Quantity: 10
Quantity Unit: P
Additional Code 1: D027
Additional Code 2: D022
Additional Code 3: D001
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20150713
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008213484FLE
Trans EPA ID: CAD982523433
Trans Name: DILLARD ENVIRONMENTAL SERVICE
Trans 2 EPA ID: ARR000024679
Trans 2 Name: RINECO ENVIROMENTAL SERVICES (RES) SO5
TSDF EPA ID: ARD981057870
Trans Name: RINECO
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 122 - Alkaline solution without metals (pH > 12.5)
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.015
Waste Quantity: 30
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2015
Gen EPA ID: CAL000406267

Shipment Date: 20151124
Creation Date: 5/12/2016 10:00:07
Receipt Date: 20151124
Manifest ID: 014311709JJK
Trans EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: OKD982293334
Trans Name: ENVIRONMENTAL MANAGEMENT INC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|--|
| Waste Code Description: | 311 - Pharmaceutical waste |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151124 |
| Creation Date: | 5/12/2016 10:00:07 |
| Receipt Date: | 20151124 |
| Manifest ID: | 014311709JJK |
| Trans EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.0015 |
| Waste Quantity: | 3 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151124 |
| Creation Date: | 5/12/2016 10:00:07 |
| Receipt Date: | 20151124 |
| Manifest ID: | 014311709JJK |
| Trans EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.0005 |
| Waste Quantity: | 1 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|---|
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151124 |
| Creation Date: | 5/12/2016 10:00:07 |
| Receipt Date: | 20151124 |
| Manifest ID: | 014311709JJK |
| Trans EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | OKD982293334 |
| Trans Name: | ENVIRONMENTAL MANAGEMENT INC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 311 - Pharmaceutical waste |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | 2/4/2016 22:15:46 |
| Receipt Date: | 20150803 |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 352 - Other organic solids |
| RCRA Code: | D035 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.005 |
| Waste Quantity: | 10 |
| Quantity Unit: | P |
| Additional Code 1: | D027 |
| Additional Code 2: | D022 |
| Additional Code 3: | D001 |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | 2/4/2016 22:15:46 |
| Receipt Date: | 20150803 |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Trans 2 EPA ID: ARR000024679
Trans 2 Name: RINECO ENVIRONMENTAL SERVICES (RES) SO5
TSDf EPA ID: ARD981057870
Trans Name: RINECO
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D035
Meth Code: H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons: 0.015
Waste Quantity: 30
Quantity Unit: P
Additional Code 1: D001
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20150713
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008213484FLE
Trans EPA ID: CAD982523433
Trans Name: DILLARD ENVIRONMENTAL SERVICE
Trans 2 EPA ID: ARR000024679
Trans 2 Name: RINECO ENVIRONMENTAL SERVICES (RES) SO5
TSDf EPA ID: ARD981057870
Trans Name: RINECO
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Meth Code: H061 - Fuel Blending Prior To Energy Recovery At Another Site
Quantity Tons: 0.0075
Waste Quantity: 15
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20150713
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008213484FLE
Trans EPA ID: CAD982523433
Trans Name: DILLARD ENVIRONMENTAL SERVICE
Trans 2 EPA ID: ARR000024679
Trans 2 Name: RINECO ENVIRONMENTAL SERVICES (RES) SO5
TSDf EPA ID: ARD981057870
Trans Name: RINECO
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 122 - Alkaline solution without metals (pH > 12.5)
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|---|
| Quantity Tons: | Treatment/Reovery (H010-H129) Or (H131-H135) 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | Not reported |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.0075 |
| Waste Quantity: | 15 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150713 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008213484FLE |
| Trans EPA ID: | CAD982523433 |
| Trans Name: | DILLARD ENVIRONMENTAL SERVICE |
| Trans 2 EPA ID: | ARR000024679 |
| Trans 2 Name: | RINECO ENVIROMENTAL SERVICES (RES) SO5 |
| TSDf EPA ID: | ARD981057870 |
| Trans Name: | RINECO |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5) |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |

MAP FINDINGS

DOLLAR GENERAL #14865 (Continued)

S116497563

Additional Code 5: Not reported

CIWQS:

Name: DOLLAR GENERAL PARADISE CA CLARK RD
 Address: 6574 CLARK ROAD
 City,State,Zip: PARADISE, CA 95969
 Agency: Embree Asset Group
 Agency Address: 4747 Williams, Georgetown, TX 78633
 Place/Project Type: Construction - Commercial
 SIC/NAICS: Not reported
 Region: 5R
 Program: CONSTW
 Regulatory Measure Status: Terminated
 Regulatory Measure Type: Storm water construction
 Order Number: 2009-0009-DWQ
 WDID: 5R04C369610
 NPDES Number: CAS000002
 Adoption Date: Not reported
 Effective Date: 05/01/2014
 Termination Date: 11/20/2014
 Expiration/Review Date: Not reported
 Design Flow: Not reported
 Major/Minor: Not reported
 Complexity: Not reported
 TTWQ: Not reported
 Enforcement Actions within 5 years: 0
 Violations within 5 years: 0
 Latitude: 39.775378
 Longitude: -121.592301

CERS:

Name: DOLLAR GENERAL #14865
 Address: 6574 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Site ID: 391639
 CERS ID: 10626817
 CERS Description: Chemical Storage Facilities

Violations:

Site ID: 391639
 Site Name: Dollar General #14865
 Violation Date: 01-28-2022
 Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
 Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
 Violation Notes: Returned to compliance on 02/24/2022. 1. The followin manifests are missing a TSDF signature: - 012951668FLE (4/10/2019) - 013123174FLE (6/12/2019) - 013140426FLE (9/30/2019) - 013142640FLE (5/14/2019) - 014377297FLE (4/13/2020) - 014377297FLE (4/22/2020) - 014377299FLE (4/13/2020) - 015631031FLE (2/22/2021) - 015631033FLE (2/15/2021) - 015939243FLE (9/13/2021) - 015957103FLE (5/10/2021) - 015957104FLE (5/13/2021) 2. The following manifests are missing from the records: - 013123382FLE (7/17/2019) - 013123383FLE (7/18/2019) - 013695043FLE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

(9/9/2020) - 015957105FLE (5/17/2021) Corrective action: Obtain a signed copy of the following manifests with the transportation, storage and disposal facility (TSDf) signature.
Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Butte County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-28-2022
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Consent to perform the inspection, review documents, copy documents, take photos or collect samples provided by Kerry Carson at 9:00 a.m. No photographs, copied documents or samples were obtained during this inspection. Marina Winslow, Environmental Health Specialist, Senior was present for inspection.

Eval Division: Butte County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-28-2022
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Consent to perform the inspection, review documents, copy documents, take photos or collect samples provided by Kerry Carson at 9:00 a.m. No photographs, copied documents or samples were obtained during this inspection. Marina Winslow, Environmental Health Specialist, Senior was present for inspection.

Eval Division: Butte County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-02-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Butte County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Enforcement Action:

Site ID: 391639
Site Name: Dollar General #14865
Site Address: 6574 CLARK RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Site City: PARADISE
Site Zip: 95969
Enf Action Date: 01-28-2022
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS,

Coordinates:

Site ID: 391639
Facility Name: Dollar General #14865
Env Int Type Code: HMBP
Program ID: 10626817
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.,
Latitude: 39.775090
Longitude: -121.592460

Affiliation:

Affiliation Type Desc: Parent Corporation
Entity Name: Dollar General
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Document Preparer
Entity Name: ASHLEY CAMPBELL
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: Environmental Compliance, 100 MISSION RIDGE
Affiliation City: GOODLETTSVILLE
Affiliation State: TN
Affiliation Country: Not reported
Affiliation Zip: 37072
Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: Ashley Campbell
Entity Title: COMPLIANCE® AFFAIR SPECIALIST
Affiliation Address: Not reported
Affiliation City: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: DOLGEN CALIFORNIA, LLC
Entity Title: Not reported
Affiliation Address: 100 MISSION RIDGE
Affiliation City: GOODLETTSVILLE
Affiliation State: TN
Affiliation Country: United States
Affiliation Zip: 37072
Affiliation Phone: (615) 855-4024,

Affiliation Type Desc: CUPA District
Entity Name: Butte County Environmental Health
Entity Title: Not reported
Affiliation Address: 202 Mira Loma Drive
Affiliation City: Oroville
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95965
Affiliation Phone: (530) 552-3880,

Affiliation Type Desc: Environmental Contact
Entity Name: ERIC VOYLES
Entity Title: Not reported
Affiliation Address: Environmental Compliance, 100 MISSION RIDGE
Affiliation City: GOODLETTSVILLE
Affiliation State: TN
Affiliation Country: Not reported
Affiliation Zip: 37072
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: Dollar General #14865
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (530) 327-6010,

HWTS:

Name: DOLLAR GENERAL #14865
Address: 6574 CLARK RD
Address 2: Not reported
City, State, Zip: PARADISE, CA 95969
EPA ID: CAL000406267
Inactive Date: Not reported
Create Date: 04/22/2015
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 100 MISSION RDG

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

DOLLAR GENERAL #14865 (Continued)

S116497563

| | |
|-------------------------|------------------------------|
| Mailing Address 2: | Not reported |
| Mailing City,State,Zip: | GOODLETTSVILLE, TN 370722171 |
| Owner Name: | DOLLAR GENERAL |
| Owner Address: | 100 MISSION RDG |
| Owner Address 2: | Not reported |
| Owner City,State,Zip: | GOODLETTSVILLE, TN 370722171 |
| Contact Name: | KRISTIN ELLIOTT |
| Contact Address: | 100 MISSION RIDGE |
| Contact Address 2: | Not reported |
| City,State,Zip: | GOODLETTSVILLE, TN 37072 |
| Facility Status: | Active |
| Facility Type: | PERMANENT |
| Category: | STATE |
| Latitude: | 39.775014 |
| Longitude: | -121.5927765 |
| NAICS: | |
| EPA ID: | CAL000406267 |
| Create Date: | 2015-04-22 13:56:17.390 |
| NAICS Code: | 99999 |
| NAICS Description: | Not Otherwise Specified |
| Issued EPA ID Date: | 2015-04-22 13:56:17.38700 |
| Inactive Date: | Not reported |
| Facility Name: | DOLLAR GENERAL #14865 |
| Facility Address: | 6574 CLARK RD |
| Facility Address 2: | Not reported |
| Facility City: | PARADISE |
| Facility County: | Not reported |
| Facility State: | CA |
| Facility Zip: | 95969 |

F17
West
1/8-1/4
0.189 mi.
1000 ft.

MICHAEL AGLIOLO
1260 FAWNBROOK PL
PARADISE, CA 95969
Site 1 of 2 in cluster F

RCRA NonGen / NLR **1025857777**
CAC003038247

Relative:
Lower
Actual:
1995 ft.

| | | |
|--------------------------------------|-----------------|---------------------------|
| RCRA Listings: | | |
| Date Form Received by Agency: | | 20191010 |
| Handler Name: | MICHAEL AGLIOLO | |
| Handler Address: | | 1260 FAWNBROOK PL |
| Handler City,State,Zip: | | PARADISE, CA 95969-3431 |
| EPA ID: | | CAC003038247 |
| Contact Name: | | MICHAEL AGLIOLO |
| Contact Address: | | 2196 OAK PARK AVE |
| Contact City,State,Zip: | | CHICO, CA 95928-4879 |
| Contact Telephone: | | 530-521-2266 |
| Contact Fax: | | Not reported |
| Contact Email: | | JMTEAM@JMENV.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Not reported |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MICHAEL AGLIOLO (Continued)

1025857777

| | |
|--|----------------------|
| State District Owner: | Not reported |
| State District: | Not reported |
| Mailing Address: | 2196 OAK PARK AVE |
| Mailing City, State, Zip: | CHICO, CA 95928-4879 |
| Owner Name: | MICHAEL AGLIOLO |
| Owner Type: | Other |
| Operator Name: | MICHAEL AGLIOLO |
| Operator Type: | Other |
| Short-Term Generator Activity: | No |
| Importer Activity: | No |
| Mixed Waste Generator: | No |
| Transporter Activity: | No |
| Transfer Facility Activity: | No |
| Recycler Activity with Storage: | No |
| Small Quantity On-Site Burner Exemption: | No |
| Smelting Melting and Refining Furnace Exemption: | No |
| Underground Injection Control: | No |
| Off-Site Waste Receipt: | No |
| Universal Waste Indicator: | No |
| Universal Waste Destination Facility: | No |
| Federal Universal Waste: | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDs Where RCRA CA has Been Imposed Universe: | No |
| TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSD Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20191011 |
| Recognized Trader-Importer: | No |

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MICHAEL AGLIOLO (Continued)

1025857777

Recognized Trader-Exporter: No
Importer of Spent Lead Acid Batteries: No
Exporter of Spent Lead Acid Batteries: No
Recycler Activity Without Storage: No
Manifest Broker: No
Sub-Part P Indicator: No

Handler - Owner Operator:

Owner/Operator Indicator: Owner
Owner/Operator Name: MICHAEL AGLIOLO
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 2196 OAK PARK AVE
Owner/Operator City,State,Zip: CHICO, CA 95928-4879
Owner/Operator Telephone: 530-521-2266
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Operator
Owner/Operator Name: MICHAEL AGLIOLO
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 2196 OAK PARK AVE
Owner/Operator City,State,Zip: CHICO, CA 95928-4879
Owner/Operator Telephone: 530-521-2266
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20191010
Handler Name: MICHAEL AGLIOLO
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MICHAEL AGLIOLO (Continued)

1025857777

Evaluation Action Summary:
Evaluations:

No Evaluations Found

G18
SW
1/8-1/4
0.208 mi.
1099 ft.
Relative:
Lower
Actual:
2006 ft.

PARADISE IRRIGATION CORP. YARD
6344 CLARK RD
PARADISE, CA 95969
Site 1 of 2 in cluster G

AST **S118234703**
CERS HAZ WASTE **N/A**
CERS TANKS
CUPA Listings
HAZNET
CERS
HWTS

AST:
Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City/Zip: PARADISE, 95969
Certified Unified Program Agencies: Not reported
Owner: Paradise Irrigation District
Total Gallons: Not reported
CERSID: 10473154
Facility ID: FA0004887
Business Name: PARADISE IRRIGATION DISTRICT
Phone: 530-877-4971
Fax: 530-872-7431
Mailing Address: 6332 Clark Rd.
Mailing Address City: PARADISE
Mailing Address State: CA
Mailing Address Zip Code: 95969
Operator Name: Paradise Irrigation District
Operator Phone: 530-877-4971
Owner Phone: 530-877-4971
Owner Mail Address: 6332 Clark Rd.
Owner State: CA
Owner Zip Code: 95969
Owner Country: United States
Property Owner Name: Paradise Irrigation District
Property Owner Phone: 530-877-4971
Property Owner Mailing Address: 6332 Clark Rd
Property Owner City: Paradise
Property Owner Stat : CA
Property Owner Zip Code: 95969
Property Owner Country: United States
EPAID: CAL000392094

CERS HAZ WASTE:
Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969
Site ID: 55374
CERS ID: 10473154
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Site ID: 55374
CERS ID: 10473154
CERS Description: Aboveground Petroleum Storage

CUPA BUTTE:

Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969
Program/Element: HAZ WASTE GEN < THAN 100 kg/mo
Billing Status: INACTIVE, NON-BILLABLE
CERS ID: 10473154

Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969
Program/Element: 1320-10,000g QUALIFIED (NON ENGINEERED) SPCC
Billing Status: ACTIVE, BILLABLE
CERS ID: 10473154

Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969
Program/Element: B2 - RANGE 1 - 550 - 5,500 GALLONS
Billing Status: ACTIVE, BILLABLE
CERS ID: 10473154

HAZNET:

Name: PARADISE IRRIGATION DISTRICT CORPORATION YARD
Address: 6344 CLARK RD
Address 2: Not reported
City,State,Zip: PARADISE, CA 959690000
Contact: JIM LADRINI
Telephone: 5305205365
Mailing Name: Not reported
Mailing Address: 6332 CLARK ROAD

Year: 2017
Gepaid: CAL000392094
TSD EPA ID: CAT080013352
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect
Tons: 0.34

Year: 2016
Gepaid: CAL000392094
TSD EPA ID: CAT080013352
CA Waste Code: 343 - Unspecified organic liquid mixture
Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect
Tons: 0.17

Year: 2015
Gepaid: CAL000392094
TSD EPA ID: CAT080013352
CA Waste Code: 343 - Unspecified organic liquid mixture

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Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect
Tons: 0.17
Year: 2014
Gepaid: CAL000392094
TSD EPA ID: CAD097030993
CA Waste Code: 222 - Oil/water separation sludge
Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No
Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.05004

Additional Info:

Year: 2017
Gen EPA ID: CAL000392094
Shipment Date: 20171103
Creation Date: 6/13/2018 18:31:23
Receipt Date: 20171120
Manifest ID: 018167048JJK
Trans EPA ID: CAD028277036
Trans Name: ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSD EPA ID: CAT080013352
Trans Name: DEMENNO / KERDOON
TSD EPA ID: Not reported
TSD EPA Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect
Quantity Tons: 0.17
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171017
Creation Date: 6/13/2018 18:30:34
Receipt Date: 20171030
Manifest ID: 017793709JJK
Trans EPA ID: CAD028277036
Trans Name: ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSD EPA ID: CAT080013352
Trans Name: DEMENNO / KERDOON
TSD EPA ID: Not reported
TSD EPA Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid

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Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Regeneration, Organics Recovery Ect
Quantity Tons: 0.17
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2016
Gen EPA ID: CAL000392094

Shipment Date: 20150911
Creation Date: 1/5/2016 22:35:46
Receipt Date: 20150929
Manifest ID: 014648652JJK
Trans EPA ID: CAD028277036
Trans Name: ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAT080013352
Trans Name: DEMENNO / KERDOON
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture
RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect

Quantity Tons: 0.17
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2015
Gen EPA ID: CAL000392094

Shipment Date: 20150911
Creation Date: 1/5/2016 22:35:46
Receipt Date: 20150929
Manifest ID: 014648652JJK
Trans EPA ID: CAD028277036
Trans Name: ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAT080013352
Trans Name: DEMENNO / KERDOON
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 343 - Unspecified organic liquid mixture

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

RCRA Code: Not reported
Meth Code: H039 - Other Recovery Of Reclamation For Reuse Including Acid
Regeneration, Organics Recovery Ect

Quantity Tons: 0.17
Waste Quantity: 50
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2014
Gen EPA ID: CAL000392094

Shipment Date: 20141007
Creation Date: 12/26/2014 22:15:10
Receipt Date: 20141020
Manifest ID: 012425091JJK
Trans EPA ID: CAD028277036
Trans Name: ASBURY ENVIRONMENTAL SERVICES
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD097030993
Trans Name: EVOQUA WATER TECHNOLOGIES LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 222 - Oil/water separation sludge
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No
Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.05004
Waste Quantity: 12
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:
Name: PARADISE IRRIGATION CORP. YARD
Address: 6344 CLARK RD
City,State,Zip: PARADISE, CA 95969
Site ID: 55374
CERS ID: 10473154
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22,
Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and
portable tanks with the following requirements: "Hazardous Waste",

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 07/23/2018. Two 55 gallon drums with waste SS1 tack oil and waste bean-e-doo do not have a hazardous waste label. Return to compliance: Properly label your hazardous waste drums with the required information. When completed you may send pictures of the properly labeled hazardous waste drums to dholochwost@buttecounty.net.

Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: "Failure to prepare an SPCC Plan which fulfills all basic requirements that include: 1. The SPCC Plan must be prepared in accordance with good engineering practices. 2. Have full approval of management at a level of authority to commit the necessary resources to fully implement the SPCC Plan. 3. Prepare the SPCC Plan in writing. 4. Follow the sequence of the SPCC rule or include a cross-reference. 5. If the SPCC Plan calls for additional procedures, methods, or equipment not yet fully operational, discuss the items in separate paragraphs."

Violation Notes: SPCC plan does not follow sequence of rule or cross-reference code sections. Return to compliance: Have your PE or self update your SPCC plan to either follow sequence of rule or provide cross-reference to code sections. The plan sections should have the code section in the heading that it addresses.

Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: 40 CFR 1 262.34(d)(5)(iii) - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 262.34(d)(5)(iii)

Violation Description: Failure to ensure employees are familiar with the handling and compliance of hazardous waste regulations and emergency response.

Violation Notes: Returned to compliance on 08/08/2014.

Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to include in the SPCC Plan: 1. A contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with an agreement for response, and all Federal, State, and local agencies who must be contacted in case of a discharge 2. Information and procedures that would enable a person

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

reporting an oil discharge to relate all information as described in 40 CFR 112.7(a)(4), unless facility submitted a Facility Response Plan.

Violation Notes: Returned to compliance on 08/22/2018. SPCC plan does not address the National Response Center notification procedure. No procedure outlined and missing NRC's number. Return to compliance: Revise your SPCC plan to include procedures for reporting a discharge in the SPCC.

Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to address in the SPCC Plan discharge prevention measures, including procedures for routine handling of products such as loading/unloading and facility transfers.

Violation Notes: Returned to compliance on 08/22/2018. SPCC plan does not adequately address discharge prevention measures, including procedures for routine handling of products such as loading/unloading and facility transfers. Return to compliance: Revise your SPCC plan to adequately discuss discharge prevention measures, including procedures for routine handling of products such as loading/unloading and facility transfers.

Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.95 25507 - California Health and Safety Code, Chapter 6.95, Section(s) 25507

Violation Description: Failure to adequately establish and implement a business plan when storing/handling a hazardous material at or above reportable quantities.

Violation Notes: Returned to compliance on 12/03/2014.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to regularly test liquid level sensing devices to ensure proper operation.

Violation Notes: Returned to compliance on 08/22/2018. SPCC plan does not address liquid level sensing devices and how the devices are to be maintained and tested in accordance with manufacturer's specifications to ensure that they are in proper working order. Return to compliance: Revise your SPCC plan to adequately address what liquid level sensing devices are used and address the formal testing of the liquid level sensing devices in the SPCC plan in accordance with manufacturer's

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

specifications and the facility shall perform any required testing and submit results to this department.

Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan .
Violation Notes: Returned to compliance on 09/24/2014.
Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 07/30/2018. Site map is missing required content. Missing adjacent streets, emergency shutoffs (electrical, water, gas), hazardous material storage areas, and storm drains. Return to compliance: Review and update your site map(s). When completed, upload to CERS. For reference: HSC 25505(a)(2) which requires all of the following: North orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs (water, gas, electricity), evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 06/28/2018. The waste oil and waste anti-freeze containers are not closed. Return to compliance: Close containers with a bung. Corrected at time of inspection.
Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: 22 CCR 12 66262.40(a) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.40(a)
Violation Description: Failure to keep a copy of each properly signed manifest for at least three years from the date the waste was accepted by the initial transporter. The manifest signed at the time the waste was accepted for transport shall be kept until receiving a signed copy from the designated facility which received the waste.
Violation Notes: Returned to compliance on 08/07/2018. Facility missing the following TSDf signed uniform hazardous waste manifest at time of inspection: 014648652JJK, 015638838JJK, 017793709JJK and 018167048JJK. Return to compliance: Find the missing manifests or contact your hazardous waste hauler or the designated TSDf and acquire the missing uniform hazardous waste manifests. When you have them, scan and send to dholochwost@buttecounty.net.
Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)
Violation Description: Failure to adequately describe in the SPCC Plan, overflow prevention methods, including a description of the devices or systems in place for each container to prevent overfills.
Violation Notes: Returned to compliance on 08/22/2018. Overflow prevention discussion is not included in the SPCC plan. Return to compliance: Revise the SPCC plan to include an adequate discuss of overflow protection methods and test the overflow prevention devices where utilized and document results.
Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 12/03/2014.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.5 25160.2 - California Health and Safety Code, Chapter 6.5, Section(s) 25160.2
Violation Description: Failure of a generator of hazardous waste that meets the conditions to

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PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Violation Notes: be transported on a consolidated manifest to comply with one or more of the required consolidated manifesting procedures and retain copies of receipts for three years.
Returned to compliance on 06/28/2018. Facility at the time of inspection did not have consolidated manifests for the years 2016 and 2017. Return to compliance: Find the missing consolidated manifests or contact your hazardous waste hauler to acquire the missing manifests for 2016 and 2017.

Violation Division: Butte County Environmental Health
Violation Program: HW
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 08/14/2014.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.

Violation Notes: Returned to compliance on 08/14/2014.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.67 25270.4.5(a) - California Health and Safety Code, Chapter 6.67, Section(s) 25270.4.5(a)

Violation Description: Failure to discuss in the SPCC Plan procedures to test or inspect each aboveground container for integrity in accordance with industry standards: 1. On a regular schedule. 2. After material repairs are made. 3. By qualified personnel. 4. The frequency and type of testing and inspections based on container size, configuration, and design.

Violation Notes: Returned to compliance on 08/22/2018. SPCC plan does not address inspecting ASTs based on an industry standard (such as STI SP001). Return to compliance: Have your PE or self revise your SPCC plan to adequately discuss facility's procedures to test and inspect aboveground/bulk storage containers in accordance with specified industry standards. This must include, but not be limited to, inspection/testing schedule/frequency.

Violation Division: Butte County Environmental Health
Violation Program: APSA
Violation Source: CERS,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 06-28-2018
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Inventory is missing the following items: One 55 gallon drum Anti-freeze, one 55 gallon drum of ATF, and 100 gallons of propane. Return to compliance: Update your CERS inventory with the above items.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Violation Date: 07-02-2014
Citation: HSC 6.95 25508(d) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(d)
Violation Description: Failure to complete and/or electronically submit a business plan when storing/handling a hazardous material at or above reportable quantities.
Violation Notes: Returned to compliance on 12/03/2014.
Violation Division: Butte County Environmental Health
Violation Program: HMRRP
Violation Source: CERS,

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency

Eval Notes: Consent to perform the inspection, review documents, copy documents, take photos or collect samples provided by Jim Ladrini at 1 AM on 6/28/2018. No photographs, copied documents or samples were obtained during this inspection. EPA ID# CAL000392094 active at time of inspection. Reminders 1. Holding times - For oil/fuel filters that are metal it is one year from the time the first filter goes into the container. Use the date the first filter goes into the container as your accumulation start date. For hazardous waste, due to your generator status, once you reach 27gallon/100kg you have 180 days to dispose of your hazardous waste. The date you reach the 27gallon/100kg threshold will be your accumulation start date. 2. Separate metal and paper oil/fuel filters. The paper filters will be treated as hazardous waste and will go into a container that is labeled as hazardous waste. The metal filters will be treated as you have been doing. 3. Hazardous waste containers [Truncated]

Eval Division: Butte County Environmental Health
Eval Program: HW
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Consent to perform the inspection, review documents, copy documents,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

take photos or collect samples provided by Jim Ladrini at 1 AM on 6/28/2018. No photographs, copied documents or samples were obtained during this inspection. Last full HMBP review/submission completed 9/6/2017. Next full review will be due by 9/6/2018 unless you do a full review prior to that date which will reset the next review/submission date. Last training was 6/25/2018. Prior training was conducted 9/8/2014. At a minimum training is to be done annually and records are to be retained for 3 years.

Eval Division: Butte County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-28-2018
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes:

Consent to perform the inspection, review documents, copy documents, take photos or collect samples provided by Jim Ladrini at 1 AM on 6/28/2018. No photographs, copied documents or samples were obtained during this inspection. Tier I qualified facility - May self certify using the Tier I template or have a PE engineered plan. Facility has a SPCC plan that was drawn up 8/25/2014 and PE certified 9/24/2014. Approved by management. The PE was the general manager for PID Corp Yard - George M. Barber. The PE is no longer with PID. Facility will be rewriting their SPCC plan using the SPCC Qualified Tier I Template to address issues with the present SPCC plan. Reminder - APSA (Aboveground Petroleum Storage Act) is only concerned with petroleum that is liquid at 60F at standard pressure.

Eval Division: Butte County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes:

Not reported

Eval Division: Butte County Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes:

Not reported

Eval Division: Butte County Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-14-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes:

Not reported

Eval Division: Butte County Environmental Health
Eval Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-02-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Butte County Environmental Health
Eval Program: HW
Eval Source: CERS,

Enforcement Action:
Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 06-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: APSA
Enf Action Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 06-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 06-28-2018
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 07-02-2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: APSA
Enf Action Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 07-02-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS,

Site ID: 55374
Site Name: Paradise Irrigation Corp. Yard
Site Address: 6344 CLARK RD
Site City: PARADISE
Site Zip: 95969
Enf Action Date: 07-02-2014
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Butte County Environmental Health
Enf Action Program: HW
Enf Action Source: CERS,

Coordinates:
Site ID: 55374
Facility Name: Paradise Irrigation Corp. Yard
Env Int Type Code: HWG
Program ID: 10473154
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.,
Latitude: 39.768700
Longitude: -121.599450

Affiliation:
Affiliation Type Desc: CUPA District
Entity Name: Butte County Environmental Health
Entity Title: Not reported
Affiliation Address: 202 Mira Loma Drive
Affiliation City: Oroville
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95965
Affiliation Phone: (530) 552-3880,

Affiliation Type Desc: Environmental Contact
Entity Name: Jim Ladrini

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Entity Title: Not reported
Affiliation Address: 6332 Clark Rd.
Affiliation City: Paradise
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95969
Affiliation Phone: ,

Affiliation Type Desc: Parent Corporation
Entity Name: Paradise Irrigation District
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: Paradise Irrigation District
Entity Title: Not reported
Affiliation Address: 6332 Clark Rd.
Affiliation City: Paradise
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95969
Affiliation Phone: (530) 877-4971,

Affiliation Type Desc: Operator
Entity Name: Paradise Irrigation District
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (530) 877-4971,

Affiliation Type Desc: Property Owner
Entity Name: Paradise Irrigation District
Entity Title: Not reported
Affiliation Address: 6332 Clark Rd
Affiliation City: Paradise
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95969
Affiliation Phone: (530) 877-4971,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 6332 Clark Rd.
Affiliation City: PARADISE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95969
Affiliation Phone: ,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Affiliation Type Desc: Identification Signer
Entity Name: Jim Ladrini
Entity Title: Distribution Supervisor
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Document Preparer
Entity Name: Jim Ladrini
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

HWTS:

Name: PARADISE IRRIGATION DISTRICT CORPORATION YARD
Address: 6344 CLARK RD
Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
EPA ID: CAL000392094
Inactive Date: 06/30/2021
Create Date: 12/17/2013
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 6332 CLARK ROAD
Mailing Address 2: Not reported
Mailing City,State,Zip: PARADISE, CA 95969
Owner Name: PARADISE IRRIGATION DISTRICT
Owner Address: 6332 CLARK RD
Owner Address 2: Not reported
Owner City,State,Zip: PARADISE, CA 959690000
Contact Name: JIM LADRINI
Contact Address: 6332 CLARK RD
Contact Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
Facility Status: Inactive
Facility Type: PERMANENT
Category: STATE
Latitude: 39.768804
Longitude: -121.5988965

NAICS:

EPA ID: CAL000392094
Create Date: 2013-12-17 16:32:57.270
NAICS Code: 22131
NAICS Description: Water Supply and Irrigation Systems
Issued EPA ID Date: 2013-12-17 16:32:57.25000
Inactive Date: Not reported
Facility Name: PARADISE IRRIGATION DISTRICT CORPORATION YARD
Facility Address: 6344 CLARK RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PARADISE IRRIGATION CORP. YARD (Continued)

S118234703

Facility Address 2: Not reported
 Facility City: PARADISE
 Facility County: Not reported
 Facility State: CA
 Facility Zip: 959690000

G19
SW
1/8-1/4
0.208 mi.
1099 ft.

PARADISE IRRIGATION DISTRICT CORPORATION YARD
6344 CLARK RD
PARADISE, CA 95969

RCRA NonGen / NLR

1024841971
CAL000392094

Site 2 of 2 in cluster G

Relative:
Lower
Actual:
2006 ft.

RCRA Listings: 20131217
 Date Form Received by Agency: 20131217
 Handler Name: PARADISE IRRIGATION DISTRICT CORPORATION YARD
 Handler Address: 6344 CLARK RD
 Handler City,State,Zip: PARADISE, CA 95969-0000
 EPA ID: CAL000392094
 Contact Name: JIM LADRINI
 Contact Address: 6322 CLARK RD
 Contact City,State,Zip: PARADISE, CA 95969
 Contact Telephone: 530-520-5365
 Contact Fax: 530-872-7413
 Contact Email: JLADRINI@PARADISEIRRIGATION.COM
 Contact Title: Not reported
 EPA Region: 09
 Land Type: Not reported
 Federal Waste Generator Description: Not a generator, verified
 Non-Notifier: Not reported
 Biennial Report Cycle: Not reported
 Accessibility: Not reported
 Active Site Indicator: Handler Activities
 State District Owner: Not reported
 State District: Not reported
 Mailing Address: 6332 CLARK ROAD
 Mailing City,State,Zip: PARADISE, CA 95969
 Owner Name: PARADISE IRRIGATION DISTRICT
 Owner Type: Other
 Operator Name: JIM LADRINI
 Operator Type: Other
 Short-Term Generator Activity: No
 Importer Activity: No
 Mixed Waste Generator: No
 Transporter Activity: No
 Transfer Facility Activity: No
 Recycler Activity with Storage: No
 Small Quantity On-Site Burner Exemption: No
 Smelting Melting and Refining Furnace Exemption: No
 Underground Injection Control: No
 Off-Site Waste Receipt: No
 Universal Waste Indicator: Yes
 Universal Waste Destination Facility: Yes
 Federal Universal Waste: No
 Active Site Fed-Reg Treatment Storage and Disposal Facility: Not reported
 Active Site Converter Treatment storage and Disposal Facility: Not reported
 Active Site State-Reg Treatment Storage and Disposal Facility: Not reported
 Active Site State-Reg Handler: ---

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PARADISE IRRIGATION DISTRICT CORPORATION YARD (Continued)

1024841971

| | |
|---|---------------------|
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | N |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20180906 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|--------------------------------|------------------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | PARADISE IRRIGATION DISTRICT |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6322 CLARK RD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969-0000 |
| Owner/Operator Telephone: | 530-877-4971 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---------------------------|--------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | JIM LADRINI |
| Legal Status: | Other |
| Date Became Current: | Not reported |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PARADISE IRRIGATION DISTRICT CORPORATION YARD (Continued)

1024841971

Date Ended Current: Not reported
 Owner/Operator Address: 6322 CLARK RD
 Owner/Operator City,State,Zip: PARADISE, CA 95969
 Owner/Operator Telephone: 530-520-5365
 Owner/Operator Telephone Ext: Not reported
 Owner/Operator Fax: Not reported
 Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20131217
 Handler Name: PARADISE IRRIGATION DISTRICT CORPORATION YARD
 Federal Waste Generator Description: Not a generator, verified
 State District Owner: Not reported
 Large Quantity Handler of Universal Waste: No
 Recognized Trader Importer: No
 Recognized Trader Exporter: No
 Spent Lead Acid Battery Importer: No
 Spent Lead Acid Battery Exporter: No
 Current Record: Yes
 Non Storage Recycler Activity: Not reported
 Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
 NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

F20
West
1/8-1/4
0.208 mi.
1099 ft.

LEO BUCHHOLY
6244 HARVEY RD
PARADISE, CA 95969
Site 2 of 2 in cluster F

RCRA NonGen / NLR

1026161666
CAC003061649

Relative:
Lower
Actual:
1988 ft.

RCRA Listings:
 Date Form Received by Agency: 20200327
 Handler Name: LEO BUCHHOLY
 Handler Address: 6244 HARVEY RD
 Handler City,State,Zip: PARADISE, CA 95969-3433
 EPA ID: CAC003061649
 Contact Name: LEO BUCHHOLY
 Contact Address: 6244 HARVEY RD
 Contact City,State,Zip: PARADISE, CA 95969-3433
 Contact Telephone: 530-591-5775
 Contact Fax: Not reported
 Contact Email: NICOLE@ENV-REM.COM
 Contact Title: Not reported
 EPA Region: 09
 Land Type: Not reported
 Federal Waste Generator Description: Not a generator, verified
 Non-Notifier: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

LEO BUCHHOLY (Continued)

1026161666

| | | |
|--|--------------|-------------------------|
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Not reported |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 6244 HARVEY RD |
| Mailing City, State, Zip: | | PARADISE, CA 95969-3433 |
| Owner Name: | LEO BUCHHOLY | |
| Owner Type: | | Other |
| Operator Name: | LEO BUCHHOLY | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | No |
| Universal Waste Destination Facility: | | No |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRC Permit Baseline: | | Not on the Baseline |
| 2018 GPRC Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |
| Permit Workload Universe: | | Not reported |
| Permit Progress Universe: | | Not reported |
| Post-Closure Workload Universe: | | Not reported |
| Closure Workload Universe: | | Not reported |
| 202 GPRC Corrective Action Baseline: | | No |
| Corrective Action Workload Universe: | | No |
| Subject to Corrective Action Universe: | | No |
| Non-TSDs Where RCRA CA has Been Imposed Universe: | | No |
| TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe: | | No |
| TSDs Only Subject to CA under Discretionary Auth Universe: | | No |
| Corrective Action Priority Ranking: | | No NCAPS ranking |
| Environmental Control Indicator: | | No |
| Institutional Control Indicator: | | No |
| Human Exposure Controls Indicator: | | N/A |
| Groundwater Controls Indicator: | | N/A |
| Operating TSD Universe: | | Not reported |
| Full Enforcement Universe: | | Not reported |
| Significant Non-Complier Universe: | | No |
| Unaddressed Significant Non-Complier Universe: | | No |
| Addressed Significant Non-Complier Universe: | | No |
| Significant Non-Complier With a Compliance Schedule Universe: | | No |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEO BUCHHOLY (Continued)

1026161666

| | |
|--|--------------|
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20200408 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|--------------------------------|-------------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | LEO BUCHHOLY |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6244 HARVEY RD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969-3433 |
| Owner/Operator Telephone: | 530-591-5775 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|--------------------------------|-------------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | LEO BUCHHOLY |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6244 HARVEY RD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969-3433 |
| Owner/Operator Telephone: | 530-591-5775 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|---------------------------|
| Receive Date: | 20200327 |
| Handler Name: | LEO BUCHHOLY |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|--------------------|-------------------------------------|
| NAICS Code: | 56299 |
| NAICS Description: | ALL OTHER WASTE MANAGEMENT SERVICES |

Facility Has Received Notices of Violations:

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

LEO BUCHHOLY (Continued)

1026161666

Violations: No Violations Found

Evaluation Action Summary:
 Evaluations: No Evaluations Found

E21
NNE
1/8-1/4
0.219 mi.
1154 ft.

PARADISE MEDICAL IMAGING
6585 CLARK ROAD
PARADISE, CA 95969
Site 3 of 3 in cluster E

CUPA Listings **S113166880**
HAZNET **N/A**
HWTS

Relative:
Higher

CUPA BUTTE:
 Name: LANCE E NEUMAN DPM
 Address: 6585 CLARK RD # 220
 City,State,Zip: PARADISE, CA 95969
 Program/Element: HAZ WASTE GEN < THAN 100 kg/mo
 Billing Status: INACTIVE, NON-BILLABLE
 CERS ID: 10278136

Actual:
2079 ft.

HAZNET:
 Name: PARADISE MEDICAL IMAGING
 Address: 6585 CLARK ROAD
 Address 2: Not reported
 City,State,Zip: PARADISE, CA 959690000
 Contact: KATHY ULMER
 Telephone: 9168772825
 Mailing Name: Not reported
 Mailing Address: 6585 CLARK RD STE 340

Year: 1996
 Gepaid: CAL921762737
 TSD EPA ID: CAT000613976
 CA Waste Code: 541 - Photochemicals/photoprocessing waste
 Disposal Method: R01 - Recycler
 Tons: 0.0208

Year: 1996
 Gepaid: CAL921762737
 TSD EPA ID: CAT000613976
 CA Waste Code: 541 - Photochemicals/photoprocessing waste
 Disposal Method: H01 - Transfer Station
 Tons: 0.0416

Year: 1995
 Gepaid: CAL921762737
 TSD EPA ID: CAD070148432
 CA Waste Code: 541 - Photochemicals/photoprocessing waste
 Disposal Method: R01 - Recycler
 Tons: 0.0208

Year: 1995
 Gepaid: CAL921762737
 TSD EPA ID: CAD070148432
 CA Waste Code: 541 - Photochemicals/photoprocessing waste
 Disposal Method: T03 - Treatment, Incineration
 Tons: 0.0416

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

| | |
|------------------|---|
| Year: | 1994 |
| Gepaid: | CAL921762737 |
| TSD EPA ID: | CAD070148432 |
| CA Waste Code: | 541 - Photochemicals/photoprocessing waste |
| Disposal Method: | T03 - Treatment, Incineration |
| Tons: | 0.0416 |
| Year: | 1994 |
| Gepaid: | CAL921762737 |
| TSD EPA ID: | CAD003963592 |
| CA Waste Code: | 541 - Photochemicals/photoprocessing waste |
| Disposal Method: | - |
| Tons: | 0.0208 |
| Year: | 1994 |
| Gepaid: | CAL921762737 |
| TSD EPA ID: | CAD003963592 |
| CA Waste Code: | 541 - Photochemicals/photoprocessing waste |
| Disposal Method: | T03 - Treatment, Incineration |
| Tons: | 0.0208 |
| Year: | 1993 |
| Gepaid: | CAL921762737 |
| TSD EPA ID: | CAD070148432 |
| CA Waste Code: | 171 - Metal sludge (Alkaline solution (pH >= 12.5) with metals) |
| Disposal Method: | T03 - Treatment, Incineration |
| Tons: | 0.1 |

Additional Info:

| | |
|-------------------------|---|
| Year: | 1996 |
| Gen EPA ID: | CAL921762737 |
| Shipment Date: | 19961105 |
| Creation Date: | 5/20/1997 0:00:00 |
| Receipt Date: | 19961115 |
| Manifest ID: | 96483924 |
| Trans EPA ID: | ILD984908202 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | ILD984908202 |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAT000613976 |
| Trans Name: | Not reported |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 541 - Photochemicals / photo processing waste |
| RCRA Code: | D011 |
| Meth Code: | H01 - Transfer Station |
| Quantity Tons: | 0.0208 |
| Waste Quantity: | 5 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

Shipment Date: 19960709
Creation Date: 5/20/1997 0:00:00
Receipt Date: 19960719
Manifest ID: 96084410
Trans EPA ID: ILD984908202
Trans Name: Not reported
Trans 2 EPA ID: ARD981908551
Trans 2 Name: Not reported
TSDf EPA ID: CAT000613976
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: R01 - Recycler
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19960320
Creation Date: 10/16/1996 0:00:00
Receipt Date: 19960329
Manifest ID: 96256348
Trans EPA ID: ILD984908202
Trans Name: Not reported
Trans 2 EPA ID: ILD984908202
Trans 2 Name: Not reported
TSDf EPA ID: CAT000613976
Trans Name: Not reported
TSDf Alt EPA ID: CAT000613976
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: H01 - Transfer Station
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 1995
Gen EPA ID: CAL921762737

Shipment Date: 19951206
Creation Date: 7/26/1996 0:00:00
Receipt Date: 19951208
Manifest ID: 95640232
Trans EPA ID: ILD984908202

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

Trans Name: Not reported
Trans 2 EPA ID: ILD984908202
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: R01 - Recycler
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19950502
Creation Date: 4/2/1996 0:00:00
Receipt Date: 19950505
Manifest ID: 95356774
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: CAD070148432
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: CAD070148432
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19950118
Creation Date: 3/28/1996 0:00:00
Receipt Date: 19950123
Manifest ID: 95307294
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: CAD070148432
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 1994
Gen EPA ID: CAL921762737

Shipment Date: 19941019
Creation Date: 3/26/1996 0:00:00
Receipt Date: 19941020
Manifest ID: 92875932
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: CAD070148432
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: CAD070148432
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19940616
Creation Date: 10/10/1995 0:00:00
Receipt Date: Not reported
Manifest ID: 93071873
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD003963592
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 541 - Photochemicals / photo processing waste
RCRA Code: D011
Meth Code: - Not reported
Quantity Tons: 0.0208
Waste Quantity: 5
Quantity Unit: G
Additional Code 1: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

| | |
|-------------------------|---|
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19940608 |
| Creation Date: | 10/16/1995 0:00:00 |
| Receipt Date: | 19940609 |
| Manifest ID: | 93071873 |
| Trans EPA ID: | CAD982445132 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | CAD003963592 |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD003963592 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 541 - Photochemicals / photo processing waste |
| RCRA Code: | D011 |
| Meth Code: | T03 - Treatment, Incineration |
| Quantity Tons: | 0.0208 |
| Waste Quantity: | 5 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 19940105 |
| Creation Date: | 9/14/1995 0:00:00 |
| Receipt Date: | 19940106 |
| Manifest ID: | 93530029 |
| Trans EPA ID: | CAD982445132 |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD070148432 |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | CAD070148432 |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 541 - Photochemicals / photo processing waste |
| RCRA Code: | D011 |
| Meth Code: | T03 - Treatment, Incineration |
| Quantity Tons: | 0.0208 |
| Waste Quantity: | 5 |
| Quantity Unit: | G |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Additional Info: | |
| Year: | 1993 |
| Gen EPA ID: | CAL921762737 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

Shipment Date: 19930818
Creation Date: 9/12/1995 0:00:00
Receipt Date: 19930820
Manifest ID: 93054311
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: CAD070148432
TSDf Alt Name: Not reported
Waste Code Description: 171 - Metal sludge (see 121
RCRA Code: D011
Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.03
Waste Quantity: 60
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19930414
Creation Date: 9/6/1995 0:00:00
Receipt Date: 19930416
Manifest ID: 92727451
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432
Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 171 - Metal sludge (see 121
RCRA Code: D011
Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.04
Waste Quantity: 80
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 19930121
Creation Date: 9/5/1995 0:00:00
Receipt Date: 19930122
Manifest ID: 92023940
Trans EPA ID: CAD982445132
Trans Name: Not reported
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD070148432

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PARADISE MEDICAL IMAGING (Continued)

S113166880

Trans Name: Not reported
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 171 - Metal sludge (see 121
RCRA Code: Not reported
Meth Code: T03 - Treatment, Incineration
Quantity Tons: 0.03
Waste Quantity: 60
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

HWTS:

Name: PARADISE MEDICAL IMAGING
Address: 6585 CLARK ROAD
Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
EPA ID: CAL921762737
Inactive Date: 06/30/1999
Create Date: 06/24/1992
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 6585 CLARK RD STE 340
Mailing Address 2: Not reported
Mailing City,State,Zip: PARADISE, CA 959693500
Owner Name: RICHARD L DAVIES
Owner Address: 7023 MONTNA DR
Owner Address 2: Not reported
Owner City,State,Zip: PARADISE, CA 959690000
Contact Name: KATHY ULMER
Contact Address: INACTIVE PER VQ99 - BMI
Contact Address 2: Not reported
City,State,Zip: PARADISE, CA 959693500
Facility Status: Inactive
Facility Type: PERMANENT
Category: STATE
Latitude: 39.775458
Longitude: -121.592773

NAICS:

EPA ID: CAL921762737
Create Date: 2002-03-14 16:36:30.000
NAICS Code: 6211
NAICS Description: Offices of Physicians
Issued EPA ID Date: 1992-06-24 00:00:00
Inactive Date: 1999-06-30 00:00:00
Facility Name: PARADISE MEDICAL IMAGING
Facility Address: 6585 CLARK ROAD
Facility Address 2: Not reported
Facility City: PARADISE
Facility County: Not reported
Facility State: CA
Facility Zip: 959690000

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

22
West
1/8-1/4
0.229 mi.
1207 ft.

REDLINE-RICANN DAVENPORT
6225 HARVEY RD.
PARADISE, CA 95969

RCRA NonGen / NLR

1024781344
CAC003001312

Relative:
Lower
Actual:
1981 ft.

| | | |
|--|--------------------------|---------------------------|
| RCRA Listings: | | |
| Date Form Received by Agency: | | 20190215 |
| Handler Name: | REDLINE-RICANN DAVENPORT | |
| Handler Address: | | 6225 HARVEY RD. |
| Handler City,State,Zip: | | PARADISE, CA 95969 |
| EPA ID: | | CAC003001312 |
| Contact Name: | | WALBERG INC. |
| Contact Address: | | 2791 99W, |
| Contact City,State,Zip: | | CORNING, CA 96021 |
| Contact Telephone: | | 530-824-0773 |
| Contact Fax: | | Not reported |
| Contact Email: | | KEVIN@WARRENASBESTOS.COM |
| Contact Title: | | Not reported |
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | P.O. BOX 1051 |
| Mailing City,State,Zip: | | DURHAM, CA 95938 |
| Owner Name: | RICANN DAVENPORT | |
| Owner Type: | | Other |
| Operator Name: | WALBERG INC. | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRA Permit Baseline: | | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

REDLINE-RICANN DAVENPORT (Continued)

1024781344

| | |
|---|------------------|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190222 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|-----------------------------------|-------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: WALBERG INC. | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 2791 99W, |
| Owner/Operator City,State,Zip: | CORNING, CA 96021 |
| Owner/Operator Telephone: | 530-824-0773 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|---------------------------------------|------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: RICANN DAVENPORT | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | P.O. BOX 1051 |
| Owner/Operator City,State,Zip: | DURHAM, CA 95938 |
| Owner/Operator Telephone: | 530-413-5763 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

REDLINE-RICANN DAVENPORT (Continued)

1024781344

Historic Generators:

Receive Date: 20190215
Handler Name: REDLINE-RICANN DAVENPORT
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

23
NW
1/8-1/4
0.235 mi.
1240 ft.

CECELIA WEEKS
1280 WAGSTAFF ROAD #67
PARADISE, CA 95967

RCRA NonGen / NLR

1025835331
CAC003014915

Relative:
Higher
Actual:
2043 ft.

RCRA Listings:

Date Form Received by Agency: 20190514
Handler Name: CECELIA WEEKS
Handler Address: 1280 WAGSTAFF ROAD #67
Handler City,State,Zip: PARADISE, CA 95967
EPA ID: CAC003014915
Contact Name: CECELIA WEEKS
Contact Address: 1280 WAGSTAFF ROAD #67
Contact City,State,Zip: PARADISE, CA 95967
Contact Telephone: 530-487-2067
Contact Fax: Not reported
Contact Email: JULIE@8884ABATEMENT.COM
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Not a generator, verified
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported
Active Site Indicator: Handler Activities
State District Owner: Not reported
State District: Not reported
Mailing Address: P.O. BOX 2054
Mailing City,State,Zip: PARADISE, CA 95967
Owner Name: CECELIA WEEKS

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CECELIA WEEKS (Continued)

1025835331

| | | |
|--|---------------|---------------------|
| Owner Type: | | Other |
| Operator Name: | CECELIA WEEKS | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRA Permit Baseline: | | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |
| Permit Workload Universe: | | Not reported |
| Permit Progress Universe: | | Not reported |
| Post-Closure Workload Universe: | | Not reported |
| Closure Workload Universe: | | Not reported |
| 202 GPRA Corrective Action Baseline: | | No |
| Corrective Action Workload Universe: | | No |
| Subject to Corrective Action Universe: | | No |
| Non-TSDs Where RCRA CA has Been Imposed Universe: | | No |
| TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe: | | No |
| TSDs Only Subject to CA under Discretionary Auth Universe: | | No |
| Corrective Action Priority Ranking: | | No NCAPS ranking |
| Environmental Control Indicator: | | No |
| Institutional Control Indicator: | | No |
| Human Exposure Controls Indicator: | | N/A |
| Groundwater Controls Indicator: | | N/A |
| Operating TSD Universe: | | Not reported |
| Full Enforcement Universe: | | Not reported |
| Significant Non-Complier Universe: | | No |
| Unaddressed Significant Non-Complier Universe: | | No |
| Addressed Significant Non-Complier Universe: | | No |
| Significant Non-Complier With a Compliance Schedule Universe: | | No |
| Financial Assurance Required: | Not reported | |
| Handler Date of Last Change: | | 20190627 |
| Recognized Trader-Importer: | | No |
| Recognized Trader-Exporter: | | No |
| Importer of Spent Lead Acid Batteries: | | No |
| Exporter of Spent Lead Acid Batteries: | | No |
| Recycler Activity Without Storage: | | No |
| Manifest Broker: | | No |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CECELIA WEEKS (Continued)

1025835331

Sub-Part P Indicator: No

Handler - Owner Operator:
Owner/Operator Indicator: Operator
Owner/Operator Name: CECELIA WEEKS
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1280 WAGSTAFF ROAD #67
Owner/Operator City,State,Zip: PARADISE, CA 95967
Owner/Operator Telephone: 530-487-2067
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: CECELIA WEEKS
Legal Status: Other
Date Became Current: Not reported
Date Ended Current: Not reported
Owner/Operator Address: 1280 WAGSTAFF ROAD #67
Owner/Operator City,State,Zip: PARADISE, CA 95967
Owner/Operator Telephone: 530-487-2067
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:
Receive Date: 20190514
Handler Name: CECELIA WEEKS
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:
NAICS Code: 56299
NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

EDR ID Number
 EPA ID Number

| | | | |
|------------------|-------------------------------------|--------------------------|---------------------|
| H24 | TRACTOR SUPPLY CO STORE 2512 | RCRA NonGen / NLR | 1026492066 |
| NE | 6600 CLARK RD | | CAL000456840 |
| 1/8-1/4 | PARADISE, CA 95969 | | |
| 0.238 mi. | | | |
| 1256 ft. | Site 1 of 6 in cluster H | | |

| | | | |
|-----------------------------|--|------------------------------|--|
| Relative: Higher | RCRA Listings: | | |
| | Date Form Received by Agency: | 20200917 | |
| Actual: 2107 ft. | Handler Name: | TRACTOR SUPPLY CO STORE 2512 | |
| | Handler Address: | 6600 CLARK RD | |
| | Handler City,State,Zip: | PARADISE, CA 95969 | |
| | EPA ID: | CAL000456840 | |
| | Contact Name: | BRIAN SPEARS | |
| | Contact Address: | 5401 VIRGINIA WAY | |
| | Contact City,State,Zip: | BRENTWOOD, TN 37027 | |
| | Contact Telephone: | 615-440-4115 | |
| | Contact Fax: | 615-484-4115 | |
| | Contact Email: | HAZMAT@TRACTORSUPPLY.COM | |
| | Contact Title: | Not reported | |
| | EPA Region: | 09 | |
| | Land Type: | Not reported | |
| | Federal Waste Generator Description: | Not a generator, verified | |
| | Non-Notifier: | Not reported | |
| | Biennial Report Cycle: | Not reported | |
| | Accessibility: | Not reported | |
| | Active Site Indicator: | Not reported | |
| | State District Owner: | Not reported | |
| | State District: | Not reported | |
| | Mailing Address: | 5401 VIRGINIA WAY | |
| | Mailing City,State,Zip: | BRENTWOOD, TN 37027 | |
| | Owner Name: | TRACTOR SUPPLY CO | |
| | Owner Type: | Other | |
| | Operator Name: | BRIAN SPEARS | |
| | Operator Type: | Other | |
| | Short-Term Generator Activity: | No | |
| | Importer Activity: | No | |
| | Mixed Waste Generator: | No | |
| | Transporter Activity: | No | |
| | Transfer Facility Activity: | No | |
| | Recycler Activity with Storage: | No | |
| | Small Quantity On-Site Burner Exemption: | No | |
| | Smelting Melting and Refining Furnace Exemption: | No | |
| | Underground Injection Control: | No | |
| | Off-Site Waste Receipt: | No | |
| | Universal Waste Indicator: | No | |
| | Universal Waste Destination Facility: | No | |
| | Federal Universal Waste: | No | |
| | Active Site Fed-Reg Treatment Storage and Disposal Facility: | Not reported | |
| | Active Site Converter Treatment storage and Disposal Facility: | Not reported | |
| | Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported | |
| | Active Site State-Reg Handler: | --- | |
| | Federal Facility Indicator: | Not reported | |
| | Hazardous Secondary Material Indicator: | N | |
| | Sub-Part K Indicator: | Not reported | |
| | Commercial TSD Indicator: | No | |
| | Treatment Storage and Disposal Type: | Not reported | |
| | 2018 GPRR Permit Baseline: | Not on the Baseline | |
| | 2018 GPRR Renewals Baseline: | Not on the Baseline | |
| | Permit Renewals Workload Universe: | Not reported | |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

TRACTOR SUPPLY CO STORE 2512 (Continued)

1026492066

| | |
|---|------------------|
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20200920 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|--|---------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: TRACTOR SUPPLY CO | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 5401 VIRGINIA WAY |
| Owner/Operator City,State,Zip: | BRENTWOOD, TN 37027 |
| Owner/Operator Telephone: | 615-440-4115 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|-----------------------------------|---------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: BRIAN SPEARS | |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 5401 VIRGINIA WAY |
| Owner/Operator City,State,Zip: | BRENTWOOD, TN 37027 |
| Owner/Operator Telephone: | 615-440-4115 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY CO STORE 2512 (Continued)

1026492066

Historic Generators:

Receive Date: 20200917
Handler Name: TRACTOR SUPPLY CO STORE 2512
Federal Waste Generator Description: Not a generator, verified
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 453998
NAICS Description: ALL OTHER MISCELLANEOUS STORE RETAILERS (EXCEPT TOBACCO STORES)

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

H25
NE
1/8-1/4
0.238 mi.
1256 ft.

K MART CORPORATION
6600 CLARK RD
PARADISE, CA 95969
Site 2 of 6 in cluster H

SWEEPS UST S101580596
CA FID UST N/A
CUPA Listings

Relative:
Higher
Actual:
2107 ft.

SWEEPS UST:

Name: K MART CORPORATION
Address: 6600 CLARK RD
City: PARADISE
Status: Not reported
Comp Number: 14425
Number: Not reported
Board Of Equalization: 44-001750
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 04-000-014425-000001
Tank Status: Not reported
Capacity: 500
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 1

CA FID UST:

Facility ID: 04000163
Regulated By: UTKNI

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

K MART CORPORATION (Continued)

S101580596

Regulated ID: 00014425
 Cortese Code: Not reported
 SIC Code: Not reported
 Facility Phone: 9168771640
 Mail To: Not reported
 Mailing Address: 5400 AUBURN BLVD
 Mailing Address 2: Not reported
 Mailing City,St,Zip: PARADISE 95969
 Contact: Not reported
 Contact Phone: Not reported
 DUNs Number: Not reported
 NPDES Number: Not reported
 EPA ID: Not reported
 Comments: Not reported
 Status: Inactive

CUPA BUTTE:

Name: KMART #9551
 Address: 6600 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: HAZ WASTE GEN < THAN 100 kg/mo
 Billing Status: ACTIVE, BILLABLE
 CERS ID: 10140731

Name: K MART CORPORATION
 Address: 6600 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: GENERAL UST
 Billing Status: INACTIVE, NON-BILLABLE
 CERS ID: Not reported

Name: KMART #9551
 Address: 6600 CLARK RD
 City,State,Zip: PARADISE, CA 95969
 Program/Element: B1 - RANGE 0 - 55 - 550 GALLONS
 Billing Status: ACTIVE, BILLABLE
 CERS ID: 10140731

H26
NE
1/8-1/4
0.238 mi.
1256 ft.

KMART #9551
6600 CLARK ROAD
PARADISE, CA 95969
Site 3 of 6 in cluster H

RCRA NonGen / NLR 1025833477
CAC003013054

Relative:
Higher
Actual:
2107 ft.

RCRA Listings:
 Date Form Received by Agency: 20190502
 Handler Name: KMART #9551
 Handler Address: 6600 CLARK ROAD
 Handler City,State,Zip: PARADISE, CA 95969
 EPA ID: CAC003013054
 Contact Name: MICHELLE SIMMONS
 Contact Address: 6600 CLARK ROAD
 Contact City,State,Zip: PARADISE, CA 95969
 Contact Telephone: 775-385-4094
 Contact Fax: Not reported
 Contact Email: DANIEL@ECCINC.US
 Contact Title: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KMART #9551 (Continued)

1025833477

| | | |
|--|------------------|---------------------------|
| EPA Region: | | 09 |
| Land Type: | | Not reported |
| Federal Waste Generator Description: | | Not a generator, verified |
| Non-Notifier: | | Not reported |
| Biennial Report Cycle: | | Not reported |
| Accessibility: | | Not reported |
| Active Site Indicator: | | Handler Activities |
| State District Owner: | | Not reported |
| State District: | | Not reported |
| Mailing Address: | | 6600 CLARK ROAD |
| Mailing City,State,Zip: | | PARADISE, CA 95969 |
| Owner Name: | MICHELLE SIMMONS | |
| Owner Type: | | Other |
| Operator Name: | MICHELLE SIMMONS | |
| Operator Type: | | Other |
| Short-Term Generator Activity: | | No |
| Importer Activity: | | No |
| Mixed Waste Generator: | | No |
| Transporter Activity: | | No |
| Transfer Facility Activity: | | No |
| Recycler Activity with Storage: | | No |
| Small Quantity On-Site Burner Exemption: | | No |
| Smelting Melting and Refining Furnace Exemption: | | No |
| Underground Injection Control: | | No |
| Off-Site Waste Receipt: | | No |
| Universal Waste Indicator: | | Yes |
| Universal Waste Destination Facility: | | Yes |
| Federal Universal Waste: | | No |
| Active Site Fed-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site Converter Treatment storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | | Not reported |
| Active Site State-Reg Handler: | | --- |
| Federal Facility Indicator: | | Not reported |
| Hazardous Secondary Material Indicator: | | N |
| Sub-Part K Indicator: | | Not reported |
| Commercial TSD Indicator: | | No |
| Treatment Storage and Disposal Type: | | Not reported |
| 2018 GPRC Permit Baseline: | | Not on the Baseline |
| 2018 GPRC Renewals Baseline: | | Not on the Baseline |
| Permit Renewals Workload Universe: | | Not reported |
| Permit Workload Universe: | | Not reported |
| Permit Progress Universe: | | Not reported |
| Post-Closure Workload Universe: | | Not reported |
| Closure Workload Universe: | | Not reported |
| 202 GPRC Corrective Action Baseline: | | No |
| Corrective Action Workload Universe: | | No |
| Subject to Corrective Action Universe: | | No |
| Non-TSDs Where RCRA CA has Been Imposed Universe: | | No |
| TSDs Potentially Subject to CA Under 3004 (u)/(v) Universe: | | No |
| TSDs Only Subject to CA under Discretionary Auth Universe: | | No |
| Corrective Action Priority Ranking: | | No NCAPS ranking |
| Environmental Control Indicator: | | No |
| Institutional Control Indicator: | | No |
| Human Exposure Controls Indicator: | | N/A |
| Groundwater Controls Indicator: | | N/A |
| Operating TSD Universe: | | Not reported |
| Full Enforcement Universe: | | Not reported |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KMART #9551 (Continued)

1025833477

| | |
|---|--------------|
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20190627 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | No |
| Manifest Broker: | No |
| Sub-Part P Indicator: | No |

Handler - Owner Operator:

| | |
|--------------------------------|--------------------|
| Owner/Operator Indicator: | Owner |
| Owner/Operator Name: | MICHELLE SIMMONS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6600 CLARK ROAD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969 |
| Owner/Operator Telephone: | 775-385-4094 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

| | |
|--------------------------------|--------------------|
| Owner/Operator Indicator: | Operator |
| Owner/Operator Name: | MICHELLE SIMMONS |
| Legal Status: | Other |
| Date Became Current: | Not reported |
| Date Ended Current: | Not reported |
| Owner/Operator Address: | 6600 CLARK ROAD |
| Owner/Operator City,State,Zip: | PARADISE, CA 95969 |
| Owner/Operator Telephone: | 775-385-4094 |
| Owner/Operator Telephone Ext: | Not reported |
| Owner/Operator Fax: | Not reported |
| Owner/Operator Email: | Not reported |

Historic Generators:

| | |
|--|---------------------------|
| Receive Date: | 20190502 |
| Handler Name: | KMART #9551 |
| Federal Waste Generator Description: | Not a generator, verified |
| State District Owner: | Not reported |
| Large Quantity Handler of Universal Waste: | No |
| Recognized Trader Importer: | No |
| Recognized Trader Exporter: | No |
| Spent Lead Acid Battery Importer: | No |
| Spent Lead Acid Battery Exporter: | No |
| Current Record: | Yes |
| Non Storage Recycler Activity: | Not reported |
| Electronic Manifest Broker: | Not reported |

List of NAICS Codes and Descriptions:

| | |
|-------------|-------|
| NAICS Code: | 56299 |
|-------------|-------|

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KMART #9551 (Continued)

1025833477

NAICS Description: ALL OTHER WASTE MANAGEMENT SERVICES

Facility Has Received Notices of Violations:
 Violations: No Violations Found

Evaluation Action Summary:
 Evaluations: No Evaluations Found

**H27
 NE
 1/8-1/4
 0.238 mi.
 1256 ft.**

**KMART 9551
 6600 CLARK ROAD
 PARADISE, CA 95969
 Site 4 of 6 in cluster H**

**RCRA-VSQG 1019322335
 CAL000018523**

**Relative:
 Higher
 Actual:
 2107 ft.**

RCRA Listings:
 Date Form Received by Agency: 20160218
 Handler Name: KMART 9551
 Handler Address: 6600 CLARK ROAD
 Handler City,State,Zip: PARADISE, CA 95969
 EPA ID: CAL000018523
 Contact Name: CYNTHIA MILLER
 Contact Address: BEVERLY ROAD
 Contact City,State,Zip: HOFFMAN ESTATES, IL 60179
 Contact Telephone: 847-286-7994
 Contact Fax: 847-747-1609
 Contact Email: CYNTHIA.MILLER@SEARSHC.COM
 Contact Title: ENVIRONMENTAL SPECIALIST
 EPA Region: 09
 Land Type: Private
 Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
 Non-Notifier: Not reported
 Biennial Report Cycle: 2015
 Accessibility: Not reported
 Active Site Indicator: Handler Activities
 State District Owner: Not reported
 State District: Not reported
 Mailing Address: BEVERLY ROAD
 Mailing City,State,Zip: HOFFMAN ESTATES, IL 60179
 Owner Name: BRIXMOR OPERATING PARTNERSHIP LP
 Owner Type: Private
 Operator Name: KMART CORPORATION
 Operator Type: Private
 Short-Term Generator Activity: No
 Importer Activity: No
 Mixed Waste Generator: No
 Transporter Activity: No
 Transfer Facility Activity: No
 Recycler Activity with Storage: No
 Small Quantity On-Site Burner Exemption: No
 Smelting Melting and Refining Furnace Exemption: No
 Underground Injection Control: No
 Off-Site Waste Receipt: No
 Universal Waste Indicator: No
 Universal Waste Destination Facility: No
 Federal Universal Waste: No
 Active Site Fed-Reg Treatment Storage and Disposal Facility: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KMART 9551 (Continued)

1019322335

| | |
|--|---------------------|
| Active Site Converter Treatment storage and Disposal Facility: | Not reported |
| Active Site State-Reg Treatment Storage and Disposal Facility: | Not reported |
| Active Site State-Reg Handler: | --- |
| Federal Facility Indicator: | Not reported |
| Hazardous Secondary Material Indicator: | NN |
| Sub-Part K Indicator: | Not reported |
| Commercial TSD Indicator: | No |
| Treatment Storage and Disposal Type: | Not reported |
| 2018 GPRA Permit Baseline: | Not on the Baseline |
| 2018 GPRA Renewals Baseline: | Not on the Baseline |
| Permit Renewals Workload Universe: | Not reported |
| Permit Workload Universe: | Not reported |
| Permit Progress Universe: | Not reported |
| Post-Closure Workload Universe: | Not reported |
| Closure Workload Universe: | Not reported |
| 202 GPRA Corrective Action Baseline: | No |
| Corrective Action Workload Universe: | No |
| Subject to Corrective Action Universe: | No |
| Non-TSDFs Where RCRA CA has Been Imposed Universe: | No |
| TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe: | No |
| TSDFs Only Subject to CA under Discretionary Auth Universe: | No |
| Corrective Action Priority Ranking: | No NCAPS ranking |
| Environmental Control Indicator: | No |
| Institutional Control Indicator: | No |
| Human Exposure Controls Indicator: | N/A |
| Groundwater Controls Indicator: | N/A |
| Operating TSDF Universe: | Not reported |
| Full Enforcement Universe: | Not reported |
| Significant Non-Complier Universe: | No |
| Unaddressed Significant Non-Complier Universe: | No |
| Addressed Significant Non-Complier Universe: | No |
| Significant Non-Complier With a Compliance Schedule Universe: | No |
| Financial Assurance Required: | Not reported |
| Handler Date of Last Change: | 20161104 |
| Recognized Trader-Importer: | No |
| Recognized Trader-Exporter: | No |
| Importer of Spent Lead Acid Batteries: | No |
| Exporter of Spent Lead Acid Batteries: | No |
| Recycler Activity Without Storage: | Not reported |
| Manifest Broker: | Not reported |
| Sub-Part P Indicator: | No |

Biennial: List of Years

Year: 2015

[Click Here for Biennial Reporting System Data:](#)

Hazardous Waste Summary:

| | |
|--------------------|-----------------|
| Waste Code: | D001 |
| Waste Description: | IGNITABLE WASTE |
| Waste Code: | D002 |
| Waste Description: | CORROSIVE WASTE |
| Waste Code: | D018 |
| Waste Description: | BENZENE |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KMART 9551 (Continued)

1019322335

Waste Code: D035
Waste Description: METHYL ETHYL KETONE

Waste Code: P075
Waste Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Handler - Owner Operator:

Owner/Operator Indicator: Operator
Owner/Operator Name: KMART CORPORATION
Legal Status: Private
Date Became Current: 19790329
Date Ended Current: Not reported
Owner/Operator Address: Not reported
Owner/Operator City,State,Zip: Not reported
Owner/Operator Telephone: Not reported
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Owner/Operator Indicator: Owner
Owner/Operator Name: BRIXMOR OPERATING PARTNERSHIP LP
Legal Status: Private
Date Became Current: 19780123
Date Ended Current: Not reported
Owner/Operator Address: 450 LEXINGTON AVENUE
Owner/Operator City,State,Zip: NEW YORK, NY 10170
Owner/Operator Telephone: 212-869-3000
Owner/Operator Telephone Ext: Not reported
Owner/Operator Fax: Not reported
Owner/Operator Email: Not reported

Historic Generators:

Receive Date: 20160218
Handler Name: KMART 9551
Federal Waste Generator Description: Conditionally Exempt Small Quantity Generator
State District Owner: Not reported
Large Quantity Handler of Universal Waste: No
Recognized Trader Importer: No
Recognized Trader Exporter: No
Spent Lead Acid Battery Importer: No
Spent Lead Acid Battery Exporter: No
Current Record: Yes
Non Storage Recycler Activity: Not reported
Electronic Manifest Broker: Not reported

List of NAICS Codes and Descriptions:

NAICS Code: 45299
NAICS Description: ALL OTHER GENERAL MERCHANDISE STORES

Facility Has Received Notices of Violations:

Violations: No Violations Found

Evaluation Action Summary:

Evaluations: No Evaluations Found

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

H28
NE
1/8-1/4
0.238 mi.
1256 ft.

TRACTOR SUPPLY STORE #2512
6600 CLARK ROAD
PARADISE, CA 95969

Site 5 of 6 in cluster H

CERS HAZ WASTE
HAZNET
CERS
HWTS

S113028097
N/A

Relative:
Higher

Actual:
2107 ft.

CERS HAZ WASTE:
 Name: TRACTOR SUPPLY STORE #2512
 Address: 6600 CLARK ROAD
 City,State,Zip: PARADISE, CA 95969
 Site ID: 568640
 CERS ID: 10852003
 CERS Description: Hazardous Waste Generator

HAZNET:

Name: TRACTOR SUPPLY CO STORE 2512
 Address: 6600 CLARK RD
 Address 2: Not reported
 City,State,Zip: PARADISE, CA 95969
 Contact: PAT PERRY WERNEIWSKI
 Telephone: 6154404682
 Mailing Name: Not reported
 Mailing Address: 5401 VIRGINIA WAY

Year: 2021
 Gepaid: CAL000456840
 TSD EPA ID: IDD073114654
 CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
 Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
 Tons: 0.0205

Year: 2021
 Gepaid: CAL000456840
 TSD EPA ID: NVT330010000
 CA Waste Code: 122 - Alkaline solution without metals pH >= 12.5
 Disposal Method: H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
 Tons: 0.008

Year: 2021
 Gepaid: CAL000456840
 TSD EPA ID: NVT330010000
 CA Waste Code: 331 - Off-specification, aged or surplus organics
 Disposal Method: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
 Tons: 0.0075

Year: 2021
 Gepaid: CAL000456840
 TSD EPA ID: IDD073114654
 CA Waste Code: 331 - Off-specification, aged or surplus organics
 Disposal Method: H132 - Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
 Tons: 0.0355

Year: 2021
 Gepaid: CAL000456840
 TSD EPA ID: IDD073114654

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|------------------|--|
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0085 |
| Year: | 2021 |
| Gepaid: | CAL000456840 |
| TSD EPA ID: | IDD073114654 |
| CA Waste Code: | 221 - Waste oil and mixed oil |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.0035 |
| Year: | 2021 |
| Gepaid: | CAL000456840 |
| TSD EPA ID: | NVT330010000 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H039 - Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect |
| Tons: | 0.202 |
| Year: | 2019 |
| Gepaid: | CAL000018523 |
| TSD EPA ID: | AZR000520478 |
| CA Waste Code: | 331 - Off-specification, aged or surplus organics |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.01650 |
| Year: | 2018 |
| Gepaid: | CAL000018523 |
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 122 - Alkaline solution without metals pH >= 12.5 |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.06400 |
| Year: | 2018 |
| Gepaid: | CAL000018523 |
| TSD EPA ID: | NVD980895338 |
| CA Waste Code: | 311 - Pharmaceutical waste |
| Disposal Method: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Tons: | 0.00050 |

[Click this hyperlink](#) while viewing on your computer to access 76 additional CA HAZNET: record(s) in the EDR Site Report.

Detail Two:

| | |
|-------------------|--------------|
| Year: | 2019 |
| EM Manifest ID: | 399656 |
| Shipment Date: | 8/10/2018 |
| Receipt Date: | 8/24/2018 |
| Manifest Number: | 011393370FLE |
| Generator EPA ID: | CAL000018523 |
| Name: | KMART 9551 |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Address: 6600 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-877-0733
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:
Year: 2019
EM Manifest ID: 399656
Generator EPA ID: CAL000018523
Shipment Date: 2018-08-10
Manifest Number: 011393370FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.17200
Quantity Waste: 344.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 561

Year: 2019
EM Manifest ID: 699644
Shipment Date: 5/2/2019
Receipt Date: 5/14/2019
Manifest Number: 010524843JJK
Generator EPA ID: CAL000018523
Name: KMART 9551
Address: 6600 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 888-380-8664
Contact: Not reported
Contact Telephone: 315-451-6666
Transporter 1 EPA ID: CAR000241448
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000183574
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000520478
TSDf Name: ENVIRONMENTAL WASTE SOLUTIONS, INC.
TSDf Address 1: 31915 INDUSTRIAL LANE
TSDf Address 2: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

TSDf City: PAKER
TSDf Zip: 85344
TSDf Telephone: Not reported
State:
Year: 2019
EM Manifest ID: 699644
Generator EPA ID: CAL000018523
Shipment Date: 2019-05-02
Manifest Number: 010524843JJK
Line Number: 2
Method Code: H141
Quantity Tons: 0.01650
Quantity Waste: 5.000000
Quantity Unit: G
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Gallons
State Code: 331

Detail Two:

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1
Shipment Date: 9/14/2017
Receipt Date: 10/4/2017
Manifest Number: 010788260FLE
Generator EPA ID: CAL000018523
Name: KMART #9551
Address: Not reported
Address 2: Not reported
City: Not reported
Zip: Not reported
Telephone: Not reported
Contact: Not reported
Contact Telephone: Not reported
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: NED986382133
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: NVD980895338
TSDf Name: 21ST CENTURY EMN LLC
TSDf Address 1: Not reported
TSDf Address 2: Not reported
TSDf City: Not reported
TSDf Zip: Not reported
TSDf Telephone: Not reported

Federal:

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-09-14
Manifest Number: 010788260FLE
Line Number: 1
Method Code: H070
Quantity Tons: 0.13200
Quantity Waste: 264.000000

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-----------------------|--------------------------|
| Quantity Unit: | P |
| Number of Containers: | 2 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.02250 |
| Quantity Waste: | 45.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 3 |
| Method Code: | H141 |
| Quantity Tons: | 0.03300 |
| Quantity Waste: | 66.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 4 |
| Method Code: | H121 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D002 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 5 |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Method Code: H141
Quantity Tons: 0.00050
Quantity Waste: 1.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

State:

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-09-14
Manifest Number: 010788260FLE
Line Number: 1
Method Code: H070
Quantity Tons: 0.13200
Quantity Waste: 264.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: NULL
Quantity Type: NULL
State Code: 141

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-09-14
Manifest Number: 010788260FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.02250
Quantity Waste: 45.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-09-14
Manifest Number: 010788260FLE
Line Number: 3
Method Code: H141
Quantity Tons: 0.03300
Quantity Waste: 66.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010788260FLE20170914_D_1

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MAP FINDINGS

Site

Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-----------------------|--------------------------|
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 4 |
| Method Code: | H121 |
| Quantity Tons: | 0.00200 |
| Quantity Waste: | 4.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 122 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 5 |
| Method Code: | H141 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 2 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 352 |
| Year: | 2018 |
| EM Manifest ID: | 010788260FLE20170914_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-09-14 |
| Manifest Number: | 010788260FLE |
| Line Number: | 6 |
| Method Code: | H141 |
| Quantity Tons: | 0.05000 |
| Quantity Waste: | 100.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 181 |
| Year: | 2018 |
| EM Manifest ID: | 011412040FLE20180518_D_1 |
| Shipment Date: | 5/18/2018 |
| Receipt Date: | 6/1/2018 |
| Manifest Number: | 011412040FLE |
| Generator EPA ID: | CAL000018523 |
| Name: | KMART #9551 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|---------------------------------|--------------------------|
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 011412040FLE20180518_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2018-05-18 |
| Manifest Number: | 011412040FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.14750 |
| Quantity Waste: | 295.000000 |
| Quantity Unit: | P |
| Number of Containers: | 2 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 561 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 010866853FLE20180223_D_1 |
| Shipment Date: | 2/23/2018 |
| Receipt Date: | 3/6/2018 |
| Manifest Number: | 010866853FLE |
| Generator EPA ID: | CAL000018523 |
| Name: | KMART #9551 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | NED986382133 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21ST CENTURY EMN LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2018 |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00750
Quantity Waste: 15.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 2
Method Code: H121
Quantity Tons: 0.00850
Quantity Waste: 17.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D002

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 3
Method Code: H121
Quantity Tons: 0.03050
Quantity Waste: 61.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D002

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 4
Method Code: H141
Quantity Tons: 0.02450
Quantity Waste: 49.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Federal Code: D001

State:

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.00750
Quantity Waste: 15.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 331

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 2
Method Code: H121
Quantity Tons: 0.00850
Quantity Waste: 17.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 122

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 3
Method Code: H121
Quantity Tons: 0.03050
Quantity Waste: 61.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
State Code: 122

Year: 2018
EM Manifest ID: 010866853FLE20180223_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2018-02-23
Manifest Number: 010866853FLE
Line Number: 4
Method Code: H141
Quantity Tons: 0.02450
Quantity Waste: 49.000000

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|---------------------------------|--------------------------|
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 010866854FLE20180223_D_1 |
| Shipment Date: | 2/23/2018 |
| Receipt Date: | 3/12/2018 |
| Manifest Number: | 010866854FLE |
| Generator EPA ID: | CAL000018523 |
| Name: | KMART #9551 |
| Address: | Not reported |
| Address 2: | Not reported |
| City: | Not reported |
| Zip: | Not reported |
| Telephone: | Not reported |
| Contact: | Not reported |
| Contact Telephone: | Not reported |
| Transporter 1 EPA ID: | MNS000110924 |
| Transporter 1 Emergency Number: | Not reported |
| Transporter 2 EPA ID: | CAR000175422 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | AZR000515924 |
| TSDF Name: | YUMA YES LLC |
| TSDF Address 1: | Not reported |
| TSDF Address 2: | Not reported |
| TSDF City: | Not reported |
| TSDF Zip: | Not reported |
| TSDF Telephone: | Not reported |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 010866854FLE20180223_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2018-02-23 |
| Manifest Number: | 010866854FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.19800 |
| Quantity Waste: | 396.000000 |
| Quantity Unit: | P |
| Number of Containers: | 2 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 561 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Shipment Date: | 12/6/2017 |
| Receipt Date: | 12/27/2017 |
| Manifest Number: | 008656450FLE |
| Generator EPA ID: | CAL000018523 |
| Name: | KMART #9551 |
| Address: | Not reported |

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Address 2: Not reported
City: Not reported
Zip: Not reported
Telephone: Not reported
Contact: Not reported
Contact Telephone: Not reported
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: NED986382133
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: NVD980895338
TSDf Name: 21ST CENTURY EMN LLC
TSDf Address 1: Not reported
TSDf Address 2: Not reported
TSDf City: Not reported
TSDf Zip: Not reported
TSDf Telephone: Not reported

Federal:

Year: 2018
EM Manifest ID: 008656450FLE20171206_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-12-06
Manifest Number: 008656450FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.02050
Quantity Waste: 41.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

Year: 2018
EM Manifest ID: 008656450FLE20171206_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-12-06
Manifest Number: 008656450FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.01850
Quantity Waste: 37.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: NULL
Quantity Type: NULL
Federal Code: D001

Year: 2018
EM Manifest ID: 008656450FLE20171206_D_1
Generator EPA ID: CAL000018523
Shipment Date: 2017-12-06
Manifest Number: 008656450FLE
Line Number: 3
Method Code: H141
Quantity Tons: 0.01400
Quantity Waste: 28.000000

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-----------------------|--------------------------|
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D009 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 4 |
| Method Code: | H070 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D001 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 5 |
| Method Code: | H121 |
| Quantity Tons: | 0.00600 |
| Quantity Waste: | 12.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| Federal Code: | D002 |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.02050 |
| Quantity Waste: | 41.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-----------------------|--------------------------|
| Line Number: | 2 |
| Method Code: | H141 |
| Quantity Tons: | 0.01850 |
| Quantity Waste: | 37.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 331 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 3 |
| Method Code: | H141 |
| Quantity Tons: | 0.01400 |
| Quantity Waste: | 28.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 181 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 4 |
| Method Code: | H070 |
| Quantity Tons: | 0.00050 |
| Quantity Waste: | 1.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 141 |
| Year: | 2018 |
| EM Manifest ID: | 008656450FLE20171206_D_1 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2017-12-06 |
| Manifest Number: | 008656450FLE |
| Line Number: | 5 |
| Method Code: | H121 |
| Quantity Tons: | 0.00600 |
| Quantity Waste: | 12.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | NULL |
| Quantity Type: | NULL |
| State Code: | 122 |
| Year: | 2018 |

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

EM Manifest ID: 174036
Shipment Date: 11/8/2018
Receipt Date: 11/20/2018
Manifest Number: 012119564FLE
Generator EPA ID: CAL000018523
Name: KMART 9551
Address: 6600 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 530-877-0733
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported
Transporter 2 EPA ID: CAR000175422
Transporter 2 Emergency Number: Not reported
TSDf EPA ID: AZR000515924
TSDf Name: YUMA YES WASTE TRANSFER FACILITY
TSDf Address 1: 2730 E 13TH ST
TSDf Address 2: Not reported
TSDf City: YUMA
TSDf Zip: 85365-1901
TSDf Telephone: Not reported

State:

Year: 2018
EM Manifest ID: 174036
Generator EPA ID: CAL000018523
Shipment Date: 2018-11-08
Manifest Number: 012119564FLE
Line Number: 1
Method Code: H141
Quantity Tons: 0.12550
Quantity Waste: 251.000000
Quantity Unit: P
Number of Containers: 2
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 561

Year: 2018
EM Manifest ID: 209694
Shipment Date: 11/8/2018
Receipt Date: 11/29/2018
Manifest Number: 012119563FLE
Generator EPA ID: CAL000018523
Name: KMART
Address: 6600 CLARK ROAD
Address 2: Not reported
City: PARADISE
Zip: 95969
Telephone: 877-577-2669
Contact: Not reported
Contact Telephone: 775-575-2760
Transporter 1 EPA ID: MNS000110924
Transporter 1 Emergency Number: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|---------------------------------|--|
| Transporter 2 EPA ID: | MNS000110924 |
| Transporter 2 Emergency Number: | Not reported |
| TSDF EPA ID: | NVD980895338 |
| TSDF Name: | 21st Century Environmental Management of Nevada, LLC |
| TSDF Address 1: | 2095 Newlands Drive East |
| TSDF Address 2: | Not reported |
| TSDF City: | Fernley |
| TSDF Zip: | 89408 |
| TSDF Telephone: | Not reported |
| Federal: | |
| Year: | 2018 |
| EM Manifest ID: | 209694 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2018-11-08 |
| Manifest Number: | 012119563FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.02100 |
| Quantity Waste: | 42.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Metal drums, barrels, kegs |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| | |
| Year: | 2018 |
| EM Manifest ID: | 209694 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2018-11-08 |
| Manifest Number: | 012119563FLE |
| Line Number: | 3 |
| Method Code: | H141 |
| Quantity Tons: | 0.00300 |
| Quantity Waste: | 6.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Burlap, cloth, paper, or plastic bags |
| Quantity Type: | Pounds |
| Federal Code: | D001 |
| | |
| State: | |
| Year: | 2018 |
| EM Manifest ID: | 209694 |
| Generator EPA ID: | CAL000018523 |
| Shipment Date: | 2018-11-08 |
| Manifest Number: | 012119563FLE |
| Line Number: | 1 |
| Method Code: | H141 |
| Quantity Tons: | 0.02100 |
| Quantity Waste: | 42.000000 |
| Quantity Unit: | P |
| Number of Containers: | 1 |
| Type of Container: | Metal drums, barrels, kegs |
| Quantity Type: | Pounds |
| State Code: | 331 |

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Year: 2018
EM Manifest ID: 209694
Generator EPA ID: CAL000018523
Shipment Date: 2018-11-08
Manifest Number: 012119563FLE
Line Number: 2
Method Code: H141
Quantity Tons: 0.03750
Quantity Waste: 75.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiberboard or plastic drums, barrels, kegs
Quantity Type: Pounds
State Code: 122

Year: 2018
EM Manifest ID: 209694
Generator EPA ID: CAL000018523
Shipment Date: 2018-11-08
Manifest Number: 012119563FLE
Line Number: 3
Method Code: H141
Quantity Tons: 0.00300
Quantity Waste: 6.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Burlap, cloth, paper, or plastic bags
Quantity Type: Pounds
State Code: 331

Year: 2018
EM Manifest ID: 209694
Generator EPA ID: CAL000018523
Shipment Date: 2018-11-08
Manifest Number: 012119563FLE
Line Number: 4
Method Code: H141
Quantity Tons: 0.00750
Quantity Waste: 15.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiber or plastic boxes, cartons, cases
Quantity Type: Pounds
State Code: 181

Year: 2018
EM Manifest ID: 209694
Generator EPA ID: CAL000018523
Shipment Date: 2018-11-08
Manifest Number: 012119563FLE
Line Number: 5
Method Code: H141
Quantity Tons: 0.00850
Quantity Waste: 17.000000
Quantity Unit: P
Number of Containers: 1
Type of Container: Fiber or plastic boxes, cartons, cases

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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Quantity Type: Pounds
State Code: 181

Additional Info:

Year: 2017
Gen EPA ID: CAL000018523

Shipment Date: 20171206
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008656450FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 122 - Alkaline solution without metals (pH > 12.5)
RCRA Code: D002
Meth Code: H121 - Neutralization Only
Quantity Tons: 0.006
Waste Quantity: 12
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171206
Creation Date: 10/10/2018 18:30:23
Receipt Date: 20171227
Manifest ID: 008656450FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0205
Waste Quantity: 41
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

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EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Shipment Date: 20171206
Creation Date: 8/7/2018 18:30:40
Receipt Date: 20171214
Manifest ID: 008656449FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 561 - Not reported
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.1055
Waste Quantity: 211
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171206
Creation Date: 10/10/2018 18:30:23
Receipt Date: 20171227
Manifest ID: 008656450FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0185
Waste Quantity: 37
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171206
Creation Date: 10/10/2018 18:30:23
Receipt Date: 20171227
Manifest ID: 008656450FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133

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TRACTOR SUPPLY STORE #2512 (Continued)

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Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 181 - Other inorganic solid waste Organics
RCRA Code: D009
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.014
Waste Quantity: 28
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20171206
Creation Date: 10/10/2018 18:30:23
Receipt Date: 20171227
Manifest ID: 008656450FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS TRANSPORTATION
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 141 - Off-specification, aged, or surplus inorganics
RCRA Code: D001
Meth Code: H070 - Not reported
Quantity Tons: 0.0005
Waste Quantity: 1
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20170914
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 010788260FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: NED986382133
Trans 2 Name: SMITH SYSTEMS
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY EMN LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 181 - Other inorganic solid waste Organics
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No

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Database(s)

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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|---|
| Quantity Tons: | Treatment/Reovery (H010-H129) Or (H131-H135) 0.05 |
| Waste Quantity: | 100 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170914 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20171004 |
| Manifest ID: | 010788260FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.033 |
| Waste Quantity: | 66 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170914 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20171004 |
| Manifest ID: | 010788260FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0225 |
| Waste Quantity: | 45 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |

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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20170914 |
| Creation Date: | 10/1/2018 18:30:14 |
| Receipt Date: | 20171004 |
| Manifest ID: | 010788260FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | NED986382133 |
| Trans 2 Name: | SMITH SYSTEMS |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY EMN LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D001 |
| Meth Code: | H070 - Not reported |
| Quantity Tons: | 0.132 |
| Waste Quantity: | 264 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Additional Info: | |
| Year: | 2016 |
| Gen EPA ID: | CAL000018523 |
| Shipment Date: | 20151030 |
| Creation Date: | 2/28/2017 18:31:24 |
| Receipt Date: | Not reported |
| Manifest ID: | 008464696FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.0735 |
| Waste Quantity: | 147 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 2/28/2017 18:31:24 |

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MAP FINDINGS

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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Receipt Date: | Not reported |
| Manifest ID: | 008464696FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDF EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.1375 |
| Waste Quantity: | 275 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDF EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.003 |
| Waste Quantity: | 6 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDF EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |

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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.058 |
| Waste Quantity: | 116 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDF EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.011 |
| Waste Quantity: | 22 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDF EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDF Alt EPA ID: | Not reported |
| TSDF Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.006 |

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EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Waste Quantity: | 12 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0195 |
| Waste Quantity: | 39 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5) |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0275 |
| Waste Quantity: | 55 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Shipment Date: 20151030
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008464695FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000210617
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 181 - Other inorganic solid waste Organics
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.007
Waste Quantity: 14
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20150903
Creation Date: 11/4/2015 22:15:29
Receipt Date: 20150908
Manifest ID: 008598042FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0045
Waste Quantity: 9
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2015
Gen EPA ID: CAL000018523

Shipment Date: 20151030
Creation Date: 1/19/2016 22:15:12
Receipt Date: 20151113

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Manifest ID: 008464695FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000210617
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 122 - Alkaline solution without metals (pH > 12.5)
RCRA Code: D002
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0275
Waste Quantity: 55
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20151030
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 008464695FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000210617
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 181 - Other inorganic solid waste Organics
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.007
Waste Quantity: 14
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20151030
Creation Date: 1/19/2016 22:15:12
Receipt Date: 20151113
Manifest ID: 008464695FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: CAR000210617
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC

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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.011 |
| Waste Quantity: | 22 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.003 |
| Waste Quantity: | 6 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0195 |

Map ID
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EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Waste Quantity: | 39 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 1/19/2016 22:15:12 |
| Receipt Date: | 20151113 |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.006 |
| Waste Quantity: | 12 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | 2/28/2017 18:31:24 |
| Receipt Date: | Not reported |
| Manifest ID: | 008464696FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.1375 |
| Waste Quantity: | 275 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Shipment Date: | 20151030 |
| Creation Date: | 2/28/2017 18:31:24 |
| Receipt Date: | Not reported |
| Manifest ID: | 008464696FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD008364432 |
| Trans Name: | RHO CHEM LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.0735 |
| Waste Quantity: | 147 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20151030 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 008464695FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | CAR000210617 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CA L/P |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 181 - Other inorganic solid waste Organics |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.058 |
| Waste Quantity: | 116 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20150903 |
| Creation Date: | 11/4/2015 22:15:29 |
| Receipt Date: | 20150908 |
| Manifest ID: | 008598042FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

TSDF EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0045
Waste Quantity: 9
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2014
Gen EPA ID: CAL000018523

Shipment Date: 20141223
Creation Date: 2/24/2015 22:15:05
Receipt Date: 20141223
Manifest ID: 007346426FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.003
Waste Quantity: 6
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20141223
Creation Date: 2/24/2015 22:15:05
Receipt Date: 20141223
Manifest ID: 007346426FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDF EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDF Alt EPA ID: Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D001
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0015
Waste Quantity: 3
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported
Shipment Date: 20141223
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 007346426FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 311 - Pharmaceutical waste
RCRA Code: P075
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0025
Waste Quantity: 5
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported
Shipment Date: 20141223
Creation Date: 2/24/2015 22:15:05
Receipt Date: 20141223
Manifest ID: 007346426FLE
Trans EPA ID: MNS000110924
Trans Name: STERICYCLE SPECIALTY WASTE SOLUTIONS INC
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: CAD980884183
Trans Name: GENERAL ENVIRONMENTAL MGT LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: - Not reported
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.001
Waste Quantity: 2

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20141223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007346426FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.013 |
| Waste Quantity: | 26 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20141223 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 007346426FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.009 |
| Waste Quantity: | 18 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Shipment Date: | 20141223 |
| Creation Date: | 2/24/2015 22:15:05 |
| Receipt Date: | 20141223 |
| Manifest ID: | 007346426FLE |
| Trans EPA ID: | MNS000110924 |
| Trans Name: | STERICYCLE SPECIALTY WASTE SOLUTIONS INC |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | CAD980884183 |
| Trans Name: | GENERAL ENVIRONMENTAL MGT LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D001 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.01 |
| Waste Quantity: | 20 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20141028 |
| Creation Date: | 6/25/2015 22:15:29 |
| Receipt Date: | 20141106 |
| Manifest ID: | 000879150PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5) |
| RCRA Code: | D002 |
| Meth Code: | H070 - Not reported |
| Quantity Tons: | 0.0225 |
| Waste Quantity: | 45 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20141028 |
| Creation Date: | 6/25/2015 22:15:29 |
| Receipt Date: | 20141106 |
| Manifest ID: | 000879150PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |

Map ID
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Database(s)

EDR ID Number
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TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 291 - Latex waste
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0645
Waste Quantity: 129
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20141028
Creation Date: 6/25/2015 22:15:29
Receipt Date: 20141106
Manifest ID: 000879150PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: NVD980895338
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID: Not reported
TSDF Alt Name: Not reported
Waste Code Description: 214 - Unspecified solvent mixture
RCRA Code: D035
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0385
Waste Quantity: 77
Quantity Unit: P
Additional Code 1: D018
Additional Code 2: D001
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:
Year: 2013
Gen EPA ID: CAL000018523

Shipment Date: 20131204
Creation Date: 4/24/2014 22:14:56
Receipt Date: 20131213
Manifest ID: 000648252PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: NVD980895338
Trans 2 Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDF Alt EPA ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0185 |
| Waste Quantity: | 37 |
| Quantity Unit: | P |
| Additional Code 1: | D008 |
| Additional Code 2: | D007 |
| Additional Code 3: | D005 |
| Additional Code 4: | D001 |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |
| Creation Date: | 4/24/2014 22:14:56 |
| Receipt Date: | 20131213 |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D016 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0105 |
| Waste Quantity: | 21 |
| Quantity Unit: | P |
| Additional Code 1: | D011 |
| Additional Code 2: | D008 |
| Additional Code 3: | D006 |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |
| Creation Date: | 4/24/2014 22:14:56 |
| Receipt Date: | 20131213 |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.069 |
| Waste Quantity: | 138 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Quantity Unit: | P |
| Additional Code 1: | D018 |
| Additional Code 2: | D001 |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 291 - Latex waste |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0965 |
| Waste Quantity: | 193 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |
| Creation Date: | 4/24/2014 22:14:56 |
| Receipt Date: | 20131213 |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H071 - Chemical Reduction With Or Without Precipitation |
| Quantity Tons: | 0.0055 |
| Waste Quantity: | 11 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|---|
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5) |
| RCRA Code: | D002 |
| Meth Code: | H071 - Chemical Reduction With Or Without Precipitation |
| Quantity Tons: | 0.0135 |
| Waste Quantity: | 27 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131204 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000648252PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 791 - Liquids with pH < 2 792 Liquids with pH < 2 with metals |
| RCRA Code: | D002 |
| Meth Code: | H121 - Neutralization Only |
| Quantity Tons: | 0.001 |
| Waste Quantity: | 2 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131016 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000622716PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|---|
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5) |
| RCRA Code: | D002 |
| Meth Code: | H121 - Neutralization Only |
| Quantity Tons: | 0.126 |
| Waste Quantity: | 252 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131016 |
| Creation Date: | 3/21/2014 22:15:03 |
| Receipt Date: | 20131106 |
| Manifest ID: | 000622716PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | D002 |
| Meth Code: | H071 - Chemical Reduction With Or Without Precipitation |
| Quantity Tons: | 0.0085 |
| Waste Quantity: | 17 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20131016 |
| Creation Date: | 3/21/2014 22:15:03 |
| Receipt Date: | 20131106 |
| Manifest ID: | 000622716PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | NVD980895338 |
| Trans 2 Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Recovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0475 |
| Waste Quantity: | 95 |
| Quantity Unit: | P |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Additional Code 1: D018
Additional Code 2: D001
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2012
Gen EPA ID: CAL000018523

Shipment Date: 20121212
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 000424356PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAD982523433
Trans 2 Name: DILLARD ENVIRON SERV
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 122 - Alkaline solution without metals (pH > 12.5)
RCRA Code: D002
Meth Code: H121 - Neutralization Only
Quantity Tons: 0.1525
Waste Quantity: 305
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20121212
Creation Date: 5/21/2013 22:15:06
Receipt Date: 20130108
Manifest ID: 000424356PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAD982523433
Trans 2 Name: DILLARD ENVIRON SERV
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D035
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: 0.0155
Waste Quantity: 31
Quantity Unit: P
Additional Code 1: D008
Additional Code 2: D007
Additional Code 3: D005
Additional Code 4: D001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Additional Code 5: | Not reported |
| Shipment Date: | 20121212 |
| Creation Date: | 5/21/2013 22:15:06 |
| Receipt Date: | 20130108 |
| Manifest ID: | 000424356PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | CAD982523433 |
| Trans 2 Name: | DILLARD ENVIRON SERV |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | D018 |
| Additional Code 2: | D001 |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20121212 |
| Creation Date: | 5/21/2013 22:15:06 |
| Receipt Date: | 20130108 |
| Manifest ID: | 000424356PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | CAD982523433 |
| Trans 2 Name: | DILLARD ENVIRON SERV |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D016 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.004 |
| Waste Quantity: | 8 |
| Quantity Unit: | P |
| Additional Code 1: | D011 |
| Additional Code 2: | D008 |
| Additional Code 3: | D006 |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20121031 |
| Creation Date: | 1/9/2013 22:15:34 |
| Receipt Date: | 20121115 |
| Manifest ID: | 000399741PSC |
| Trans EPA ID: | CAR000210617 |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAR000179382
Trans 2 Name: ENV ENVIRONMENTAL INTERNATIONAL INC
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: CAD008364432
TSDf Alt Name: RHO-CHEM LLC
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D035
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.006
Waste Quantity: 12
Quantity Unit: P
Additional Code 1: D008
Additional Code 2: D007
Additional Code 3: D005
Additional Code 4: D001
Additional Code 5: Not reported

Shipment Date: 20121031
Creation Date: 1/9/2013 22:15:34
Receipt Date: 20121115
Manifest ID: 000399741PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAR000179382
Trans 2 Name: ENV ENVIRONMENTAL INTERNATIONAL INC
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: CAD008364432
TSDf Alt Name: RHO-CHEM LLC
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.003
Waste Quantity: 6
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20121031
Creation Date: 1/9/2013 22:15:34
Receipt Date: 20121115
Manifest ID: 000399741PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAR000179382
Trans 2 Name: ENV ENVIRONMENTAL INTERNATIONAL INC
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: CAD008364432
TSDf Alt Name: RHO-CHEM LLC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.17 |
| Waste Quantity: | 340 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20121031 |
| Creation Date: | 1/9/2013 22:15:34 |
| Receipt Date: | 20121115 |
| Manifest ID: | 000399741PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | CAR000179382 |
| Trans 2 Name: | ENV ENVIRONMENTAL INTERNATIONAL INC |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | CAD008364432 |
| TSDf Alt Name: | RHO-CHEM LLC |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D035 |
| Meth Code: | H061 - Fuel Blending Prior To Energy Recovery At Another Site |
| Quantity Tons: | 0.035 |
| Waste Quantity: | 70 |
| Quantity Unit: | P |
| Additional Code 1: | D018 |
| Additional Code 2: | D001 |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20121002 |
| Creation Date: | 12/24/2012 22:15:22 |
| Receipt Date: | 20121102 |
| Manifest ID: | 000382348PSC |
| Trans EPA ID: | CAR000210617 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP |
| Trans 2 EPA ID: | CAD982523433 |
| Trans 2 Name: | DILLARD ENVIRONMENTAL |
| TSDf EPA ID: | NVD980895338 |
| Trans Name: | 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC |
| TSDf Alt EPA ID: | CAD008364432 |
| TSDf Alt Name: | RHO CHEM LLC |
| Waste Code Description: | 122 - Alkaline solution without metals (pH > 12.5 |
| RCRA Code: | D002 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.215 |
| Waste Quantity: | 430 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20121002
Creation Date: 12/24/2012 22:15:22
Receipt Date: 20121102
Manifest ID: 000382348PSC
Trans EPA ID: CAR000210617
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF CALIFORNIA LP
Trans 2 EPA ID: CAD982523433
Trans 2 Name: DILLARD ENVIRONMENTAL
TSDf EPA ID: NVD980895338
Trans Name: 21ST CENTURY ENVIRONMENTAL MANAGEMENT OF NEVADA LLC
TSDf Alt EPA ID: CAD008364432
TSDf Alt Name: RHO CHEM LLC
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D016
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.0915
Waste Quantity: 183
Quantity Unit: P
Additional Code 1: D011
Additional Code 2: D008
Additional Code 3: D006
Additional Code 4: Not reported
Additional Code 5: Not reported

Additional Info:

Year: 2011
Gen EPA ID: CAL000018523

Shipment Date: 20111012
Creation Date: 11/28/2012 22:15:25
Receipt Date: 20111019
Manifest ID: 000427782WAS
Trans EPA ID: IND058484114
Trans Name: HERITAGE TRANSPORT LLC / SIGNAL HILL
Trans 2 EPA ID: Not reported
Trans 2 Name: Not reported
TSDf EPA ID: AZD081705402
Trans Name: HERITAGE ENVIRONMENTAL SERVICES
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D039
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.05
Waste Quantity: 100
Quantity Unit: P
Additional Code 1: D035
Additional Code 2: D001
Additional Code 3: Not reported
Additional Code 4: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Additional Code 5: | Not reported |
| Shipment Date: | 20111012 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000427782WAS |
| Trans EPA ID: | IND058484114 |
| Trans Name: | HERITAGE TRANSPORT LLC / SIGNAL HILL |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | AZD081705402 |
| Trans Name: | HERITAGE ENVIRONMENTAL SERVICES |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 331 - Off-specification, aged, or surplus organics |
| RCRA Code: | D016 |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | 0.0705 |
| Waste Quantity: | 141 |
| Quantity Unit: | P |
| Additional Code 1: | D001 |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20110718 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000418598WAS |
| Trans EPA ID: | Not reported |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | Not reported |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.015 |
| Waste Quantity: | 30 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20110718 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000418598WAS |
| Trans EPA ID: | Not reported |
| Trans Name: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

| | |
|-------------------------|--|
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | Not reported |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |
| Meth Code: | H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135) |
| Quantity Tons: | Not reported |
| Waste Quantity: | Not reported |
| Quantity Unit: | Not reported |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20110718 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000418598WAS |
| Trans EPA ID: | Not reported |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | Not reported |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | 141 - Off-specification, aged, or surplus inorganics |
| RCRA Code: | Not reported |
| Meth Code: | - Not reported |
| Quantity Tons: | 0.11 |
| Waste Quantity: | 220 |
| Quantity Unit: | P |
| Additional Code 1: | Not reported |
| Additional Code 2: | Not reported |
| Additional Code 3: | Not reported |
| Additional Code 4: | Not reported |
| Additional Code 5: | Not reported |
| Shipment Date: | 20110718 |
| Creation Date: | Not reported |
| Receipt Date: | Not reported |
| Manifest ID: | 000418598WAS |
| Trans EPA ID: | Not reported |
| Trans Name: | Not reported |
| Trans 2 EPA ID: | Not reported |
| Trans 2 Name: | Not reported |
| TSDf EPA ID: | Not reported |
| Trans Name: | Not reported |
| TSDf Alt EPA ID: | Not reported |
| TSDf Alt Name: | Not reported |
| Waste Code Description: | - Not reported |
| RCRA Code: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Quantity Tons: Not reported
Waste Quantity: Not reported
Quantity Unit: Not reported
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20110425
Creation Date: 10/12/2011 18:30:12
Receipt Date: 20110510
Manifest ID: 000404775WAS
Trans EPA ID: IND058484114
Trans Name: HERITAGE TRANSPORT LLC / SIGNAL HILL
Trans 2 EPA ID: CAD982030173
Trans 2 Name: ECOLOGY CONTROL IND
TSDf EPA ID: AZD081705402
Trans Name: HERITAGE ENVIRONMENTAL SERVICES
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 331 - Off-specification, aged, or surplus organics
RCRA Code: D039
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: 0.033
Waste Quantity: 66
Quantity Unit: P
Additional Code 1: D035
Additional Code 2: D001
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20110425
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 000404775WAS
Trans EPA ID: IND058484114
Trans Name: HERITAGE TRANSPORT LLC / SIGNAL HILL
Trans 2 EPA ID: CAD982030173
Trans 2 Name: ECOLOGY CONTROL IND
TSDf EPA ID: AZD081705402
Trans Name: HERITAGE ENVIRONMENTAL SERVICES
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: - Not reported
RCRA Code: Not reported
Meth Code: H141 - Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Quantity Tons: Not reported
Waste Quantity: Not reported
Quantity Unit: Not reported
Additional Code 1: Not reported
Additional Code 2: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20110425
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 000404775WAS
Trans EPA ID: IND058484114
Trans Name: HERITAGE TRANSPORT LLC / SIGNAL HILL
Trans 2 EPA ID: CAD982030173
Trans 2 Name: ECOLOGY CONTROL IND
TSDf EPA ID: AZD081705402
Trans Name: HERITAGE ENVIRONMENTAL SERVICES
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 291 - Latex waste
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 0.0075
Waste Quantity: 15
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

Shipment Date: 20110425
Creation Date: Not reported
Receipt Date: Not reported
Manifest ID: 000404775WAS
Trans EPA ID: IND058484114
Trans Name: HERITAGE TRANSPORT LLC / SIGNAL HILL
Trans 2 EPA ID: CAD982030173
Trans 2 Name: ECOLOGY CONTROL IND
TSDf EPA ID: AZD081705402
Trans Name: HERITAGE ENVIRONMENTAL SERVICES
TSDf Alt EPA ID: Not reported
TSDf Alt Name: Not reported
Waste Code Description: 141 - Off-specification, aged, or surplus inorganics
RCRA Code: Not reported
Meth Code: - Not reported
Quantity Tons: 0.0305
Waste Quantity: 61
Quantity Unit: P
Additional Code 1: Not reported
Additional Code 2: Not reported
Additional Code 3: Not reported
Additional Code 4: Not reported
Additional Code 5: Not reported

CERS:

Name: TRACTOR SUPPLY STORE #2512
Address: 6600 CLARK ROAD
City,State,Zip: PARADISE, CA 95969
Site ID: 568640

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

CERS ID: 10852003
CERS Description: Chemical Storage Facilities

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Butte County Environmental Health
Entity Title: Not reported
Affiliation Address: 202 Mira Loma Drive
Affiliation City: Oroville
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95965
Affiliation Phone: (530) 552-3880,

Affiliation Type Desc: Environmental Contact
Entity Name: Pat Perry
Entity Title: Not reported
Affiliation Address: 5401 Virginia Way
Affiliation City: Brentwood
Affiliation State: TN
Affiliation Country: Not reported
Affiliation Zip: 37027
Affiliation Phone: ,

Affiliation Type Desc: Identification Signer
Entity Name: Pat Perry Werneiwski
Entity Title: Manager, Environmental Compliance
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Parent Corporation
Entity Name: TRACTOR SUPPLY COMPANY
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 5401 Virginia Way
Affiliation City: Brentwood
Affiliation State: TN
Affiliation Country: Not reported
Affiliation Zip: 37027
Affiliation Phone: ,

Affiliation Type Desc: Document Preparer
Entity Name: APTIM
Entity Title: Not reported
Affiliation Address: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Legal Owner
Entity Name: TRACTOR SUPPLY COMPANY
Entity Title: Not reported
Affiliation Address: 5401 Virginia Way
Affiliation City: Brentwood
Affiliation State: TN
Affiliation Country: United States
Affiliation Zip: 37027
Affiliation Phone: (615) 440-4000,

Affiliation Type Desc: Operator
Entity Name: TRACTOR SUPPLY COMPANY
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (615) 440-4000,

HWTS:

Name: TRACTOR SUPPLY CO STORE 2512
Address: 6600 CLARK RD
Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
EPA ID: CAL000456840
Inactive Date: Not reported
Create Date: 09/17/2020
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 5401 VIRGINIA WAY
Mailing Address 2: Not reported
Mailing City,State,Zip: BRENTWOOD, TN 370270000
Owner Name: TRACTOR SUPPLY COMPANY
Owner Address: 5401 VIRGINIA WAY
Owner Address 2: Not reported
Owner City,State,Zip: BRENTWOOD, TN 370270000
Contact Name: PAT PERRY WERNEIWSKI
Contact Address: 5401 VIRGINIA WAY
Contact Address 2: Not reported
City,State,Zip: BRENTWOOD, TN 370277536
Facility Status: Active
Facility Type: PERMANENT
Category: STATE
Latitude: 39.77538501
Longitude: -121.590641

NAICS:

EPA ID: CAL000456840
Create Date: 2020-09-17 16:02:44.707

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TRACTOR SUPPLY STORE #2512 (Continued)

S113028097

NAICS Code: 453998
NAICS Description: All Other Miscellaneous Store Retailers (except Tobacco Stores)
Issued EPA ID Date: 2020-09-17 16:02:44.70700
Inactive Date: Not reported
Facility Name: TRACTOR SUPPLY CO STORE 2512
Facility Address: 6600 CLARK RD
Facility Address 2: Not reported
Facility City: PARADISE
Facility County: Not reported
Facility State: CA
Facility Zip: 95969

Name: KMART #9551
Address: 6600 CLARK RD
Address 2: Not reported
City,State,Zip: PARADISE, CA 95969
EPA ID: CAL000018523
Inactive Date: 06/30/2021
Create Date: 11/14/1989
Last Act Date: Not reported
Mailing Name: Not reported
Mailing Address: 3333 BEVERLY RD B5-362A
Mailing Address 2: Not reported
Mailing City,State,Zip: HOFFMAN ESTATES, IL 601790000
Owner Name: KMART CORPORATION
Owner Address: 3333 BEVERLY RD B5-350A
Owner Address 2: Not reported
Owner City,State,Zip: HOFFMAN ESTATES, IL 601790000
Contact Name: GERALD L JACOBS
Contact Address: 3333 BEVERLY ROAD, B5-339A
Contact Address 2: Not reported
City,State,Zip: HOFFMAN ESTATES, IL 60179
Facility Status: Inactive
Facility Type: PERMANENT
Category: STATE
Latitude: 39.775862
Longitude: -121.592365

NAICS:

EPA ID: CAL000018523
Create Date: 2014-05-12 10:10:56.967
NAICS Code: 45211
NAICS Description: Department Stores
Issued EPA ID Date: 1989-11-14 00:00:00
Inactive Date: Not reported
Facility Name: KMART #9551
Facility Address: 6600 CLARK RD
Facility Address 2: Not reported
Facility City: PARADISE
Facility County: Not reported
Facility State: CA
Facility Zip: 959690000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H29
NE
1/8-1/4
0.238 mi.
1256 ft.

K-MART SHOPPING CTR LEACHFIELD
6600 CLARK ROAD
PARADISE, CA 95969
Site 6 of 6 in cluster H

HIST UST U001617848
ENF N/A
CIWQS

Relative:
Higher

HIST UST:

Actual:
2107 ft.

Name: KMART ENTERPRISES
Address: 6600 CLARK RD
City,State,Zip: PARADISE, CA 95969
File Number: 0002210B
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002210B.pdf>
Region: STATE
Facility ID: 00000014425
Facility Type: Other
Other Type: AUTO REPAIR
Contact Name: Not reported
Telephone: 9168771640
Owner Name: KMART CORPORATION
Owner Address: P. O. BOX 3150
Owner City,St,Zip: TROY, MI 48084
Total Tanks: 0001

Tank Num: 001
Container Num: 9551
Year Installed: 1979
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: 3/16"
Leak Detection: Pressure Test

[Click here for Geo Tracker PDF:](#)

ENF:

Name: K-MART SHOPPING CTR LEACHFIELD
Address: 6600 CLARK ROAD
City,State,Zip: PARADISE, CA 95969
Region: Not reported
Facility Id: 234533
Agency Name: Excel Realty Partners LP
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: Privately-Owned Business
Of Agencies: 1
Place Latitude: 39.775912
Place Longitude: -121.592314
SIC Code 1: 6512
SIC Desc 1: Operators of Nonresidential Buildings
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K-MART SHOPPING CTR LEACHFIELD (Continued)

U001617848

| | |
|----------------------------------|--|
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Reg Meas |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | WDR |
| Program Category1: | WDR |
| Program Category2: | WDR |
| # Of Programs: | 1 |
| WDID: | 5A04UR00001 |
| Reg Measure Id: | 165934 |
| Reg Measure Type: | Enrollee |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |
| Major-Minor: | Not reported |
| Npdes Type: | Not reported |
| Reclamation: | Not reported |
| Dredge Fill Fee: | Not reported |
| 301H: | Not reported |
| Application Fee Amt Received: | Not reported |
| Status: | Historical |
| Status Date: | 02/11/2013 |
| Effective Date: | 08/14/2000 |
| Expiration/Review Date: | Not reported |
| Termination Date: | 08/15/2000 |
| WDR Review - Amend: | Not reported |
| WDR Review - Revise/Renew: | Not reported |
| WDR Review - Rescind: | Not reported |
| WDR Review - No Action Required: | Not reported |
| WDR Review - Pending: | Not reported |
| WDR Review - Planned: | Not reported |
| Status Enrollee: | Y |
| Individual/General: | I |
| Fee Code: | Not reported |
| Direction/Voice: | Passive |
| Enforcement Id(EID): | 230482 |
| Region: | Not reported |
| Order / Resolution Number: | Not reported |
| Enforcement Action Type: | Notice of Violation |
| Effective Date: | 09/20/2000 |
| Adoption/Issuance Date: | Not reported |
| Achieve Date: | Not reported |
| Termination Date: | 09/20/2000 |
| ACL Issuance Date: | Not reported |
| EPL Issuance Date: | Not reported |
| Status: | Historical |
| Title: | NOV 9/20/2000 for Excel Realty Partners, LP |
| Description: | Requested notification of measures taken to remedy failing leachfield and a chronology of events surrounding Excel Realty Partners' involvement with the leachfield failure. |

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

K-MART SHOPPING CTR LEACHFIELD (Continued)

U001617848

| | |
|-----------------------------------|----------------------------------|
| | Compliance requested by 10/2/00. |
| Program: | WDR |
| Latest Milestone Completion Date: | Not reported |
| # Of Programs1: | 1 |
| Total Assessment Amount: | 0 |
| Initial Assessed Amount: | 0 |
| Liability \$ Amount: | 0 |
| Project \$ Amount: | 0 |
| Liability \$ Paid: | 0 |
| Project \$ Completed: | 0 |
| Total \$ Paid/Completed Amount: | 0 |
| | |
| Name: | CENTRO GA PARADISE PLAZA GP, LLC |
| Address: | 6600 CLARK ROAD STREET |
| City,State,Zip: | PARADISE, CA 95927 |
| Region: | Not reported |
| Facility Id: | 747793 |
| Agency Name: | Centro Properties Group |
| Place Type: | Facility |
| Place Subtype: | Not reported |
| Facility Type: | Not reported |
| Agency Type: | Privately-Owned Business |
| # Of Agencies: | 1 |
| Place Latitude: | Not reported |
| Place Longitude: | Not reported |
| SIC Code 1: | Not reported |
| SIC Desc 1: | Not reported |
| SIC Code 2: | Not reported |
| SIC Desc 2: | Not reported |
| SIC Code 3: | Not reported |
| SIC Desc 3: | Not reported |
| NAICS Code 1: | Not reported |
| NAICS Desc 1: | Not reported |
| NAICS Code 2: | Not reported |
| NAICS Desc 2: | Not reported |
| NAICS Code 3: | Not reported |
| NAICS Desc 3: | Not reported |
| # Of Places: | 1 |
| Source Of Facility: | Reg Meas |
| Design Flow: | Not reported |
| Threat To Water Quality: | Not reported |
| Complexity: | Not reported |
| Pretreatment: | Not reported |
| Facility Waste Type: | Not reported |
| Facility Waste Type 2: | Not reported |
| Facility Waste Type 3: | Not reported |
| Facility Waste Type 4: | Not reported |
| Program: | DISCHSW |
| Program Category1: | UNREGS |
| Program Category2: | WDR |
| # Of Programs: | 1 |
| WDID: | 5A04 |
| Reg Measure Id: | 372349 |
| Reg Measure Type: | Unregulated |
| Region: | Not reported |
| Order #: | Not reported |
| Npdes# CA#: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K-MART SHOPPING CTR LEACHFIELD (Continued)

U001617848

Major-Minor: Not reported
Npdes Type: Not reported
Reclamation: Not reported
Dredge Fill Fee: Not reported
301H: Not reported
Application Fee Amt Received: Not reported
Status: Historical
Status Date: 05/09/2014
Effective Date: 12/09/2009
Expiration/Review Date: Not reported
Termination Date: 12/09/2010
WDR Review - Amend: Not reported
WDR Review - Revise/Renew: Not reported
WDR Review - Rescind: Not reported
WDR Review - No Action Required: Not reported
WDR Review - Pending: Not reported
WDR Review - Planned: Not reported
Status Enrollee: N
Individual/General: I
Fee Code: Not reported
Direction/Voice: Passive
Enforcement Id(EID): 373720
Region: Not reported
Order / Resolution Number: Not reported
Enforcement Action Type: Staff Enforcement Letter
Effective Date: 02/22/2010
Adoption/Issuance Date: 02/22/2010
Achieve Date: Not reported
Termination Date: 03/22/2010
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Historical
Title: SEL 02/22/2010 for Centro Properties Group
Description: Submittal of Correction report by 3/31/2010
Program: WDR
Latest Milestone Completion Date: Not reported
Of Programs1: 1
Total Assessment Amount: 0
Initial Assessed Amount: 0
Liability \$ Amount: 0
Project \$ Amount: 0
Liability \$ Paid: 0
Project \$ Completed: 0
Total \$ Paid/Completed Amount: 0

CIWQS:

Name: K-MART SHOPPING CTR LEACHFIELD
Address: 6600 CLARK ROAD
City,State,Zip: PARADISE, CA 95969
Agency: Excel Realty Partners LP
Agency Address: Po Box 7045, Auburn, CA 95604
Place/Project Type: Other
SIC/NAICS: 6512
Region: 5R
Program: WDR
Regulatory Measure Status: Historical
Regulatory Measure Type: Enrollee

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K-MART SHOPPING CTR LEACHFIELD (Continued)

U001617848

Order Number: Not reported
WDID: 5A04UR00001
NPDES Number: Not reported
Adoption Date: Not reported
Effective Date: 08/14/2000
Termination Date: 08/15/2000
Expiration/Review Date: Not reported
Design Flow: Not reported
Major/Minor: Not reported
Complexity: Not reported
TTWQ: Not reported
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: 39.775912
Longitude: -121.592314

**30
NW
1/2-1
0.653 mi.
3450 ft.**

**WORLD RADIATOR & AIR CONDITIONING
8336 SKYWAY
PARADISE, CA 95969**

**RESPONSE S104735474
ENVIROSTOR N/A
HIST Cal-Sites
DEED**

**Relative:
Lower
Actual:
2038 ft.**

RESPONSE:
Name: WORLD RADIATOR & AIR CONDITIONING
Address: 8336 SKYWAY
City,State,Zip: PARADISE, CA 95969
Facility ID: 04750001
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 0.33
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kenneth Gath
Supervisor: Fernando Amador
Division Branch: Cleanup Sacramento
Site Code: 101452
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 03
Senate: 04
Special Program Status: Not reported
Status: Certified O&M - Land Use Restrictions Only
Status Date: 06/09/2017
Restricted Use: YES
Funding: Orphan Funds
Latitude: 39.77852
Longitude: -121.6050
APN: 051-132-051, 051-132-051-000
Past Use: VEHICLE MAINTENANCE
Potential COC : Arsenic Lead
Confirmed COC: Arsenic Lead
Potential Description: SOIL
Alias Name: WORKD RADIATOR & AIR CONDITIONING
Alias Type: Alternate Name
Alias Name: 051-132-051
Alias Type: APN
Alias Name: 051-132-051-000
Alias Type: APN

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Alias Name: 110031329097
Alias Type: EPA (FRS #)
Alias Name: 101452
Alias Type: Project Code (Site Code)
Alias Name: 04750001
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 10/31/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 05/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien
Completed Date: 06/12/2008
Comments: A lien was recorded on the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/14/2008
Comments: A letter to the new property owners requesting information regarding inquiry conducted prior to acquisition of the property and reviewing/signing the Land Use Covenant.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/02/2009
Comments: A letter summarizing the discussion with the new property owner regarding the recorded lien and outstanding activities at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 09/29/2005
Comments: A Notice of Exemption (NOE) was prepared for approval of the RAW.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/05/2007
Comments: Contractor completed the removal action at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/14/2007
Comments: RA - The removal action consisted of excavation of contaminated soil above the cleanup goals established in the Removal Action workplan. The removal action was conducted in April 2007. Approximately 468 tons of contaminated soil was removed from the Site and disposed at Chemical Waste Management Inc. in Kettleman City, CA. Upon completion of the excavation activities, the excavated area was backfilled with clean fill.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 09/29/2005
Comments: Approval of a Removal Action Workplan (RAW). The RAW proposed excavation and offsite disposal to address the contamination at the Site. The removal activities include performing groundwater monitoring, excavating and offsite disposal of about 400 cubic yards of impacted soil and implementing deed restrictions. A Notice of Exemption (NOE) was prepared for the activities identified in the RAW. DTSC believes the proposed removal actions will not have significant effect on the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 01/09/2002
Comments: An Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (Order) was issued to Billy Rae Harrison. The order required him to conduct an investigation and cleanup of the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/17/2016
Comments: LUC Local Agency Letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/17/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 03/30/2017
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 04/28/2005
Comments: A Remedial Investigation (RI) Report and Draft Removal Action Workplan (RAW) have been prepared to address the contamination found at the Site. The RI Report included a risk assessment for the contaminants found in soil at the Site. The investigation found antimony, arsenic and lead in soil above the risk based cleanup goals. Several removal action alternatives were evaluated to address the soil contamination at the Site. The RAW proposes to excavate and offsite dispose of soil above the cleanup goals. The WORLD RADIATOR AND AIR CONDITIONING Property will be remediated to level appropriate for industrial/commercial use and the offsite area to residential land use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/31/2003
Comments: August 1, 2002 the property was fenced and posted and general trash was removed. August 29, 2002 the contents of the drums, the septic tank and rinse basin containing unknown substances were sampled. All were found to have concentrations of Ethylene Glycol, BTEX, TPH motor oil, Lead and Zinc. After characterization, on October 17, 2002, the drums and other contaminated material were removed and transported to Burlington Environmental, Kent, Washington. On October 29, 2002, the septic tank (800 gallons) was pumped and transported to Resource Recovery Techniques, Phoenix, Arizona.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/07/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 09/07/2021
Comments: The acknowledgement of receiving 2021 LUC report will be mentioned in 2022 request letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: IC Public Advisory
Completed Date: 02/12/2014
Comments: The Site has been remediated to Commercial and industrial use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 03/29/2002
Comments: Notice of Determination of Non-Compliance with Order

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Completed Document Type: PRP Identification Memorandum

Completed Date: 04/15/2016

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Certification

Completed Date: 06/09/2017

Comments: Certification Document

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Lien Satisfaction

Completed Date: 08/01/2016

Comments: Not reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not reported

Completed Document Type: Triage Meeting

Completed Date: 09/29/2015

Comments: Triage completed by Leslie Fredrickson. Triage Recommendation: NFCRA - PRP ID Memo.

Future Area Name: Not reported

Future Sub Area Name: Not reported

Future Document Type: Not reported

Future Due Date: Not reported

Schedule Area Name: Not reported

Schedule Sub Area Name: Not reported

Schedule Document Type: Not reported

Schedule Due Date: Not reported

Schedule Revised Date: Not reported

ENVIROSTOR:

Name: WORLD RADIATOR & AIR CONDITIONING

Address: 8336 SKYWAY

City,State,Zip: PARADISE, CA 95969

Facility ID: 04750001

Status: Certified O&M - Land Use Restrictions Only

Status Date: 06/09/2017

Site Code: 101452

Site Type: State Response

Site Type Detailed: State Response or NPL

Acres: 0.33

NPL: NO

Regulatory Agencies: SMBRP

Lead Agency: SMBRP

Program Manager: Kenneth Gath

Supervisor: Fernando Amador

Division Branch: Cleanup Sacramento

Assembly: 03

Senate: 04

Special Program: Not reported

Restricted Use: YES

Site Mgmt Req: NONE SPECIFIED

Funding: Orphan Funds

Latitude: 39.77852

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Longitude: -121.6050
APN: 051-132-051, 051-132-051-000
Past Use: VEHICLE MAINTENANCE
Potential COC: Arsenic Lead
Confirmed COC: Arsenic Lead
Potential Description: SOIL
Alias Name: WORKD RADIATOR & AIR CONDITIONING
Alias Type: Alternate Name
Alias Name: 051-132-051
Alias Type: APN
Alias Name: 051-132-051-000
Alias Type: APN
Alias Name: 110031329097
Alias Type: EPA (FRS #)
Alias Name: 101452
Alias Type: Project Code (Site Code)
Alias Name: 04750001
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 05/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 10/31/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 05/02/2018
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien
Completed Date: 06/12/2008
Comments: A lien was recorded on the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 10/14/2008
Comments: A letter to the new property owners requesting information regarding inquiry conducted prior to acquisition of the property and reviewing/signing the Land Use Covenant.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 03/02/2009
Comments: A letter summarizing the discussion with the new property owner regarding the recorded lien and outstanding activities at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 09/29/2005
Comments: A Notice of Exemption (NOE) was prepared for approval of the RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 05/05/2007
Comments: Contractor completed the removal action at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 11/14/2007
Comments: RA - The removal action consisted of excavation of contaminated soil above the cleanup goals established in the Removal Action workplan. The removal action was conducted in April 2007. Approximately 468 tons of contaminated soil was removed from the Site and disposed at Chemical Waste Management Inc. in Kettleman City, CA. Upon completion of the excavation activities, the excavated area was backfilled with clean fill.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 09/29/2005
Comments: Approval of a Removal Action Workplan (RAW). The RAW proposed excavation and offsite disposal to address the contamination at the Site. The removal activities include performing groundwater monitoring, excavating and offsite disposal of about 400 cubic yards of impacted soil and implementing deed restrictions. A Notice of Exemption (NOE) was prepared for the activities identified in the RAW. DTSC believes the proposed removal actions will not have significant effect on the environment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 01/09/2002
Comments: An Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (Order) was issued to Billy Rae Harrison. The order required him to conduct an investigation and cleanup of the property.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/17/2016

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Comments: LUC Local Agency Letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 08/17/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction - Site Inspection/Visit
Completed Date: 03/30/2017
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 04/28/2005
Comments: A Remedial Investigation (RI) Report and Draft Removal Action Workplan (RAW) have been prepared to address the contamination found at the Site. The RI Report included a risk assessment for the contaminants found in soil at the Site. The investigation found antimony, arsenic and lead in soil above the risk based cleanup goals. Several removal action alternatives were evaluated to address the soil contamination at the Site. The RAW proposes to excavate and offsite dispose of soil above the cleanup goals. The WORLD RADIATOR AND AIR CONDITIONING Property will be remediated to level appropriate for industrial/commercial use and the offsite area to residential land use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 01/31/2003
Comments: August 1, 2002 the property was fenced and posted and general trash was removed. August 29, 2002 the contents of the drums, the septic tank and rinse basin containing unknown substances were sampled. All were found to have concentrations of Ethylene Glycol, BTEX, TPH motor oil, Lead and Zinc. After characterization, on October 17, 2002, the drums and other contaminated material were removed and transported to Burlington Environmental, Kent, Washington. On October 29, 2002, the septic tank (800 gallons) was pumped and transported to Resource Recovery Techniques, Phoenix, Arizona.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 02/07/2020
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 09/07/2021
Comments: The acknowledgement of receiving 2021 LUC report will be mentioned in 2022 request letter.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: IC Public Advisory
Completed Date: 02/12/2014
Comments: The Site has been remediated to Commercial and industrial use.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Final Determination of Non-Compliance
Completed Date: 03/29/2002
Comments: Notice of Determination of Non-Compliance with Order

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PRP Identification Memorandum
Completed Date: 04/15/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/09/2017
Comments: Certification Document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Lien Satisfaction
Completed Date: 08/01/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Triage Meeting
Completed Date: 09/29/2015
Comments: Triage completed by Leslie Fredrickson. Triage Recommendation: NFCRA - PRP ID Memo.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Calsite:

Name: WORLD RADIATOR & AIR CONDITIONING
Address: 8336 SKYWAY
City: PARADISE
Region: SACRAMENTO
Facility ID: 04750001
Facility Type: STATE
Type: STATE FUNDED SITE
Branch: CC
Branch Name: CENTRAL CALIFORNIA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

File Name: WORKD RADIATOR & AIR CONDITIONING
State Senate District: 08022000
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
NPL: Not Listed
SIC Code: 75
SIC Name: AUTO REPAIR, SERVICES & PARKING
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
Staff Member Responsible for Site: TTSE
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 03
State Senate District Code: 04
Facility ID: 04750001
Activity: PRP
Activity Name: POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code: ID
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 04182001
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: PEAP
Definition of Status: PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 04750001
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: Not reported
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 01312003
Est Person-Yrs to complete: 0
Estimated Size: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

| | |
|-------------------------------|---|
| Request to Delete Activity: | Not reported |
| Activity Status: | PEAP |
| Definition of Status: | PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS |
| Liquids Removed (Gals): | 10 |
| Liquids Treated (Gals): | 0 |
| Action Included Capping: | Not reported |
| Well Decommissioned: | Not reported |
| Action Included Fencing: | X |
| Removal Action Certification: | N |
| Activity Comments: | Not reported |
| For Commercial Reuse: | 0 |
| For Industrial Reuse: | 0 |
| For Residential Reuse: | 0 |
| Unknown Type: | 0 |
| Facility ID: | 04750001 |
| Activity: | RIFS |
| Activity Name: | REMEDIAL INVESTIGATION / FEASIBILITY STUDY |
| AWP Code: | Not reported |
| Proposed Budget: | 0 |
| AWP Completion Date: | 11302004 |
| Revised Due Date: | 03312005 |
| Comments Date: | 04282005 |
| Est Person-Yrs to complete: | 0 |
| Estimated Size: | Not reported |
| Request to Delete Activity: | Not reported |
| Activity Status: | PEAP |
| Definition of Status: | PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS |
| Liquids Removed (Gals): | 0 |
| Liquids Treated (Gals): | 0 |
| Action Included Capping: | Not reported |
| Well Decommissioned: | Not reported |
| Action Included Fencing: | Not reported |
| Removal Action Certification: | Not reported |
| Activity Comments: | Not reported |
| For Commercial Reuse: | 0 |
| For Industrial Reuse: | 0 |
| For Residential Reuse: | 0 |
| Unknown Type: | 0 |
| Facility ID: | 04750001 |
| Activity: | RAP |
| Activity Name: | REMEDIAL ACTION PLAN / RECORD OF DECISION |
| AWP Code: | Not reported |
| Proposed Budget: | 0 |
| AWP Completion Date: | 07312005 |
| Revised Due Date: | Not reported |
| Comments Date: | Not reported |
| Est Person-Yrs to complete: | 0 |
| Estimated Size: | Not reported |
| Request to Delete Activity: | Not reported |
| Activity Status: | PEAP |
| Definition of Status: | PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS |
| Liquids Removed (Gals): | 0 |
| Liquids Treated (Gals): | 0 |
| Action Included Capping: | Not reported |
| Well Decommissioned: | Not reported |
| Action Included Fencing: | Not reported |
| Removal Action Certification: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

| | |
|-------------------------------|---|
| Activity Comments: | Not reported |
| For Commercial Reuse: | 0 |
| For Industrial Reuse: | 0 |
| For Residential Reuse: | 0 |
| Unknown Type: | 0 |
| Facility ID: | 04750001 |
| Activity: | DES |
| Activity Name: | DESIGN |
| AWP Code: | Not reported |
| Proposed Budget: | 0 |
| AWP Completion Date: | 07312006 |
| Revised Due Date: | Not reported |
| Comments Date: | Not reported |
| Est Person-Yrs to complete: | 0 |
| Estimated Size: | Not reported |
| Request to Delete Activity: | Not reported |
| Activity Status: | PEAP |
| Definition of Status: | PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS |
| Liquids Removed (Gals): | 0 |
| Liquids Treated (Gals): | 0 |
| Action Included Capping: | Not reported |
| Well Decommissioned: | Not reported |
| Action Included Fencing: | Not reported |
| Removal Action Certification: | Not reported |
| Activity Comments: | Not reported |
| For Commercial Reuse: | 0 |
| For Industrial Reuse: | 0 |
| For Residential Reuse: | 0 |
| Unknown Type: | 0 |
| Facility ID: | 04750001 |
| Activity: | RMDL |
| Activity Name: | REMEDIAL ACTION (RAP REQUIRED) |
| AWP Code: | Not reported |
| Proposed Budget: | 0 |
| AWP Completion Date: | 07312007 |
| Revised Due Date: | Not reported |
| Comments Date: | Not reported |
| Est Person-Yrs to complete: | 0 |
| Estimated Size: | Not reported |
| Request to Delete Activity: | Not reported |
| Activity Status: | PEAP |
| Definition of Status: | PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS |
| Liquids Removed (Gals): | 0 |
| Liquids Treated (Gals): | 0 |
| Action Included Capping: | Not reported |
| Well Decommissioned: | Not reported |
| Action Included Fencing: | Not reported |
| Removal Action Certification: | Not reported |
| Activity Comments: | Not reported |
| For Commercial Reuse: | 0 |
| For Industrial Reuse: | 0 |
| For Residential Reuse: | 0 |
| Unknown Type: | 0 |
| Facility ID: | 04750001 |
| Activity: | CERT |
| Activity Name: | CERTIFICATION |
| AWP Code: | Not reported |

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Proposed Budget: 0
AWP Completion Date: 07312008
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: PEAP
Definition of Status: PRELIMINARY ENDANGERMENT ASSESSMENT IN PROGRESS
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 8336 SKYWAY
Alternate City,St,Zip: PARADISE, CA 95969
Background Info: The Site has been used as a radiator and air conditioning repair facility since the 1970s. Hazardous substances from the site were discharged into a septic system and onto the surface soils at the facility.
Contaminants of concern at the site include lead, copper, zinc and ethylene glycol. The contamination is located in the soil and most likely the groundwater at the site.
Possible pathways of contamination include discharge into the site septic system and leach field, and surface discharge into the parking lot at the site.
People currently live at the site and are in the immediate area of surface soil contamination.
A preliminary investigation was completed at the site by DTSC Enforcement Personnel on October 7, 1997.
The site was referred to the Circuit Environmental Prosecutor and a case against the owner/operator was filed. The owner/operator was found to be guilty. Minimal remedial activities were completed by the owner/operator.
Comments Date: 01312003
Comments: August 1, 2002 the property was fenced and posted and general
Comments Date: 01312003
Comments: trash was removed. August 29, 2002 the contents of the drums,
Comments Date: 01312003
Comments: the septic tank and rinse basin containing unknown substances
Comments Date: 01312003
Comments: were sampled. All were found to have concentrations of Ethylene
Comments Date: 01312003
Comments: Blycol, BTEX, TPH motor oil, Lead and Zinc. After
Comments Date: 01312003
Comments: characterization, on October 17, 2002, the drums and other
Comments Date: 01312003
Comments: contaminated material were removed and transported to Burlington
Comments Date: 01312003
Comments: Environmental, Kent, Washington. On October 29, 2002, the septic
Comments Date: 01312003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Comments: tank (800 gallons) was pumped and transported to Resource
Comments Date: 01312003
Comments: Recovery Techniques, Phoenix, Arizona.
Comments Date: 04282005
Comments: A REMEDIAL INVESTIGATION (RI) REPORT AND DRAFT REMOVAL ACTION
Comments Date: 04282005
Comments: WORK PLAN (RAW) HAVE BEEN PREPARED TO ADDRESS THE CONTAMINATION
Comments Date: 04282005
Comments: FOUND AT THE SITE. THE RI REPORT INCLUDED A RISK ASSESSMENT FOR
Comments Date: 04282005
Comments: THE CONTAMINANTS FOUND IN SOIL AT THE SITE. THE INVESTIGATION
Comments Date: 04282005
Comments: FOUND ANTIMONY, ARSENIC AND LEAD IN SOIL ABOVE THE RISK BASED
Comments Date: 04282005
Comments: CLEANUP GOALS. SEVERAL REMOVAL ACTION ALTERNATIVES WERE
Comments Date: 04282005
Comments: EVALUATED TO ADDRESS THE SOIL CONTAMINATION AT THE SITE. THE
Comments Date: 04282005
Comments: RAW PROPOSES TO EXCAVATE AND OFFSITE DISPOSE OF SOIL ABOVE THE
Comments Date: 04282005
Comments: CLEANUP GOALS. THE WORLD RADIATOR AND AIR CONDITIONING PROPERTY
Comments Date: 04282005
Comments: WILL BE REMEDIATED TO LEVEL APPROPRIATE FOR
Comments Date: 04282005
Comments: INDUSTRIAL/COMMERCIAL USE AND THE OFFSITE AREA TO RESIDENTIAL
Comments Date: 04282005
Comments: LAND USE.
Comments Date: 08022000
Comments: This site was referred from DTSC's enforcement unit. It is a
Comments Date: 08022000
Comments: non-operating automobile radiator and air conditioning service
Comments Date: 08022000
Comments: facility. Wastes containing hazardous waste levels of metals
Comments Date: 08022000
Comments: were released to the ground and a septic tank.
Comments Date: 08092001
Comments: A RP Identification was completed, which determined that the
Comments Date: 08092001
Comments: owner and operator were the same person.
ID Name: CALSTARS CODE
ID Value: 101452
Alternate Name: WORLD RADIATOR & AIR CONDITIONING
Alternate Name: WORKD RADIATOR & AIR CONDITIONING
Alternate Name: Not reported
Special Programs Code: Not reported
Special Programs Name: Not reported

DEED:

Name: WORLD RADIATOR & AIR CONDITIONING
Address: 8336 SKYWAY
City,State,Zip: PARADISE, CA 95969
Envirostor ID: 4750001
Area: PROJECT WIDE
Sub Area: Not reported
Site Type: STATE RESPONSE
Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY
Agency: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WORLD RADIATOR & AIR CONDITIONING (Continued)

S104735474

Covenant Uploaded: Not reported
Deed Date(s): Not reported
File Name: Envirostor Land Use Restrictions

Count: 1 records.

ORPHAN SUMMARY

| City | EDR ID | Site Name | Site Address | Zip | Database(s) |
|----------|------------|-----------|--------------------------|-------|-------------|
| PARADISE | S107540605 | | SAYBERG, OFF OF CLARK RD | 95969 | CDL |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

| | |
|---|--|
| Date of Government Version: 10/27/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: N/A |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/09/2023 |
| | Data Release Frequency: Quarterly |

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

| | |
|---|--|
| Date of Government Version: 10/27/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: N/A |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/09/2023 |
| | Data Release Frequency: Quarterly |

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/27/2022
Date Data Arrived at EDR: 11/01/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 12/01/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 08/25/2022
Date Data Arrived at EDR: 09/06/2022
Date Made Active in Reports: 12/05/2022
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 09/06/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/27/2022
Date Data Arrived at EDR: 11/01/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 14

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/01/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

| | |
|---|--|
| Date of Government Version: 10/27/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: 800-424-9346 |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/23/2023 |
| | Data Release Frequency: Quarterly |

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

| | |
|---|--|
| Date of Government Version: 11/21/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/21/2022 | Telephone: 800-424-9346 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

| | |
|---|---|
| Date of Government Version: 11/21/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/21/2022 | Telephone: (415) 495-8895 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

| | |
|---|---|
| Date of Government Version: 11/21/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/21/2022 | Telephone: (415) 495-8895 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

| | |
|---|---|
| Date of Government Version: 11/21/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/21/2022 | Telephone: (415) 495-8895 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

| | |
|---|---|
| Date of Government Version: 11/21/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/21/2022 | Telephone: (415) 495-8895 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

| | |
|---|--|
| Date of Government Version: 08/16/2022 | Source: Department of the Navy |
| Date Data Arrived at EDR: 08/22/2022 | Telephone: 843-820-7326 |
| Date Made Active in Reports: 10/24/2022 | Last EDR Contact: 11/01/2022 |
| Number of Days to Update: 63 | Next Scheduled EDR Contact: 02/20/2023 |
| | Data Release Frequency: Varies |

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

| | |
|---|---|
| Date of Government Version: 08/15/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 08/17/2022 | Telephone: 703-603-0695 |
| Date Made Active in Reports: 10/24/2022 | Last EDR Contact: 11/16/2022 |
| Number of Days to Update: 68 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

| | |
|---|---|
| Date of Government Version: 08/15/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 08/17/2022 | Telephone: 703-603-0695 |
| Date Made Active in Reports: 10/24/2022 | Last EDR Contact: 11/16/2022 |
| Number of Days to Update: 68 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2022

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 06/15/2022

Telephone: 202-267-2180

Date Made Active in Reports: 06/21/2022

Last EDR Contact: 09/20/2022

Number of Days to Update: 6

Next Scheduled EDR Contact: 01/02/2023

Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/25/2022

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 07/25/2022

Telephone: 916-323-3400

Date Made Active in Reports: 10/05/2022

Last EDR Contact: 10/24/2022

Number of Days to Update: 72

Next Scheduled EDR Contact: 02/06/2023

Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/25/2022

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 07/25/2022

Telephone: 916-323-3400

Date Made Active in Reports: 10/05/2022

Last EDR Contact: 10/24/2022

Number of Days to Update: 72

Next Scheduled EDR Contact: 02/06/2023

Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/08/2022

Source: Department of Resources Recycling and Recovery

Date Data Arrived at EDR: 08/08/2022

Telephone: 916-341-6320

Date Made Active in Reports: 10/20/2022

Last EDR Contact: 11/03/2022

Number of Days to Update: 73

Next Scheduled EDR Contact: 02/20/2023

Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: see region list |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

| | |
|---|---|
| Date of Government Version: 09/09/2003 | Source: California Regional Water Quality Control Board Lahontan Region (6) |
| Date Data Arrived at EDR: 09/10/2003 | Telephone: 530-542-5572 |
| Date Made Active in Reports: 10/07/2003 | Last EDR Contact: 09/12/2011 |
| Number of Days to Update: 27 | Next Scheduled EDR Contact: 12/26/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

| | |
|---|--|
| Date of Government Version: 03/01/2001 | Source: California Regional Water Quality Control Board San Diego Region (9) |
| Date Data Arrived at EDR: 04/23/2001 | Telephone: 858-637-5595 |
| Date Made Active in Reports: 05/21/2001 | Last EDR Contact: 09/26/2011 |
| Number of Days to Update: 28 | Next Scheduled EDR Contact: 01/09/2012 |
| | Data Release Frequency: No Update Planned |

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

| | |
|---|--|
| Date of Government Version: 02/14/2005 | Source: California Regional Water Quality Control Board Santa Ana Region (8) |
| Date Data Arrived at EDR: 02/15/2005 | Telephone: 909-782-4496 |
| Date Made Active in Reports: 03/28/2005 | Last EDR Contact: 08/15/2011 |
| Number of Days to Update: 41 | Next Scheduled EDR Contact: 11/28/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

| | |
|---|---|
| Date of Government Version: 02/26/2004 | Source: California Regional Water Quality Control Board Colorado River Basin Region (7) |
| Date Data Arrived at EDR: 02/26/2004 | Telephone: 760-776-8943 |
| Date Made Active in Reports: 03/24/2004 | Last EDR Contact: 08/01/2011 |
| Number of Days to Update: 27 | Next Scheduled EDR Contact: 11/14/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

| | |
|---|---|
| Date of Government Version: 07/01/2008 | Source: California Regional Water Quality Control Board Central Valley Region (5) |
| Date Data Arrived at EDR: 07/22/2008 | Telephone: 916-464-4834 |
| Date Made Active in Reports: 07/31/2008 | Last EDR Contact: 07/01/2011 |
| Number of Days to Update: 9 | Next Scheduled EDR Contact: 10/17/2011 |
| | Data Release Frequency: No Update Planned |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

| | |
|---|--|
| Date of Government Version: 09/07/2004 | Source: California Regional Water Quality Control Board Los Angeles Region (4) |
| Date Data Arrived at EDR: 09/07/2004 | Telephone: 213-576-6710 |
| Date Made Active in Reports: 10/12/2004 | Last EDR Contact: 09/06/2011 |
| Number of Days to Update: 35 | Next Scheduled EDR Contact: 12/19/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

| | |
|---|--|
| Date of Government Version: 05/19/2003 | Source: California Regional Water Quality Control Board Central Coast Region (3) |
| Date Data Arrived at EDR: 05/19/2003 | Telephone: 805-542-4786 |
| Date Made Active in Reports: 06/02/2003 | Last EDR Contact: 07/18/2011 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 10/31/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

| | |
|---|---|
| Date of Government Version: 06/07/2005 | Source: California Regional Water Quality Control Board Victorville Branch Office (6) |
| Date Data Arrived at EDR: 06/07/2005 | Telephone: 760-241-7365 |
| Date Made Active in Reports: 06/29/2005 | Last EDR Contact: 09/12/2011 |
| Number of Days to Update: 22 | Next Scheduled EDR Contact: 12/26/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

| | |
|---|---|
| Date of Government Version: 02/01/2001 | Source: California Regional Water Quality Control Board North Coast (1) |
| Date Data Arrived at EDR: 02/28/2001 | Telephone: 707-570-3769 |
| Date Made Active in Reports: 03/29/2001 | Last EDR Contact: 08/01/2011 |
| Number of Days to Update: 29 | Next Scheduled EDR Contact: 11/14/2011 |
| | Data Release Frequency: No Update Planned |

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

| | |
|---|--|
| Date of Government Version: 09/30/2004 | Source: California Regional Water Quality Control Board San Francisco Bay Region (2) |
| Date Data Arrived at EDR: 10/20/2004 | Telephone: 510-622-2433 |
| Date Made Active in Reports: 11/19/2004 | Last EDR Contact: 09/19/2011 |
| Number of Days to Update: 30 | Next Scheduled EDR Contact: 01/02/2012 |
| | Data Release Frequency: No Update Planned |

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

| | |
|---|---|
| Date of Government Version: 04/08/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 415-972-3372 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/11/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 06/02/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 79

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/20/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/28/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

| | |
|---|---|
| Date of Government Version: 04/03/2003 | Source: California Regional Water Quality Control Board, North Coast Region (1) |
| Date Data Arrived at EDR: 04/07/2003 | Telephone: 707-576-2220 |
| Date Made Active in Reports: 04/25/2003 | Last EDR Contact: 08/01/2011 |
| Number of Days to Update: 18 | Next Scheduled EDR Contact: 11/14/2011 |
| | Data Release Frequency: No Update Planned |

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

| | |
|---|---|
| Date of Government Version: 09/30/2004 | Source: Regional Water Quality Control Board San Francisco Bay Region (2) |
| Date Data Arrived at EDR: 10/20/2004 | Telephone: 510-286-0457 |
| Date Made Active in Reports: 11/19/2004 | Last EDR Contact: 09/19/2011 |
| Number of Days to Update: 30 | Next Scheduled EDR Contact: 01/02/2012 |
| | Data Release Frequency: No Update Planned |

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

| | |
|---|--|
| Date of Government Version: 05/18/2006 | Source: California Regional Water Quality Control Board Central Coast Region (3) |
| Date Data Arrived at EDR: 05/18/2006 | Telephone: 805-549-3147 |
| Date Made Active in Reports: 06/15/2006 | Last EDR Contact: 07/18/2011 |
| Number of Days to Update: 28 | Next Scheduled EDR Contact: 10/31/2011 |
| | Data Release Frequency: No Update Planned |

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

| | |
|---|---|
| Date of Government Version: 11/17/2004 | Source: Region Water Quality Control Board Los Angeles Region (4) |
| Date Data Arrived at EDR: 11/18/2004 | Telephone: 213-576-6600 |
| Date Made Active in Reports: 01/04/2005 | Last EDR Contact: 07/01/2011 |
| Number of Days to Update: 47 | Next Scheduled EDR Contact: 10/17/2011 |
| | Data Release Frequency: No Update Planned |

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

| | |
|---|--|
| Date of Government Version: 04/01/2005 | Source: Regional Water Quality Control Board Central Valley Region (5) |
| Date Data Arrived at EDR: 04/05/2005 | Telephone: 916-464-3291 |
| Date Made Active in Reports: 04/21/2005 | Last EDR Contact: 09/12/2011 |
| Number of Days to Update: 16 | Next Scheduled EDR Contact: 12/26/2011 |
| | Data Release Frequency: No Update Planned |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 88

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

| | |
|---|---|
| Date of Government Version: 08/24/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 916-327-7844 |
| Date Made Active in Reports: 11/21/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

| | |
|---|--|
| Date of Government Version: 08/31/2022 | Source: SWRCB |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 916-341-5851 |
| Date Made Active in Reports: 11/28/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 89 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Semi-Annually |

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

| | |
|---|--|
| Date of Government Version: 07/06/2016 | Source: California Environmental Protection Agency |
| Date Data Arrived at EDR: 07/12/2016 | Telephone: 916-327-5092 |
| Date Made Active in Reports: 09/19/2016 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 69 | Next Scheduled EDR Contact: 03/27/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

| | |
|---|--|
| Date of Government Version: 04/28/2022 | Source: EPA Region 6 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 214-665-7591 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/20/2022 | Source: EPA Region 10 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 206-553-2857 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/07/2022 | Source: EPA, Region 1 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 617-918-1313 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/14/2022 | Source: EPA Region 7 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 913-551-7003 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

| | |
|---|--|
| Date of Government Version: 06/02/2022 | Source: EPA Region 4 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 404-562-9424 |
| Date Made Active in Reports: 08/31/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/08/2022 | Source: EPA Region 9 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 415-972-3368 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/11/2022 | Source: EPA Region 5 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 312-886-6136 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

| | |
|---|--|
| Date of Government Version: 04/20/2022 | Source: EPA Region 8 |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 303-312-6137 |
| Date Made Active in Reports: 08/16/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Lists of state and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

| | |
|---|--|
| Date of Government Version: 03/20/2008 | Source: EPA, Region 7 |
| Date Data Arrived at EDR: 04/22/2008 | Telephone: 913-551-7365 |
| Date Made Active in Reports: 05/19/2008 | Last EDR Contact: 07/08/2021 |
| Number of Days to Update: 27 | Next Scheduled EDR Contact: 07/20/2009 |
| | Data Release Frequency: Varies |

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

| | |
|---|--|
| Date of Government Version: 07/25/2022 | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 07/25/2022 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 10/05/2022 | Last EDR Contact: 10/24/2022 |
| Number of Days to Update: 72 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Quarterly |

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

| | |
|---|--|
| Date of Government Version: 07/27/2015 | Source: EPA, Region 1 |
| Date Data Arrived at EDR: 09/29/2015 | Telephone: 617-918-1102 |
| Date Made Active in Reports: 02/18/2016 | Last EDR Contact: 09/13/2022 |
| Number of Days to Update: 142 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Varies |

Lists of state and tribal brownfield sites

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

| | |
|---|---|
| Date of Government Version: 06/21/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 06/21/2022 | Telephone: 916-323-7905 |
| Date Made Active in Reports: 09/08/2022 | Last EDR Contact: 09/19/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

| | |
|---|---|
| Date of Government Version: 02/23/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/10/2022 | Telephone: 202-566-2777 |
| Date Made Active in Reports: 03/10/2022 | Last EDR Contact: 09/09/2022 |
| Number of Days to Update: 0 | Next Scheduled EDR Contact: 12/26/2022 |
| | Data Release Frequency: Semi-Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

| | |
|---|---|
| Date of Government Version: 04/01/2000 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 04/10/2000 | Telephone: 916-227-4448 |
| Date Made Active in Reports: 05/10/2000 | Last EDR Contact: 10/20/2022 |
| Number of Days to Update: 30 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: No Update Planned |

SWRCY: Recycler Database

A listing of recycling facilities in California.

| | |
|---|--|
| Date of Government Version: 08/31/2022 | Source: Department of Conservation |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 916-323-3836 |
| Date Made Active in Reports: 11/18/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

| | |
|---|---|
| Date of Government Version: 08/12/2022 | Source: Integrated Waste Management Board |
| Date Data Arrived at EDR: 08/16/2022 | Telephone: 916-341-6422 |
| Date Made Active in Reports: 08/26/2022 | Last EDR Contact: 11/15/2022 |
| Number of Days to Update: 10 | Next Scheduled EDR Contact: 02/20/2023 |
| | Data Release Frequency: Varies |

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

| | |
|---|---|
| Date of Government Version: 12/31/1998 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 12/03/2007 | Telephone: 703-308-8245 |
| Date Made Active in Reports: 01/24/2008 | Last EDR Contact: 10/20/2022 |
| Number of Days to Update: 52 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Varies |

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

| | |
|---|---|
| Date of Government Version: 01/12/2009 | Source: EPA, Region 9 |
| Date Data Arrived at EDR: 05/07/2009 | Telephone: 415-947-4219 |
| Date Made Active in Reports: 09/21/2009 | Last EDR Contact: 10/11/2022 |
| Number of Days to Update: 137 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: No Update Planned |

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

| | |
|---|---|
| Date of Government Version: 06/30/1985 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 08/09/2004 | Telephone: 800-424-9346 |
| Date Made Active in Reports: 09/17/2004 | Last EDR Contact: 06/09/2004 |
| Number of Days to Update: 39 | Next Scheduled EDR Contact: N/A |
| | Data Release Frequency: No Update Planned |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

| | |
|---|--|
| Date of Government Version: 04/01/2014 | Source: Department of Health & Human Services, Indian Health Service |
| Date Data Arrived at EDR: 08/06/2014 | Telephone: 301-443-1452 |
| Date Made Active in Reports: 01/29/2015 | Last EDR Contact: 10/28/2022 |
| Number of Days to Update: 176 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Varies |

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

| | |
|---|---|
| Date of Government Version: 07/29/2022 | Source: Drug Enforcement Administration |
| Date Data Arrived at EDR: 08/18/2022 | Telephone: 202-307-1000 |
| Date Made Active in Reports: 10/24/2022 | Last EDR Contact: 11/16/2022 |
| Number of Days to Update: 67 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: No Update Planned |

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

| | |
|---|---|
| Date of Government Version: 08/08/2005 | Source: Department of Toxic Substance Control |
| Date Data Arrived at EDR: 08/03/2006 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 08/24/2006 | Last EDR Contact: 02/23/2009 |
| Number of Days to Update: 21 | Next Scheduled EDR Contact: 05/25/2009 |
| | Data Release Frequency: No Update Planned |

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

| | |
|---|--|
| Date of Government Version: 07/25/2022 | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 07/25/2022 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 10/05/2022 | Last EDR Contact: 10/24/2022 |
| Number of Days to Update: 72 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Quarterly |

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

| | |
|---|--|
| Date of Government Version: 12/31/2019 | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 01/20/2021 | Telephone: 916-255-6504 |
| Date Made Active in Reports: 04/08/2021 | Last EDR Contact: 11/23/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 02/13/2023 |
| | Data Release Frequency: Varies |

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/18/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 74

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 07/29/2022
Date Data Arrived at EDR: 08/18/2022
Date Made Active in Reports: 10/24/2022
Number of Days to Update: 67

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 08/04/2022
Date Data Arrived at EDR: 08/04/2022
Date Made Active in Reports: 10/20/2022
Number of Days to Update: 77

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CERS TANKS: California Environmental Reporting System (CERS) Tanks

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

| | |
|---|--|
| Date of Government Version: 07/18/2022 | Source: California Environmental Protection Agency |
| Date Data Arrived at EDR: 07/18/2022 | Telephone: 916-323-2514 |
| Date Made Active in Reports: 09/30/2022 | Last EDR Contact: 10/17/2022 |
| Number of Days to Update: 74 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Quarterly |

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

| | |
|---|--|
| Date of Government Version: 10/31/1994 | Source: California Environmental Protection Agency |
| Date Data Arrived at EDR: 09/05/1995 | Telephone: 916-341-5851 |
| Date Made Active in Reports: 09/29/1995 | Last EDR Contact: 12/28/1998 |
| Number of Days to Update: 24 | Next Scheduled EDR Contact: N/A |
| | Data Release Frequency: No Update Planned |

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

| | |
|---|--|
| Date of Government Version: 08/23/2022 | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 08/24/2022 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 11/14/2022 | Last EDR Contact: 12/06/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Varies |

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

| | |
|---|---|
| Date of Government Version: 10/27/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: 202-564-6023 |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 01/09/2023 |
| | Data Release Frequency: Semi-Annually |

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

| | |
|---|--|
| Date of Government Version: 08/25/2022 | Source: DTSC and SWRCB |
| Date Data Arrived at EDR: 08/25/2022 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 11/14/2022 | Last EDR Contact: 11/29/2022 |
| Number of Days to Update: 81 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Semi-Annually |

Records of Emergency Release Reports

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

| | |
|---|---|
| Date of Government Version: 09/19/2022 | Source: U.S. Department of Transportation |
| Date Data Arrived at EDR: 09/19/2022 | Telephone: 202-366-4555 |
| Date Made Active in Reports: 09/30/2022 | Last EDR Contact: 09/19/2022 |
| Number of Days to Update: 11 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

| | |
|---|--|
| Date of Government Version: 06/30/2022 | Source: Office of Emergency Services |
| Date Data Arrived at EDR: 07/18/2022 | Telephone: 916-845-8400 |
| Date Made Active in Reports: 09/30/2022 | Last EDR Contact: 10/17/2022 |
| Number of Days to Update: 74 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Semi-Annually |

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Quality Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

| | |
|---|---|
| Date of Government Version: 06/06/2012 | Source: FirstSearch |
| Date Data Arrived at EDR: 01/03/2013 | Telephone: N/A |
| Date Made Active in Reports: 02/22/2013 | Last EDR Contact: 01/03/2013 |
| Number of Days to Update: 50 | Next Scheduled EDR Contact: N/A |
| | Data Release Frequency: No Update Planned |

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/21/2022
Date Data Arrived at EDR: 11/21/2022
Date Made Active in Reports: 12/05/2022
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 11/21/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/10/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/03/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/03/2022
Next Scheduled EDR Contact: 02/20/2023
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/20/2022
Date Data Arrived at EDR: 06/21/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/20/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

| | |
|---|---|
| Date of Government Version: 08/30/2013 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/21/2014 | Telephone: 617-520-3000 |
| Date Made Active in Reports: 06/17/2014 | Last EDR Contact: 10/28/2022 |
| Number of Days to Update: 88 | Next Scheduled EDR Contact: 02/16/2023 |
| | Data Release Frequency: Quarterly |

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

| | |
|---|---|
| Date of Government Version: 09/30/2017 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 05/08/2018 | Telephone: 703-308-4044 |
| Date Made Active in Reports: 07/20/2018 | Last EDR Contact: 10/28/2022 |
| Number of Days to Update: 73 | Next Scheduled EDR Contact: 02/16/2023 |
| | Data Release Frequency: Varies |

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

| | |
|---|--|
| Date of Government Version: 12/31/2016 | Source: EPA |
| Date Data Arrived at EDR: 06/17/2020 | Telephone: 202-260-5521 |
| Date Made Active in Reports: 09/10/2020 | Last EDR Contact: 09/12/2022 |
| Number of Days to Update: 85 | Next Scheduled EDR Contact: 12/26/2022 |
| | Data Release Frequency: Every 4 Years |

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

| | |
|---|--|
| Date of Government Version: 12/31/2018 | Source: EPA |
| Date Data Arrived at EDR: 08/14/2020 | Telephone: 202-566-0250 |
| Date Made Active in Reports: 11/04/2020 | Last EDR Contact: 11/01/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 02/27/2023 |
| | Data Release Frequency: Annually |

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

| | |
|---|--|
| Date of Government Version: 07/18/2022 | Source: EPA |
| Date Data Arrived at EDR: 07/18/2022 | Telephone: 202-564-4203 |
| Date Made Active in Reports: 07/29/2022 | Last EDR Contact: 10/18/2022 |
| Number of Days to Update: 11 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

| | |
|---|--|
| Date of Government Version: 10/27/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: 703-416-0223 |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Annually |

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

| | |
|---|---|
| Date of Government Version: 04/27/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 05/04/2022 | Telephone: 202-564-8600 |
| Date Made Active in Reports: 05/10/2022 | Last EDR Contact: 10/27/2022 |
| Number of Days to Update: 6 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

| | |
|---|---|
| Date of Government Version: 04/17/1995 | Source: EPA |
| Date Data Arrived at EDR: 07/03/1995 | Telephone: 202-564-4104 |
| Date Made Active in Reports: 08/07/1995 | Last EDR Contact: 06/02/2008 |
| Number of Days to Update: 35 | Next Scheduled EDR Contact: 09/01/2008 |
| | Data Release Frequency: No Update Planned |

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

| | |
|---|--|
| Date of Government Version: 10/27/2022 | Source: EPA |
| Date Data Arrived at EDR: 11/01/2022 | Telephone: 202-564-6023 |
| Date Made Active in Reports: 11/15/2022 | Last EDR Contact: 12/01/2022 |
| Number of Days to Update: 14 | Next Scheduled EDR Contact: 02/16/2023 |
| | Data Release Frequency: Quarterly |

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

| | |
|---|--|
| Date of Government Version: 01/20/2022 | Source: EPA |
| Date Data Arrived at EDR: 01/20/2022 | Telephone: 202-566-0500 |
| Date Made Active in Reports: 03/25/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 64 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

| | |
|---|---|
| Date of Government Version: 11/18/2016 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/23/2016 | Telephone: 202-564-2501 |
| Date Made Active in Reports: 02/10/2017 | Last EDR Contact: 09/27/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Quarterly |

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

| | |
|---|---|
| Date of Government Version: 04/09/2009 | Source: EPA/Office of Prevention, Pesticides and Toxic Substances |
| Date Data Arrived at EDR: 04/16/2009 | Telephone: 202-566-1667 |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 08/18/2017 |
| Number of Days to Update: 25 | Next Scheduled EDR Contact: 12/04/2017 |
| | Data Release Frequency: No Update Planned |

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

| | |
|---|---|
| Date of Government Version: 04/09/2009 | Source: EPA |
| Date Data Arrived at EDR: 04/16/2009 | Telephone: 202-566-1667 |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 08/18/2017 |
| Number of Days to Update: 25 | Next Scheduled EDR Contact: 12/04/2017 |
| | Data Release Frequency: No Update Planned |

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

| | |
|---|--|
| Date of Government Version: 10/26/2022 | Source: Nuclear Regulatory Commission |
| Date Data Arrived at EDR: 11/22/2022 | Telephone: 301-415-7169 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 10/11/2022 |
| Number of Days to Update: 13 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Quarterly |

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

| | |
|---|--|
| Date of Government Version: 12/31/2020 | Source: Department of Energy |
| Date Data Arrived at EDR: 11/30/2021 | Telephone: 202-586-8719 |
| Date Made Active in Reports: 02/22/2022 | Last EDR Contact: 11/29/2022 |
| Number of Days to Update: 84 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Varies |

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

| | |
|---|---|
| Date of Government Version: 01/12/2017 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/05/2019 | Telephone: N/A |
| Date Made Active in Reports: 11/11/2019 | Last EDR Contact: 11/23/2022 |
| Number of Days to Update: 251 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Varies |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

| | |
|---|---|
| Date of Government Version: 09/13/2019 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/06/2019 | Telephone: 202-566-0517 |
| Date Made Active in Reports: 02/10/2020 | Last EDR Contact: 11/03/2022 |
| Number of Days to Update: 96 | Next Scheduled EDR Contact: 02/13/2023 |
| | Data Release Frequency: Varies |

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

| | |
|---|---|
| Date of Government Version: 07/01/2019 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 07/01/2019 | Telephone: 202-343-9775 |
| Date Made Active in Reports: 09/23/2019 | Last EDR Contact: 09/21/2022 |
| Number of Days to Update: 84 | Next Scheduled EDR Contact: 01/10/2023 |
| | Data Release Frequency: Quarterly |

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

| | |
|---|---|
| Date of Government Version: 10/19/2006 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/01/2007 | Telephone: 202-564-2501 |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2007 |
| Number of Days to Update: 40 | Next Scheduled EDR Contact: 03/17/2008 |
| | Data Release Frequency: No Update Planned |

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

| | |
|---|---|
| Date of Government Version: 10/19/2006 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/01/2007 | Telephone: 202-564-2501 |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2008 |
| Number of Days to Update: 40 | Next Scheduled EDR Contact: 03/17/2008 |
| | Data Release Frequency: No Update Planned |

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

| | |
|---|---|
| Date of Government Version: 01/02/2020 | Source: Department of Transportation, Office of Pipeline Safety |
| Date Data Arrived at EDR: 01/28/2020 | Telephone: 202-366-4595 |
| Date Made Active in Reports: 04/17/2020 | Last EDR Contact: 10/24/2022 |
| Number of Days to Update: 80 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Quarterly |

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/30/2022
Date Data Arrived at EDR: 07/21/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 71

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 03/02/2022
Date Made Active in Reports: 03/25/2022
Number of Days to Update: 23

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/21/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 10/27/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/09/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/27/2022
Date Data Arrived at EDR: 11/01/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 12/01/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 08/01/2022
Date Data Arrived at EDR: 08/02/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 59

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 11/28/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/31/2022
Number of Days to Update: 14

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/17/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/21/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

| | |
|---|--|
| Date of Government Version: 04/14/2011 | Source: USGS |
| Date Data Arrived at EDR: 06/08/2011 | Telephone: 703-648-7709 |
| Date Made Active in Reports: 09/13/2011 | Last EDR Contact: 11/21/2022 |
| Number of Days to Update: 97 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

| | |
|---|--|
| Date of Government Version: 09/13/2022 | Source: Department of Interior |
| Date Data Arrived at EDR: 09/14/2022 | Telephone: 202-208-2609 |
| Date Made Active in Reports: 12/05/2022 | Last EDR Contact: 11/30/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

| | |
|---|--|
| Date of Government Version: 08/03/2022 | Source: EPA |
| Date Data Arrived at EDR: 08/25/2022 | Telephone: (415) 947-8000 |
| Date Made Active in Reports: 10/24/2022 | Last EDR Contact: 11/29/2022 |
| Number of Days to Update: 60 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Quarterly |

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

| | |
|---|--|
| Date of Government Version: 12/31/2020 | Source: Department of Defense |
| Date Data Arrived at EDR: 01/11/2022 | Telephone: 703-704-1564 |
| Date Made Active in Reports: 02/14/2022 | Last EDR Contact: 10/05/2022 |
| Number of Days to Update: 34 | Next Scheduled EDR Contact: 01/23/2023 |
| | Data Release Frequency: Varies |

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

| | |
|---|---|
| Date of Government Version: 05/06/2021 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 05/21/2021 | Telephone: 202-564-0527 |
| Date Made Active in Reports: 08/11/2021 | Last EDR Contact: 11/15/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/25/2022
Date Data Arrived at EDR: 07/01/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/30/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 50

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/10/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 07/08/2022
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 123

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 10/04/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 02/23/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 222

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 01/03/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 222

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/04/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 01/03/2022
Date Data Arrived at EDR: 03/31/2022
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 222

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

| | |
|---|---|
| Date of Government Version: 06/24/2020 | Source: Department of Health & Human Services |
| Date Data Arrived at EDR: 03/17/2021 | Telephone: 202-741-5770 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/28/2022 |
| Number of Days to Update: 601 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Varies |

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

| | |
|---|---|
| Date of Government Version: 01/03/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/31/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 222 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits.

| | |
|---|---|
| Date of Government Version: 01/03/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/31/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 222 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

| | |
|---|---|
| Date of Government Version: 01/03/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/31/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 222 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

PFAS ECHO FIRE TRAINING: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facility's name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

| | |
|---|---|
| Date of Government Version: 08/22/2018 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/31/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 222 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PFAS PART 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration's document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

| | |
|---|---|
| Date of Government Version: 08/22/2018 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 10/26/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/26/2022 |
| Number of Days to Update: 13 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

| | |
|---|---|
| Date of Government Version: 02/23/2022 | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/31/2022 | Telephone: 202-272-0167 |
| Date Made Active in Reports: 11/08/2022 | Last EDR Contact: 10/06/2022 |
| Number of Days to Update: 222 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Varies |

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 10/31/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 61 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing

Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

| | |
|---|---|
| Date of Government Version: 09/06/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 09/06/2022 | Telephone: 916-341-5455 |
| Date Made Active in Reports: 10/26/2022 | Last EDR Contact: 09/06/2022 |
| Number of Days to Update: 50 | Next Scheduled EDR Contact: 12/19/2022 |
| | Data Release Frequency: Varies |

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

| | |
|---|---|
| Date of Government Version: 01/01/1989 | Source: Department of Health Services |
| Date Data Arrived at EDR: 07/27/1994 | Telephone: 916-255-2118 |
| Date Made Active in Reports: 08/02/1994 | Last EDR Contact: 05/31/1994 |
| Number of Days to Update: 6 | Next Scheduled EDR Contact: N/A |
| | Data Release Frequency: No Update Planned |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

| | |
|---|---|
| Date of Government Version: 06/21/2022 | Source: CAL EPA/Office of Emergency Information |
| Date Data Arrived at EDR: 06/21/2022 | Telephone: 916-323-3400 |
| Date Made Active in Reports: 09/08/2022 | Last EDR Contact: 09/19/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Quarterly |

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

| | |
|---|--|
| Date of Government Version: 12/07/2021 | Source: Livermore-Pleasanton Fire Department |
| Date Data Arrived at EDR: 05/09/2022 | Telephone: 925-454-2361 |
| Date Made Active in Reports: 05/17/2022 | Last EDR Contact: 11/10/2022 |
| Number of Days to Update: 8 | Next Scheduled EDR Contact: 02/20/2023 |
| | Data Release Frequency: Varies |

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

| | |
|---|---|
| Date of Government Version: 08/18/2022 | Source: South Coast Air Quality Management District |
| Date Data Arrived at EDR: 08/29/2022 | Telephone: 909-396-3211 |
| Date Made Active in Reports: 11/14/2022 | Last EDR Contact: 11/15/2022 |
| Number of Days to Update: 77 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

| | |
|---|---|
| Date of Government Version: 08/27/2021 | Source: Department of Toxic Substance Control |
| Date Data Arrived at EDR: 09/01/2021 | Telephone: 916-327-4498 |
| Date Made Active in Reports: 11/19/2021 | Last EDR Contact: 11/07/2022 |
| Number of Days to Update: 79 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Annually |

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

| | |
|---|---|
| Date of Government Version: 05/25/2022 | Source: Antelope Valley Air Quality Management District |
| Date Data Arrived at EDR: 05/26/2022 | Telephone: 661-723-8070 |
| Date Made Active in Reports: 08/11/2022 | Last EDR Contact: 11/14/2022 |
| Number of Days to Update: 77 | Next Scheduled EDR Contact: 03/13/2023 |
| | Data Release Frequency: Varies |

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

| | |
|---|--|
| Date of Government Version: 12/31/2020 | Source: California Air Resources Board |
| Date Data Arrived at EDR: 06/13/2022 | Telephone: 916-322-2990 |
| Date Made Active in Reports: 08/30/2022 | Last EDR Contact: 09/16/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 12/26/2022 |
| | Data Release Frequency: Varies |

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/12/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 09/29/2022
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/19/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing Financial Assurance information

Date of Government Version: 07/06/2022
Date Data Arrived at EDR: 07/21/2022
Date Made Active in Reports: 10/03/2022
Number of Days to Update: 74

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/09/2022
Date Data Arrived at EDR: 08/10/2022
Date Made Active in Reports: 08/30/2022
Number of Days to Update: 20

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 02/20/2023
Data Release Frequency: Varies

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 10/28/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 11/10/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/11/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 10/28/2022
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/10/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/05/2022
Date Data Arrived at EDR: 07/05/2022
Date Made Active in Reports: 09/19/2022
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/03/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 07/05/2022
Date Made Active in Reports: 09/19/2022
Number of Days to Update: 76

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Annually

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/18/2022
Number of Days to Update: 79

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/14/2022
Number of Days to Update: 81

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 11/29/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/08/2022
Date Made Active in Reports: 10/20/2022
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/03/2022
Next Scheduled EDR Contact: 02/20/2023
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 08/25/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/14/2022
Number of Days to Update: 81

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 11/29/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/18/2022
Number of Days to Update: 79

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/07/2022
Date Data Arrived at EDR: 09/08/2022
Date Made Active in Reports: 11/29/2022
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 03/27/2023
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/18/2022
Number of Days to Update: 79

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/17/2022
Number of Days to Update: 78

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/06/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/17/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/17/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 08/31/2022
Date Data Arrived at EDR: 08/31/2022
Date Made Active in Reports: 11/18/2022
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/02/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 08/16/2022
Date Data Arrived at EDR: 08/17/2022
Date Made Active in Reports: 08/18/2022
Number of Days to Update: 1

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 11/29/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 07/18/2022
Date Data Arrived at EDR: 07/18/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 74

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)

Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

| | |
|---|---|
| Date of Government Version: 08/31/2022 | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 866-480-1028 |
| Date Made Active in Reports: 11/17/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 78 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Varies |

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

| | |
|---|--|
| Date of Government Version: 04/06/2018 | Source: USGS |
| Date Data Arrived at EDR: 10/21/2019 | Telephone: 703-648-6533 |
| Date Made Active in Reports: 10/24/2019 | Last EDR Contact: 11/22/2022 |
| Number of Days to Update: 3 | Next Scheduled EDR Contact: 03/06/2023 |
| | Data Release Frequency: Varies |

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

| | |
|---|--|
| Date of Government Version: 11/05/2014 | Source: EPA |
| Date Data Arrived at EDR: 01/06/2015 | Telephone: 202-564-2496 |
| Date Made Active in Reports: 05/06/2015 | Last EDR Contact: 09/28/2022 |
| Number of Days to Update: 120 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Semi-Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCS ENF: Enforcement data

No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/28/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/05/2022
Date Data Arrived at EDR: 04/05/2022
Date Made Active in Reports: 04/26/2022
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 10/03/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/28/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2022
Date Data Arrived at EDR: 06/29/2022
Date Made Active in Reports: 07/21/2022
Number of Days to Update: 22

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List Cupa Facility List

Date of Government Version: 07/22/2022
Date Data Arrived at EDR: 07/27/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 5

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/13/2023
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 06/14/2022
Date Data Arrived at EDR: 06/15/2022
Date Made Active in Reports: 09/02/2022
Number of Days to Update: 79

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/20/2022
Date Data Arrived at EDR: 07/20/2022
Date Made Active in Reports: 10/03/2022
Number of Days to Update: 75

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/20/2022
Next Scheduled EDR Contact: 02/06/2023
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List Cupa Facility list

Date of Government Version: 05/04/2022
Date Data Arrived at EDR: 05/06/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/20/2022
Next Scheduled EDR Contact: 02/06/2023
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 08/08/2022
Date Data Arrived at EDR: 08/09/2022
Date Made Active in Reports: 09/01/2022
Number of Days to Update: 23

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/20/2022
Next Scheduled EDR Contact: 02/06/2023
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/28/2021
Date Data Arrived at EDR: 12/21/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 72

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/30/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA HUMBOLDT: CUPA Facility List CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 07/13/2022
Date Data Arrived at EDR: 07/14/2022
Date Made Active in Reports: 09/29/2022
Number of Days to Update: 77

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List

A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 05/06/2022
Date Data Arrived at EDR: 05/12/2022
Date Made Active in Reports: 08/01/2022
Number of Days to Update: 81

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 07/22/2022
Date Data Arrived at EDR: 07/25/2022
Date Made Active in Reports: 10/05/2022
Number of Days to Update: 72

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/04/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 03/27/2023
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/06/2022
Date Data Arrived at EDR: 07/07/2022
Date Made Active in Reports: 09/21/2022
Number of Days to Update: 76

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 09/27/2022
Next Scheduled EDR Contact: 01/16/2023
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/11/2022
Date Data Arrived at EDR: 07/11/2022
Date Made Active in Reports: 09/23/2022
Number of Days to Update: 74

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/07/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

| | |
|---|---|
| Date of Government Version: 01/01/2022 | Source: Engineering & Construction Division |
| Date Data Arrived at EDR: 01/21/2022 | Telephone: 213-473-7869 |
| Date Made Active in Reports: 04/11/2022 | Last EDR Contact: 10/04/2022 |
| Number of Days to Update: 80 | Next Scheduled EDR Contact: 01/23/2023 |
| | Data Release Frequency: Varies |

LOS ANGELES AST: Active & Inactive AST Inventory

A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

| | |
|---|--|
| Date of Government Version: 06/01/2019 | Source: Los Angeles Fire Department |
| Date Data Arrived at EDR: 06/25/2019 | Telephone: 213-978-3800 |
| Date Made Active in Reports: 08/22/2019 | Last EDR Contact: 09/19/2022 |
| Number of Days to Update: 58 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Varies |

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

| | |
|---|---|
| Date of Government Version: 01/10/2022 | Source: Los Angeles County Department of Public Works |
| Date Data Arrived at EDR: 01/12/2022 | Telephone: 626-458-6973 |
| Date Made Active in Reports: 04/04/2022 | Last EDR Contact: 10/04/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 01/23/2023 |
| | Data Release Frequency: No Update Planned |

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

| | |
|---|--|
| Date of Government Version: 01/13/2022 | Source: Los Angeles Fire Department |
| Date Data Arrived at EDR: 03/21/2022 | Telephone: 213-978-3800 |
| Date Made Active in Reports: 06/15/2022 | Last EDR Contact: 09/20/2022 |
| Number of Days to Update: 86 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Varies |

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

| | |
|---|--|
| Date of Government Version: 03/22/2022 | Source: Los Angeles Fire Department |
| Date Data Arrived at EDR: 06/24/2022 | Telephone: 213-978-3800 |
| Date Made Active in Reports: 09/08/2022 | Last EDR Contact: 09/20/2022 |
| Number of Days to Update: 76 | Next Scheduled EDR Contact: 01/02/2023 |
| | Data Release Frequency: Varies |

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

| | |
|---|--|
| Date of Government Version: 05/26/2021 | Source: Community Health Services |
| Date Data Arrived at EDR: 07/09/2021 | Telephone: 323-890-7806 |
| Date Made Active in Reports: 09/29/2021 | Last EDR Contact: 10/20/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

| | |
|---|--|
| Date of Government Version: 01/21/2017 | Source: City of El Segundo Fire Department |
| Date Data Arrived at EDR: 04/19/2017 | Telephone: 310-524-2236 |
| Date Made Active in Reports: 05/10/2017 | Last EDR Contact: 10/04/2022 |
| Number of Days to Update: 21 | Next Scheduled EDR Contact: 01/23/2023 |
| | Data Release Frequency: No Update Planned |

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

| | |
|---|--|
| Date of Government Version: 04/22/2019 | Source: City of Long Beach Fire Department |
| Date Data Arrived at EDR: 04/23/2019 | Telephone: 562-570-2563 |
| Date Made Active in Reports: 06/27/2019 | Last EDR Contact: 10/11/2022 |
| Number of Days to Update: 65 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Varies |

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

| | |
|---|--|
| Date of Government Version: 04/22/2022 | Source: City of Torrance Fire Department |
| Date Data Arrived at EDR: 07/19/2022 | Telephone: 310-618-2973 |
| Date Made Active in Reports: 09/30/2022 | Last EDR Contact: 10/11/2022 |
| Number of Days to Update: 73 | Next Scheduled EDR Contact: 01/30/2023 |
| | Data Release Frequency: Semi-Annually |

MADERA COUNTY:

CUPA MADERA: CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

| | |
|---|--|
| Date of Government Version: 08/10/2020 | Source: Madera County Environmental Health |
| Date Data Arrived at EDR: 08/12/2020 | Telephone: 559-675-7823 |
| Date Made Active in Reports: 10/23/2020 | Last EDR Contact: 11/08/2022 |
| Number of Days to Update: 72 | Next Scheduled EDR Contact: 02/27/2023 |
| | Data Release Frequency: Varies |

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

| | |
|---|--|
| Date of Government Version: 09/26/2018 | Source: Public Works Department Waste Management |
| Date Data Arrived at EDR: 10/04/2018 | Telephone: 415-473-6647 |
| Date Made Active in Reports: 11/02/2018 | Last EDR Contact: 09/21/2022 |
| Number of Days to Update: 29 | Next Scheduled EDR Contact: 01/10/2023 |
| | Data Release Frequency: Semi-Annually |

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/22/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 11/22/2021
Number of Days to Update: 4

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/15/2022
Date Data Arrived at EDR: 02/17/2022
Date Made Active in Reports: 05/11/2022
Number of Days to Update: 83

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/04/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: No Update Planned

NEVADA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA NEVADA: CUPA Facility List CUPA facility list.

Date of Government Version: 07/21/2022
Date Data Arrived at EDR: 07/25/2022
Date Made Active in Reports: 07/28/2022
Number of Days to Update: 3

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/20/2022
Next Scheduled EDR Contact: 02/06/2023
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups Petroleum and non-petroleum spills.

Date of Government Version: 05/24/2022
Date Data Arrived at EDR: 08/09/2022
Date Made Active in Reports: 10/28/2022
Number of Days to Update: 80

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/03/2022
Next Scheduled EDR Contact: 02/13/2023
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/03/2022
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/03/2022
Next Scheduled EDR Contact: 02/13/2023
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/24/2022
Date Data Arrived at EDR: 08/01/2022
Date Made Active in Reports: 10/20/2022
Number of Days to Update: 80

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/03/2022
Next Scheduled EDR Contact: 02/13/2023
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 08/26/2022
Date Data Arrived at EDR: 08/29/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 78

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 11/22/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

RIVERSIDE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/07/2022
Date Data Arrived at EDR: 07/08/2022
Date Made Active in Reports: 09/21/2022
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 03/27/2023
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/07/2022
Date Data Arrived at EDR: 07/08/2022
Date Made Active in Reports: 09/21/2022
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 03/27/2023
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/18/2021
Date Data Arrived at EDR: 09/28/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 77

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/30/2022
Next Scheduled EDR Contact: 01/09/2023
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2022
Date Data Arrived at EDR: 06/30/2022
Date Made Active in Reports: 07/05/2022
Number of Days to Update: 5

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/26/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 07/27/2022
Date Data Arrived at EDR: 07/27/2022
Date Made Active in Reports: 10/11/2022
Number of Days to Update: 76

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/22/2022
Date Data Arrived at EDR: 08/23/2022
Date Made Active in Reports: 11/11/2022
Number of Days to Update: 80

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 10/28/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/25/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/15/2022
Number of Days to Update: 82

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 11/29/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/27/2021
Date Data Arrived at EDR: 03/04/2022
Date Made Active in Reports: 05/31/2022
Number of Days to Update: 88

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 86

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/22/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/04/2022
Date Data Arrived at EDR: 08/04/2022
Date Made Active in Reports: 10/20/2022
Number of Days to Update: 77

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/04/2022
Date Data Arrived at EDR: 08/04/2022
Date Made Active in Reports: 10/20/2022
Number of Days to Update: 77

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/13/2023
Data Release Frequency: Quarterly

SAN FRANCISCO COUNTY:

SAN FRANCISCO MAHER: Maher Ordinance Property Listing

a listing of properties that fall within a Maher Ordinance, for all of San Francisco

Date of Government Version: 01/18/2022
Date Data Arrived at EDR: 01/20/2022
Date Made Active in Reports: 04/27/2022
Number of Days to Update: 97

Source: San Francisco Planning
Telephone: 628-652-7483
Last EDR Contact: 10/07/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/06/2022
Next Scheduled EDR Contact: 03/27/2023
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List Cupa Facility List.

Date of Government Version: 08/10/2022
Date Data Arrived at EDR: 08/11/2022
Date Made Active in Reports: 10/28/2022
Number of Days to Update: 78

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

SAN MATEO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BI SAN MATEO: Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/09/2022
Next Scheduled EDR Contact: 12/19/2022
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 11/30/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 05/16/2022
Date Data Arrived at EDR: 05/18/2022
Date Made Active in Reports: 08/04/2022
Number of Days to Update: 78

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 10/28/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/15/2022
Next Scheduled EDR Contact: 03/06/2023
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN JOSE HAZMAT: Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 10/26/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/22/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 09/15/2021
Date Data Arrived at EDR: 09/16/2021
Date Made Active in Reports: 12/09/2021
Number of Days to Update: 84

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 11/22/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List Cupa Facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/13/2022
Next Scheduled EDR Contact: 01/02/2023
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List

Cupa facility list

Date of Government Version: 02/08/2022
Date Data Arrived at EDR: 02/10/2022
Date Made Active in Reports: 05/04/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/04/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 08/03/2022
Date Data Arrived at EDR: 08/25/2022
Date Made Active in Reports: 11/14/2022
Number of Days to Update: 81

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 11/23/2022
Next Scheduled EDR Contact: 03/13/2023
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List

Cupa facilities

Date of Government Version: 07/27/2022
Date Data Arrived at EDR: 07/27/2022
Date Made Active in Reports: 10/11/2022
Number of Days to Update: 76

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/08/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List

Cupa facility list

Date of Government Version: 07/13/2022
Date Data Arrived at EDR: 07/14/2022
Date Made Active in Reports: 09/29/2022
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

TULARE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA TULARE: CUPA Facility List Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 02/16/2023
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/11/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/26/2022
Date Data Arrived at EDR: 07/21/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 71

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/21/2022
Next Scheduled EDR Contact: 01/10/2023
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/01/2022
Next Scheduled EDR Contact: 02/20/2023
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/26/2022
Date Data Arrived at EDR: 07/25/2022
Date Made Active in Reports: 10/05/2022
Number of Days to Update: 72

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/17/2022
Next Scheduled EDR Contact: 01/30/2023
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

| | |
|---|--|
| Date of Government Version: 08/29/2022 | Source: Environmental Health Division |
| Date Data Arrived at EDR: 08/31/2022 | Telephone: 805-654-2813 |
| Date Made Active in Reports: 11/21/2022 | Last EDR Contact: 12/02/2022 |
| Number of Days to Update: 82 | Next Scheduled EDR Contact: 03/20/2023 |
| | Data Release Frequency: Quarterly |

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

| | |
|---|--|
| Date of Government Version: 06/22/2022 | Source: Yolo County Department of Health |
| Date Data Arrived at EDR: 06/30/2022 | Telephone: 530-666-8646 |
| Date Made Active in Reports: 09/14/2022 | Last EDR Contact: 09/21/2022 |
| Number of Days to Update: 76 | Next Scheduled EDR Contact: 01/10/2023 |
| | Data Release Frequency: Annually |

YUBA COUNTY:

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

| | |
|---|---|
| Date of Government Version: 10/25/2022 | Source: Yuba County Environmental Health Department |
| Date Data Arrived at EDR: 10/26/2022 | Telephone: 530-749-7523 |
| Date Made Active in Reports: 10/31/2022 | Last EDR Contact: 10/20/2022 |
| Number of Days to Update: 5 | Next Scheduled EDR Contact: 02/06/2023 |
| | Data Release Frequency: Varies |

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

| | |
|---|---|
| Date of Government Version: 08/08/2022 | Source: Department of Energy & Environmental Protection |
| Date Data Arrived at EDR: 08/08/2022 | Telephone: 860-424-3375 |
| Date Made Active in Reports: 10/21/2022 | Last EDR Contact: 11/16/2022 |
| Number of Days to Update: 74 | Next Scheduled EDR Contact: 02/20/2023 |
| | Data Release Frequency: No Update Planned |

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

| | |
|---|--|
| Date of Government Version: 12/31/2018 | Source: Department of Environmental Protection |
| Date Data Arrived at EDR: 04/10/2019 | Telephone: N/A |
| Date Made Active in Reports: 05/16/2019 | Last EDR Contact: 10/03/2022 |
| Number of Days to Update: 36 | Next Scheduled EDR Contact: 01/16/2023 |
| | Data Release Frequency: Annually |

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 82

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/28/2022
Next Scheduled EDR Contact: 02/06/2023
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/05/2022
Next Scheduled EDR Contact: 01/23/2023
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/28/2022
Next Scheduled EDR Contact: 02/27/2023
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/01/2022
Next Scheduled EDR Contact: 03/20/2023
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

ORCHARD CREEK ESTATES
6255 PINECREST DRIVE
PARADISE, CA 95969

TARGET PROPERTY COORDINATES

| | |
|--------------------------------|------------------------------|
| Latitude (North): | 39.771842 - 39° 46' 18.63" |
| Longitude (West): | 121.594069 - 121° 35' 38.65" |
| Universal Transverse Mercator: | Zone 10 |
| UTM X (Meters): | 620413.7 |
| UTM Y (Meters): | 4403170.0 |
| Elevation: | 2041 ft. above sea level |

USGS TOPOGRAPHIC MAP

| | |
|----------------------|----------------------------|
| Target Property Map: | 12016141 PARADISE EAST, CA |
| Version Date: | 2018 |

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

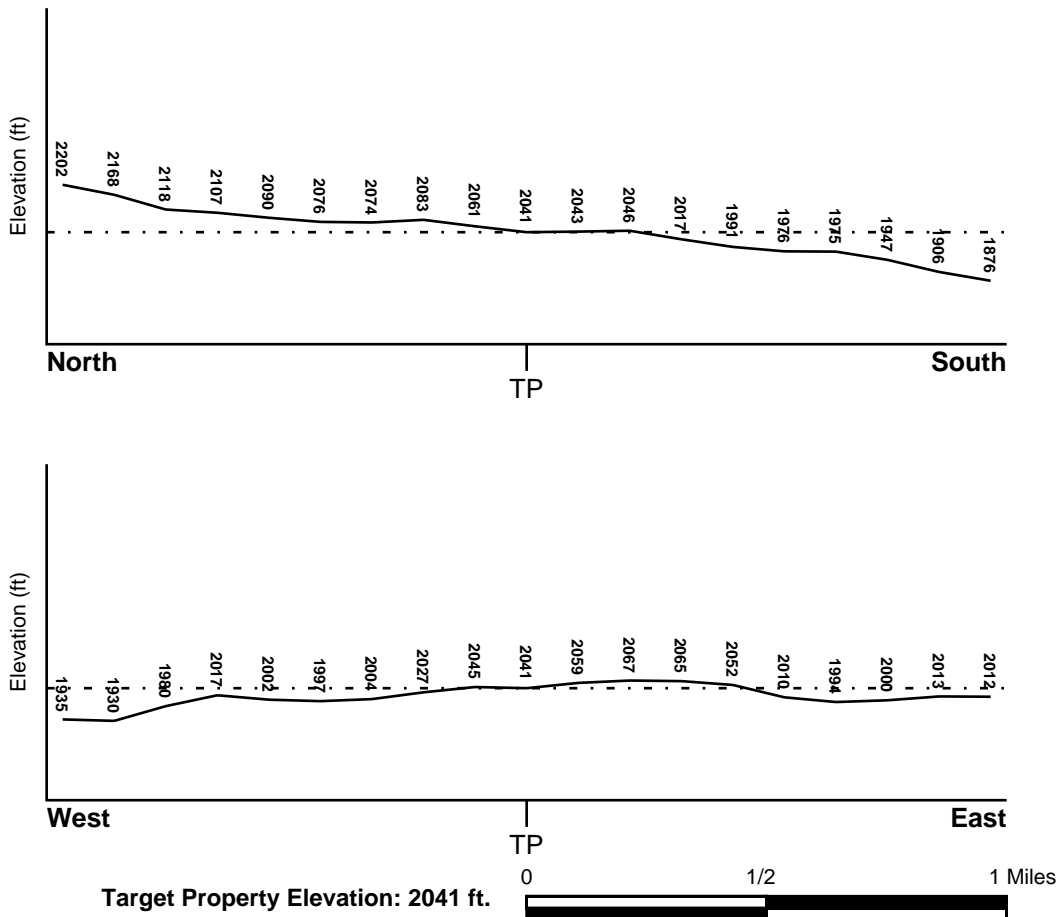
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property FEMA Source Type

Not Reported

Additional Panels in search area: FEMA Source Type

Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
NOT AVAILABLE

NWI Electronic Data Coverage
YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

| <u>MAP ID</u> | <u>LOCATION FROM TP</u> | <u>GENERAL DIRECTION GROUNDWATER FLOW</u> |
|---------------|-------------------------|---|
| Not Reported | | |

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Mesozoic
System: Lower Jurassic and Upper Triassic
Series: Lower Mesozoic
Code: IMze (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: COHASSET

Soil Surface Texture: cobbly - loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 72 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information | | | | | | | |
|------------------------|-----------|-----------|--------------------|---|--|---------------------------|------------------------|
| Layer | Boundary | | Soil Texture Class | Classification | | Permeability Rate (in/hr) | Soil Reaction (pH) |
| | Upper | Lower | | AASHTO Group | Unified Soil | | |
| 1 | 0 inches | 15 inches | cobbly - loam | Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 2.00 Min: 0.60 | Max: 6.50 Min: 5.10 |
| 2 | 15 inches | 55 inches | cobbly - clay loam | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. | Max: 2.00 Min: 0.60 | Max: 6.00 Min: 4.50 |
| 3 | 55 inches | 59 inches | weathered bedrock | Not reported | Not reported | Max: 0.00 Min: 0.00 | Max: 0.00 Min: 0.00 |

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
 stony - loam
 gravelly - loam
 very stony - sandy loam
 very cobbly - sandy loam
 stony - sandy loam
 fragmental material
 cobbly - sandy loam
 gravelly - sandy loam
 very cobbly - loam

Surficial Soil Types: loam
 stony - loam
 gravelly - loam
 very stony - sandy loam
 very cobbly - sandy loam
 stony - sandy loam
 fragmental material
 cobbly - sandy loam
 gravelly - sandy loam
 very cobbly - loam

Shallow Soil Types: very cobbly - sandy loam

Deeper Soil Types: cobbly - clay
 unweathered bedrock
 fragmental material

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

| <u>DATABASE</u> | <u>SEARCH DISTANCE (miles)</u> |
|------------------|--------------------------------|
| Federal USGS | 1.000 |
| Federal FRDS PWS | Nearest PWS within 1 mile |
| State Database | 1.000 |

FEDERAL USGS WELL INFORMATION

| <u>MAP ID</u> | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|----------------|----------------|-------------------------|
| No Wells Found | | |

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

| <u>MAP ID</u> | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|---------------------|----------------|-------------------------|
| No PWS System Found | | |

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

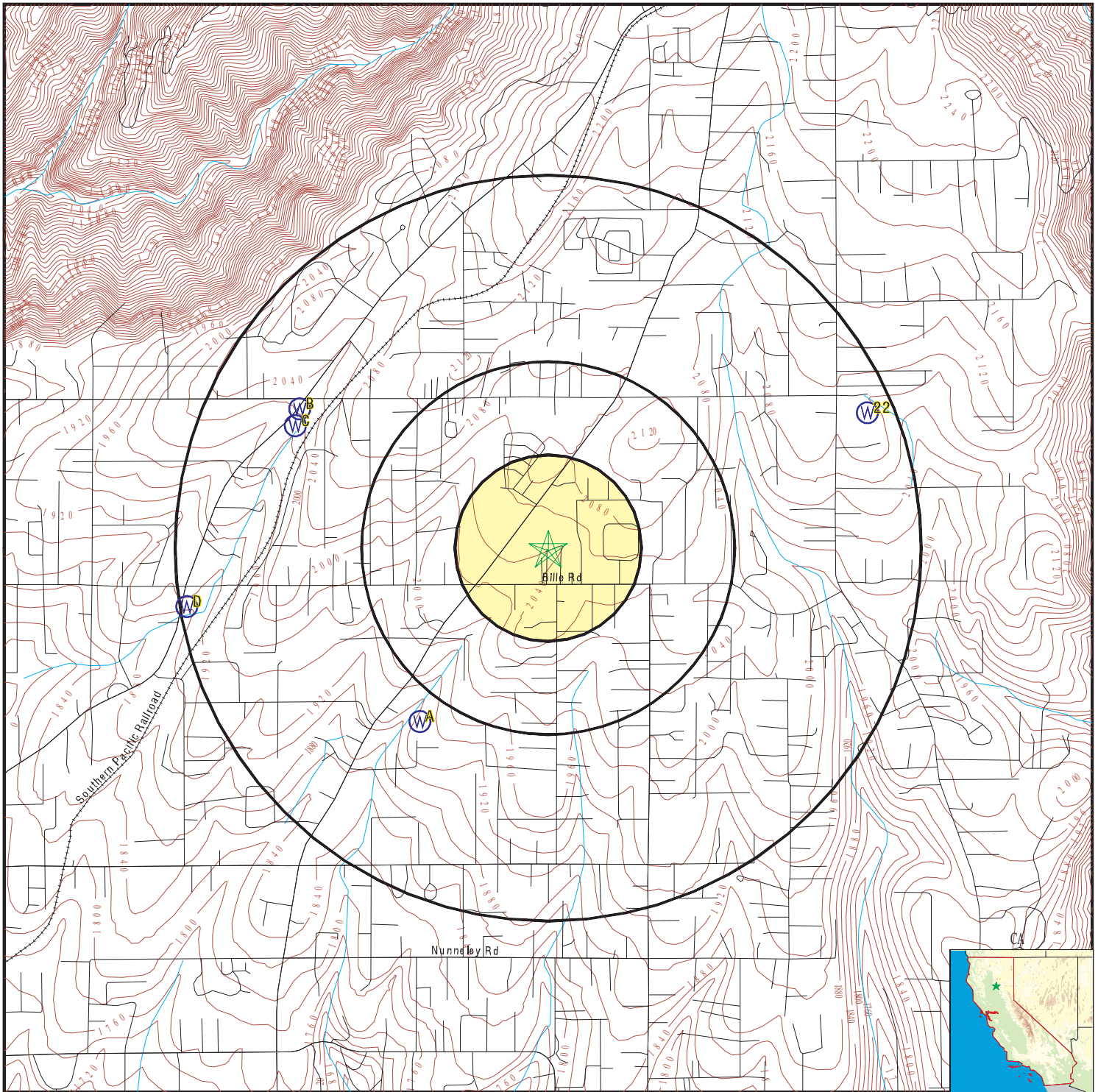
| <u>MAP ID</u> | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|---------------|-----------------|-------------------------|
| A1 | CADDW0000003330 | 1/2 - 1 Mile SW |
| A2 | CAUSGS000001755 | 1/2 - 1 Mile SW |
| A3 | CAUSGSN00010506 | 1/2 - 1 Mile SW |
| A4 | CALLNL000000341 | 1/2 - 1 Mile SW |
| B5 | CAEDF0000115879 | 1/2 - 1 Mile WNW |
| B6 | CAEDF0000111816 | 1/2 - 1 Mile WNW |
| B7 | CAEDF0000113367 | 1/2 - 1 Mile WNW |
| B8 | CAEDF0000131473 | 1/2 - 1 Mile WNW |
| C9 | CAEDF0000003862 | 1/2 - 1 Mile WNW |
| B10 | CAEDF0000093611 | 1/2 - 1 Mile WNW |
| B11 | CAEDF0000097943 | 1/2 - 1 Mile WNW |
| C12 | CAEDF0000079888 | 1/2 - 1 Mile WNW |
| B13 | CAEDF0000086804 | 1/2 - 1 Mile WNW |
| B14 | CAEDF0000039196 | 1/2 - 1 Mile WNW |
| B15 | CAEDF0000085955 | 1/2 - 1 Mile WNW |
| B16 | CAEDF0000038862 | 1/2 - 1 Mile WNW |
| B17 | CAEDF0000003203 | 1/2 - 1 Mile WNW |
| B18 | CAEDF0000120580 | 1/2 - 1 Mile WNW |
| B19 | CAEDF0000090829 | 1/2 - 1 Mile WNW |
| B20 | CAEDF0000089329 | 1/2 - 1 Mile WNW |









GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY






STATE DATABASE WELL INFORMATION

| <u>MAP ID</u> | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|---------------|-----------------|-----------------------------|
| B21 | CAEDF0000130469 | 1/2 - 1 Mile WNW |
| 22 | 15292 | 1/2 - 1 Mile ENE |
| D23 | CAEDF0000137103 | 1/2 - 1 Mile West |
| D24 | CAEDF0000116040 | 1/2 - 1 Mile West |
| D25 | CAEDF0000060455 | 1/2 - 1 Mile West |

PHYSICAL SETTING SOURCE MAP - 7198289.2s



-  County Boundary
-  Major Roads
-  Contour Lines
-  Earthquake Fault Lines
-  Earthquake epicenter, Richter 5 or greater
-  Water Wells
-  Public Water Supply Wells
-  Cluster of Multiple Icons

-  Groundwater Flow Direction
-  Indeterminate Groundwater Flow at Location
-  Groundwater Flow Varies at Location
-  Closest Hydrogeological Data
-  Oil, gas or related wells



SITE NAME: Orchard Creek Estates
 ADDRESS: 6255 Pinecrest Drive
 Paradise CA 95969
 LAT/LONG: 39.771842 / 121.594069

CLIENT: Chico Env. Science & Planning
 CONTACT: Jillian Olivar
 INQUIRY #: 7198289.2s
 DATE: December 07, 2022 6:20 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
SW
1/2 - 1 Mile
Lower

CA WELLS CADDW0000003330

| | | | |
|---------------------------|---|--------------------|--------------|
| Well ID: | 0410007-004 | Well Type: | MUNICIPAL |
| Source: | Department of Health Services | | |
| Other Name: | WELL AT D TANK | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=0410007-004&store_num= | | |
| GeoTracker Data: | Not Reported | | |

A2
SW
1/2 - 1 Mile
Lower

CA WELLS CAUSGS000001755

A3
SW
1/2 - 1 Mile
Lower

CA WELLS CAUSGSN00010506

| | | | |
|---------------------------|--|--------------------|--------------|
| Well ID: | USGS-394500121360001 | Well Type: | UNK |
| Source: | United States Geological Survey | | |
| Other Name: | USGS-394500121360001 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-394500121360001&store_num= | | |
| GeoTracker Data: | Not Reported | | |

A4
SW
1/2 - 1 Mile
Lower

CA WELLS CALLNL000000341

| | | | |
|---------------------------|--|--------------------|--------------|
| Well ID: | 101391 | Well Type: | MUNICIPAL |
| Source: | Lawrence Livermore National Laboratory | | |
| Other Name: | 0410007-004 | GAMA PFAS Testing: | Not Reported |
| Groundwater Quality Data: | Not Reported | | |
| GeoTracker Data: | Not Reported | | |

| | | | |
|-----------|----------|----------|----------------|
| Chemical: | Krypton | Results: | .0000000855156 |
| Units: | cm3STP/g | Date: | 03/04/2003 |

| | | | |
|-----------|----------|----------|------------|
| Chemical: | Argon | Results: | .000378626 |
| Units: | cm3STP/g | Date: | 03/04/2003 |

| | | | |
|-----------|----------------------|----------|------------|
| Chemical: | Tritium (Hydrogen 3) | Results: | 1.66 |
| Units: | pCi/L | Date: | 05/12/2003 |

| | | | |
|-----------|-------------------|----------|--------------|
| Chemical: | Helium-3/Helium-4 | Results: | .00000149505 |
| Units: | atom ratio | Date: | 03/04/2003 |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

| | | | |
|-----------|----------|----------|---------------|
| Chemical: | Neon | Results: | .000000196749 |
| Units: | cm3STP/g | Date: | 03/04/2003 |

| | | | |
|-----------|----------|----------|----------------|
| Chemical: | Xenon | Results: | .0000000119829 |
| Units: | cm3STP/g | Date: | 03/04/2003 |

| | | | |
|-----------|----------|----------|----------------|
| Chemical: | Helium-4 | Results: | .0000000467202 |
| Units: | cm3STP/g | Date: | 03/04/2003 |

**B5
WNW
1/2 - 1 Mile
Lower**

CA WELLS CAEDF0000115879

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-1 | | |

**B6
WNW
1/2 - 1 Mile
Lower**

CA WELLS CAEDF0000111816

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-5 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-5 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-5&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-5 | | |

**B7
WNW
1/2 - 1 Mile
Lower**

CA WELLS CAEDF0000113367

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-7 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-7 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-7&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-7 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B8
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000131473

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-2 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-2 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-2&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-2 | | |

C9
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000003862

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-8 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-8 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-8&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-8 | | |

B10
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000093611

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-6 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-6 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-6&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-6 | | |

B11
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000097943

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-3 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-3 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-3&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-3 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

C12
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000079888

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700095-MW-9 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-9 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700095&assigned_name=MW-9&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700095&assigned_name=MW-9 | | |

B13
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000086804

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-1 | | |

B14
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000039196

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-3 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-3 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-3&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-3 | | |

B15
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000085955

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-4 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-4 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-4&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-4 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B16
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000038862

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-6 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-6 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-6&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-6 | | |

B17
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000003203

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-5 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-5 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-5&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-5 | | |

B18
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000120580

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-EX-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | EX-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=EX-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=EX-1 | | |

B19
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000090829

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-OB-1 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | OB-1 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=OB-1&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=OB-1 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B20
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000089329

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-7 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-7 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-7&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-7 | | |

B21
WNW
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000130469

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700208-MW-2 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-2 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700208&assigned_name=MW-2&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700208&assigned_name=MW-2 | | |

22
ENE
1/2 - 1 Mile
Higher

CA WELLS 15292

| | | | |
|--------------|--|---------------|--------------------------|
| Seq: | 15292 | Prim sta c: | 22N/04E-07M01 M |
| Frds no: | 0400046001 | County: | 04 |
| District: | 34 | User id: | 04C |
| System no: | 0400046 | Water type: | G |
| Source nam: | WELL 01 | Station ty: | WELL/AMBNT/MUN/INTAKE |
| Latitude: | 394638.0 | Longitude: | 1213437.0 |
| Precision: | 3 | Status: | AR |
| Comment 1: | 6656 PENTZ HIGHWAY PARADISE CALIFORNIA 95969 | Comment 3: | Not Reported |
| Comment 2: | Not Reported | Comment 5: | Not Reported |
| Comment 4: | Not Reported | Comment 7: | Not Reported |
| Comment 6: | Not Reported | | |
| System no: | 0400046 | System nam: | Ponderosa Mobile Estates |
| Hqname: | Not Reported | Address: | Not Reported |
| City: | Not Reported | State: | Not Reported |
| Zip: | Not Reported | Zip ext: | Not Reported |
| Pop serv: | 0 | Connection: | 0 |
| Area serve: | Not Reported | | |
| Sample date: | 26-FEB-18 | Finding: | 2.2 |
| Chemical: | NITRATE (AS N) | Report units: | MG/L |
| Dir: | 0.4 | | |
| Sample date: | 13-FEB-17 | Finding: | 2. |
| Chemical: | NITRATE (AS N) | Report units: | MG/L |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

| | | | |
|--------------|-------------------------------|---------------|--------------|
| Dir: | 0.4 | | |
| Sample date: | 11-FEB-16 | Finding: | 0.2 |
| Chemical: | RADIUM 228 MDA95 | Report units: | PCI/L |
| Dir: | 0. | | |
| Sample date: | 11-FEB-16 | Finding: | 0.443 |
| Chemical: | RADIUM 228 COUNTING ERROR | Report units: | PCI/L |
| Dir: | 0. | | |
| Sample date: | 11-FEB-16 | Finding: | 1.9 |
| Chemical: | NITRATE (AS N) | Report units: | MG/L |
| Dir: | 0.4 | | |
| Sample date: | 03-FEB-15 | Finding: | 8.4 |
| Chemical: | NITRATE (AS NO3) | Report units: | MG/L |
| Dir: | 2. | | |
| Sample date: | 25-FEB-14 | Finding: | 2. |
| Chemical: | TOTAL TRIHALOMETHANES | Report units: | UG/L |
| Dir: | 0. | | |
| Sample date: | 12-FEB-14 | Finding: | 8.9 |
| Chemical: | NITRATE (AS NO3) | Report units: | MG/L |
| Dir: | 2. | | |
| Sample date: | 15-MAR-13 | Finding: | 7.7 |
| Chemical: | NITRATE (AS NO3) | Report units: | MG/L |
| Dir: | 2. | | |
| Sample date: | 09-JUL-12 | Finding: | 1.9 |
| Chemical: | TOTAL TRIHALOMETHANES | Report units: | UG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 10.1 |
| Chemical: | AGGRSSIVE INDEX (CORROSIVITY) | Report units: | Not Reported |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 9.9 |
| Chemical: | NITRATE (AS NO3) | Report units: | MG/L |
| Dir: | 2. | | |
| Sample date: | 07-FEB-12 | Finding: | 110. |
| Chemical: | TOTAL DISSOLVED SOLIDS | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 3. |
| Chemical: | CHLORIDE | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 0.3 |
| Chemical: | SODIUM ABSORPTION RATIO | Report units: | Not Reported |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 5. |
| Chemical: | SODIUM | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 2200. |
| Chemical: | NITRATE + NITRITE (AS N) | Report units: | MG/L |
| Dir: | 0.4 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

| | | | |
|--------------|-----------------------------|---------------|--------------|
| Sample date: | 07-FEB-12 | Finding: | 14. |
| Chemical: | CALCIUM | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 63.7 |
| Chemical: | HARDNESS (TOTAL) AS CaCO3 | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 70. |
| Chemical: | BICARBONATE ALKALINITY | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 60. |
| Chemical: | ALKALINITY (TOTAL) AS CaCO3 | Report units: | MG/L |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 6.8 |
| Chemical: | PH, LABORATORY | Report units: | Not Reported |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 156. |
| Chemical: | SPECIFIC CONDUCTANCE | Report units: | US |
| Dir: | 0. | | |
| Sample date: | 07-FEB-12 | Finding: | 7. |
| Chemical: | MAGNESIUM | Report units: | MG/L |
| Dir: | 0. | | |

D23
West
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000137103

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700008-MW-9 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-9 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700008&assigned_name=MW-9&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700008&assigned_name=MW-9 | | |

D24
West
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000116040

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700008-MW-10 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-10 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700008&assigned_name=MW-10&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700008&assigned_name=MW-10 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

D25
West
1/2 - 1 Mile
Lower

CA WELLS CAEDF0000060455

| | | | |
|---------------------------|---|-------------|------------|
| Well ID: | T0600700008-MW-11 | Well Type: | MONITORING |
| Source: | EDF | Other Name: | MW-11 |
| GAMA PFAS Testing: | Not Reported | | |
| Groundwater Quality Data: | https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0600700008&assigned_name=MW-11&store_num= | | |
| GeoTracker Data: | https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0600700008&assigned_name=MW-11 | | |

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

| Zipcode | Num Tests | > 4 pCi/L |
|---------|-----------|-----------|
| 95969 | 33 | 2 |

Federal EPA Radon Zone for BUTTE County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 95969

Number of sites tested: 12

| Area | Average Activity | % <4 pCi/L | % 4-20 pCi/L | % >20 pCi/L |
|-------------------------|------------------|--------------|--------------|--------------|
| Living Area - 1st Floor | 0.658 pCi/L | 100% | 0% | 0% |
| Living Area - 2nd Floor | Not Reported | Not Reported | Not Reported | Not Reported |
| Basement | Not Reported | Not Reported | Not Reported | Not Reported |

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program

State Water Resources Control Board

Telephone: 916-341-5577

The GAMA Program is California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Health Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F: DUE DILIGENCE QUESTIONNAIRE



DUE DILIGENCE SCREENING QUESTIONNAIRE - PHASE I ESA (ASTM 1527-21)

SITE OWNERSHIP AND LOCATION:

Site Owner: WLM Construction, Inc.

Site Location: 6480, 6462, 0 Clark Rd, and 6227 Melody Lane and 6249, 6253 and 6255 Pinacrest Drive Paradise CA

CURRENT AND/OR PRIOR USE OF SITE ("PROPERTY"):

Single Family homes and open ground.

CURRENT AND/OR PRIOR USE OF ADJACENT PROPERTIES:

Current: Temporary ground lease for utility and gravel contractors.

QUESTIONS:

Is the Property currently utilized for Industrial use? Commercial Use

Yes [X] Explain: Ground Lease No Unknown

Are you aware of any environmental cleanup liens and/or land use limitations against the Property that are filed or recorded under federal, tribal, state or local law?

Yes No [X] Explain: Unknown

Has the Property been utilized for Industrial use at any time in the past?

Yes No [X] Explain: Unknown

Is or was the Property used as a gas station, auto repair shop, laboratory, dry cleaners, and fill/junkyard, printing shop, or as a waste treatment/ storage/ disposal/ recycling facility?

Yes No Explain: Unknown [X]

Are or were any chemicals, paints, petroleum products or pesticides stored or used on the Property?

Yes No Explain: Unknown [X]

Are or were any drums or other bulk chemicals located on the Property?

Yes _____ Explain: _____ No _____

Unknown X _____

Has fill dirt been brought onto the Property?

Yes X Explain: PG+E fill dirt No _____

Unknown _____

Are or were any sumps, pits, ponds or lagoons related to waste treatment located on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Is or was any stained soil or pavement located on the Property?

Yes _____ Explain: _____ No _____

Unknown X

Are or were any above or underground storage tanks (including septic tanks) located on the Property?

Yes X Explain: 6 septic tanks removed; 1 remaining No _____

Unknown _____

Are or were any vent pipes, fill pipes, or unidentified cover plates or pipes located on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Is or was any maintenance or shop/service area located on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Has there been any previous disclosure of hazardous materials in any buildings located on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Are there any visible signs of spillage, staining, residues, or corrosion in any buildings located on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Are there any chemicals or other noxious odors on the Property?

Yes _____ Explain: _____ No X

Unknown _____

Are there any transformers or other heavy electrical equipment or hydraulics on the Property that contain PCBs?

Yes _____ Explain: _____ No _____

Unknown X

Are there any asbestos-containing materials located in buildings on the Property?

Yes _____ Explain: _____ No X
Unknown _____

Is Property served by any wells or other non-public water supply?

Yes _____ Explain: _____ No X
Unknown _____

Has Owner/Tenant been informed of past or current existence of hazardous substances or petroleum products or environmental violations on the Property or any facility located on the Property?

Yes _____ Explain: _____ No X
Unknown _____

Does any facility on the Property have any regulatory permits related to hazardous substances/wastes, wastewater discharge, or air emissions?

Yes _____ Explain: _____ No _____
Unknown X

Have any hazardous substances or wastes or petroleum products been dumped, burned, buried, or otherwise disposed of on the Property?

Yes _____ Explain: _____ No _____
Unknown X

Does Owner/Tenant know of any radiation use on the Property?

Yes _____ Explain: _____ No X
Unknown _____

How are onsite buildings heated/cooled? _____ N/A X

Please describe the reason why the Phase I is required (sale, acquisition of property interests, etc.)

sale

Does the purchase price being paid for this property (if in transition) reasonably reflect the fair market value of the property? (If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?)

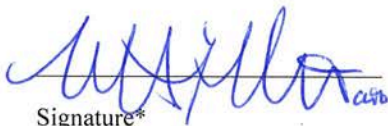
Yes X Explain: _____ No _____
Unknown _____

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?

Yes _____ Explain: _____ No X
Unknown _____

Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional (for example, copies of any available prior environmental site assessment reports, documents, correspondence, etc., concerning the property and its environmental condition)?

Yes X Explain: Captive debris removal clearance No _____


Signature*

12-12-2022
Date

William L. Martineau Owner

Printed Name

Relationship to Property
(Owner, Tennant, Purchaser, Contractor, etc.)

530 520 5170

Phone Number

Box 2035 Paradise CA 95967

Address

* By signing, you agree this form is filled correctly and completely, to the extent of your knowledge.

Chico Environmental Science and Planning
333 Main Street, Suite 260 Chico, CA 95928
530-899-2900 Fax: 530-899-2754

APPENDIX G: SUBJECT PROPERTY PHOTOGRAPHS



Image 1. Entrance to the subject property on Clark Rd.



Image 2. Road on the subject property.



Image 3. Equipment observed on the subject property.

SUBJECT PROPERTY PHOTOGRAPHS – December 8, 2022
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road,
6227 Melody Lane
APN: 050-200-010, 050-200-154, 050-200-157, and 050-200-158





Image 4. View of the neighboring properties from the subject property.



Image 5. Storage of sand and soil stockpiles on the subject property.



Image 6. Concrete pad observed on the subject property.



Image 7. View looking south on Clark Rd.



Image 8. View of the adjacent property to the West on Clark Rd.



Image 9. Storage of equipment for on-site operations.

SUBJECT PROPERTY PHOTOGRAPHS – December 8, 2022
ADDRESS: 6249, 6253 and 6255 Pinecrest Drive, 6462 and 6480 Clark Road,
6227 Melody Lane
APN: 050-200-010, 050-200-154, 050-200-157, and 050-200-158



APPENDIX H: QUALIFICATIONS

QUALIFICATIONS

John J. Lane

Environmental Professional

California Professional Geologist (2003 – Present)

Owner and Principal Scientist: Chico Environmental (August 2002 – Present)

California State University, Chico: M.S., Geoscience, 2000

California State University, Chico: B.S., Physical Science, 1992

APPENDIX C

**CONSULTATION LETTER TO STATE HISTORIC
PRESERVATION OFFICER**



Town of Paradise
Community Development Department
Building Resiliency Center
6295 Skyway
Paradise, CA 95969
(530) 872-6291 x411

September 6, 2023

Julianne Polanco
State Historic Preservation Officer
California Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816-7100

Subject: Clark Road Apartments Project, Paradise, CA

Dear Ms. Polanco,

The intention of this letter is to notify you that an Environmental Assessment (EA) is currently being prepared for the Clark Road Apartments Project (proposed project), located in the Town of Paradise, California (see Attachment 1) and to request your views, pursuant to 36 CFR 800.4(a), on any further actions required to identify historic properties which may be affected by this undertaking. The project applicant is seeking federal funding for the proposed project, thereby making the project subject to environmental review under the National Environmental Policy Act (NEPA). The Town of Paradise is the NEPA Responsible Entity for the proposed project, and the U.S. Department of Housing and Urban Development (HUD) is the Lead Agency.

The project site is located at 6480 Clark Road in the Town of Paradise, California (see Attachment 2). The approximately 7.55-acre project site, identified by Assessor's Parcel Numbers (APNs) 050-200-010, -154, -157, and -158, is currently used as storage for construction materials. It should be noted that the project site was previously developed with rural residences; however, the project site and surrounding area were destroyed by the 2018 Camp Fire. Surrounding existing uses include the First Baptist Church to the north; rural residences to the east and south; and the Paradise Alliance Church and a United States Postal Service office to the west, across Clark Road. A portion of the project site (APN 050-200-010) is designated as Town Residential (TR) by the Town of Paradise General Plan and the parcel is zoned Town Residential – 1/3 acre minimum (TR 1/3). The remainder of the project site is designated as Town Commercial (TC) by the Town of Paradise General Plan and is zoned Community Commercial (CC).

The proposed project would include development of an affordable apartment complex. The complex would consist of six two-story residential buildings with a total of 72,620- to 1,156-square foot (sf) units. Amenities would include a 2,998-sf community building, an outdoor community garden, half-court basketball court, two barbeque areas with shaded picnic areas, and a children's playground. A total of 106 automobile parking spaces would be provided throughout the site. Primary site access would be provided by two new driveways from Clark Road along the western boundary of the site, and a gated emergency vehicle access would be located in the southeast corner of the project site and would connect to Pinecrest Drive. The proposed project would also include an on-site septic system, which would include two primary leach field areas along Clark Road, and a replacement leach field area in the eastern portion of the site, within the open space areas. The project's units would be affordable for residents earning 30 to 60 percent annual median income (AMI) for Butte County. Ground-disturbing activities would include grading, trenching for utilities, paving, and building construction.

A site-specific cultural study or field study has not been conducted for the proposed project. However, in order to ascertain the potential of discovering cultural or historical resources on the property, a records search of the California Historical Resources Information System (CHRIS) was conducted for the project

site and vicinity by the Northeast Information Center (NEIC). The CHRIS records search included review of archaeological resource records, historic properties records, official records and maps of archaeological sites and surveys in Butte County, the National Register of Historic Places, and the California Register of Historical Resources.

According to the CHRIS records search, archaeological or historic resources have not been recorded within the project boundaries (see Attachment 3). Ten resources have been recorded within a one-mile vicinity; however, such properties are not located within or adjacent to the project site. Finally, a search of the Native American Heritage Commission (NAHC) Sacred Lands File for the project area was completed and returned negative results, indicating that known tribal cultural resources do not exist on site (see Attachment 4). Pursuant to Section 106 of the National Historic Preservation Act, on August 2, 2023, the Town distributed requests for consultation to the applicable Native American tribes identified by the NAHC (see Attachment 5). A response was received on August 7, 2023, from the Mooretown Rancheria of Maidu Indians indicating that the tribe is not aware of any known tribal cultural resources on the project site. However, the tribe requested to be contacted if any tribal cultural items or Native American human remains are found as the project progresses (see Attachment 6). To date, no further responses from the tribes or requests for formal consultation have not been received.

Based on the findings described above, cultural resources are not known to occur on-site, and the project site is considered not sensitive for the potential discovery of archaeological resources. However, the project site is located in a region utilized by the Konkow Maidu populations at the time of Euro-American contact. Indigenous populations used the local region for seasonal and permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Therefore, the potential still exists for unrecorded, subsurface Native American resources to be located within the project site. Should any such resources be encountered during ground-disturbing activities associated with the proposed project, standard best management practices would be included in the EA to prevent potential impacts to cultural and tribal cultural resources.

Should historic, cultural resources, or tribal cultural resources be encountered during any phase of parcel development, the aforementioned measures would require that all work be immediately halted within the area of the discovery, followed by immediate notification of the Town regarding the discovery. A qualified archaeologist would review the discovery and submit a report to the Town of the findings and method of curation or protection of the resource. Further grading or site work within the vicinity of the discovery would be prohibited until the requirements are completed. In addition, if human remains are encountered during project construction, pursuant to the mitigation measure included in the EA, all work would be halted in the immediate vicinity of the find to protect the discovery and the County Coroner, project superintendent, and the Town would be contacted immediately. The County Coroner will determine if the find is Native American. If the Coroner determines the remains to be Native American, the NAHC shall be notified. In all cases where prehistoric or historic era Native American resources are involved, the NAHC would be contacted to designate appropriate representatives of the local Native American community, who also would be contacted about their concerns and recommendations for the treatment of the discovery.

Based on the past disturbance of the project site, the results of the CHRIS and NAHC Sacred Lands File record searches, and because the project would be required to comply with State standards and the protective measures included in the EA, the Town has determined that the undertaking would have **No Adverse Effect** on historic properties.

I look forward to receiving your response. If you have any questions regarding the project, please contact me by email at adepaola@townofparadise.com or by phone at (530) 872-6291 Ext. 435. Thank you for your time and attention to this matter.

Sincerely,



Amber DePaola
Senior Planner
Town of Paradise
6295 Skyway
Paradise, CA 95969

Attachments:

1. Topographic Project Location Map
2. Project Location Map
3. CHRIS Records Search Results
4. NAHC Sacred Lands File Search Results
5. NAHC Tribal Consultation List
6. Response from Mooretown Rancheria of Maidu Indians

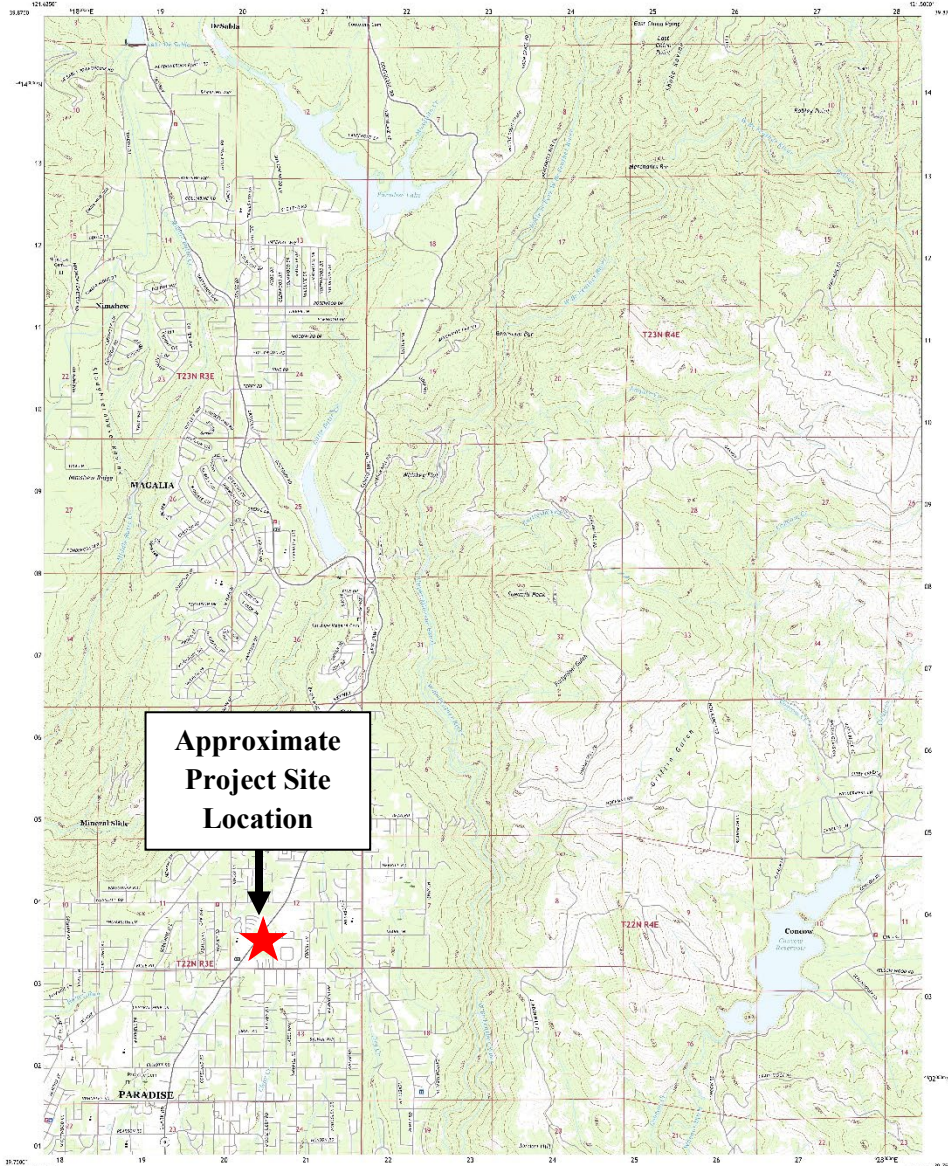
Attachment 1 Topographic Project Location Map



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

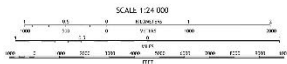
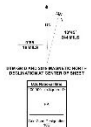


PARADISE EAST QUADRANGLE
CALIFORNIA - BUTTE COUNTY
7.5-MINUTE SERIES

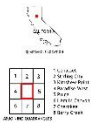


**Approximate
Project Site
Location**

Produced by the United States Geological Survey
DATE: 11/15/2011
TIME: 10:00 AM
PROJECT: 124000
SHEET: 124000
SCALE: 1:24,000
PROJECTION: UTM
DATUM: NAD 83
ELEVATION: 1000 FT
SHEET NUMBER: 124000
SHEET TOTAL: 124000



SCALE 1:24,000
UTM
NAD 83
ELEVATION: 1000 FT
SHEET NUMBER: 124000
SHEET TOTAL: 124000



PARADISE EAST, CA
2012



**Attachment 2
Project Boundaries Map**



*Following the 2018 Camp Fire, some structures in the image above may no longer exist.

Attachment 3
CHRIS Records Search Results

California Historical Resources Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

Northeast Information Center
1074 East Avenue, Suite F
Chico, California 95926
Phone (530) 898-6256
neinfoctr@csuchico.edu

June 28, 2023

Raney Planning & Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834
Attn: Rob Stinson

IC File # NE23-294 Non-Confidential Record Search - Priority

RE: Clark Road Apartments Projects
T22N, R3E, Section 12 MDBM
USGS Paradise East 7.5' (1980) & Paradise 15' (1953) quadrangle maps
7.55 acres (Butte County)

Rob Stinson:

In response to your request, a records search for the project cited above was conducted by examining the official maps and records for cultural resources and surveys in Butte County. Cultural resources in our inventory include archaeological objects, sites, landscapes, districts, and all manner of buildings and structures associated with past human activities. Please note that access to archaeological resource records is restricted to qualified individuals.

Results:

Archaeological Resources: According to our records, no resources of this type have been recorded within the project boundaries. In addition, ten resources have been recorded within the one-mile vicinity.

Built Environment Resources: According to our records, no resources of this type have been recorded within or adjacent to the project boundaries. The Built Environment Resources Directory (BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, does not list any properties within or adjacent to the proposed project area. The BERD is available online at: https://ohp.parks.ca.gov/?page_id=30338

Previous Investigations: According to our records, the project area has been partially surveyed for cultural resources. Please refer to the reports below additional information.

James P. Manning (B.P. Enterprises)

1981 *Archaeological Reconnaissance for the City of Paradise Storm Drainage System, Butte County, California.*

NEIC-007664

Susan M. Jensen (University Foundation, CSU Chico)

1977 *Archaeological Reconnaissance: Clark Road from Pearson to the Skyway.*

NEIC-009276

William Cheff and Mike McEnespy (Butte County of Public Works)

1978 *Historic Property Survey Report Clark Road from Pearson Road to Skyway in Paradise.*

NEIC-009276A

Historical Maps and Literature Search: The official records and maps for archaeological sites and surveys in Butte County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2022); **California Register of Historical Resources** (2022); **California Points of Historical Interest** (2022); **California Inventory of Historic Resources** (1976); **California Historical Landmarks** (2022); **Archaeological Resource Directory** (2022); and **Handbook of North American Indians, Vol. 8, California** (1978).

The USGS Paradise East 7.5' (1980) & Paradise 15' (1953) quadrangle maps depict archaeological sensitive areas within the project's region such as a construction equipment site. Structures, foundations, roads, Clear Creek, Dry Creek, and Honey Run Creek are located in the general project vicinity.

The project is located in a region utilized by Konkow populations at the time of Euro-American contact. Indigenous populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for mining and transportation opportunities.

Sensitivity Assessment and Recommendations:

Based upon the above information, the project area is considered not sensitive for the potential discovery of archaeological resources.

Therefore, because the project area has not been previously surveyed for archaeological resources within the last ten years, we recommend that a professional consultant be contacted prior to ground disturbance. The project archaeologist can offer recommendations for avoidance and protection of any existing or newly identified resources. If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resources be assessed by a qualified specialist familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed

above and should not be considered comprehensive. A list of qualified consultants is available online at www.chrisinfo.org.

During any phase of parcel development, if any archaeological resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential archaeological find is intended for accidental discoveries made during construction activities and is not intended as a substitute for the recommended cultural resources survey. It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the California Office of Historic Preservation (OHP): https://ohp.parks.ca.gov/?page_id=28351


If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Due to processing delays and other factors, not all of the cultural resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for cultural resource management work in the search area. Finally, Native American tribes have cultural resource information not in the CHRIS Inventory, and the NAHC should be contacted at (916) 373-3710 for information regarding Native American representatives in the vicinity of the project.

An invoice will follow from Chico State Enterprises for billing purposes. Thank you for your dedication to preserving California's irreplaceable cultural heritage. Please feel free to contact us if you have any questions or need any further information or assistance.

Sincerely,


Ashlyn Weaver, M.A.
Coordinator & GIS Specialist
Northeast Information Center
(530) 898-6256

Records Search Charge for IC File # NE23-294

The charge for this record search is **\$225.00**. Please see the table below for an itemization.

| THIS IS <u>NOT</u> AN INVOICE * | | |
|--|----------------------|---------------------------|
| <u>Factor</u> | <u>Charge</u> | <u>Your Charge</u> |
| <u>Information Center Time</u> | \$150.00 per hour | <u>\$150.00</u> (1 hour) |
| <u>Priority Fee</u> | 50% surcharge | <u>\$75.00</u> |
| <u>Total Charge</u> | | <u>\$225.00</u> |

*An invoice will follow from Chico State Enterprises for billing purposes.

Attachment 4
NAHC Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

July 23, 2023

Jesse Fahrney
Raney Planning and Management, Inc.

Via Email to: jfahrney@raneymanagement.com

Re: Clark Road Apartments Project, Butte County

Dear Mr. Fahrney:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst
Attachment



ACTING CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Vacant

COMMISSIONER
Vacant

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Attachment 5
NAHC Tribal Consultation List

Native American Heritage Commission
Native American Contact List
Butte County
7/23/2023

| County | Tribe Name | Fed (F) Non-Fed (N) | Contact Person | Contact Address | Phone # | Fax # | Email Address | Cultural Affiliation | Counties | Last Updated |
|--------|--------------------------------------|------------------------|-------------------------------------|--|----------------|----------------|--------------------------------|----------------------|--|--------------|
| Butte | KonKow Valley Band of Maidu | N | Jessica Lopez, Chairperson | 2136 Myers Street Oroville, CA, 95966 | (530) 777-8094 | | jessica@konkowmaidu.org | KonKow Maidu | Butte | |
| | KonKow Valley Band of Maidu | N | Matthew Williford, Vice Chair | 2136 Myers Street Oroville, CA, 95966 | (530) 712-9021 | | | KonKow Maidu | Butte | 7/8/2022 |
| | Mechoopda Indian Tribe | F | Kyle McHenry, Cultural Director | 1920 Alcott Ave Chico, CA, 95928 | (530) 899-8922 | | kmchenry@mechoopda-nsn.gov | KonKow Maidu | Butte, Glenn, Tehama | 3/23/2023 |
| | Mechoopda Indian Tribe | F | Dennis Ramirez, Chairperson | 1920 Alcott Ave Chico, CA, 95928 | (530) 899-8922 | (530) 899-8517 | dramirez@mechoopda-nsn.gov | KonKow Maidu | Butte, Glenn, Tehama | 3/23/2023 |
| | Mooretown Rancheria of Maidu Indians | F | Guy Taylor, | #1 Alverda Drive Oroville, CA, 95966 | (530) 533-3625 | | | KonKow Maidu | Butte, Glenn, Lassen, Plumas, Shasta, Sierra, Sutter, Tehama, Yuba | 1/15/2019 |
| | Mooretown Rancheria of Maidu Indians | F | Benjamin Clark, Chairperson | #1 Alverda Drive Oroville, CA, 95966 | (530) 533-3625 | (530) 533-3680 | frontdesk@mooretown.org | KonKow Maidu | Butte, Glenn, Lassen, Plumas, Shasta, Sierra, Sutter, Tehama, Yuba | |
| | Nevada City Rancheria Nisenan Tribe | N | Saxon Thomas, Tribal Council Member | P.O. Box 2226 Nevada City, CA, 95959 | (530) 570-0846 | | shelly@nevadacityrancheria.org | Nisenan | Butte, Nevada, Placer, Sierra, Sutter, Yuba | 3/9/2022 |
| | Nevada City Rancheria Nisenan Tribe | N | Richard Johnson, Chairman | P.O. Box 2624 Nevada City, CA, 95959 | (530) 570-0846 | | shelly@nevadacityrancheria.org | Nisenan | Butte, Nevada, Placer, Sierra, Sutter, Yuba | 2/15/2022 |
| | Nevada City Rancheria Nisenan Tribe | N | Shelly Covert, Tribal Secretary | P.O. Box 2226 Nevada City, CA, 95959 | (530) 570-0846 | | shelly@nevadacityrancheria.org | Nisenan | Butte, Nevada, Placer, Sierra, Sutter, Yuba | 3/9/2022 |

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Clark Road Apartments Project, Butte County.

Record: PROJ-2023-003627
Report Type: List of Tribes
Counties: Butte
NAHC Group: All

Attachment 6
Response from Mooretown Rancheria of Maidu Indians



Mooretown Rancheria

*#1 Alverda Drive
Oroville, CA 95966
(530) 533-3625 Office
(530) 533-3680 Fax*

August 7, 2023

Ms. Amber DePaola
Senior Planner
Town of Paradise
6295 Skyway
Paradise, CA 95969

Re: Proposed (Clark Road Apartments) Project – 6480 Clark Road, Butte Co, Paradise CA.

Dear Ms. DePaola:

Thank you for your letter dated, August 2, 2023, seeking information regarding the proposed HUD Housing project in Butte County, California. Based on the information provided, the Mooretown Rancheria is not aware of any known cultural resources on this site. However, as the project progresses, if any new information or human remains are found, we do have a process to protect such important and sacred artifacts (especially near rivers or streams).

Please contact the following individuals if tribal cultural items or Native American human remains are found:

THPO
Matthew.hatcher@mooretown.org

Thank you for providing us with this notice and opportunity to comment.

Sincerely,

A handwritten signature in blue ink, which appears to read "Matthew Hatcher". The signature is fluid and cursive.

Matthew Hatcher
Tribal Historic Preservation Officer

"Concow - Maidu"

APPENDIX D

GEOTECHNICAL INVESTIGATION

GEOTECHNICAL INVESTIGATION

**Proposed Affordable Apartment Complex
6480 Clark Road
Paradise, California**

PREPARED FOR:

**KINGDOM DEVELOPMENT, INC.
6451 BOX SPRING BOULEVARD
RIVERSIDE, CALIFORNIA 92507**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



GEOCON PROJECT NO. S2616-05-01

AUGUST 2023



Project No. S2616-05-01
August 17, 2023

VIA ELECTRONIC MAIL

Taryn Peppito
Kingdom Development, Inc.
6451 Box Springs Blvd.
Riverside, California 92507
Taryn@kingdomdevelopment.net

Subject: GEOTECHNICAL INVESTIGATION
PROPOSED AFFORDABLE APARTMENT COMPLEX
6480 CLARK ROAD
PARADISE, CALIFORNIA

Ms. Peppito:

In accordance with authorization of our proposal (Geocon Proposal No. LS-23-176, dated June 8, 2023) and issuance of a Professional Services Agreement (dated June 21, 2023), we performed a geotechnical investigation for the proposed affordable apartment complex project located at 6480 Clark Road in Paradise, California.

The accompanying report presents our findings, conclusions, and recommendations for the project as presently proposed. In our opinion, no adverse geotechnical conditions were encountered that would preclude development at the site provided recommendations of this report are incorporated into the design and construction of the project.

Please contact us if you have any questions regarding this report or if we may be of further service.

Respectfully submitted,

GEOCON CONSULTANTS, INC.

Disclaimer: This DRAFT is intended for the use of the project team to help with the on-going design of the project and provided as a courtesy for review only. This DRAFT should not be relied upon for final design nor produced and submitted to regulatory agencies until a FINAL document is completed with the signature and stamps of the design professionals.

Alice M. Orton, PG
Project Geologist

Jeremy J. Zorne, PE, GE
Senior Engineer

Tom C. DeSimone, PG, CEG
Senior Geologist

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DRAFT

GEOTECHNICAL INVESTIGATION

1.0 PURPOSE AND SCOPE

This report presents the results of our geotechnical investigation for the proposed affordable apartment complex project located at 6480 Clark Road in Paradise, California. The approximate site location is depicted on the Vicinity Map, Figure 1.

The purpose of our investigation was to evaluate subsurface soil and geologic conditions at the site and provide conclusions and recommendations relative to the geotechnical aspects of designing and constructing the project as presently proposed.

To prepare this report, we performed the following scope of services:

- Performed a limited geologic literature review to aid in evaluating the geologic conditions present at the site. A list of referenced material is included in Section 9.0 of this report.
- Reviewed available design plans to select test pit locations.
- Performed a site reconnaissance to review project limits, determine equipment access, and mark out exploratory test pit locations for subsequent utility clearance.
- Performed an aerial drone reconnaissance to capture the site with low-altitude aerial photographs and create an orthomosaic and digital surface maps of the site (Appendix C).
- Notified subscribing utility companies via Underground Service Alert (USA) a minimum of two working days (as required by law) prior to performing exploratory excavations at the site.
- Observed the excavation of 9 test pits (TP1 through TP9) within the project limits to investigate subsurface conditions.
- Obtained representative soil samples from the test pits.
- Logged the test pits in accordance with the Unified Soil Classification System (USCS).
- Upon completion, backfilled the test pits with excavated soil and compacted using the backhoe bucket.
- Performed laboratory tests to evaluate pertinent geotechnical parameters.
- Prepared this report to summarize our findings, conclusions, and recommendations with respect to design and construction of the project.

Approximate locations of our test pits are shown on the Site Plan, Figure 2, and Proposed Development Plan, Figure 3. Details of our field exploration program including test pit logs are presented in Appendix A. Details of our laboratory testing program and test results are summarized in Appendix B. Results of our drone reconnaissance are summarized in Appendix C.

2.0 SITE AND PROJECT DESCRIPTION

The approximately 7.55-acre site is located on the east side of Clark Road between Bille Road and Wagstaff Road in Paradise, California. The site is further identified as Butte County assessor parcel numbers (APNs) 050-200-010, -154, -157, and -158. The site was previously developed with residential structures which were destroyed in the 2018 Paradise, California Camp wildfire. The site is currently being used as a staging location for communication utility staging activities (southern portion) and a sand, gravel, and rock supply yard (northern portion). The western portion of the site has been covered with gravel at the surface in some areas to accommodate truck access. The eastern portion of the site consists of minor seasonal grass growth, several temporary access roads, and Pinecrest Drive, a gravel-surfaced lane connecting the site with Bille Road to the south. A few trees remain within the site boundary.

Site topography is variable, sloping gently to the southeast, with ground surface elevations estimated from approximately 2,039 to 2,057 feet above mean sea level (MSL) (USGS, 2022; Google Earth, 2023). The current site configuration is shown on the Site Plan, Figure 2, and in Figure C1, Aerial Orthomosaic Map. A map of the site terrain is presented in Figure C2, Digital Surface Model.

According to the *Schematic Site Plan* prepared by Roebuck Atkins & Associates (dated February 27, 2023), we understand that development at the site will consist of constructing a total of 72 one-, two-, and three-bedroom apartment units within six two-story buildings. The site plan shows each apartment building will have an approximately 6,200-square-foot footprint. The project will also include a single-story community building, outdoor recreation and garden areas, surrounding parking/driveway areas, trash and recycling enclosures, pedestrian walkways, associated underground utilities, and landscaping. The current site plan indicates wastewater disposal areas within the surrounding landscaping west and east of the planned buildings. Infiltration testing within proposed wastewater disposal areas was not part of our scope of services for this project

We assume the buildings will be of wood-framed construction supported on shallow foundations and will be constructed at-grade without basements or below-grade levels. We expect that site grading will include cuts and fills on the order of 5 to 10 feet or less. Some utilities may require deeper excavations.

The proposed site configuration is shown on the Proposed Development Plan, Figure 3.

3.0 SOIL AND GEOLOGIC CONDITIONS

We identified geologic and soil conditions by observing and sampling exploratory excavations and reviewing the referenced geologic literature (Section 9.0). Soil descriptions below include the USCS symbol where applicable. Site geology generally consists of a relatively thin layer of fill material overlying alluvium, residual (weathered-in-place) soil, and Pliocene volcanic rock (Saucedo and Wagner, 1992).

3.1 Fill

We encountered fill material in each test pit (TP1 through TP9) to a depth of approximately 1 foot. We assume the fill is associated with previous site development, site clearing, and rough grading activities following the 2018 Camp Fire. Varying depths of fill may also be present at the site in areas previously containing buildings and infrastructure. The fill soil generally consists of hard lean clay (CL) with varying amounts of sand and gravel, and very dense clayey gravel (GC) with varying amounts of sand. Fill material was often slightly to moderately cemented.

3.2 Alluvium

Below the fill in each test pit (TP1 through TP9) we encountered alluvium to depths ranging from 5 to approximately 9½ feet. The alluvial soil generally consists of sandy lean clay (CL) or fat clay (CH) with varying amounts of sand, gravel, cobbles, and boulders. Alluvium was often slightly to moderately cemented to depths of approximately 3 to 5 feet. Gravel tends to be rounded to subrounded. Cobbles and boulders up to approximately 3 feet in diameter were also encountered, typically surrounded by the clayey soil matrix.

3.3 Residual Soil

Below the alluvium we encountered residual soil in each test pit (TP1 through TP9) to depths ranging from about 5 to 13½ feet, the total depth excavated. The residual soil generally consists of sandy to gravelly lean to fat clay (CL and CH) with varying amounts of sand, gravel, and cobbles weathered in-place from underlying bedrock. Gravel and cobbles generally consist of fragments of decomposing granular or platy rock. Residual soil generally became more cemented and less weathered with depth, resulting in refusal in TP1.

3.4 Pliocene Volcanic Bedrock

We encountered volcanic bedrock in Test Pits TP2, TP5, and TP8 beginning at depths of approximately 7½ feet. The bedrock generally consists of completely to moderately weathered which excavates as clayey sand with gravel (SC) or clayey gravel with sand (GC) with gravel and cobbles of decomposing rock fragments. Bedrock became more competent (less weathered) with depth, which resulted in excavation refusal in TP2 and TP5.

Soil conditions described in the previous paragraphs are generalized. The excavation logs included in Appendix A detail soil type, color, moisture, consistency, and USCS classification of the soils encountered at specific locations and elevations.

4.0 GROUNDWATER

We did not encounter groundwater in our exploratory excavations performed on July 19, 2023, to a maximum depth of approximately 13½ feet. We reviewed available depth-to-groundwater data on the California Department of Water Resources (CA DWR) *Sustainable Groundwater Management Act (SGMA) Data Viewer* (<https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels>). The SGMA Data Viewer website indicates no data within 3 miles of the site (CADWR, 2023). A search of other public sources of groundwater data in the project vicinity found that depth to groundwater was recorded from 1 to 12 feet in July and September of 2011 at a location approximately ½ mile northwest of the site, within the same geologic formation and at a similar elevation (Howards-U-Pump LUST Cleanup Site, Case No. T0600700095, CA DWR, 2023).

It should be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors. Depth to groundwater can also vary significantly due to localized pumping, irrigation practices, and seasonal fluctuations. Therefore, it is possible that groundwater may be higher or lower than the levels observed during our investigation. Additionally, perched groundwater may develop seasonally above caliche or cemented horizons, within residual soil, and near the contact between residual soil and formational or bedrock material. Recommendations related to perched groundwater/seepage are provided in this report.

5.0 SEISMICITY AND GEOLOGIC HAZARDS

5.1 Regional Active Faults / Surface Fault Rupture Hazard

The numerous faults in California include Holocene-active, pre-Holocene (Quaternary), and inactive faults (pre-Quaternary). The criteria for these major groups were developed by the California Geological Survey (CGS, formerly known as the California Division of Mines and Geology) for the Alquist-Priolo Earthquake Fault Zone Program (CGS, 2018). By definition, a Holocene-active fault is one that has had surface displacement within Holocene time (about the last 11,700 years). A pre-Holocene fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years) but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive.

According to the Fault Activity Map of California by the California Geological Survey (CGS, <https://maps.conservation.ca.gov/cgs/fam/>), the closest fault with historic displacement is the Cleveland Hill fault, which ruptured in 1975 about 20 miles south of the site. Mapping by the United States Geological Survey (USGS, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_results.cfm) indicates that the closest mapped Holocene-active faults are Segments 1 and 2 of the Great Valley Fault system, approximately 38 and 50 miles west of the site, respectively. The closest mapped pre-Holocene (Quaternary) faults to the site are the Chico Monocline, a poorly constrained reverse fault located approximately 8.5 miles southwest of the site, and the Beaver Creek and the Cohasset Ridge faults, well constrained faults located approximately 9.5 and 10.0 miles north of the site, respectively.

The site is not within a state-designated Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards (CGS, 2023). No Holocene-active or pre-Holocene faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

5.2 Seismicity

As with all of California, the site has experienced historic earthquakes from various regional faults, although the local site region has a history of relatively low seismicity in comparison with more active seismic regions such as the San Francisco Bay Area or southern California.

We used the USGS Unified Hazard Tool (USGS, 2023a) to determine the deaggregated seismic source parameters including controlling magnitude and fault distance. The USGS estimated modal magnitude is 6.3 and the estimated Peak Ground Acceleration (PGA) for the Maximum Considered Earthquake (MCE) with a 2,475-year return period is 0.38g.

While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site. The site could be subjected to ground shaking in the event of an earthquake along the faults mentioned above or other area faults.

5.3 Liquefaction

Liquefaction is a phenomenon in which loose, saturated, cohesionless soil deposits located beneath the groundwater table lose strength when subjected to intense and prolonged ground shaking. The seismic excitation increases pore water pressure creating a buoyant effect of the loose soil. When liquefaction occurs, building foundations may sink or tilt and differential ground settlement may occur. Other effects may include sand boils (ground loss) and lateral spreading if the liquefiable soil is located adjacent to a steep free face. The areas that have the greatest potential for liquefaction are those in which the water table is less than 50 feet below ground surface and the soils are predominately clean, poorly graded sand deposits of loose to medium-dense relative density.

The site is not located in a currently established State of California Seismic Hazard Zone for liquefaction. Based on the subsurface conditions encountered at the site, including shallow bedrock and a lack of groundwater in the top 50 feet, liquefaction is not a hazard for the site. Mitigation and specific design measures with respect to liquefaction are not necessary for the project.

5.4 Expansive Soil

Laboratory Plasticity Index (PI) and Expansion Index (EI) tests on selected near-surface soil samples indicate medium to high plasticity and very low to moderate expansion potential (Appendix B). Mitigation and specific design and construction measures with respect to expansive soil are presented in Section 6 of this report.

5.5 Soil Corrosion Potential

We performed pH, resistivity, chloride, and sulfate tests on representative soil samples to generally evaluate the corrosion potential of the soil with respect to proposed subsurface structures. These tests were performed in accordance with California Test Method (CTM) Nos. 643, 422, and 417. The results are presented in Table 5.5A and should be considered for design of underground structures.

**TABLE 5.5A
SOIL CORROSION PARAMETER TEST RESULTS
(CALIFORNIA TEST METHODS 643, 417, AND 422)**

| Sample No. | Sample Depth (ft.) | pH | Minimum Resistivity (Ohm-cm) | Chloride (ppm) | Sulfate (ppm) |
|------------|--------------------|-----|------------------------------|----------------|---------------|
| TP1 BULK | 0-5 | 5.4 | 9,380 | 2.9 | 1.3 |

Note: ppm = parts per million

Soil with a low pH (higher acidity) is considered corrosive as it can react with lime in cement to leach out soluble reaction products and result in a more porous and weaker concrete. Per Caltrans *Corrosion Guidelines* (Caltrans, 2021), soil with a pH of 5.5 or lower may be corrosive to concrete or steel in contact with the ground. Based on the laboratory pH test results and Caltrans criteria, soil at the locations tested may have a higher propensity for corrosion.

Soil resistivity is the measure of the soil's ability to transmit electric current. Corrosion of buried ferrous metal is proportional to the resistivity of the soil. A lower resistivity indicates a higher propensity for transmitting electric currents that can cause corrosion of buried ferrous metal items. In general, the higher the resistivity, the lower the rate for corrosion. Per Caltrans *Corrosion Guidelines*, resistivity serves as an indicator parameter for the possible presence of soluble salts and it is not included as a parameter to define a corrosive area for structures. A minimum resistivity value for soil less than 1,500 ohm-cm may indicate the presence of high quantities of soluble salts and a higher propensity for corrosion. Based on the laboratory minimum resistivity test results and Caltrans criteria, soil at the locations tested does not have a higher propensity for corrosion.

Table 5.5B presents a summary of concrete requirements set forth by the California Building Code (CBC) Section 1904 and American Concrete Institute (ACI) 318 for possible chloride exposure. Chlorides can break down the protective oxide layer on steel surfaces resulting in corrosion. Sources of chloride include, but are not limited to, deicing chemicals, salt, brackish water, seawater, or spray from these sources.

**TABLE 5.5B
REQUIREMENTS FOR CONCRETE EXPOSED TO
CHLORIDE-CONTAINING SOLUTIONS
(AFTER ACI 318 TABLES 19.3.1.1 and 19.3.2.1)**

| Chloride Severity | Exposure Class | Condition | Maximum Water to Cement Ratio by Weight | Minimum Compressive Strength (psi) |
|-------------------|----------------|---|---|------------------------------------|
| Not Applicable | C0 | Concrete dry or protected from moisture | N/A | 2,500 |
| Moderate | C1 | Concrete exposed to moisture but not to external sources of chlorides | N/A | 2,500 |
| Severe | C2 | Concrete exposed to moisture and an external source of chlorides | 0.40 | 5,000 |

The appropriate Chloride Severity/Exposure Class should be determined by the project designer based on the specific conditions at the location of the proposed structure. Further guidance is provided in ACI 318. Per Caltrans *Corrosion Guidelines*, soil with a chloride concentration of 500 ppm or higher may be corrosive to steel structures or steel reinforcement in concrete. Based on Caltrans criteria, soil at the locations tested is not corrosive with respect to chloride content.

Table 5.5C presents a summary of concrete requirements set forth by CBC Section 1904 and ACI 318 for sulfate exposure. Similar to chlorides, sulfates can break down the protective oxide layer on steel leading to corrosion. Sulfates can also react with lime in cement to soften and crack concrete.

**TABLE 5.5C
REQUIREMENTS FOR CONCRETE EXPOSED TO
SULFATE-CONTAINING SOLUTIONS
(AFTER ACI 318 TABLES 19.3.1.1 and 19.3.2.1)**

| Sulfate Severity | Exposure Class | Water-Soluble Sulfate (SO ₄) Content | | Cement Type (ASTM C 150) | Maximum Water to Cement Ratio by Weight ¹ | Minimum Compressive Strength (psi) |
|------------------|----------------|--|----------------------------------|--------------------------|--|------------------------------------|
| | | Percent By Mass | Parts Per Million (ppm) | | | |
| Not Applicable | S0 | SO ₄ < 0.10 | SO ₄ < 1,000 | No Type Restriction | N/A | 2,500 |
| Moderate | S1 | 0.10 ≤ SO ₄ < 0.20 | 1,000 ≤ SO ₄ < 2,000 | II | 0.50 | 4,000 |
| Severe | S2 | 0.20 ≤ SO ₄ ≤ 2.00 | 2,000 ≤ SO ₄ ≤ 20,000 | V | 0.45 | 4,500 |
| Very Severe | S3 – Option 1 | SO ₄ > 2.00 | SO ₄ > 20,000 | V+Pozzolan or Slag | 0.45 | 4,500 |
| | S3 – Option 2 | | | V | 0.40 | 5,000 |

Notes:

1. Maximum water to cement ratio limits are different for lightweight concrete; see ACI 318 for details.

Based on the laboratory test results, the Sulfate Severity is classified as “Not Applicable”, and the Exposure Class is S0. The concrete mix design(s) should be developed accordingly. The presence of water-soluble sulfates is not a visually discernible characteristic; therefore, other soil samples from the site could yield different concentrations. Additionally, over time landscaping activities (i.e., addition of fertilizers and other soil nutrients) may affect the concentration.

Geocon does not practice in the field of corrosion engineering and the above information is provided as screening criteria only. If corrosion sensitive improvements are planned, we recommend that further evaluations by a corrosion engineer be performed to incorporate the necessary precautions to avoid premature corrosion on buried metal pipes and metal or concrete structures in direct contact with the soils.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 General

- 6.1.1 No soil or geologic conditions were encountered during our investigation that would preclude development of the site as planned, provided the recommendations contained in this report are incorporated into the design and construction of the project.
- 6.1.2 The primary geotechnical constraints identified in our investigation are the presence of undocumented fill material, near-surface expansive soils, and shallow depth to bedrock. In the proposed building areas, existing fill will require removal and re-compaction as engineered fill. Specific recommendations are provided herein. Expansive soils will require a layer of low-expansive fill (LEF) material below buildings to reduce the potential for slab distress due to soil expansion. In addition, conventional footings should extend below the zone of seasonal moisture fluctuation as recommended in this report. Also, concrete flatwork and other exterior slabs will require LEF underlayment. Areas of shallow or outcropping bedrock or other concreted formation materials may increase excavation difficulty during construction.
- 6.1.3 Conclusions and recommendations provided in this report are based on our review of referenced literature, analysis of data obtained from our field exploration and laboratory testing program, and our understanding of the proposed development at this time.
- 6.1.4 We should review the project plans as they develop further, provide engineering consultation as needed during final design, and perform geotechnical observation and testing services during construction.

6.2 Seismic Design Criteria

- 6.2.1 Seismic design of the structure should be performed in accordance with the provisions of the 2022 California Building Code (CBC) which is based on the American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI) publication *ASCE/SEI 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI, 2017). We used the *Structural Engineers Association of California* (SEAOC) and *Office of Statewide Health Planning and Development* (OSHPD) web application *Seismic Design Maps* (<https://seismicmaps.org/>) to evaluate site-specific seismic design parameters in accordance with ASCE 7-16.

For seismic design purposes, sites are classified as Site Class “A” through “F” as follows:

- Site Class A – Hard Rock;
- Site Class B – Rock;

- Site Class C – Very Dense Soil and Soft Rock;
- Site Class D – Stiff Soil;
- Site Class E – Soft Clay Soil; and
- Site Class F – Soils Requiring Site Response Analysis.

Based on the subsurface conditions at the site, the Site Classification is Site Class “C – Very Dense Soil and Soft Rock” per Table 20.3-1 of ASCE/SEI 7-16. For the purpose of evaluating code-based seismic parameters for design, we assumed a seismic Risk Category II (per the CBC) for the project. Results are summarized in Table 6.2.1.

**TABLE 6.2.1
ASCE 7-16 SEISMIC DESIGN PARAMETERS
SITE CLASS “C – VERY DENSE SOIL AND SOFT ROCK”**

| Parameter | Value | ASCE 7-16 Reference |
|---|--------|---------------------|
| MCE _R Ground Motion Spectral Response Acceleration – Class B (short), S _S | 0.69g | Figure 22-1 |
| MCE _R Ground Motion Spectral Response Acceleration – Class B (1 sec), S ₁ | 0.288g | Figure 22-2 |
| Site Coefficient, F _A | 1.224 | Table 11.4-1 |
| Site Coefficient, F _V | 1.5 | Table 11.4-2 |
| Site Class Modified MCE _R Spectral Response Acceleration (short), S _{MS} | 0.844g | Eq. 11.4-1 |
| Site Class Modified MCE _R Spectral Response Acceleration (1 sec), S _{M1} | 0.432g | Eq. 11.4-2 |
| 5% Damped Design Spectral Response Acceleration (short), S _{DS} | 0.563g | Eq. 11.4-3 |
| 5% Damped Design Spectral Response Acceleration (1 sec), S _{D1} | 0.288g | Eq. 11.4-4 |

6.2.2 Table 6.2.2 presents additional seismic design parameters for projects with Seismic Design Categories of D through F in accordance with ASCE 7-16 for the mapped maximum considered geometric mean (MCE_G).

**TABLE 6.2.2
ASCE 7-16 SITE ACCELERATION DESIGN PARAMETERS**

| Parameter | Value | ASCE 7-16 Reference |
|---|--------|-----------------------------|
| Mapped MCE _G Peak Ground Acceleration, PGA | 0.304g | Figure 22-7 |
| Site Coefficient, F _{PGA} | 1.2 | Table 11.8-1 |
| Site Class Modified MCE _G Peak Ground Acceleration, PGA _M | 0.364g | Section 11.8.3 (Eq. 11.8-1) |

6.2.3 Conformance to the criteria presented in Tables 6.2.1 and 6.2.2 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid structural damage, since such design may be economically prohibitive.

6.3 Soil and Excavation Characteristics

6.3.1 Excavation characteristics will vary at the site depending on location and excavation depths. Table 6.3.1 summarizes anticipated excavation characteristics.

**TABLE 6.3.1
ANTICIPATED EXCAVATION CHARACTERISTICS**

| Geologic Unit | Excavation Characteristics |
|---------------------------|--|
| Fill | Fill material generally consists of hard lean clay and very dense clayey gravel. Fill depths may vary in areas of prior development. Given the past development of the site, some amount of debris should be anticipated in the fill. We anticipate standard to moderate excavation effort with conventional, heavy-duty grading equipment. |
| Alluvium | Alluvium generally consists of medium stiff to hard sandy lean clay or fat clay. Cobbles and boulders to 3 feet diameter or greater should be anticipated. We anticipate moderate excavation effort with conventional, heavy-duty grading equipment. The presence of oversize rock (greater than 6 inches in maximum dimension) should be anticipated and may increase excavation difficulty. |
| Residual Soil | We encountered excavation refusal at a depth of 7½ feet within the residual soil layer. Residual soil generally consists of medium stiff to hard sandy to gravelly lean clay and sandy fat clay with varying amounts of sand, gravel, and cobbles. Residual soil generally became more cemented (less weathered) with depth. We anticipate moderate to difficult excavation effort with conventional, heavy-duty grading equipment. The presence of oversize rock (greater than 6 to 12 inches in maximum dimension) should be anticipated and may increase excavation difficulty. |
| Pliocene Volcanic Bedrock | We encountered excavation refusal at depths 9¼ and 12¾ feet within the volcanic bedrock unit using a Deere 310L EP backhoe with a 18-inch-wide toothed bucket. If trenching into bedrock is required, difficult excavation characteristics should be anticipated. Weathering of formational material generally decreases with depth and pre-ripping with a large dozer (such as Caterpillar D10 or larger) may be required for cuts below the existing residual soil, and large excavators (such as Caterpillar 323 or larger) with a ripping shank or rock trenchers will likely be required for trenching. We note that pre-ripping may generate large cementations that may require further processing to reduce size for use as engineered fill or trench backfill. The volcanic bedrock generally excavates as medium dense to very dense clayey gravel with cobbles. The presence of oversize rock exceeding 6 inches in maximum dimension should be anticipated and may increase excavation difficulty. |

- 6.3.2 Protruding rocks in excavation bottoms should be removed and resulting depressions filled in accordance with the recommendations in this report.
- 6.3.3 The project excavations may generate some oversized rock material (greater than 6 inches in dimension) and possibly boulders at the anticipated excavation depths. Excavation difficulty may be difficult in the upper 5 feet due to the presence of cobbles, boulders, and cementation, and may increase significantly with depth if less weathered volcanic rock is encountered. The contractor should select appropriate excavation equipment.
- 6.3.4 Temporary excavations deeper than 4 feet and entered by workers must meet Cal-OSHA requirements as appropriate. Excavation sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved “competent person” onsite during excavation to evaluate trench conditions and to make appropriate recommendations where necessary. It is the contractor’s responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements.
- 6.3.5 The excavation support recommendations provided by Cal-OSHA are generally geared toward protecting human life and not necessarily toward preventing damage to nearby structures or surface improvements. The contractor should be responsible for using the proper active shoring systems or sloping to prevent damage to any structure or improvements near underground excavations.
- 6.3.6 Permanent cut and fill slopes should be constructed no steeper than 2H:1V (horizontal to vertical). To mitigate potential erosion, slopes should be vegetated as soon as possible and surface drainage should be directed away from the tops of slopes.
- 6.3.7 Seasonal shallow perched groundwater (seepage) could be present if grading occurs during or after the wet season (typically winter or spring). Perched groundwater typically develops atop cemented horizons and at the contact between residual soil and formational material. Fill derived from shallow excavations during perched groundwater conditions will likely need to be aerated/dried to achieve suitable moisture content for compaction. We should evaluate conditions in the field at the time of construction and evaluate the type, level, and extent of mitigation alternatives.
- 6.3.8 If grading occurs during or after the wet season (typically winter and spring) or in periods of precipitation, in-place and excavated soils will likely be wet. Earthwork contractors should be aware of moisture sensitivity of the near-surface fine-grained soils and potential compaction/workability difficulties. The presence of cemented soil/hardpan tends to exacerbate wet soil conditions as water can become trapped (perched) on the cemented soil.

- 6.3.9 Earthwork and pad preparation operations in these conditions will likely be difficult with low productivity. Often, a period of at least one month of warm and dry weather is necessary to allow the site to dry sufficiently so that heavy grading equipment can operate effectively. Conversely, during dry summer and fall months, dry clay soils may require additional grading effort (discing, mixing, or other means) to attain proper moisture conditioning.
- 6.3.10 Based on laboratory testing, in-situ moisture content of site soils generally ranges from approximately 26% to 39% and optimum moisture content is approximately 22%. Given the variable range of in-situ moisture content, additional grading effort and moisture conditioning will be required to achieve suitable moisture content for compaction. Fine-grained soils at the site with above-optimum moisture content may experience instability under construction equipment loading in project excavations and exposed subgrades. Difficulty achieving compaction of soils with high moisture content should be anticipated when excavated onsite soil is placed as backfill. Mitigation alternatives may include aerating/drying the exposed soils (assuming favorable weather conditions), or chemical treatment (e.g., lime treatment). Unstable excavation bottoms may require overexcavating 12 to 18 inches and placing crushed rock wrapped in a geotextile fabric or geogrid covered with aggregate for stabilization. We can provide specific recommendations during construction, based on conditions encountered.

6.4 Materials for Fill

- 6.4.1 Excavated soil and rock generated from cut operations at the site are suitable for use as engineered fill in structural¹ areas provided they are selectively placed during grading in accordance with the following recommendations:
- Deleterious material, material with greater than 3% organics by weight, and debris should be exported from the site and not incorporated into structural fill.
 - Fill material in areas with underground utilities and foundations should consist of 6-inch-minus material with a sufficient amount of soil to provide adequate binder to reduce the potential for excavation caving.
 - In other areas (general fill areas without utilities or foundations) rock or cementations up to 2 feet in maximum dimension may be used. However, this material should contain a sufficient amount of smaller rock and soil to fill void spaces between large rocks and avoid rock nesting (concentrations of rock with void space).
 - If sufficient soil fill materials are not present at the site to mix with onsite rock material, import of soil fill material will be necessary.

¹ Structural areas are defined as engineered fill that supports buildings or improvements. Excavated native soil may not be suitable for the upper portion of structural fill if a layer of Low Expansive Fill (LEF) is specified in this report.

- 6.4.2 Near-surface soil at the site includes expansive clay. A layer of low expansive fill (LEF) will be required below buildings and concrete flatwork. Import and LEF material should be primarily granular with a “very low” expansion potential (Expansion Index less than 20), have a Plasticity Index less than 15, be free of organic material and construction debris, not contain rock/cementations larger than 3 inches in greatest dimension, and contain sufficient fines (approximately 12% to 15% or more) to act as a binder to reduce caving potential when excavated.
- 6.4.3 Environmental characteristics and corrosion potential of import soil materials should also be considered. Proposed import materials should be sampled, tested, and approved by Geocon prior to its transportation to the site.

6.5 Grading

- 6.5.1 All earthwork operations should be observed and all fills tested for recommended compaction and moisture content by a representative of Geocon.
- 6.5.2 References to relative compaction and optimum moisture content in this report are based on the latest American Society for Testing and Materials (ASTM) D1557 Test Procedure. Structural building pad areas should extend a minimum of 5 feet horizontally beyond the outside dimensions of structures, including footings and overhangs carrying structural loads.
- 6.5.3 Prior to commencing grading, a pre-construction conference with representatives of the client, grading contractor, and Geocon should be held at the site. Site preparation, soil handling, and/or the grading plans should be discussed at the pre-construction conference.
- 6.5.4 Site preparation should begin with removal of existing vegetation, debris, surface/subsurface structures (if any), and any organic material. Within areas to be developed, any existing trees or shrubs and associated root systems should be removed. Roots larger than 1 inch in diameter should be completely removed. Smaller roots may be left in-place as conditions warrant and at the discretion of our field representative. Surface vegetation consisting of grasses and other similar vegetation should be removed by stripping to a sufficient depth to remove organic-rich topsoil. We estimate required stripping depths will range from approximately 1 to 2 inches. The actual stripping depth should be determined based on site conditions prior to grading. Material generated during stripping is not suitable for use within 5 feet of building pads or within pavement/flatwork areas but may be placed in landscaped or non-structural areas or exported from the site.
- 6.5.5 Alternatively, surface vegetation may be mowed such that 1 to 2 inches of stubble remains. After removing mowed vegetation, the ground surface should be thoroughly disced in two perpendicular directions to a depth of 12 inches to blend the remaining grass and roots into the surface soil. The resulting soil should be thoroughly mixed such that vegetation segments longer than 1 inch are not visually discernable, and the overall organic content is 3% by dry weight or less.

- 6.5.6 Within the proposed building areas (as defined in Paragraph 6.5.2), existing undocumented fill should be completely removed to expose undisturbed alluvium, residual soil, or weathered bedrock. We encountered approximately 1 foot of undocumented fill in our test pits; however, deeper deposits of fill may be present in previously developed areas. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with engineered fill in accordance with the recommendations of this report.
- 6.5.7 The most effective site preparation alternatives will depend on site conditions prior to grading. We should evaluate site conditions and provide supplemental recommendations immediately prior to grading, if necessary.
- 6.5.8 After site preparation, the bottom of cut areas, areas left at grade, and areas to receive fill, should be scarified at least 12 inches, uniformly moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction. Scarification and re-compaction operations should be performed in the presence of our representative to evaluate performance of the subgrade under compaction equipment loading and to identify any areas that may require additional removals.
- 6.5.9 Due to the near-surface, moderately expansive clay soils at the site, the upper 12 inches of building pads should consist of imported low-expansive fill (LEF) meeting the requirements of this report. The LEF should be moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction. If post-tensioned (PT) slab foundations are used, the LEF is not required.
- 6.5.10 Engineered fill should be compacted in horizontal lifts not exceeding 8 inches (loose thickness) and brought to final subgrade elevations. Each lift should be moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction. The top 12 inches of building pads, whether completed at-grade or by excavation or filling, should be uniformly moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction, or per the compaction method specification presented in Section 6.5.11 if the soil contains greater than 30% rock larger than $\frac{3}{4}$ inches by mass.
- 6.5.11 Soils exceeding 30% rock larger than $\frac{3}{4}$ inches by mass are considered non-testable by conventional methods. In this case, the following compaction method specification will apply. Compaction equipment shall consist of a self-propelled sheepsfoot compactor with a minimum operating weight of 12 tons (Caterpillar 563 or equivalent). Under the continuous observation of a representative of Geocon, each lift of rocky soil fill shall be moisture-conditioned and compacted in place by 6 to 8 passes with the approved compactor. Additional passes as deemed necessary during fill placement to achieve the desired condition based upon field conditions may be recommended. Each compaction pass shall overlap the

adjacent pass by a minimum of 1 foot. Geocon will visually verify proper lift thickness, spreading, mixing, and compaction operations. Fills containing soils exceeding 30% rock larger than ¾ inches by mass should be placed and proof-rolled under our observation.

- 6.5.12 Site grading may result in cut-fill transitions below some building pads. To reduce the potential for differential settlement, the cut portion of building pads with cut-fill transitions should be undercut at least 3 feet and backfilled with properly compacted fill.
- 6.5.13 Final pavement subgrade, whether completed at-grade, by excavation, or by filling, should be uniformly moisture-conditioned at or above optimum moisture content, be compacted to at least 95% relative compaction, and be stable. The 95% relative compaction requirement applies to the top 6 inches of pavement area subgrade; however, underlying materials must be sufficiently compacted and stable. We recommend proof-rolling the subgrade with a loaded water truck (or similar equipment with high contact pressure) to verify the stability of the subgrade prior to placing aggregate base (AB). We note that deeper scarification, moisture-conditioning, and compaction efforts may be required in order to achieve overall stability and compaction.
- 6.5.14 Underground utility trenches should be backfilled with properly compacted material. Pipe bedding, shading, and backfill should conform to the requirements of the appropriate utility authority. Material excavated from trenches should be adequate for use as general backfill above shading provided it does not contain deleterious matter, vegetation, or cementations larger than 6 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 8 inches. Lifts should be compacted to a minimum of 90% relative compaction at or above optimum moisture content. Compaction should be performed by mechanical means only; jetting of trench backfill should not be allowed.

6.6 Foundations

Provided the building pads are graded in accordance with the recommendations of this report, the proposed buildings may be supported on conventional shallow foundations or post-tensioned (PT) concrete slabs bearing on undisturbed native soil or engineered fill. If conventional shallow foundations are used, the top 12 inches of the building pads should comprise low-expansive fill (LEF) meeting the requirements of this report. LEF is not required if PT slab foundations are used.

6.6.1 Shallow Foundations / Conventional Interior Slab-on-Grade

- 6.6.1.1 Foundations should consist of continuous perimeter footings with interior spread footings. Perimeter footings should be continuous around the entire perimeter of the structure without breaks or discontinuities. Continuous footings should be at least 12 inches wide and interior spread footings should be at least 24 inches square. All footings should be embedded at least 18 inches below pad grade.

- 6.6.1.2 Footing bottoms should be level, and projections of rock greater than 2 inches above the footing bottom should be removed or a leveling course of structural fill, crushed rock, or lean-mix concrete should be placed to at least 2 inches higher than the highest projection of rock. The intent of removing rock projections or placing fill is to avoid point loading of the foundation.
- 6.6.1.3 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area within 18 inches laterally of the footing, beneath the footing, and within a 1:1 plane extending out and down from the bottom of the footing.
- 6.6.1.4 Continuous footings should be reinforced with at least four No. 4 reinforcement bars, two each placed near the top and bottom of the footing to allow footings to span isolated soil irregularities. The reinforcement recommended above is for soil characteristics only and is not intended to replace reinforcement required for structural considerations. The project structural engineer should evaluate the need for additional reinforcement.
- 6.6.1.5 Shallow foundations may be designed for an allowable bearing capacity of 3,000 pounds per square foot (psf) for dead plus live loads. A one-third increase in allowable bearing capacity is permitted for use with the alternative load combinations given in Section 1605.2 of the 2022 CBC.
- 6.6.1.6 Allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 350 pounds per cubic foot (pcf). The coefficient of friction to resist sliding is 0.35 for concrete against soil. Combined passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%.
- 6.6.1.7 Foundations designed in accordance with the recommendations above should experience total post-construction settlement due to building loads of less than one inch and differential settlement of ½ inch or less over a distance of 30 feet due to the building loads. The majority of settlement will be immediate and occur as the buildings are constructed.
- 6.6.1.8 A Geocon representative should observe foundation excavations prior to placing reinforcing steel or concrete to observe that the exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.
- 6.6.1.9 Conventional interior concrete slabs-on-grade are suitable for the building pads prepared as recommended in this report. Slab thickness and reinforcement should be determined by the structural engineer based on anticipated loading. However, slabs should be at least 4 inches thick and reinforced with at least No. 4 reinforcing bars placed 24 inches on center, each way. Control joints should be provided at periodic intervals in accordance with American Concrete Institute (ACI) or Portland Cement Association (PCA) recommendations, as appropriate.

- 6.6.1.10 If building pad soils become dry, they should be re-moistened prior to concrete slab-on-grade construction. Building pads should be moistened to at least optimum moisture content, at least 48 hours before placing the vapor barrier. Moisture content should be verified by Geocon prior to placing the vapor barrier.
- 6.6.1.11 Migration of moisture through concrete slabs-on-grade or moisture otherwise released from slabs is not a geotechnical issue. However, for the convenience of the owner and design team, we are providing the following general suggestions for consideration by the owner, architect, structural engineer, and contractor. The suggested procedures may reduce the potential for moisture-related floor covering failures on concrete slabs-on-grade, but moisture problems may still occur even if the procedures are followed. If more detailed recommendations are desired, we recommend consulting a specialist in this field.
- 6.6.1.12 For slabs that receive floor coverings, a minimum 10-mil-thick vapor barrier meeting ASTM E1745-97 Class C requirements may be placed directly below the slab, without a sand cushion. To reduce the potential for punctures, a higher quality vapor barrier (15 mil, Class A or B) may be used. The vapor barrier, if used, should extend to the edges of the slab and should be sealed at all seams and penetrations. At least 4 inches of ½- or ¾-inch crushed rock, with no more than 5% passing the No. 200 sieve, may be placed below the vapor barrier to serve as a capillary break.
- 6.6.1.12 The concrete water/cement ratio should be as low as possible. The water/cement ratio should not exceed 0.45 for concrete placed directly on the vapor barrier. Midrange plasticizers could be used to facilitate concrete placement and workability.
- 6.6.1.13 Proper finishing, curing, and moisture vapor emission testing should be performed in accordance with the latest guidelines provided by the ACI, PCA, and ASTM.

6.6.2 PT Slab Foundations

- 6.6.2.1 PT slab foundations should be designed by a structural engineer experienced in PT slab design and design criteria of the Post-Tensioning Institute (PTI) DC 10.5-12 *Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive Soils* or WRI/CRSI *Design of Slab-on-Ground Foundations*, Third Edition. Although this procedure was developed for expansive soil conditions, it can also be used for sites with low expansion potential.
- 6.6.2.2 The PT slab foundation design should incorporate the geotechnical parameters presented in Table 6.6.2.2.

**TABLE 6.6.2.2
POST-TENSIONED SLAB FOUNDATION DESIGN PARAMETERS**

| Design Parameter | Recommended Value |
|---|-------------------|
| 1. Thornthwaite Index | -20 |
| 2. Equilibrium Suction | 3.9 pF |
| 3. Edge Lift Moisture Variation Distance, e_M | 5.3 feet |
| 4. Edge Lift, y_M | 1 inch |
| 5. Center Lift Moisture Variation Distance, e_M | 9.0 feet |
| 6. Center Lift, y_M | 0.5 inch |

- 6.6.2.3 If a uniform-thickness PT mat foundation system is planned (most common in Northern California), the slab should include thickened edges with a minimum width of 12 inches that extend below the clean sand or crushed rock layer below the slab.
- 6.6.2.4 Assuming the PT slabs are 10 inches thick (or thicker), the slabs should be underlain by a minimum of 2 inches of ½-inch or ¾-inch crushed rock with no more than 5% passing the No. 200 sieve to serve as a capillary break. The crushed rock should be subjected to several passes with a walk-behind vibratory compactor or similar equipment prior to placing a vapor barrier or reinforcement/PT tendons for the slab.
- 6.6.2.5 Allowable bearing capacity for PT slabs should not exceed 2,000 psf for dead plus live load conditions. A one-third increase in allowable bearing capacity is permitted for use with the alternative load combinations given in Section 1605.2 of the 2022 CBC. The structural engineer should determine slab thickness and reinforcing based on anticipated use and loading of the slab.
- 6.6.2.6 The allowable coefficient of friction to resist sliding is 0.35 for concrete against crushed aggregate. Since PT slab foundations are typically not embedded into the building pad, resistance to sliding from passive soil resistance does not apply. The use of isolated footings, which are located beyond the perimeter of the building and support structural elements connected to the building, is not recommended. Where this condition cannot be avoided, the isolated footings should be embedded at least 18 inches below pad grade and be connected to the building foundation with tie beams.
- 6.6.2.7 Prior to placing the vapor retarder, pad subgrade soil should be moisture-conditioned at or above optimum moisture content to a depth of at least 12 inches. Geocon should confirm the moisture content of the subgrade soils at least 24 hours prior to placing the moisture retarder.
- 6.6.2.8 Our experience indicates PT slab foundations are potentially susceptible to excessive edge lift, regardless of the underlying soil conditions. Placing reinforcing steel at the bottom of the perimeter footings/thickened edges and the interior stiffener beams may reduce this potential. Current PTI design procedures primarily address the potential center lift of slabs but, because of the placement of the reinforcing tendons near the top of the slab, the resulting eccentricity after tensioning reduces the ability of the system to reduce edge lift.

6.6.2.9 During the construction of the PT slab foundation system, the concrete should be placed monolithically. Under no circumstances should cold joints be allowed to form.

6.7 Retaining Walls and Lateral Loads

6.7.1 Design of retaining walls and buried structures may be based on the lateral earth pressures (equivalent fluid pressure) summarized in Table 6.7.1.

**TABLE 6.7.1
RECOMMENDED LATERAL EARTH PRESSURES**

| Condition | Equivalent Fluid Density |
|---|--------------------------|
| Active | 40 pcf |
| At-Rest | 60 pcf |
| Seismic ¹ | Not Applicable |
| <i>1. Based on research by Lew, et al. 2010, the seismic increment of earth pressure may be neglected if the maximum peak ground acceleration (PGA) at the site is 0.4 g or less. The Site Class Modified MCE_G Peak Ground Acceleration (PGA_M) for this site is 0.32g; therefore, the seismic increment of earth pressure may be neglected.</i> | |

6.7.2 Unrestrained walls should be designed using the active case. Unrestrained walls are those that are allowed to rotate more than 0.001H (where H is the height of the wall). Walls restrained from movement should be designed using the at-rest case. The soil pressures above assume that the backfill material within an area bounded by the wall and a 1:1 plane extending upward from the base of the wall will be composed of the existing onsite soils.

6.7.3 Retaining wall foundations with a minimum depth of 18 inches may be designed using the allowable bearing capacity provided in Section 6.6.1.5 of this report. To resist lateral movement of retaining wall foundations, an allowable passive earth pressure equivalent to a fluid density of 350 pcf may be used for footings or shear keys poured neat against properly compacted engineered fill soils or undisturbed natural soils. This allowable passive pressure is based on the assumption that a horizontal surface extends at least 5 feet or three times the depth of the footing or shear key, whichever is greater, beyond the face of the retaining wall foundation. If this surface is not protected by floor slabs or pavement, the upper 12 inches of material should not be included in the design for lateral resistance. An allowable friction coefficient of 0.35 may be used for resistance to sliding between soil and concrete. Combined passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%.

6.7.4 Retaining walls greater than 2 feet tall (retained height) should be provided with a drainage system adequate to prevent the buildup of hydrostatic forces and should be waterproofed as required by the project architect. Positive drainage for retaining walls should consist of a vertical layer of permeable material positioned between the retaining wall and the soil backfill. The permeable material may be composed of a composite drainage geosynthetic or a natural permeable material such as crushed gravel at least 12 inches thick and capped with at least 12 inches of native soil. A geosynthetic filter

fabric should be placed between the gravel and the soil backfill. Provisions for removal of collected water should be provided for either system by installing a perforated drainage pipe along the bottom of the permeable material, which leads to suitable drainage facilities.

- 6.7.5 The recommendations presented above are generally applicable to the design of rigid concrete or masonry retaining walls with a level backfill and having a maximum retained height of 10 feet. In the event that walls higher than 10 feet or other types of walls are planned, Geocon should be consulted for additional recommendations.

6.8 Concrete Sidewalks and Flatwork

- 6.8.1 Due to the presence of expansive near-surface soils, concrete flatwork will likely experience seasonal movement. Therefore, some cracking and/or vertical offset should be anticipated. We are providing the following recommendations to reduce distress to concrete flatwork. Recommendations include moisture conditioning subgrade soils, using aggregate base (AB) underlayment, providing thickened edges, and providing adequate construction and control joints. It should be noted that even with implementation of these measures, minor slab movement or cracking could still occur.

- 6.8.2 Concrete flatwork should be at least 4 inches thick and underlain by at least 6 inches of LEF or AB compacted to at least 90% relative compaction. Flatwork should have thickened edges at least 12 inches wide that extend to the soil subgrade below the AB. The upper 12 inches of subgrade soil in exterior flatwork areas should be uniformly moisture-conditioned at least 2% above optimum and compacted to at least 90% relative compaction prior to placing AB.

- 6.8.3 We recommend using construction and control joints in accordance with ACI and/or PCA guidelines. Construction joints that abut building foundations should include a felt strip, or approved equivalent, that extends the full depth of the exterior slab. Exterior slabs should be structurally independent of building foundations except at doorways, where vertical offset could impact doorway operation. Dowels should be used at these locations.

- 6.8.4 To reduce the potential for water from landscaped areas migrating under concrete flatwork and into the AB, consideration should be given to using plastic moisture cutoffs or full-depth curbs in areas where flatwork abuts irrigated landscaping. The cutoffs or full-depth curbs should extend at least 4 inches or more into the soil subgrade beneath the AB.

6.9 Pavement – Hot Mix Asphalt

- 6.9.1 We performed Resistance-Value (R-Value) testing on one representative bulk soil sample. Our testing resulted in an R-Value of 23 (see Appendix B). To account for subgrade soil variability and based on our experience in the area, we recommend using an R-Value of 20 for the purpose of pavement design.

6.9.2 We recommend the following alternative hot mix asphalt (HMA) pavement sections for design. The project civil engineer should determine the appropriate Traffic Index (TI) based on anticipated traffic conditions. Table 6.9.2 provides alternative pavement sections based on assumed TIs. We can provide additional sections based on other TIs if necessary.

**TABLE 6.9.2
FLEXIBLE PAVEMENT SECTIONS**

| Street Type | Design TI | HMA ¹ (inches) | AB ² (inches) |
|--|-----------|------------------------------|-----------------------------|
| Automobile Parking Areas | 5.0 | 3 | 7 |
| Driveways / Trash Truck Areas | 6.5 | 4 | 10.5 |
| Notes: | | | |
| 1.HMA = Hot Mix Asphalt (Type A) conforming to Section 39 of Caltrans' latest <i>Standard Specifications</i> . | | | |
| 2.AB = Class 2 Aggregate Base conforming to Section 26 of Caltrans' latest <i>Standard Specifications</i> . | | | |

6.9.3 The recommended pavement sections are based on the following assumptions:

1. Subgrade soil has a minimum R-Value of 20.
2. Subgrade soil is stable, moisture-conditioned, and compacted in accordance with the recommendations of this report. Prior to placing AB, subgrade soil should be proof rolled with a loaded water truck to verify stability.
3. Class 2 AB has a minimum R-Value of 78 and meets the requirements of Section 26 of the latest Caltrans *Standard Specifications*.
4. Class 2 AB is compacted to 95% or higher relative compaction at or near optimum moisture content. Prior to placing HMA, the AB should be proof-rolled with a loaded water truck to verify stability.
5. HMA should conform to Section 39 of Caltrans' latest *Standard Specifications*.
6. Periodic maintenance of HMA pavements is performed.

6.9.4 HMA pavement section recommendations for driveways and parking areas are based on the design procedures of Caltrans' *Highway Design Manual* (Design Manual), Chapter 600, latest edition. It should be noted that most rational pavement design procedures are based on projected street or highway traffic conditions and, hence, may not be representative of vehicular loading that occurs in parking lots and driveways. Pavement proximity to landscape irrigation, reduced traffic speed, and short turning radii increase the potential for pavement distress to occur in parking lots even though the volume of traffic is significantly less than that of an adjacent street. The resulting pavement sections for parking lots based on traditional pavement design methods are reasonable because additional asphalt surfacing can be added later, if needed, and generally without incurring traffic hazards or traffic handling problems. It is generally not economically feasible to design and construct the entire parking lot and driveways for the unique loading conditions previously described. Periodic maintenance of the pavement in these areas, therefore, should be anticipated.

- 6.9.5 To reduce the potential for water from landscaped areas migrating under pavement into the AB, consideration should be given to using full-depth curbs in areas where pavement abuts irrigated landscaping. The full-depth curbs should extend at least 4 inches or more into the soil subgrade beneath the AB. Alternatively, modified drop-inlets that contain weep-holes may be used to encourage accumulated water to drain from beneath the pavement.

6.10 Pavement – Rigid Concrete

- 6.10.1 If rigid Portland cement concrete (PCC) pavement is used in automobile and light-truck traffic areas and in front of trash bins, we recommend that the PCC pavement be at least 6 inches thick. PCC pavement should be underlain by at least 6 inches of Class 2 AB meeting the requirements of Section 26 of Caltrans' *Standard Specifications* and compacted to at least 95% relative compaction.
- 6.10.2 Subgrade soils should be prepared and compacted in accordance with the recommendations of this report. Subgrade should be finished to a smooth, unyielding surface and proof-rolled with a loaded water truck to verify stability.
- 6.10.3 PCC should have a minimum 28-day compressive strength of 3,500 pounds per square inch (psi). Adequate construction and crack control joints should be used to control cracking inherent in concrete construction. We note that the American Concrete Pavement Association (ACPA) recommends a maximum joint spacing no greater than 24 times the slab thickness for PCC pavements directly underlain by granular bases.
- 6.10.4 Steel reinforcement, if used, should be detailed in accordance with PCA, ACI, or similar guidelines. Alternatively, macro synthetic fibers (Euclid Chemical Tuf-Strand SF or equivalent) mixed into the concrete mix may be considered in lieu of conventional steel reinforcement provided they meet the requirements of ASTM C1116 and ASTM D7508 for Type III Synthetic Fibers.
- 6.10.5 Adequate dowels should also be used at joints to facilitate load transfer and reduce vertical offset. In general, we recommend that concrete pavements be detailed, designed, constructed, and maintained in accordance with industry standards such as those provided by the ACI and ACPA.

6.11 Site Drainage and Moisture Protection

- 6.11.1 Adequate site drainage is critical to reduce the potential for differential soil movement, soil expansion, erosion, and subsurface seepage. Under no circumstances should water be allowed to pond adjacent to building foundations. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with the 2022 CBC or other applicable standards. In addition, surface drainage should be directed away from the top of slopes into swales or other controlled drainage devices.

- 6.11.2 Underground utilities should be leak free. Utility and irrigation lines should be checked periodically for leaks and detected leaks should be repaired promptly. Detrimental soil movement could occur if water is allowed to infiltrate the soil for prolonged periods of time.
- 6.11.3 Landscaping planters adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. We recommend use of area drains to collect excess irrigation water and transmit it to drainage structures or impervious above-grade planter boxes. In addition, where landscaping is planned adjacent to the pavement or flatwork, we recommend construction of a cutoff wall (deepened curb) along the edge of the pavement/flatwork that extends at least 4 inches into the soil subgrade below the bottom of the base material.
- 6.11.4 We recommend that roof drains be connected to water-tight subdrains that direct the water to the storm drain system. However, we understand that Low-Impact Development (LID) and Leadership in Engineering and Environmental Design (LEED) requests disconnecting the roof drains to help obtain certification. The water from the roof drains should be directed away from buildings. Consideration should be given to draining roofs to lined planter boxes or placing liners below the proposed landscape areas to prevent infiltration of the water. Geocon can be contacted for additional recommendations.
- 6.11.5 We recommend implementing measures to reduce infiltrating irrigation water near buildings, flatwork, or pavements. Such measures may include:
- Selecting drought-tolerant plants that require little or no irrigation, especially within 3 feet of buildings, slabs-on-grade, or pavements.
 - Using drip irrigation or low-output sprinklers.
 - Using automatic timers for irrigation systems.
 - Using appropriately spaced area drains.
- The project landscape architect should consider incorporating these measures into the landscaping plans.
- 6.11.6 Experience has shown that even with these provisions, subsurface seepage may develop in areas where no such water conditions existed prior to site development. This is particularly true where a substantial increase in surface water infiltration has resulted from an increase in landscape irrigation.

7.0 FURTHER GEOTECHNICAL SERVICES

7.1 Plan and Specification Review

Geocon should review the foundation and grading plans prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

7.2 Testing and Observation Services

The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record (GER) throughout the construction phase and provide construction observation and testing services. Providing these services during construction is important in order to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for others' interpretation of our recommendations or the future performance of the project.

8.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, we should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous materials or environmental contamination was not part of our scope of services.

This report is issued with the understanding that it is the responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the design team for the project and incorporated into the plans and specifications and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

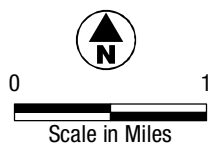
The recommendations contained in this report are preliminary until verified during construction by representatives of our firm. Changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Additionally, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated partially or wholly by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the site area at this time. No warranty is provided, express or implied.

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

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|  GEOCON CONSULTANTS, INC. 3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742 PHONE 916.852.9118 - FAX 916.852.9132 | | |
| Proposed Affordable Apartment Complex | | |
| 6480 Clark Road Paradise, California | | |
| VICINITY MAP | | |
| S2616-05-01 | August 2023 | Figure 1 |

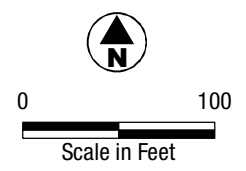
GEOCON 8/11/2023 USER: Brown, M. PATH: C:\Users\Brown, M\OneDrive - Geocon, Inc\GIS\Graphics\Projects\S2616-05-01_Clarke_Road_Apts.DWG Road_Apts.DWG Figure 1 Vicinity Map.mxd

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Legend

-  Approximate Test Pit Location
-  Approximate Site Boundary



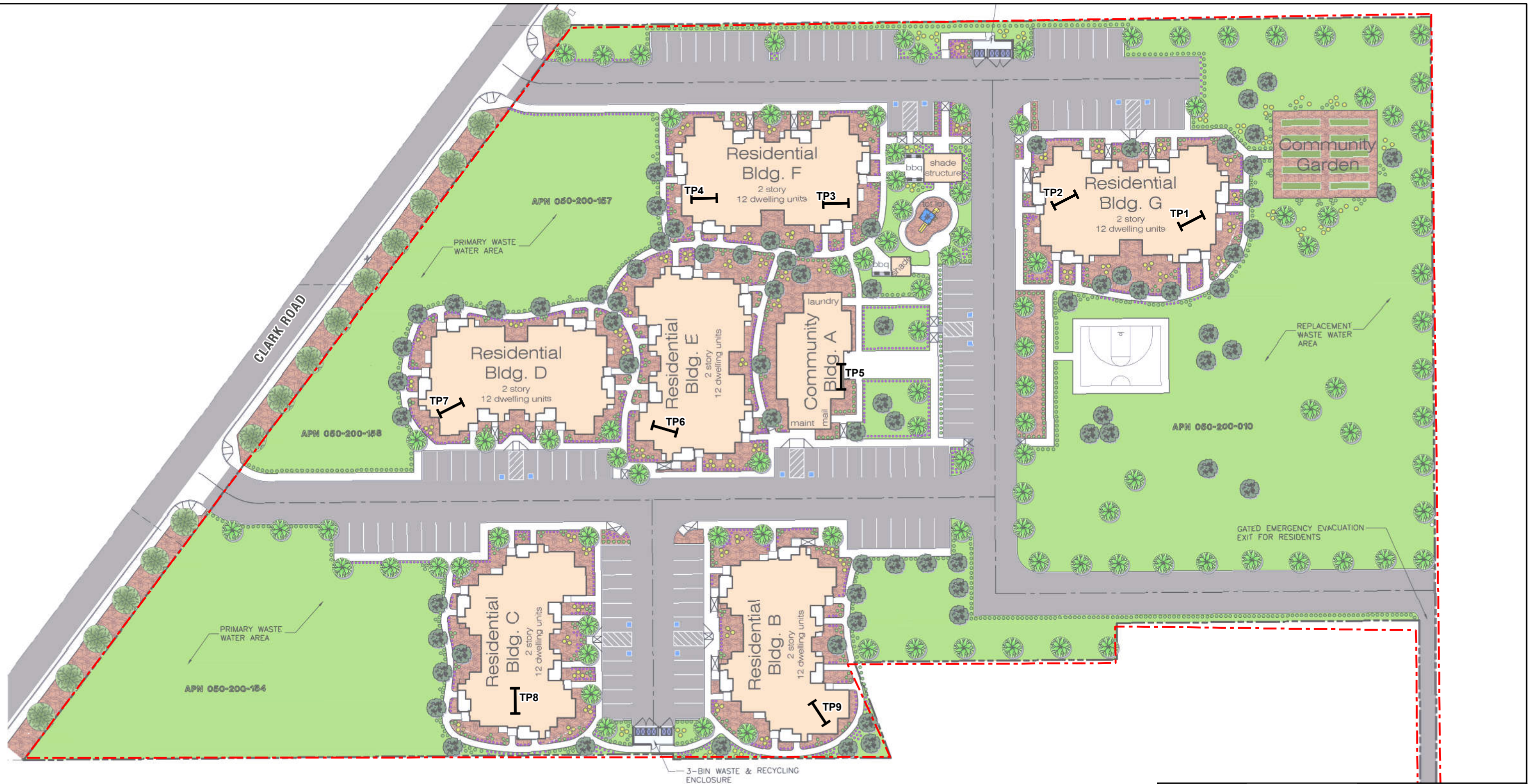

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

SITE PLAN

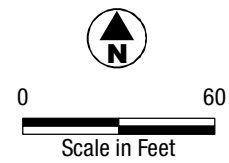
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| S2616-05-01 | August 2023 | Figure 2 |
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G:\CON\8/11/2023\USER\Brown M\OneDrive - Geocon, Inc\GIS\Graphics\Projects\S2616-05-01 Clark Road_Apts_01_Report\Map\Figure 3-Proposed Development_Plan.mxd



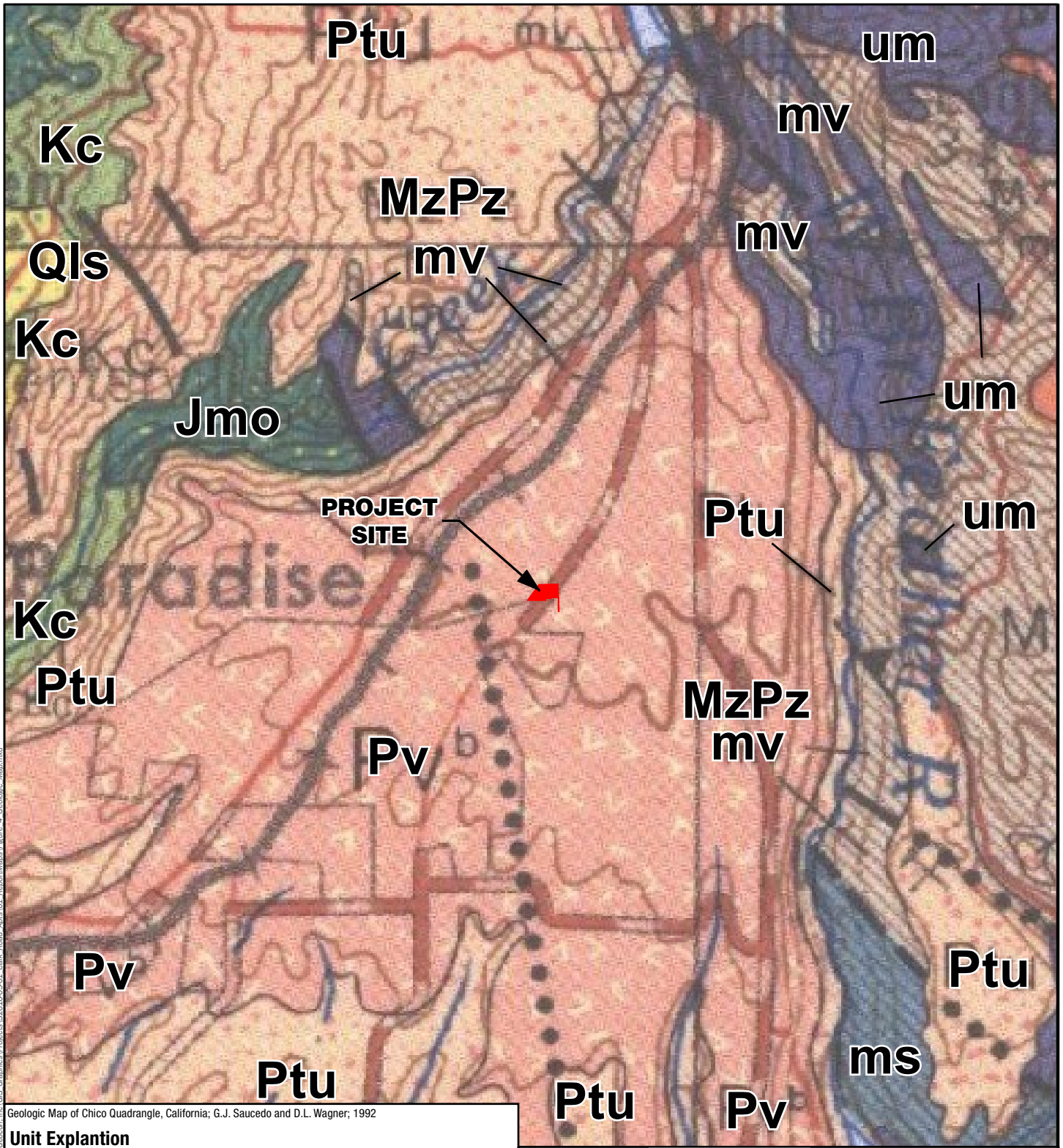
Proposed development design drawing by Roebuck Atkins & Associates (02/27/2023)

- Legend**
-  Approximate Test Pit Location
 -  Approximate Site Boundary



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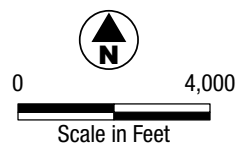
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| Proposed Affordable Apartment Complex | | |
| 6480 Clark Road Paradise, California | | |
| PROPOSED DEVELOPMENT PLAN | | |
| S2616-05-01 | August 2023 | Figure 3 |



Geologic Map of Chico Quadrangle, California; G.J. Saucedo and D.L. Wagner; 1992

Unit Explanation

- Qls Landslide deposits
- PtU Tuscan Formation
- Pv Pliocene volcanic rocks
- Kc Chico Formation
- Jmo Monte de Oro Formation
- ms Metasedimentary rocks
- MzPz Paleozoic and Mesozoic; metavolcanic rocks
- um Ultramafic rocks



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GEOLOGIC MAP

S2616-05-01

August 2023

Figure 4



Photo No. 1 Typical test pit soil color gradation and cuttings; boulder in sidewall

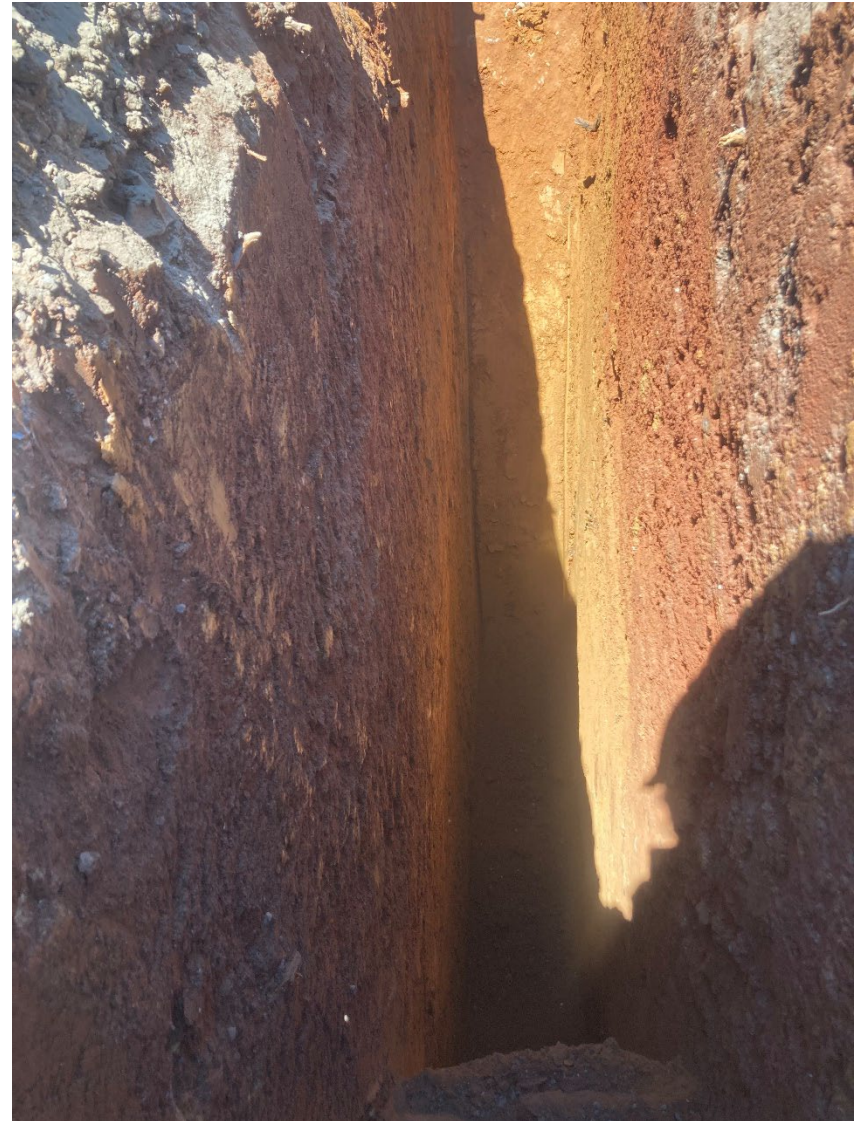


Photo No. 2 Typical soil color gradation within test pits



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PHOTOS NO. 1 & 2

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Photo No. 3 – Grey fill layer over reddish brown alluvium

PHOTO NO. 3



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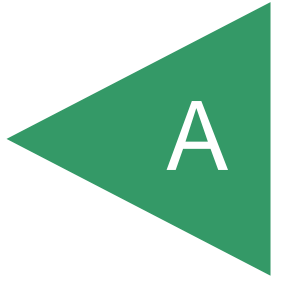
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Paradise, California

GEOCON Project No. S2616-05-01

August 2023

APPENDIX

A



APPENDIX A

FIELD EXPLORATION

We performed our geotechnical field exploration on July 19 and August 10, 2023. Our field exploration program consisted of performing 9 exploratory test pits (TP1 through TP9) at the approximate locations depicted on the Site Plan, Figure 2, and Proposed Development Plan, Figure 3, and conducting an aerial drone survey to document site conditions.

The test pit excavations were performed on July 19, 2023, using a Deere 310L EP backhoe with 18-inch bucket. We collected bulk and bagged soil samples from soil horizons encountered. Upon completion, the test pits were backfilled with excavated soil.

We visually examined, classified, and logged the subsurface conditions in the excavations in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488-90). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which we obtained samples. Lines designating the interface between soil materials on the logs vary in the field and are estimated on the logs. Where applicable, we revised the field logs based on subsequent laboratory testing. Logs of test pits are presented on Figures A2 through A10.

We conducted an aerial drone survey on August 10, 2023, to document current site conditions. The results are presented in Appendix C.

UNIFIED SOIL CLASSIFICATION

| MAJOR DIVISIONS | | TYPICAL NAMES | | |
|---|--|---------------------------------------|---|--|
| COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE | GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE | CLEAN GRAVELS WITH LITTLE OR NO FINES | GW | WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES |
| | | GRAVELS WITH OVER 12% FINES | GP | POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES |
| | | | GM | SILTY GRAVELS, SILTY GRAVELS WITH SAND |
| | | GC | CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND | |
| | SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE | CLEAN SANDS WITH LITTLE OR NO FINES | SW | WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES |
| | | SANDS WITH OVER 12% FINES | SP | POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES |
| | | | SM | SILTY SANDS WITH OR WITHOUT GRAVEL |
| | | SC | CLAYEY SANDS WITH OR WITHOUT GRAVEL | |
| FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE | SILTS AND CLAYS LIQUID LIMIT 50% OR LESS | ML | INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS | |
| | | CL | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS | |
| | | OL | ORGANIC SILTS OR CLAYS OF LOW PLASTICITY | |
| | SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50% | MH | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS | |
| | | CH | INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS | |
| | | OH | ORGANIC CLAYS OR CLAYS OF MEDIUM TO HIGH PLASTICITY | |
| | | PT | PEAT AND OTHER HIGHLY ORGANIC SOILS | |
| | HIGHLY ORGANIC SOILS | | | |

BEDDING SPACING DESCRIPTIONS

| THICKNESS/SPACING | DESCRIPTOR |
|--------------------------|---------------------|
| GREATER THAN 10 FEET | MASSIVE |
| 3 TO 10 FEET | VERY THICKLY BEDDED |
| 1 TO 3 FEET | THICKLY BEDDED |
| 3 3/4-INCH TO 1 FOOT | MODERATELY BEDDED |
| 1 1/4-INCH TO 3 3/4-INCH | THINLY BEDDED |
| 3/4-INCH TO 1 1/4-INCH | VERY THINLY BEDDED |
| LESS THAN 3/4-INCH | LAMINATED |

STRUCTURE DESCRIPTIONS

| CRITERIA | DESCRIPTION |
|---|--------------|
| ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST 1/2-INCH THICK | STRATIFIED |
| ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN 1/2-INCH THICK | LAMINATED |
| BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING | FISSURED |
| FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED | SLICKENSIDED |
| COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALLER ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN | BLOCKY |
| INCLUSION OF SMALL POCKETS OF DIFFERENT SOIL, SUCH AS SMALL LENSES OF SAND SCATTERED THROUGH A MASS OF CLAY | LENSED |
| SAME COLOR AND MATERIAL THROUGHOUT | HOMOGENOUS |

CEMENTATION/INDURATION DESCRIPTIONS

| FIELD TEST | DESCRIPTION |
|--|-------------------------------|
| CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE | WEAKLY CEMENTED/INDURATED |
| CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE | MODERATELY CEMENTED/INDURATED |
| WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE | STRONGLY CEMENTED/INDURATED |

IGNEOUS/METAMORPHIC ROCK STRENGTH DESCRIPTIONS

| FIELD TEST | DESCRIPTION |
|--|-------------------|
| MATERIAL CRUMBLES WITH BARE HAND | WEAK |
| MATERIAL CRUMBLES UNDER BLOWS FROM GEOLOGY HAMMER | MODERATELY WEAK |
| 1/2-INCH INDENTATIONS WITH SHARP END FROM GEOLOGY HAMMER | MODERATELY STRONG |
| HAND-HELD SPECIMEN CAN BE BROKEN WITH ONE BLOW FROM GEOLOGY HAMMER | STRONG |
| HAND-HELD SPECIMEN CAN BE BROKEN WITH COUPLE BLOWS FROM GEOLOGY HAMMER | VERY STRONG |
| HAND-HELD SPECIMEN CAN BE BROKEN WITH MANY BLOWS FROM GEOLOGY HAMMER | EXTREMELY STRONG |

IGNEOUS/METAMORPHIC ROCK WEATHERING DESCRIPTIONS

| DEGREE OF DECOMPOSITION | FIELD RECOGNITION | ENGINEERING PROPERTIES |
|-------------------------|--|---|
| SOIL | DISCOLORED, CHANGED TO SOIL, FABRIC DESTROYED | EASY TO DIG |
| COMPLETELY WEATHERED | DISCOLORED, CHANGED TO SOIL, FABRIC MAINLY PRESERVED | EXCAVATED BY HAND OR RIPPING (Saprolite) |
| HIGHLY WEATHERED | DISCOLORED, HIGHLY FRACTURED, FABRIC ALTERED AROUND FRACTURES | EXCAVATED BY HAND OR RIPPING, WITH SLIGHT DIFFICULTY |
| MODERATELY WEATHERED | DISCOLORED, FRACTURES, INTACT ROCK- NOTICEABLY WEAKER THAN FRESH ROCK | EXCAVATED WITH DIFFICULTY WITHOUT EXPLOSIVES |
| SLIGHTLY WEATHERED | MAY BE DISCOLORED, SOME FRACTURES, INTACT ROCK-NOT NOTICEABLY WEAKER THAN FRESH ROCK | REQUIRES EXPLOSIVES FOR EXCAVATION, WITH PERMEABLE JOINTS AND FRACTURES |
| FRESH | NO DISCOLORATION, OR LOSS OF STRENGTH | REQUIRES EXPLOSIVES |

IGNEOUS/METAMORPHIC ROCK JOINT/FRACTURE DESCRIPTIONS

| FIELD TEST | DESCRIPTION |
|--|---------------------------------|
| NO OBSERVED FRACTURES | UNFRACTURED/UNJOINED |
| MAJORITY OF JOINTS/FRACTURES SPACED AT 1 TO 3 FOOT INTERVALS | SLIGHTLY FRACTURED/JOINED |
| MAJORITY OF JOINTS/FRACTURES SPACED AT 4-INCH TO 1 FOOT INTERVALS | MODERATELY FRACTURED/JOINED |
| MAJORITY OF JOINTS/FRACTURES SPACED AT 1-INCH TO 4-INCH INTERVALS WITH SCATTERED FRAGMENTED INTERVALS | INTENSELY FRACTURED/JOINED |
| MAJORITY OF JOINTS/FRACTURES SPACED AT LESS THAN 1-INCH INTERVALS; MOSTLY RECOVERED AS CHIPS AND FRAGMENTS | VERY INTENSELY FRACTURED/JOINED |

BORING/TRENCH LOG LEGEND

| □ - No Recovery | PENETRATION RESISTANCE <table border="1"> <thead> <tr> <th rowspan="2">RELATIVE DENSITY</th> <th colspan="2">SAND AND GRAVEL</th> <th colspan="3">SILT AND CLAY</th> <th rowspan="2">COMPRESSIVE STRENGTH (tsf)</th> </tr> <tr> <th>BLOWS PER FOOT (SPT)*</th> <th>BLOWS PER FOOT (MOD-CAL)*</th> <th>CONSISTENCY</th> <th>BLOWS PER FOOT (SPT)*</th> <th>BLOWS PER FOOT (MOD-CAL)*</th> </tr> </thead> <tbody> <tr> <td>VERY LOOSE</td> <td>0 - 4</td> <td>0 - 6</td> <td>VERY SOFT</td> <td>0 - 2</td> <td>0 - 3</td> <td>0 - 0.25</td> </tr> <tr> <td>LOOSE</td> <td>5 - 10</td> <td>7 - 16</td> <td>SOFT</td> <td>3 - 4</td> <td>4 - 6</td> <td>0.25 - 0.50</td> </tr> <tr> <td>MEDIUM DENSE</td> <td>11 - 30</td> <td>17 - 48</td> <td>MEDIUM STIFF</td> <td>5 - 8</td> <td>7 - 13</td> <td>0.50 - 1.0</td> </tr> <tr> <td>DENSE</td> <td>31 - 50</td> <td>49 - 79</td> <td>STIFF</td> <td>9 - 15</td> <td>14 - 24</td> <td>1.0 - 2.0</td> </tr> <tr> <td>VERY DENSE</td> <td>OVER 50</td> <td>OVER 79</td> <td>VERY STIFF</td> <td>16 - 30</td> <td>25 - 48</td> <td>2.0 - 4.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td>HARD</td> <td>OVER 30</td> <td>OVER 48</td> <td>OVER 4.0</td> </tr> </tbody> </table> <p>*NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE LAST 12 INCHES OF AN 18-INCH DRIVE</p> | RELATIVE DENSITY | SAND AND GRAVEL | | SILT AND CLAY | | | COMPRESSIVE STRENGTH (tsf) | BLOWS PER FOOT (SPT)* | BLOWS PER FOOT (MOD-CAL)* | CONSISTENCY | BLOWS PER FOOT (SPT)* | BLOWS PER FOOT (MOD-CAL)* | VERY LOOSE | 0 - 4 | 0 - 6 | VERY SOFT | 0 - 2 | 0 - 3 | 0 - 0.25 | LOOSE | 5 - 10 | 7 - 16 | SOFT | 3 - 4 | 4 - 6 | 0.25 - 0.50 | MEDIUM DENSE | 11 - 30 | 17 - 48 | MEDIUM STIFF | 5 - 8 | 7 - 13 | 0.50 - 1.0 | DENSE | 31 - 50 | 49 - 79 | STIFF | 9 - 15 | 14 - 24 | 1.0 - 2.0 | VERY DENSE | OVER 50 | OVER 79 | VERY STIFF | 16 - 30 | 25 - 48 | 2.0 - 4.0 | | | | HARD | OVER 30 | OVER 48 | OVER 4.0 |
|---------------------------------------|---|-----------------------|---------------------------|--------------|-----------------------|---------------------------|-------------|----------------------------|----------------------------|---------------------------|-------------|-----------------------|---------------------------|------------|-------|-------|-----------|-------|-------|----------|-------|--------|--------|------|-------|-------|-------------|--------------|---------|---------|--------------|-------|--------|------------|-------|---------|---------|-------|--------|---------|-----------|------------|---------|---------|------------|---------|---------|-----------|--|--|--|------|---------|---------|----------|
| RELATIVE DENSITY | | | SAND AND GRAVEL | | SILT AND CLAY | | | | COMPRESSIVE STRENGTH (tsf) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | BLOWS PER FOOT (SPT)* | BLOWS PER FOOT (MOD-CAL)* | CONSISTENCY | BLOWS PER FOOT (SPT)* | BLOWS PER FOOT (MOD-CAL)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VERY LOOSE | | 0 - 4 | 0 - 6 | VERY SOFT | 0 - 2 | 0 - 3 | 0 - 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LOOSE | | 5 - 10 | 7 - 16 | SOFT | 3 - 4 | 4 - 6 | 0.25 - 0.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MEDIUM DENSE | | 11 - 30 | 17 - 48 | MEDIUM STIFF | 5 - 8 | 7 - 13 | 0.50 - 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DENSE | | 31 - 50 | 49 - 79 | STIFF | 9 - 15 | 14 - 24 | 1.0 - 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VERY DENSE | OVER 50 | OVER 79 | VERY STIFF | 16 - 30 | 25 - 48 | 2.0 - 4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | HARD | OVER 30 | OVER 48 | OVER 4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ▨ - Shelby Tube Sample | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ▩ - Bulk Sample | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ▭ - SPT Sample | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ■ - Modified California Sample | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ◊ - Groundwater Level (At Completion) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ▽ - Groundwater Level (Seepage) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MOISTURE DESCRIPTIONS

| FIELD TEST | APPROX. DEGREE OF SATURATION, S (%) | DESCRIPTION |
|---|-------------------------------------|-------------|
| NO INDICATION OF MOISTURE; DRY TO THE TOUCH | S<25 | DRY |
| SLIGHT INDICATION OF MOISTURE | 25<S<50 | DAMP |
| INDICATION OF MOISTURE; NO VISIBLE WATER | 50<S<75 | MOIST |
| MINOR VISIBLE FREE WATER | 75<S<100 | WET |
| VISIBLE FREE WATER | 100 | SATURATED |

QUANTITY DESCRIPTIONS

| APPROX. ESTIMATED PERCENT | DESCRIPTION |
|---------------------------|-------------|
| <5% | TRACE |
| 5 - 10% | FEW |
| 11 - 25% | LITTLE |
| 26 - 50% | SOME |
| >50% | MOSTLY |

GRAVEL/COBBLE/BOULDER DESCRIPTIONS

| CRITERIA | DESCRIPTION |
|--|-------------|
| PASS THROUGH A 3-INCH SIEVE AND BE RETAINED ON A NO. 4 SIEVE (#4 TO 3") | GRAVEL |
| PASS A 12-INCH SQUARE OPENING AND BE RETAINED ON A 3-INCH SIEVE (3"-12") | COBBLE |
| WILL NOT PASS A 12-INCH SQUARE OPENING (>12") | BOULDER |

LABORATORY TEST KEY

| | |
|---|---|
| CP - COMPACTION CURVE (ASTM D1557) | R - R-VALUE (CTM 301) |
| CR - CORROSION ANALYSIS (CTM 422, 643, 417) | SE - SAND EQUIVALENT (CTM 217) |
| DS - DIRECT SHEAR (ASTM D3080) | TXCU - CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767) |
| EI - EXPANSION INDEX (ASTM D4829) | TXUU - UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850) |
| GSA - GRAIN SIZE ANALYSIS (ASTM D422) | UC - UNCONFINED COMPRESSIVE STRENGTH (ASTM D2166) |
| MC - MOISTURE CONTENT (ASTM D2216) | |
| PI - PLASTICITY INDEX (ASTM D4318) | |



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KEY TO LOGS

Figure A1

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP1 | | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS |
|----------------------|----------------------------|-----------|-------------|-------------------|--|--------------------------|--------------------|------------------------------------|----------------------|----------------------|------------------|
| | | | | | ELEV. (MSL.) 2047 | DATE COMPLETED 7/19/2023 | ENG./GEO. A. Orton | | | | |
| MATERIAL DESCRIPTION | | | | | | | | | | | |
| 0 | TP1 BULK 0-5 | | | CL | FILL Dry to damp, brown Sandy Lean CLAY; fine to coarse sand; few to little rounded to angular gravel; trace rounded to subrounded cobbles and boulders; trace roots; slightly to moderately cemented | | | | | | CR |
| 1 | | | | CL | ALLUVIUM Moist, strong brown to red Sandy Lean CLAY; fine to coarse sand; little rounded to subrounded gravel; trace rounded to subrounded cobbles and boulders; slightly to moderately cemented - Becomes less dense/stiff | | | | | | |
| 2 | TP1 2.0 | | | | | | | | 79.5 | 29.6 | |
| 3 | TP1 2.5 | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | CL | RESIDUAL SOIL Damp, yellowish brown Sandy Lean CLAY; fine to coarse sand; trace subangular to angular gravel | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | TP1 6.5 | | | | | | | | | | |
| | | | | | REFUSAL AT 7 1/4 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | |

Figure A2, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | | | | |
|----------------|-----------------------------|--|-------------------------------|--|--------------------------------|
| | ... SAMPLING UNSUCCESSFUL | | ... STANDARD PENETRATION TEST | | ... DRIVE SAMPLE (UNDISTURBED) |
| | ... DISTURBED OR BAG SAMPLE | | ... CHUNK SAMPLE | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

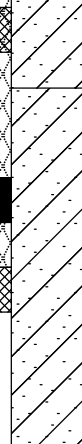

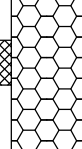
| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP2 | | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS | |
|--|----------------------------|---|-------------|-------------------|--|------------------------------|--------------------|------------------------------------|----------------------|----------------------|------------------|--------------------|
| | | | | | ELEV. (MSL.) 2045 | DATE COMPLETED 7/19/2023 | ENG./GEO. A. Orton | | | | | DRILLER B. Kimball |
| MATERIAL DESCRIPTION | | | | | | | | | | | | |
| 0 | TP2 BULK 0-3 |  | | CL | FILL Hard, dry to damp, brown Sandy Lean CLAY; fine to coarse sand; few rounded to angular (AB) gravel; trace roots; slightly to moderately cemented | | | | | | | |
| 1 | TP2 0 | | | CL | ALLUVIUM Very stiff, damp, reddish brown Sandy Lean CLAY; fine to coarse sand; trace rounded to subrounded large cobbles to small boulders | | | | | | | |
| 2 | TP2 2.0 | | | | | - Becomes dark reddish brown | | | | | | PP=3.5 tsf |
| 3 | TP2 3.0 | | | | | | | | | | | |
| 4 | TP2 3.0 | | | | | | | | | | | |
| 5 | TP2 5.0 |  | | CL | RESIDUAL SOIL Damp, yellowish brown Sandy Lean CLAY; trace subangular to angular gravel | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | TP2 8.0 |  | | | BEDROCK Completely weathered, decomposed granular volcanic basalt; excavates as moist, yellowish to reddish brown clayey subangular to angular gravel with sand; angular fragments of weakly to moderately cemented dark gray crystalline or platy rock gravel and cobbles | | | | | | | |
| 9 | | | | | | | | | | | | |
| REFUSAL AT 9 1/4 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | | | | | | |

Figure A3, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|---|-------------------------------|---|
|  | ... SAMPLING UNSUCCESSFUL |  |
|  | ... DISTURBED OR BAG SAMPLE |  |
|  | ... STANDARD PENETRATION TEST |  |
|  | ... CHUNK SAMPLE |  |
| | |  |
| | | ... DRIVE SAMPLE (UNDISTURBED) |
| | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP3 | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS |
|----------------------|----------------------------|-----------|-------------|--|--|---|------------------------------------|----------------------|----------------------|------------------|
| | | | | | ELEV. (MSL.) <u>2049</u> | DATE COMPLETED <u>7/19/2023</u> | | | | |
| | | | | | EQUIPMENT <u>Deere 310L EP Backhoe with 18" Bucket</u> | | DRILLER <u>B. Kimball</u> | | HAMMER TYPE _____ | |
| MATERIAL DESCRIPTION | | | | | | | | | | |
| 0 | TP3 BULK 0-3 | | | CL | FILL Dry to damp, brown Sandy Lean CLAY with gravel; fine to coarse sand and rounded to angular (AB) gravel; slightly to moderately cemented | | | | | |
| 1 | TP3 1.0 | | CL | ALLUVIUM Damp, strong brown Lean CLAY with Sand; yellow inclusions; ped surfaces visible; trace roots; slightly cemented - Becomes very stiff to hard, moist, dark red, porous; roots to 2 1/2' | | | | | 26.5 | PP=4.0 tsf |
| 2 | TP3 2.0 | | | | | | | | | |
| 3 | TP3 2.5 | | | | | - Subrounded to subangular boulders to 3' diameter from 3 to 5 feet depth | | | | |
| 4 | | | | | | | | | | |
| 5 | TP3 5.0 | | | | | - Becomes less dense/stiff, strong brown; not cemented | | | 28.6 | GSA |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | TP3 8.0 | | | | | - Becomes yellowish brown; trace red to yellow, subangular to angular, platy decomposed rock gravel | | | | |
| 9 | | | | | | - Broken rounded cobbles | | | | |
| 10 | | | | | CL | RESIDUAL SOIL Stiff to medium stiff, moist, yellowish brown Sandy Lean CLAY; fine to coarse sand; few to little subangular to angular gravel; trace subangular to angular decomposing platy or crystalline rock cobbles | | | | |
| 11 | TP3 11.0 | | | | | | | | | 38.6 |
| 12 | | | | | | | | | | |
| 13 | TP3 13.0 | | | | | | | | | |
| | | | | | TOTAL DEPTH 13 1/2 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | |

Figure A4, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|----------------|-------------------------------|--------------------------------|
| | ... SAMPLING UNSUCCESSFUL | |
| | ... DISTURBED OR BAG SAMPLE | |
| | ... STANDARD PENETRATION TEST | |
| | ... CHUNK SAMPLE | |
| | | ... DRIVE SAMPLE (UNDISTURBED) |
| | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP4 | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS |
|--|----------------------------|-----------|-------------|--|--|--|------------------------------------|----------------------|----------------------|------------------|
| | | | | | ELEV. (MSL.) <u>2050</u> | DATE COMPLETED <u>7/19/2023</u> | | | | |
| | | | | | EQUIPMENT <u>Deere 310L EP Backhoe with 18" Bucket</u> | | DRILLER <u>B. Kimball</u> | | HAMMER TYPE _____ | |
| MATERIAL DESCRIPTION | | | | | | | | | | |
| 0 | TP4 BULK 0-3 | | | CL | FILL Dry to damp, brown Lean CLAY with sand and gravel; fine to coarse sand and rounded to angular (AB) gravel; trace cobbles; slightly cemented | | | | | |
| 1 | TP4 1.0 | | CH | ALLUVIUM Very stiff, damp, red Fat CLAY; little fine to coarse sand; trace rounded to subrounded gravel; slightly cemented | | | | | | |
| 2 | TP4 2.0 | | | | | | | | | |
| 2.5 | TP4 2.5 | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | - Some rounded gravel at west end of test pit | | | | |
| 5 | TP4 5.0 | | | | | - Becomes yellowish brown; trace roots | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | - Becomes less dense/stiff, not cemented | | | | |
| 8 | | | | | | - Increase in rounded and angular/platy gravel | | | | |
| 8.5 | TP4 8.5 | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | CH | RESIDUAL SOIL Damp, yellowish brown Fat CLAY; little fine to coarse sand; trace to few subangular to angular gravel | | | | | |
| 11 | | | | | | | | | | |
| 12 | TP4 12.0 | | | | - Fragments of subangular to angular completely decomposed rock gravel and cobbles | | | | | |
| TOTAL DEPTH 12 1/2 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | | | | |

Figure A5, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|----------------|-------------------------------|--|
| | ... SAMPLING UNSUCCESSFUL | |
| | ... DISTURBED OR BAG SAMPLE | |
| | ... STANDARD PENETRATION TEST | |
| | ... CHUNK SAMPLE | |
| | ... WATER TABLE OR SEEPAGE | |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP5 | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS |
|---|----------------------------|-----------|-------------|-------------------|--|--------------------------------|------------------------------------|----------------------|----------------------|------------------|
| | | | | | ELEV. (MSL.) 2050 | DATE COMPLETED 7/19/2023 | | | | |
| MATERIAL DESCRIPTION | | | | | | | | | | |
| 0 | TP5 BULK 0-3 | | | CL | FILL Dry to damp, brown Lean CLAY with Sand; few to little fine to coarse sand and rounded to angular (AB) gravel; trace roots; trace construction trash at 6" depth | | | | | PI, GSA, EI |
| 1 | | | | CH | ALLUVIUM Moist, red Fat CLAY with Sand; trace gravel and rounded to subrounded cobbles; trace roots to 4 1/2' depth; trace rounded to subrounded boulders to 2' diameter; slightly cemented | | | | 29.4 | |
| 2 | TP5 1.5 TP5 2.0 | | | | - Becomes strong brown | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | TP5 5.0 | | | CH | RESIDUAL SOIL Moist, yellowish brown Fat CLAY with Sand; fragments of subangular to angular decomposed platy rock gravel and cobble fragments | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | BEDROCK Completely weathered, decomposed granular volcanic basalt; excavates as moist, strong brown to gray gravelly sand with subangular to angular cobbles; fragments of purple volcanic rock with black inclusions (strong) | | | | | |
| 11 | TP5 11.0 | | | | | | | | | |
| 12 | TP5 12.0 | | | | | - Becomes moderately weathered | | | | |
| REFUSAL AT 12 3/4 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | | | | |

Figure A6, Log of Test Pit, page 1 of 1

IN PROGRESS S2616-05-01 6480 CLARK ROAD APTS.GPJ 08/17/23



| SAMPLE SYMBOLS | | |
|----------------|-------------------------------|--------------------------------|
| | ... SAMPLING UNSUCCESSFUL | |
| | ... DISTURBED OR BAG SAMPLE | |
| | ... STANDARD PENETRATION TEST | |
| | ... CHUNK SAMPLE | |
| | | ... DRIVE SAMPLE (UNDISTURBED) |
| | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

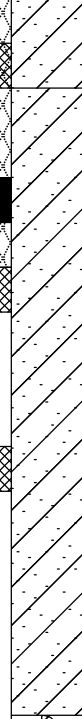
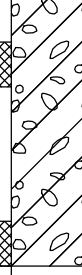
| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP6 | | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS | |
|--|----------------------------|---|-------------|-------------------|--|--|--------------------|------------------------------------|----------------------|----------------------|------------------|--------------------|
| | | | | | ELEV. (MSL.) 2048 | DATE COMPLETED 7/19/2023 | ENG./GEO. A. Orton | | | | | DRILLER B. Kimball |
| MATERIAL DESCRIPTION | | | | | | | | | | | | |
| 0 | TP6 BULK 0-3 |  | | CL | FILL Dry to damp, dark brown Sandy Lean CLAY; fine to coarse sand and rounded to angular (AB) gravel; roots and branches only in fill layer; slightly to moderately cemented | | | | | | CP | |
| 1 | TP6 0.5 | | | CL | ALLUVIUM Hard, moist, red Sandy Lean CLAY; few to little fine to coarse sand and rounded to subrounded gravel; moderately cemented - Operator notes harder digging than TP1 through TP5 | | | | | | | |
| 2 | TP6 2.0 | | | | | - Becomes looser/easier digging, damp, yellowish red; decrease in gravel; not cemented | | | | 28.4 | PP>4.5 tsf | |
| 3 | TP6 3.0 | | | | | - Rounded to subrounded cobbles and boulders to 2' diameter | | | | | | |
| 5 | TP6 5.0 | | | | | | | | | | | |
| 8 | TP6 8.5 |  | | CL | RESIDUAL SOIL Moist, yellowish red Gravelly Lean CLAY; completely weathered rock fragments; few subangular to angular cobbles | | | | | | | |
| 9 | TP6 10.5 | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| TOTAL DEPTH 11 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | | | | | | |

Figure A7, Log of Test Pit, page 1 of 1

IN PROGRESS S2616-05-01 6480 CLARK ROAD APTS.GPJ 08/17/23



| SAMPLE SYMBOLS | | | | | |
|---|-----------------------------|---|-------------------------------|---|--------------------------------|
|  | ... SAMPLING UNSUCCESSFUL |  | ... STANDARD PENETRATION TEST |  | ... DRIVE SAMPLE (UNDISTURBED) |
|  | ... DISTURBED OR BAG SAMPLE |  | ... CHUNK SAMPLE |  | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP7 | | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS | |
|----------------------|----------------------------|-----------|-------------|-------------------|---|--|--|------------------------------------|----------------------|----------------------|------------------|--|
| | | | | | ELEV. (MSL.) <u>2054</u> | DATE COMPLETED <u>7/19/2023</u> | | | | | | |
| | | | | | EQUIPMENT <u>Deere 310L EP Backhoe with 18" Bucket</u> | | | | | | | |
| | | | | | DRILLER <u>B. Kimball</u> | | | | | | | |
| | | | | | HAMMER TYPE _____ | | | | | | | |
| MATERIAL DESCRIPTION | | | | | | | | | | | | |
| 0 | TP7 BULK 0-3 | | | GC | FILL Damp, dark brown Clayey angular (AB) GRAVEL; trace roots; slightly cemented | | | | | | R | |
| 1 | | | | CL | ALLUVIUM Moist, red Sandy Lean CLAY; some fine sand; few medium to coarse sand; few rounded to subangular gravel and cobbles; tree roots to 2 1/2' depth; trace subrounded to subangular boulders to 2' diameter; slightly cemented | | | | | | | |
| 2 | TP7 1.5 TP7 2.0 | | | | | | | | | | 26.3 | |
| 3 | | | | | | | | | | | | |
| 4 | TP7 4.0 | | | | | - Becomes yellowish red; decrease in gravel and cobbles; slightly to moderately cemented | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | - Becomes less hard/dense, not cemented | | | | | | |
| 7 | | | | | | - Becomes damp (less moist) | | | | | | |
| 8 | | | | CL | RESIDUAL SOIL Damp, yellowish red Sandy Lean CLAY; trace subangular to angular gravel | | | | | | | |
| 9 | | | | | - Trace subangular to angular gravel and cobble decomposed rock fragments | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | TP7 10.5 | | | | | | | | | | | |
| | | | | | TOTAL DEPTH 11 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | |

Figure A8, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|----------------|-------------------------------|--|
| | ... SAMPLING UNSUCCESSFUL | |
| | ... DISTURBED OR BAG SAMPLE | |
| | ... STANDARD PENETRATION TEST | |
| | ... CHUNK SAMPLE | |
| | ... WATER TABLE OR SEEPAGE | |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

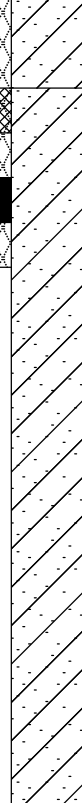
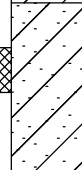
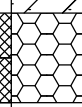
| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP8 | | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS | |
|--|----------------------------|---|-------------|-------------------|---|---------------------------------------|---------------------------|------------------------------------|----------------------|----------------------|------------------|--|
| | | | | | ELEV. (MSL.) | DATE COMPLETED | ENG./GEO. | | | | | |
| | | | | | ELEV. (MSL.) <u>2043</u> | DATE COMPLETED <u>7/19/2023</u> | ENG./GEO. <u>A. Orton</u> | | | | | |
| | | | | | EQUIPMENT <u>Deere 310L EP Backhoe with 18" Bucket</u> | HAMMER TYPE _____ | DRILLER <u>B. Kimball</u> | | | | | |
| MATERIAL DESCRIPTION | | | | | | | | | | | | |
| 0 | TP8 BULK 0-3 |  | | CL | FILL Dry to damp, dark brown Sandy Lean CLAY; fine to coarse sand; trace rounded to angular (AB) gravel at surface; construction debris | | | | | | | |
| 1 | TP8 1.0 | | | CL | ALLUVIUM Damp to moist, red Sandy Lean CLAY; few fine to coarse sand and rounded to subrounded gravel; slightly cemented | | | | | | | |
| 2 | TP8 2.0 | | | | | | | 91.4 | 29.5 | | | |
| 3 | | | | | | - Becomes yellowish red; not cemented | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | TP8 9.5 |  | | CL | RESIDUAL SOIL Damp to moist, yellowish red Sandy Lean CLAY; few fine to coarse sand; little decomposed subangular to angular gravel and cobble rock fragments | | | | | | | |
| 11 | TP8 11.0 | | | | | | | | | | | |
| 12 | TP8 11.5 |  | | | BEDROCK Completely weathered, decomposed granular volcanic basalt; excavates as moist, yellowish to reddish brown clayey sand with subangular to angular gravel | | | | | | | |
| TOTAL DEPTH 12 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | | | | | | | | |

Figure A9, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|---|-------------------------------|---|
|  | ... SAMPLING UNSUCCESSFUL |  |
|  | ... DISTURBED OR BAG SAMPLE |  |
|  | ... STANDARD PENETRATION TEST |  |
|  | ... CHUNK SAMPLE |  |
| | | ... DRIVE SAMPLE (UNDISTURBED) |
| | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

| DEPTH IN FEET | SAMPLE INTERVAL & RECOVERY | LITHOLOGY | GROUNDWATER | SOIL CLASS (USCS) | TEST PIT TP9 | | PENETRATION RESISTANCE (BLOWS/FT.) | DRY DENSITY (P.C.F.) | MOISTURE CONTENT (%) | ADDITIONAL TESTS |
|----------------------|----------------------------|-----------|-------------|--|--|---|------------------------------------|----------------------|----------------------|------------------|
| | | | | | ELEV. (MSL.) <u>2044</u> | DATE COMPLETED <u>7/19/2023</u> | | | | |
| | | | | | EQUIPMENT <u>Deere 310L EP Backhoe with 18" Bucket</u> | | DRILLER <u>B. Kimball</u> | | HAMMER TYPE _____ | |
| MATERIAL DESCRIPTION | | | | | | | | | | |
| 0 | TP9 BULK 0-3 | | | CL | FILL Dry to damp, dark brown Gravelly Lean CLAY; fine to coarse sand and rounded to angular (AB) gravel; trace roots | | | | | |
| 1 | | | CL | ALLUVIUM Hard, moist, red Sandy Lean CLAY; fine to medium sand; trace coarse sand, fine to coarse rounded to subrounded gravel; trace rounded to subrounded boulders and cobbles to 18" diameter; roots to 2 1/2' depth; slightly cemented | | | | | | |
| 2 | TP9 2.0 | | | | | | | | | |
| 3 | TP9 2.5 | | | | | | | | | PP>4.5 tsf |
| 4 | | | | | | - Becomes less dense/hard, yellowish red; not cemented | | | | |
| 5 | TP9 5.0 | | | | | - Small subrounded boulder, ~16" diameter; trace rounded to subrounded gravel | | | | |
| 6 | | | | | | - Becomes yellowish brown; trace subrounded gravel | | | | |
| 7 | TP9 6.5 | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | CL | RESIDUAL SOIL Moist, dark yellowish brown Gravelly Lean CLAY; subangular to angular fragments of decomposing granular rock | | | | | |
| 11 | TP9 11.0 | | | | | | | | | |
| 12 | TP9 11.5 | | | | | | | | | |
| | | | | | TOTAL DEPTH 12 FEET GROUNDWATER NOT ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL | | | | | |

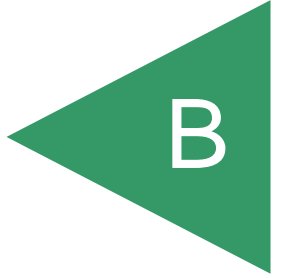
Figure A10, Log of Test Pit, page 1 of 1



| SAMPLE SYMBOLS | | |
|----------------|-------------------------------|----------------------------|
| | ... SAMPLING UNSUCCESSFUL | |
| | ... DISTURBED OR BAG SAMPLE | |
| | ... STANDARD PENETRATION TEST | |
| | ... CHUNK SAMPLE | |
| | | ... WATER TABLE OR SEEPAGE |

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX



APPENDIX B

LABORATORY TESTING PROGRAM

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected soil samples were tested for their in-place moisture content, plasticity characteristics, grain size distribution, corrosion potential, expansion potential, pavement support characteristics, and moisture-density relationship. The results of the laboratory tests are presented below and on the following pages.

**TABLE B1
EXPANSION INDEX TEST RESULTS
ASTM D4829**

| Sample Number | Depth (feet) | Moisture Content (%) | | Expansion Index | Classification* |
|---------------|--------------|----------------------|------------|-----------------|-----------------|
| | | Before Test | After Test | | |
| TP5 BULK | 0-3 | 21.4 | 37.9 | 19 | Very Low |

**Expansion Potential Classification per ASTM D4829.*

**TABLE B2
R-VALUE TEST RESULTS
ASTM D2844**

| Sample Number | Depth (feet) | Average Dry Density (pcf) | Average Moisture Content (%) | R-Value |
|---------------|--------------|---------------------------|------------------------------|---------|
| TP7 BULK | 0-3 | 99.9 | 20.3 | 23 |

| Sample ID | Depth (feet) | Liquid Limit | Plastic Limit | Plasticity Index | Expansion Index | %<#200 Sieve | Water Content (%) | Dry Density (pcf) |
|-----------|--------------|--------------|---------------|------------------|-----------------|--------------|-------------------|-------------------|
| TP1-2 | 2 | | | | | | 29.6 | 79.5 |
| TP3-2.5 | 2.5 | | | | | | 26.5 | |
| TP3-5 | 5 | | | | | 82.9 | 28.6 | |
| TP3-11 | 11 | | | | | | 38.6 | |
| TP5-Bulk | 0-3 | 51 | 27 | 24 | | 84.6 | | |
| TP5-2 | 2 | | | | | | 29.4 | |
| TP6-Bulk | 0-3 | | | | | | | |
| TP6-2 | 2 | | | | | | 28.4 | |
| TP7-2 | 2 | | | | | | 26.3 | |
| TP8-2 | 2 | | | | | | 29.5 | 91.4 |

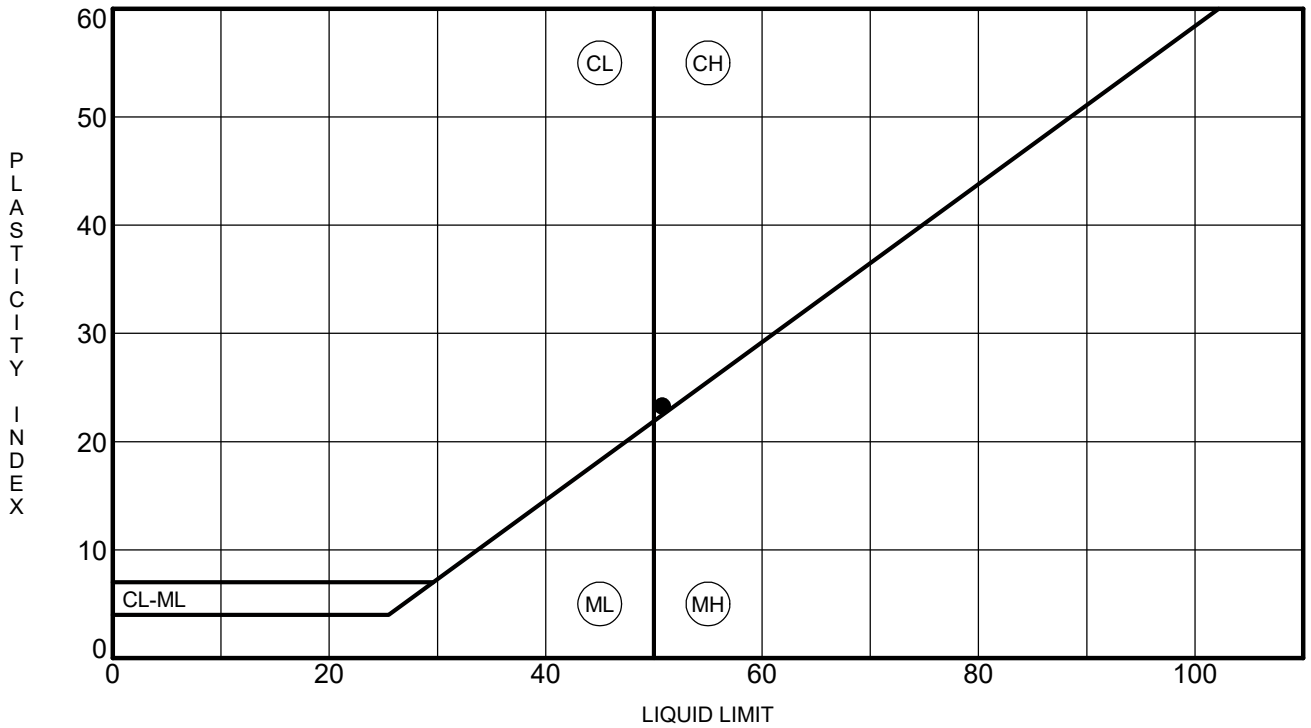
US LAB SUMMARY GEOTECH 2 WITH EI COLUMN S2616-05-01 6480 CLARK ROAD APTS.GPJ US LAB.GDT 8/15/23



Geocon Consultants, Inc.
 3160 Gold Valley Drive, Suite 800
 Rancho Cordova, CA 95742
 Telephone: 916-852-9118

Summary of Laboratory Results

Project: Proposed Aff. Apt. Complex, 6480 Clark Road
 Location: Paradise, California
 Number: S2616-05-01
 Figure: B1



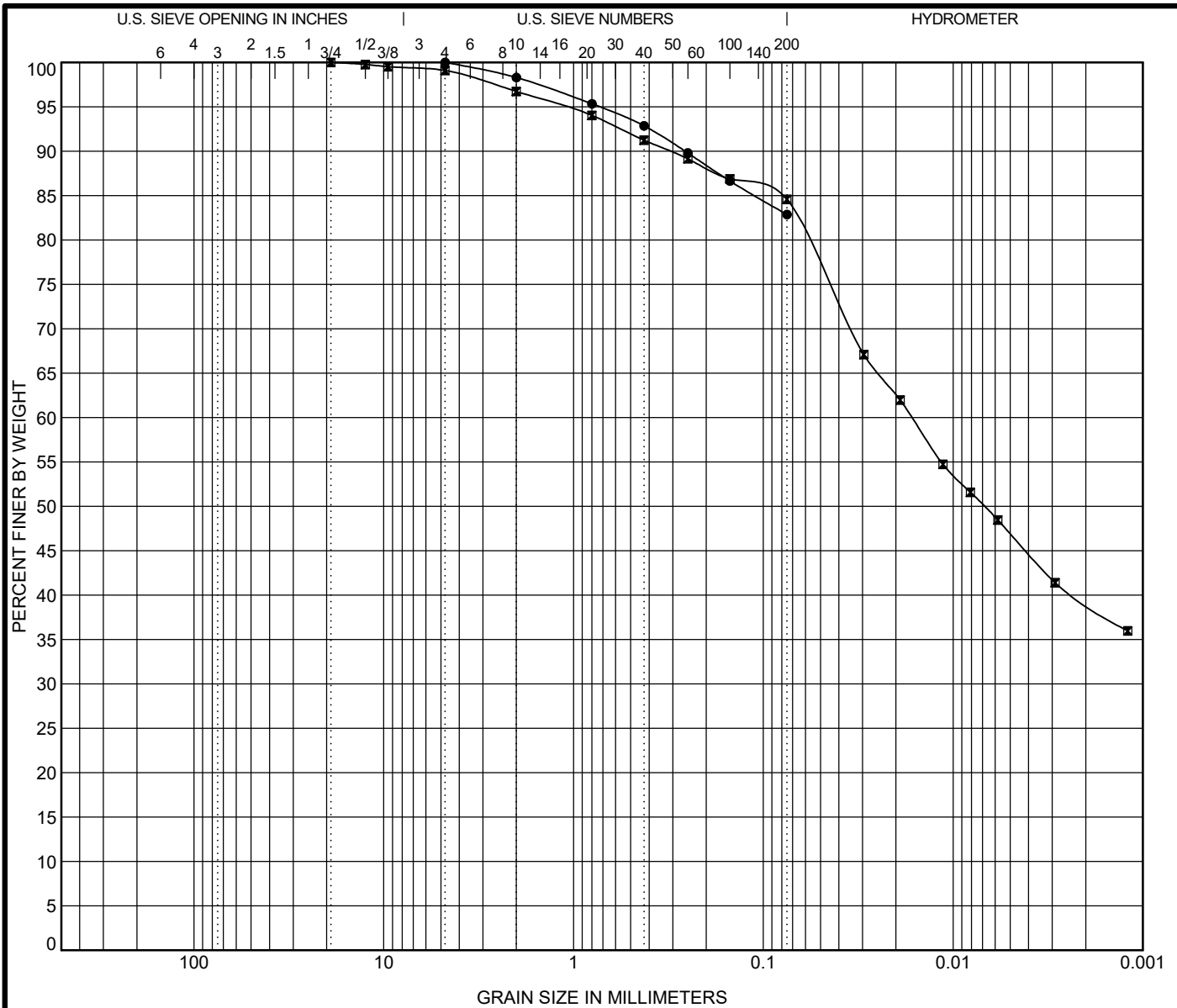
| | Sample No. | Liquid Limit | Plastic Limit | Plasticity Index | % Pass #200 Sieve | Unified Soil Classification Description | Preparation Method |
|---|------------|--------------|---------------|------------------|-------------------|---|--------------------|
| ● | TP5-Bulk | 51 | 27 | 24 | 84.6 | FAT CLAY with SAND(CH) | dry |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

PI COPY 2 S2616-05-01 6480 CLARK ROAD APTS.GPJ US LAB.GDT 8/15/23



Geocon Consultants
 3160 Gold Valley Drive, Suite 800
 Rancho Cordova, CA 95742
 Telephone:


ATTERBERG LIMITS (ASTM D4318)
 Project: Proposed Aff. Apt. Complex, 6480 Clark Road
 Location: Paradise, California
 Number: S2616-05-01
 Figure: B2



| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---------|--------|------|--------|--------|------|--------------|
| | coarse | fine | coarse | medium | fine | |

| Sample No. | Classification | LL | PL | PI | Cc | Cu |
|------------|------------------------|----|----|----|----|----|
| ● TP3-5 | | | | | | |
| ☒ TP5-Bulk | FAT CLAY with SAND(CH) | 51 | 27 | 24 | | |

| Sample No. | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|------------|------|-------|-----|-----|---------|-------|-------|-------|
| ● TP3-5 | 4.75 | | | | 0.0 | 17.1 | 82.9 | |
| ☒ TP5-Bulk | 19 | 0.007 | | | 0.9 | 14.5 | 45.5 | 39.1 |



Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
Telephone: 916-852-9118

GRAIN SIZE DISTRIBUTION (ASTM D422, D6913)

Project: Proposed Aff. Apt. Complex, 6480 Clark Road
Location: Paradise, California
Number: S2616-05-01
Figure: B3

GRAIN SIZE COPY 2 S2616-05-01 6480 CLARK ROAD APTS.GPJ US LAB.GDT 8/15/23

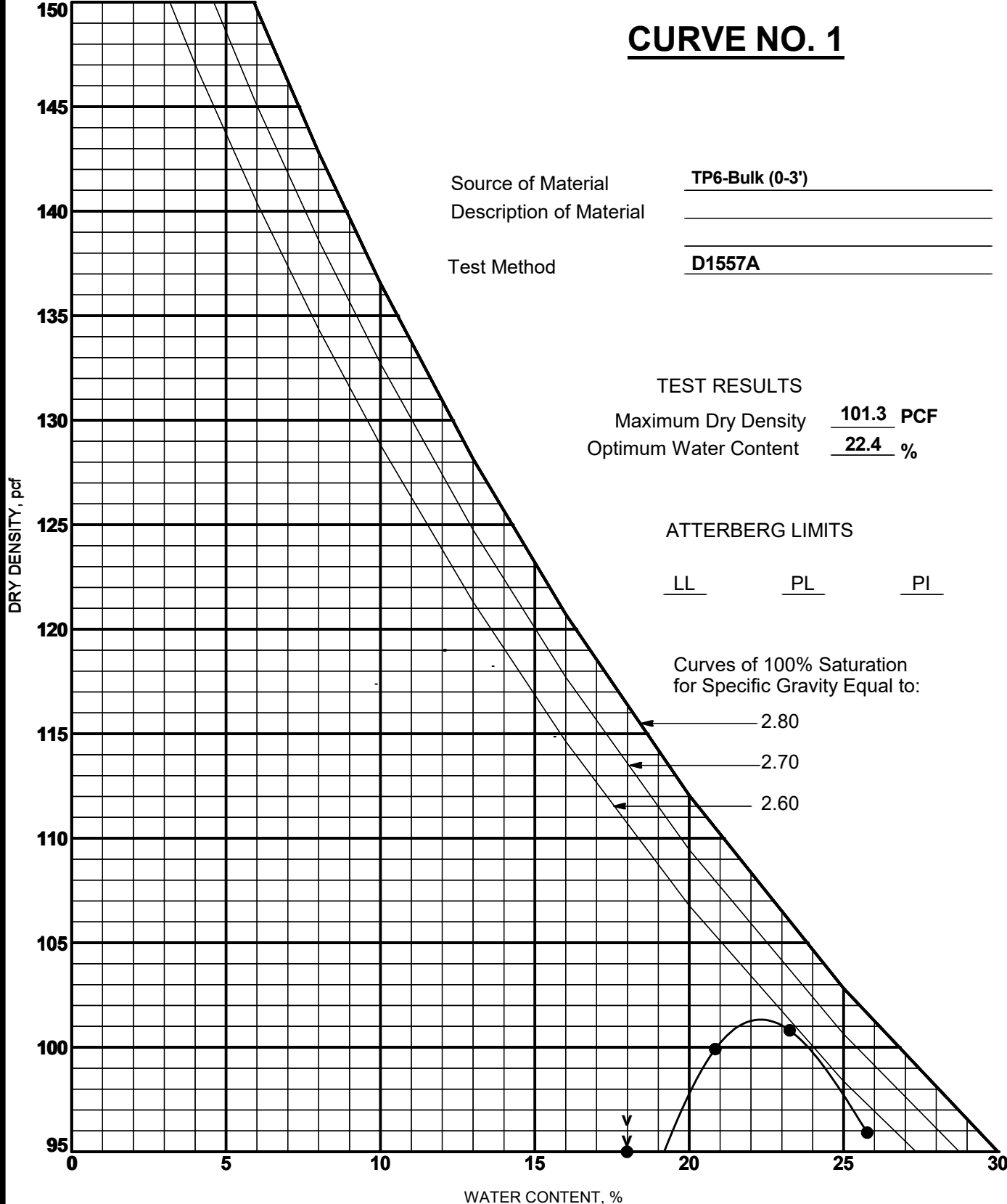
CURVE NO. 1

Source of Material TP6-Bulk (0-3')
 Description of Material _____
 Test Method D1557A

TEST RESULTS
 Maximum Dry Density 101.3 PCF
 Optimum Water Content 22.4 %

ATTERBERG LIMITS
 LL _____ PL _____ PI _____

Curves of 100% Saturation
 for Specific Gravity Equal to:
 2.80
 2.70
 2.60

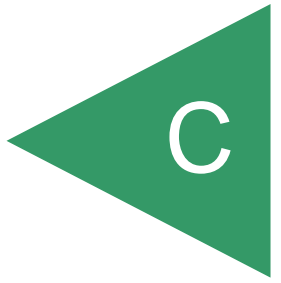


U.S. COMPACTION COPY 2.GPJ US LAB.GDT 1/26/07

GEOCON
 Geocon Consultants, Inc.
 3160 Gold Valley Drive, Suite 800
 Rancho Cordova, CA 95742
 Telephone: (916) 852-9118
 Fax: (916) 852-9132

MOISTURE-DENSITY RELATIONSHIP
 Project: Proposed Aff. Apt. Complex, 6480 Clark Road
 Location: Paradise, California
 Number: S2616-05-01
 Figure: B4

APPENDIX



APPENDIX C

AERIAL DRONE SURVEY

Our aerial drone survey was performed on August 10, 2023, using a DJI Air 2S Unmanned Aerial Vehicle (UAV, aka drone). An automated flight path was created using Map Pilot Pro, which obtained a total of 157 high-resolution nadir images of the site. The images were post-processed using the WebODM software to create a 3-dimensional model of the site. From that model, an Aerial Orthomosaic Site Map (Figure C1) and a Digital Surface Map (Figure C2) were created.



Aerial Imagery Captured by Geocon on August 10, 2023.



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

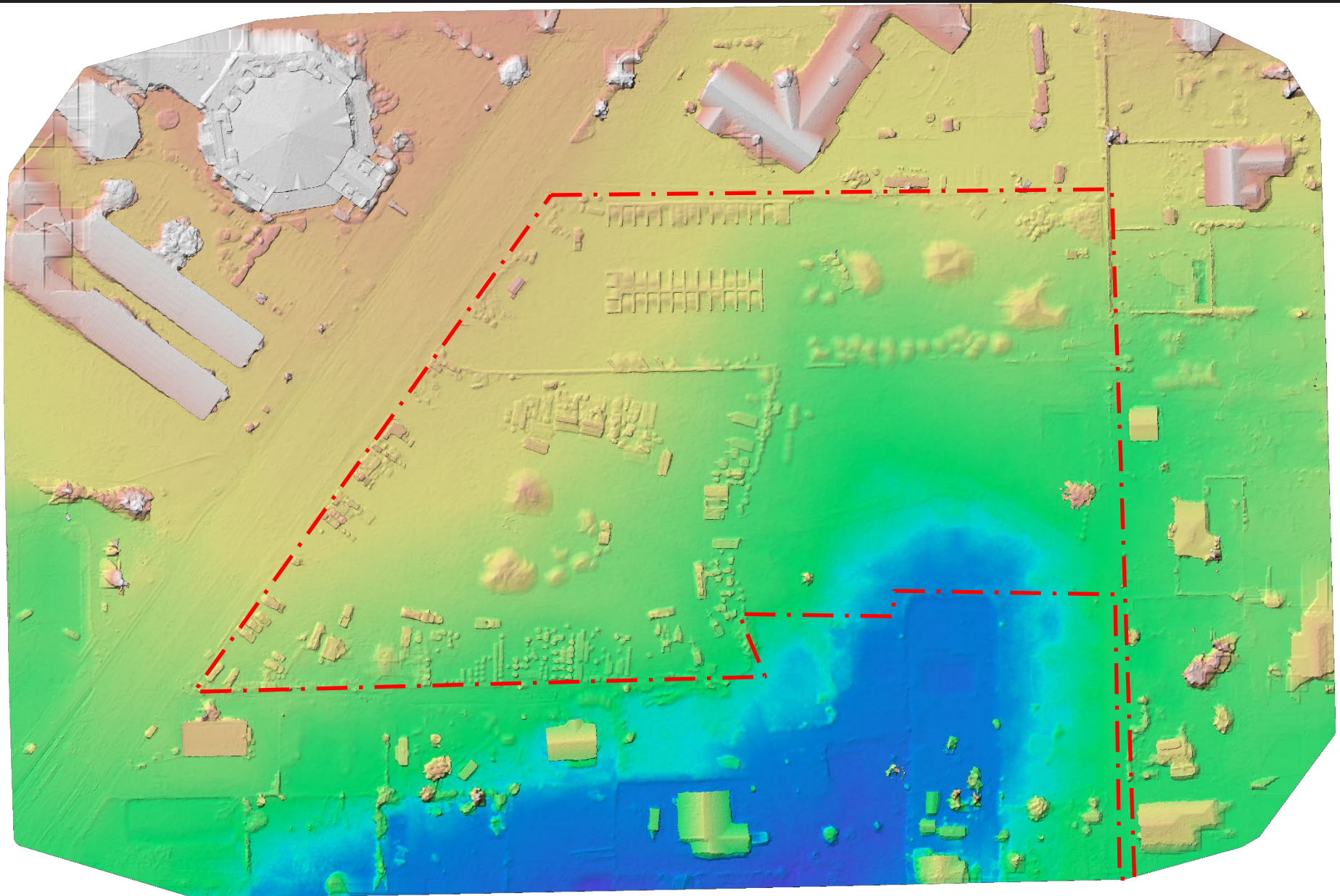
**AERIAL ORTHOMOSAIC
SITE MAP**

FIGURE C1

6480 Clark Avenue
Paradise, California

GEOCON Project No. S2616-05-01

August 2023



Terrain Model based on aerial imagery captured by Geocon on August 10, 2023.



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 - FAX 916.852.9132

DIGITAL SURFACE MAP

FIGURE C2

6480 Clark Avenue
Paradise, California

GEOCON Project No. S2616-05-01

August 2023

APPENDIX E

LAND USE REVIEW



Architecture
Civil Engineering
Planning
Surveying

Bob Larson
Onsite Sanitary Official
Town of Paradise
5555 Skyway
Paradise, CA 95969

**RE: Land Use Review for Clark Road Apartments, Clark Road Paradise
APN 050-200-010, -154, -157 & - 158**

Project Description

The proposed Clark Road Apartments (the "Project"), is located on a 7.5 acre site at 6462 Clark Road, Paradise, California 95969, just north of the junction of Clark Rd. and Bille Rd. The project is composed of the following four undeveloped parcels: 050-200-010, 050-200-154, 050-200-157, and 050-200-158.

The Project will entail the new construction of 72 apartments - 24 one-bedroom units, 30 two-bedroom units, and 18 three-bedroom units and a centrally located clubhouse.

Average daily peak flows are predicted to be 9,900gpd. For the purposes of demonstrating the site has sufficient area for adequate dispersal area is available, the maximum dispersal area anticipated is based on the design flow, an assumed application rate of 0.8gpd/sf and dispersal trench configuration of 24 inches wide and a total rock depth of 18 inches, approximately 2,480 lineal feet of dispersal trench will be required to support the project. Calculations are attached. Note the actual design may use an application rate of up to 1.0 gpd/sf and deeper rock depth in the final design as the site plan is developed.

The subject site is in the Paradise Sewer District which is anticipated to receive sewer service in the next several years and is in a priority area for housing development according to the Town's Housing Element.

Gross Wastewater Loading Rate

Using the combined parcel acreage and associated half width of the abutting right of way, the Gross Wastewater Loading Rate is calculated as 1,311gpd/ac, which is less than the maximum allowed in the Town but is greater than 900gpd/ac for standard septic systems. Secondary treatment will be used in the design of the septic system.

The project will utilize Orenco Systems Inc. AX textile treatment technology to provide secondary treatment.

Summary of Soil Resources Investigation and Testing Results

Soils testing has been conducted in the past by NorthStar in 2007 and Rancho Engineering in 2016. Other soils investigations may have been performed that NorthStar doesn't have record of. All the soils information is attached.

Soils consist of silty clay and silty clay loams similar to the Aiken Clay Loam Series with depths exceeding 7 feet.

Percolation test data shows percolation rates in the 5min/in. to 26min/in. range. Using the equation Application Rate = 5/SQRT (t), where t is perc rate in minutes per inch and set to 25min/in, a design application rate of 1.0gpd/sf is conservative and will be used for this analysis.

Groundwater Monitoring was conducted in 2006/07 for wells 1 through 12. The results of this monitoring showed no major groundwater readings during the monitoring period.

Additional groundwater wells 13 through 17 were installed when this parcel was added to the original project and monitored in 2007/08. The results of this monitoring showed elevated groundwater readings during the monitoring period particularly in well 17.

Nitrogen Loading Analysis

With the predicted flows exceeding 5,000gpd, a nitrogen loading analysis is required per the LAMP. The analysis shows that the average daily design flow and an assumed day peak design flow will require approximately 50% nitrogen reduction to meet the theoretical target nitrogen concentration of 7.0mg/l. The project will utilize Orenco Systems Inc. AX textile treatment technology to provide secondary treatment. This treatment system can provide the 50% reduction required for the project. Calculations are attached.

Sincerely,



Nick Weigel, P.E.

Encl: Onsite Wastewater Management Zone Application
LUR Calculations
LUR Site Plan Exhibit
Historical Soils Data
Historical Groundwater Monitoring Data

TOWN OF PARADISE
ONSITE WASTEWATER MANAGEMENT ZONE APPLICATION
 PHONE: (530) 872-6291 ~ FAX (530) 877-5059

WLM Construction Inc _____

OWNER'S NAME _____

PO Box 2035 _____

OWNER ADDRESS: _____

Kingdom Development _____

APPLICANT'S NAME: _____

6451 Box Springs Blvd Riverside, CA 92507 _____

APPLICANT'S ADDRESS _____

CONSTRUCTION SITE ADDRESS: Clark Road Paradise, CA _____

DESIGN ENGINEER: Nick Weigel, WP _____

APN 050-200-010, -154, -157, and -158 _____

ASSESSORS PARCEL: _____

Paradise, CA 95967 _____

CITY, STATE, ZIP _____

(951) 538-6244 _____

APPLICANT'S PHONE NO: _____

Zen Sawyer <zen@zenddevelopment.org> _____

EMAIL ADDRESS FOR PRIMARY CONTACT PERSON _____

APPLICATION TYPE:

- | | | |
|---|---|--|
| <input type="checkbox"/> Well Clearance | <input type="checkbox"/> Graywater | <input type="checkbox"/> Extension Request |
| <input type="checkbox"/> New Construction | <input type="checkbox"/> Septic Tank | <input type="checkbox"/> Absorption Field |
| <input type="checkbox"/> Repair/Construction | <input type="checkbox"/> Abandonment | <input checked="" type="checkbox"/> Land Use Review |
| <input type="checkbox"/> Upgrade/Alteration | <input type="checkbox"/> Permit Renewal | <input type="checkbox"/> Building Clearance |
| <input type="checkbox"/> Minor Repair (tees, risers, lids, floats, building sewer and etc.) _____ | | <input type="checkbox"/> Land Division w/application |

System Proposal:

Tank Size: _____ gal
 Circle one: Concrete or Fiberglass or plastic

Absorption Field: _____ ft.
 Pump Type _____

Rock Under Pipe: _____ in
 Pump Size _____


Comments: _____

TYPE OF STRUCTURE SERVED BY PROPOSED SYSTEM:

- | | | |
|---|---------------------|---|
| [] Single Family Residence; No of Bedrooms: _____ | <u>See attached</u> | Water Supply: |
| [] Mobile Home Park; No of units served by System: _____ | _____ | <input checked="" type="checkbox"/> Community |
| [] Commercial; Type of Occupancy: _____ | _____ | <input type="checkbox"/> Well |

PLOT PLAN REQUIREMENTS: Indicate all of the following:

1. Plot plan must be drawn to a 1" = 20' Scale. Provide all dimensions to setbacks.
2. Property lines, required setbacks, easements, all existing and proposed structures, and location of septic system (existing and proposed). Provide North Arrow.
3. Location of large trees, rock outcrops, escarpments and cutbanks.
4. Location of any well, spring, drainage way, creek or pond located within 200 feet of the proposed septic system on proposed or adjacent parcels.
5. Slope orientation and degree of slope.
6. All utilities, i.e. water mains and service lines, gas lines, electric service lines, etc.
7. Proposed septic system and, if required, septic system repair area(s).
8. Trench section detail, type and location of distribution boxes and section detail of such proposed distribution, i.e. equal serial, step down.
9. Floor plan of proposed structure and all appurtenant structures (commercial, new construction and building clearance).



SIGNATURE OF APPLICANT

03/10/2023

DATE

Wastewater Loading Calculations

Clark Road Multi-family Development

Kingdom Development Clark Road Paradise, CA

Gross Lot Area

| | |
|-----------------|------------|
| APN 050-200-010 | 2.01 acres |
| APN 050-200-154 | 0.66 acres |
| APN 050-200-157 | 2.40 acres |
| APN 050-200-158 | 2.48 acres |

GROSS LOT AREA =

7.55 acres

Predicted Wastewater Flows

| | | | |
|---|------------------------------------|------------------|------------------|
| Description | | 72 | |
| | Peak Treatment Design Flow/Unit | Number of Units | |
| 1 Bedroom Rental Unit | 100 gpd | 24 | 2,400 gpd |
| 2 Bedroom Rental Unit | 150 gpd | 30 | 4,500 gpd |
| 3 Bedroom Rental Unit | 200 gpd | 18 | 3,600 gpd |
| Community Center | | | 500 gpd |
| Total Predicted Peak Design Flow | | 72 Bedroom Units | 11,000 gpd |
| TOTAL PREDICTED PEAK AVERAGE DAILY | | 90% | 9,900 gpd |
| Gross Wastewater Loading Rate | | | |
| Total Predicted Peak Average Daily Flow | | | 9,900 gpd |
| Gross Lot Area | | | 7.55 acres |
| Gross Wastewater Loading Rate (GWLR) | | | 1,311 gpd |

Notes

1. GWLR is below the threshold of 2,000gpd/ac. As required in the town of Paradise LAMP
2. Gross wastewater loading rate is above 900gpd/ac. Nitrogen loading analysis is required.
3. Design flow is above 5,000gpd. Nitrogen loading analysis is required.

Dispersal Trench Calculations

Clark Road Multi-family Development

Kingdom Development
Clark Road
Paradise, CA

Design Flow

9,900 gpd

New Absorption Field Capacity

Dispersal Field Sizing

| | |
|---|-------------|
| Application Rate ¹ | 0.80 gpd/sf |
| Trench Width | 24.0 in |
| Trench Depth (Depth of Rock) | 18.0 in |
| Effective Trench Area per Lineal Foot | 5.00 sf/lf |
| Square Feet of Trench Area Required | 12,375 sf |
| Lineal Feet of Original Trench Required per Dispersal Area(Original and Replacement) ² | 2,480 lf |
| Approximate Gross Area Needed for Lineal Footage Above ³ | 37,000 sf |

Notes

1. Application rate set as 0.8gpd/sf for Land Use Review conservancy. Actual design may calculations may use up to 1.0gpd/sf on soil type from soil profile.
2. Lineal footage of trench required for secondary treated effluent is based on the bottom and side areas of trench and conservatively assumed as 18 inches of rock. Actual design may use as much as 30 inches of rock.
3. These calculations are for Land Use Review analysis. Final design calculations will be provided at the time of system design.

Nitrate Loading Prediction

Clark Road Multi-family Development

Kingdom Development

Clark Road
Paradise, CA

REF: HANTZSCHE-FINNEMORE EQUATION ($N_r = [I \times N_w \times (1-d) + (R \times N_b)] / (I + R)$)

R = Average rainfall recharge rate (75% of annual rainfall (28 inches) on level ground)

N_b = Average NO₃--N background concentration in rainfall recharge (assumed: N_b = 0.5 mg/l)

I = Amount of wastewater entering the system (Calculated)

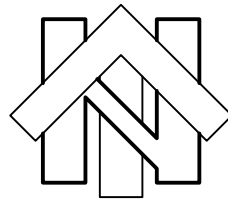
N_w = Concentration of nitrate in wastewater effluent (based on influent concentrations and removal efficiency of the treatment system)

Input Values

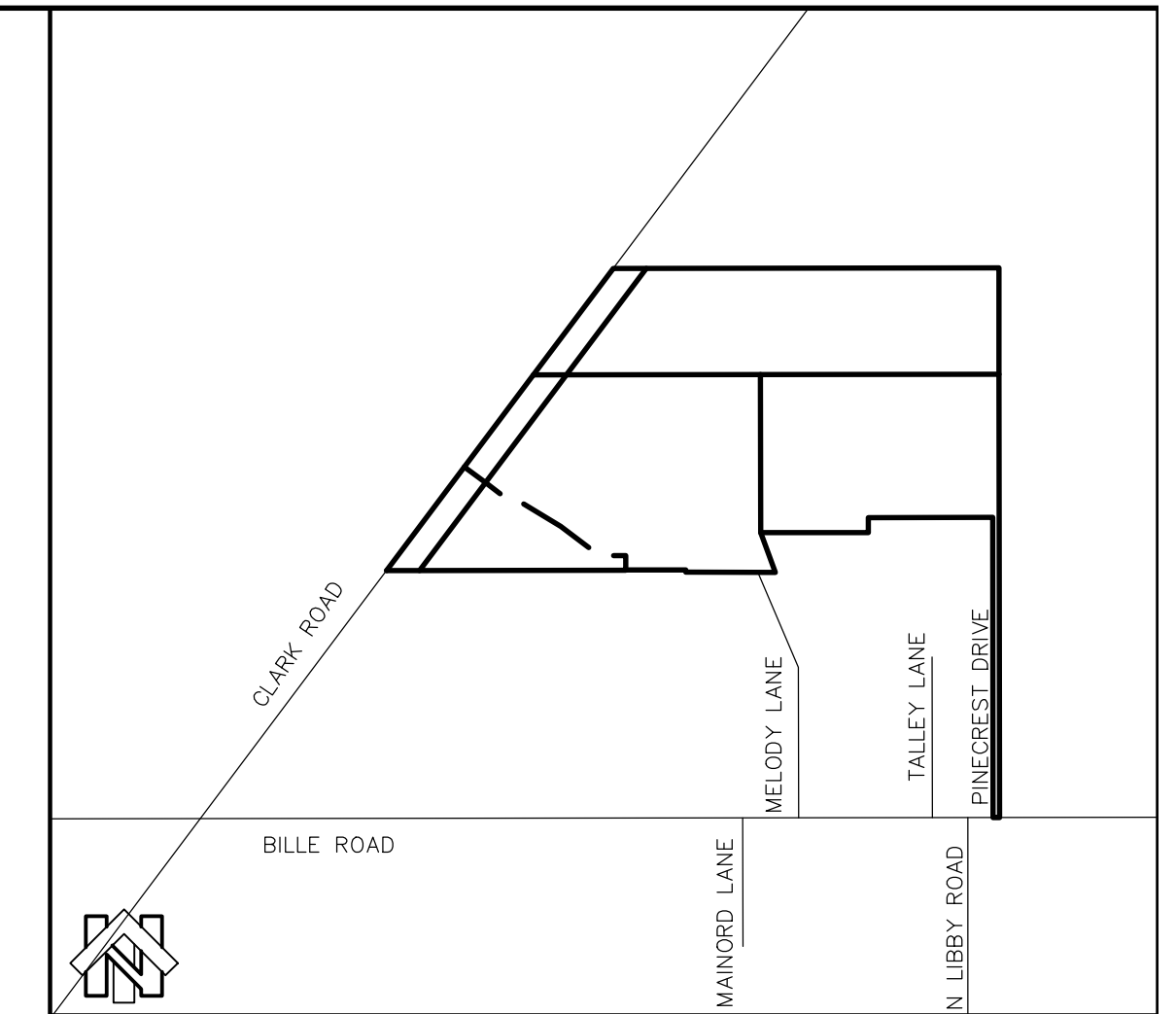
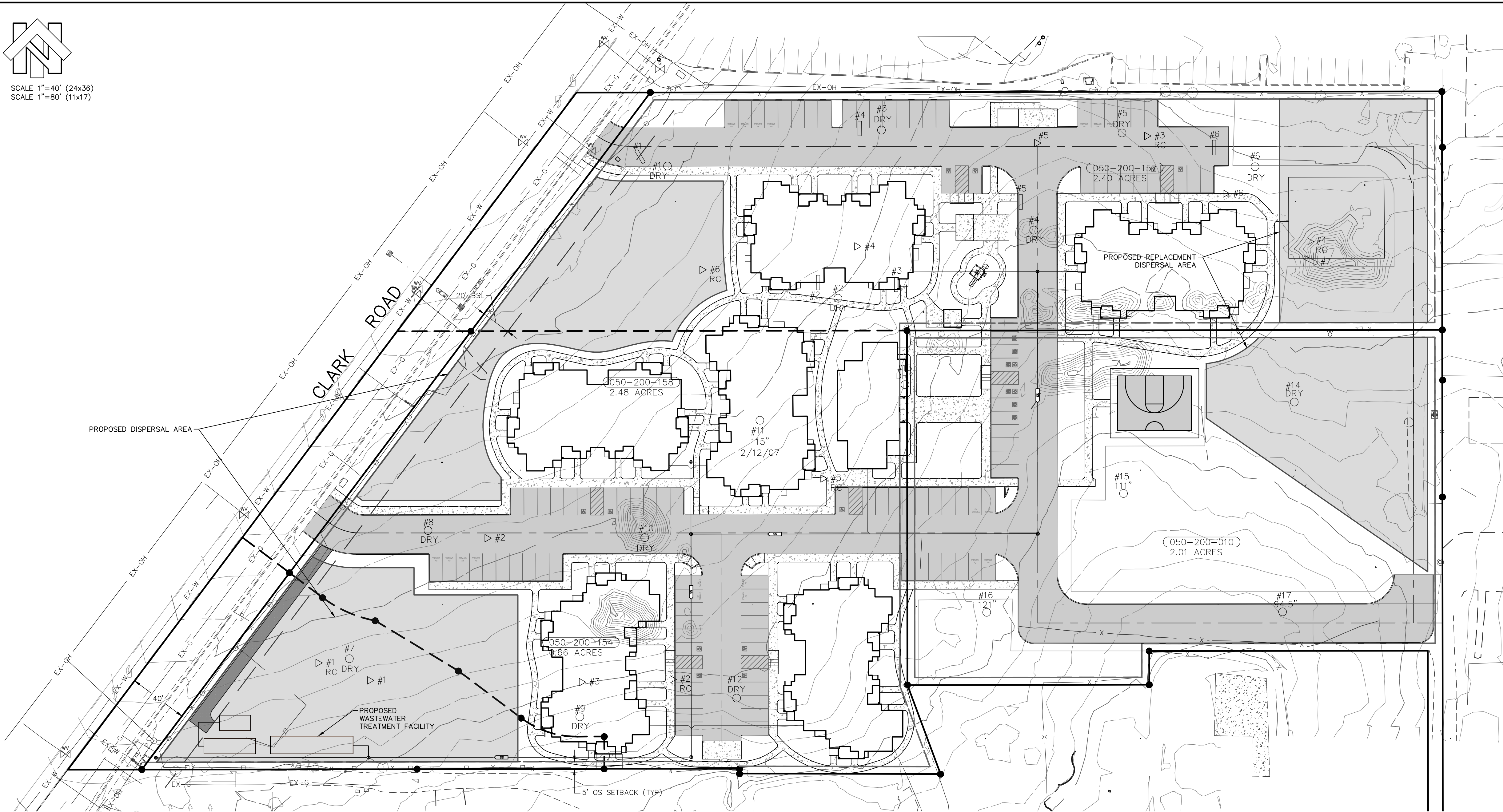
| | | |
|--|--------|-------------|
| Total Predicted Peak Design Flow | 11,000 | gallons/day |
| Total Predicted Peak Average Daily Flow | 9,900 | gallons/day |
| Total Surface Area (Acres) | 7.55 | acres |
| Duration of Wastewater Application | 365 | days |
| Total Nitrogen Concentration in Wastewater Entering System (N _w) | 40 | mg/L |
| Percent of Nitrate-Nitrogen loss due to Soil Denitrification (d) | 0% | |
| Average Rainfall Recharge Rate ® 75% of 52 inches per year per LAMP | 39 | inches/year |
| Background Nitrate-Nitrogen Concentration in Rainfall Recharge (N _b) | 0.5 | mg/L |

Output Values

| | Design Flow | Average Flow |
|--|-------------|--------------|
| Calculated Volume of Wastewater Entering System (I) | 19.6 in/yr. | 17.6 in/yr. |
| Calculated Average Concentration of Nitrate-Nitrogen (N _r) | 13.71 mg/L | 12.80 mg/L |
| Target Nitrate-Nitrogen in Groundwater per LAMP (N _{rA}) | 7.00 mg/L | 7.00 mg/L |
| Predicted Nitrogen Removal Required From Treatment System to Achieve Limit | 49% | 45% |



SCALE 1"=40' (24x36)
SCALE 1"=80' (11x17)



LOCATION MAP NTS

LEGEND

- EXISTING WATER METER
- EXISTING POWER POLE WITH ANCHOR
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING SIGN
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING FENCE LINE
- EXISTING FLOW LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING EASEMENT
- EXISTING PROPERTY LINE FOR SURROUNDING PARCELS
- EXISTING TREE
- PROPOSED FIRE HYDRANT
- PROPERTY BOUNDARY
- EXISTING PARCEL LINE TO BE REMOVED
- PROPOSED PROPERTY LINE
- PROPOSED EASEMENT
- #7 ○ GROUNDWATER MONITORING LOCATION
- #1 ▷ PERC TEST LOCATION
- #1 □ BACKHOE TEST LOCATION 11/07/2006
- #1 ▷ RC PERC TEST LOCATION (RANCHO)

GROUNDWATER MONITORING (NORTHSTAR)

| WELL | 2006-2007 (in) | 2007-2008 (in) |
|------|----------------|----------------|
| #1 | Dry | |
| #2 | Dry | |
| #3 | Dry | |
| #4 | Dry | |
| #5 | Dry | |
| #6 | Dry | |
| #7 | Dry | |
| #8 | Dry | |
| #9 | Dry | |
| #10 | Dry | |
| #11 | 115.0 | |
| #12 | Dry | |
| #13 | | Dry |
| #14 | | Dry |
| #15 | | 111.0 |
| #16 | | 121.0 |
| #17 | | 94.5 |

PERC TEST (NORTHSTAR)

| TEST (2007) | PERC RATE (mni/in) |
|-------------|--------------------|
| #1 | 2.8 |
| #2 | 7.2 |
| #3 | 2.0 |
| #4 | 11.6 |
| #5 | 2.4 |
| #6 | 5.2 |

PERC TEST (RANCHO)

| TEST (2016) | PERC RATE (mni/in) |
|-------------|--------------------|
| #1 | 7.0 |
| #2 | 8.9 |
| #3 | 9.9 |
| #4 | 26.5 |
| #5 | 14.5 |
| #6 | 6.4 |

LAND USE REVIEW MAP
CLARK ROAD APARTMENTS
FOR
KINGDOM DEVELOPMENT
SOUTHWEST QUARTER OF THE SOUTHWEST
QUARTER OF SECTION 12, TOWNSHIP 22
NORTH RANGE 3 EAST, M.D.B. & M.
TOWN OF PARADISE
COUNTY OF BUTTE STATE OF CALIFORNIA



111 MISSION RANCH BLVD. SUITE 100, CHICO, CA 95926
PHONE: (530) 893-1600 www.northstareng.com

NorthStar ENGINEERING

Civil Engineers • Surveyors

| Well #1 | | | |
|-------------------|------------------------------|----------------------|--------------------------|
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/7/2006 | 117.0" <i>9.75'</i> | 9.0" <i>7.5'</i> | 108.0" <i>= 9'</i> |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #2 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/7/2006 | 99.5" | 13.0" | 86.5" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |



JOB # 9399w 5/2/2007
 APN 050-200-020-,032, 100

111 MISSION RANCH BLVD., STE. 100
 CHICO, CALIFORNIA 95926
 530-893-1600
 FAX-893-2113

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| Well #3 | | | |
|-------------------|------------------------------|----------------------|--------------------------|
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/7/2006 | 115.0" | 6.0" | 109.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #4 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/7/2006 | 109.5" | 16.0" | 93.5" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |



JOB # 9399w 5/2/2007
 APN 050-200-020-,032, 100

111 MISSION RANCH BLVD., STE. 100
 CHICO, CALIFORNIA 95926
 530-893-1600
 FAX-893-2113

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| Well #5 | | | |
|----------------------|---------------------------------|-------------------------|-----------------------------|
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/7/2006 | 115.5" | 16.0" | 99.5" |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #6 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 11/8/2006 | 116.0" | 3.0" | 113.0" |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 11/14/2006 | Dry | | Dry |
| 12/4/2006 | Dry | | Dry |
| 12/12/2006 | Dry | | Dry |
| 12/22/2006 | Dry | | Dry |
| 12/27/2006 | Dry | | Dry |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |



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| Well #7 | | | |
|-------------------|------------------------------|----------------------|--------------------------|
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 125.5" | 5.5" | 120.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #8 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 121.5" | 5.5" | 116.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #9 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 130.5" | 10.5" | 120.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |



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| Well #10 | | | |
|-------------------|------------------------------|----------------------|-------------------------------|
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 127.0" | 5.5" | 121.5" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #11 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 121.5" | 4.5" | 117.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry Dry |
| 2/12/2007 | 119.5 | | 119.5 115. |
| 2/23/2007 | 120.0 | | 120.0 115.5 - 9.6" |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |
| Well #12 | | | |
| Installation Date | Casing Top to Bottom | Casing Top to Ground | Ground to Bottom |
| 1/23/2007 | 128.0" | 6.0" | 122.0" |
| | | | |
| Date | Casing Top to Water (inches) | | Ground to Water (inches) |
| 1/23/2007 | Dry | | Dry |
| 2/12/2007 | Dry | | Dry |
| 2/23/2007 | Dry | | Dry |
| 3/3/2007 | Dry | | Dry |
| 3/27/2007 | Dry | | Dry |
| 4/16/2007 | Dry | | Dry |
| 4/23/2007 | Dry | | Dry |



Property Owner: Ron Sonntag

Location: 6480 Clark Rd

AP#: 050-200-020

Date: 11/6/06

Weather/Lighting/Temp: Sunny, pty cldy, warm

Test Pit: # 1

Total Depth: 7.25'

file: Prototypes\Wwater\Dept Docs

Horizon: 1 Depth: 0 to 2' Color Chip: 2.5 YR 4/6
O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite
w-color & structure x-fragipan y-gypsum z-salts

Horizon: 2 Depth: 2 to 3' Color Chip: 2.5 YR 4/6 +3/8
O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite
w-color & structure x-fragipan y-gypsum z-salts

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
>60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm)
Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
Shape: Rounded Subrounded Angular Irregular
Rock: Unweathered Bedrock (WB) Weathered Bedrock (WB)

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
>60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm)
Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
Shape: Rounded Subrounded Angular Irregular Some
Rock: Unweathered Bedrock (WB) Weathered Bedrock (WB)

Texture: Ribbon: _____ Percent Clay: _____ %
clay silty clay sandy clay silty clay loam silt loam sandy loam
loamy sand sand
Sand Size: very coarse coarse <5% medium <10% fine very fine
2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Texture: Ribbon: _____ Percent Clay: _____ %
clay silty clay sandy clay silty clay loam silt loam sandy loam
loamy sand sand
Sand Size: very coarse coarse medium fine very fine
2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Stickiness: Not S Slightly S Sticky Very S
Plasticity: Not P Slightly P Plastic Very P when wet

Stickiness: Not S Slightly S Sticky Very S
Plasticity: Not P Slightly P Plastic Very P

Structure: See comments
Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable)
Shape: Platy Blocky Columnar
Granular Angular/Subangular Prismatic
S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm)
I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm)
Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm)
E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Structure:
Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable)
Shape: Platy Blocky Columnar
Granular Angular/Subangular Prismatic
S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm)
I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm)
Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm)
E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Mottles: Yes No
Size: Fine <5mm Medium 5-15mm Large >15mm
Quantity: Few <2% Common 2-20% Many >20%
Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible)
Color Chip(s):
Shape: Streaks Bands Spots

Mottles: Yes No
Size: Fine <5mm Medium 5-15mm Large >15mm
Quantity: Few <2% Common 2-20% Many >20%
Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible)
Color Chip(s):
Shape: Streaks Bands Spots

Redoximorphic Characteristics: Yes No
Redox concn: Nodules Concretions Masses Pore Linings
Redox depletions: Iron / Clay Depth to: obs/ind water

Redoximorphic Characteristics: Yes No
Redox concn: Nodules Concretions Masses Pore Linings
Redox depletions: Iron / Clay Depth to: obs/ind water

Rupture Resistance / Consistence:
Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
Rigid V.Rigid
Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
Sli.Rigid Rigid V.Rigid

Rupture Resistance / Consistence:
Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
Rigid V.Rigid
Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
Sli.Rigid Rigid V.Rigid

Cementation: Non C Ex.Weakly C. V. Weakly C. Weakly C.
Mod. C. Strongly C. V. Strongly C. Indurated

Cementation: Non C Ex.Weakly C. V. Weakly C. Weakly C.
Mod. C. Strongly C. V. Strongly C. Indurated

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Roots: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many ≥100 ≥100 ≥10 ≥5

Roots: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many ≥100 ≥100 ≥10 ≥5

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
Matted Around Stones Throughout

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
Matted Around Stones Throughout

Pores: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many ≥100 ≥100 ≥10 ≥5

Pores: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many ≥100 ≥100 ≥10 ≥5

Distribution: Inped Exped
Types of Pores: Vesicular Tubular Irregular

Distribution: Inped Exped
Types of Pores: Vesicular Tubular Irregular

Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer.
2-Strongly Effer. 3-Violently Effervescent

Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer.
2-Strongly Effer. 3-Violently Effervescent

Boundary: Abrupt Clear Gradual Diffuse
<3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)

Boundary: Abrupt Clear Gradual Diffuse
<3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)

Topo: Smooth Wavy Irregular Broken

Topo: Smooth Wavy Irregular Broken

Soil Water: Dry (D) Moist (M) Wet (W)

Soil Water: Dry (D) Moist (M) Wet (W)

Limiting Depth:
Comments: former bldg site, disturbed surface.

Limiting Depth:
Comments: Expect fast-mod. perc rate



Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit: # 1 cont. Total Depth: 7.25' file: Prototypes\Wwater\Dept Docs

| | |
|---|---|
| Horizon: <u>3</u> Depth: <u>3</u> to <u>7.25'</u> Color Chip: <u>2.5YR 4/6 +5/8</u> | Horizon: _____ Depth: _____ to _____ Color Chip: _____ |
| O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand Sand Size: <u>very coarse</u> <u>coarse</u> <u><5%</u> <u>medium</u> <u><10%</u> <u>fine</u> <u>?</u> <u>very fine</u> 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand Sand Size: very coarse coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P <u>when wet</u> | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar Granular Angular/Subangular Prismatic S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar Granular Angular/Subangular Prismatic S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots | Mottles: Yes No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: <u>Yes</u> <u>No</u> <u>on rock</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water | Redoximorphic Characteristics: Yes No Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard <u>Mod.Hard</u> <u>Hard</u> V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <10 <1 <1 <u>almost</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 >100 >10 >5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 >100 >10 >5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 >100 >10 >5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 >100 >10 >5 |
| Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) | Soil Water: Dry (D) Moist (M) Wet (W) |
| Limiting Depth: Comments: <u>Expect mod. - slow perc rate, could dig deeper.</u> | Limiting Depth: Comments: |



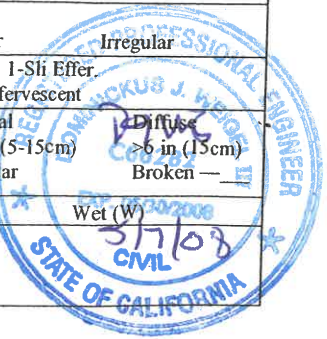
Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit:# 2 Total Depth: 9.0' file: Prototypes\Wwater\Dept Docs

| | |
|--|--|
| Horizon: <u>1</u> Depth: <u>0 to 1'</u> Color Chip: <u>5YR 3/3</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: <u>2</u> Depth: <u>1 to 3'</u> Color Chip: <u>2.5 YR 4/6</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: <u>Grav/peb(2-75mm)</u> <u>Cobbly(75-250mm)</u> Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded <u>Subrounded</u> Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: <u>Ribbon:</u> Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse <u>medium</u> <u>fine</u> very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: <u>Ribbon:</u> Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse <u>medium</u> <u>fine</u> very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P <u>when wet</u> | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: <u>1-weak</u> (poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: <u>Platy</u> Blocky Columnar s g m <u>Granular</u> Angular/Subangular ir a S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) n a s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) g i s Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar s g m Granular Angular/Subangular Prismatic ir a s S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) n a s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) g i s Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots | Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes <u>No</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water | Redoximorphic Characteristics: Yes <u>No</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: <u>Loose Soft</u> Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: <u>Loose Soft Sli.Hard</u> Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1-3</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon <u>Matted Around Stones</u> <u>Throughout</u> | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon <u>Matted Around Stones</u> <u>Throughout</u> |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> Common 10 to 100 <u>10 to 200</u> 1 to 10 1 to 10 Many <u>≥100</u> ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> Common 10 to 100 <u>10 to 100</u> 1 to 10 1 to 10 Many <u>≥100</u> ≥100 ≥10 ≥5 |
| Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear <u>Gradual</u> Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) <u>2-6 in (5-15cm)</u> >6 in (15cm) Topo: Smooth Wavy <u>Irregular</u> Broken | Boundary: Abrupt Clear <u>Gradual</u> Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) <u>2-6 in (5-15cm)</u> >6 in (15cm) Topo: Smooth <u>Wavy</u> <u>Irregular</u> Broken |
| Soil Water: <u>Dry (D)</u> <u>56</u> Moist (M) Wet (W) | Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) |
| Limiting Depth: Comments: | Limiting Depth: Comments: <u>Expect fast to mod. perc rate.</u> |



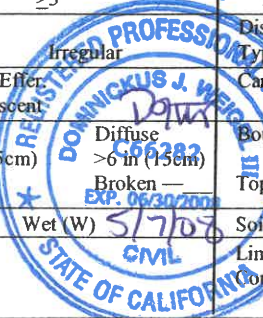
Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit#: 2 cont. Total Depth: 9.0' file: Prototypes\Wwater\Dept Docs

| | |
|--|--|
| Horizon: <u>3</u> Depth: <u>3</u> to <u>9'</u> Color Chip: <u>5YR 5/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: _____ Depth: _____ to _____ Color Chip: _____ O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: <u>Grav/peb(2-75mm)</u> <u>Cobbly(75-250mm)</u> <u>Stony(250-600mm)</u> <u>trace</u> Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: very coarse coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand Sand Size: very coarse coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> Granular Angular/Subangular Prismatic <u>ir a</u> S $\left\{ \begin{array}{l} \text{Fine (2mm)} \\ \text{Very Fine (2-5mm)} \\ \text{V. Fine (2-10mm)} \end{array} \right.$ <u>na s</u> I $\left\{ \begin{array}{l} \text{Medium (3-5mm)} \\ \text{Fine (6-10mm)} \\ \text{Fine (11-20mm)} \end{array} \right.$ <u>gi s</u> Z $\left\{ \begin{array}{l} \text{Coarse (6-10mm)} \\ \text{Medium (11-20mm)} \\ \text{Med (21-50mm)} \end{array} \right.$ <u>in v</u> E $\left\{ \begin{array}{l} \text{V. Crse (11-50mm)} \\ \text{Coarse (21-50mm)} \\ \text{Coarse (51+mm)} \end{array} \right.$ <u>e</u> | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> Granular Angular/Subangular Prismatic <u>ir a</u> S $\left\{ \begin{array}{l} \text{Fine (2mm)} \\ \text{Very Fine (2-5mm)} \\ \text{V. Fine (2-10mm)} \end{array} \right.$ <u>na s</u> I $\left\{ \begin{array}{l} \text{Medium (3-5mm)} \\ \text{Fine (6-10mm)} \\ \text{Fine (11-20mm)} \end{array} \right.$ <u>gi s</u> Z $\left\{ \begin{array}{l} \text{Coarse (6-10mm)} \\ \text{Medium (11-20mm)} \\ \text{Med (21-50mm)} \end{array} \right.$ <u>in v</u> E $\left\{ \begin{array}{l} \text{V. Crse (11-50mm)} \\ \text{Coarse (21-50mm)} \\ \text{Coarse (51+mm)} \end{array} \right.$ <u>e</u> |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots | Mottles: Yes No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes? <u>No on rock</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: <u>Iron / Clay</u> Depth to: obs/ind water | Redoximorphic Characteristics: Yes No Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: Loose Soft <u>Sli.Hard</u> <u>Mod.Hard</u> Hard V.Hard Ex.Hard Rigid V.Rigid <u>crumbles</u> Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> <u>alm. 0</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥ 100 ≥ 100 ≥ 10 ≥ 5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥ 100 ≥ 100 ≥ 10 ≥ 5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <u><10</u> <u><1</u> <u><1</u> Common 10 to 100 ≥ 100 ≥ 10 1 to 10 Many <u>≥ 100</u> ≥ 100 ≥ 10 ≥ 5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥ 100 ≥ 100 ≥ 10 ≥ 5 |
| Distribution: Inped Expd Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Expd Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> <u>Sli. Moist (M)</u> Wet (W) | Soil Water: Dry (D) Moist (M) Wet (W) |
| Limiting Depth: _____ Comments: <u>No GW. could dig deeper.</u> | Limiting Depth: _____ Comments: _____ |



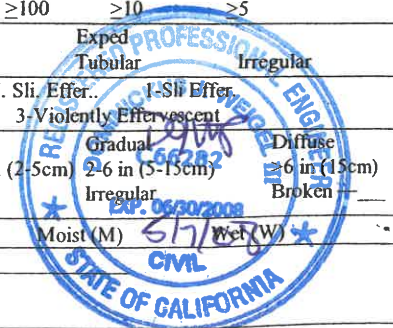
Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit:# 3 Total Depth: 8.5' file: Prototypes/Wwater/Dept Docs

| | |
|---|--|
| Horizon: <u>1</u> Depth: <u>0 to 1'</u> Color Chip: <u>5 YR 3/3</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: <u>2</u> Depth: <u>1 to 3'</u> Color Chip: <u>2.5 YR 4/6</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60%(>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60%(>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand _____ Sand Size: very coarse coarse <u><5%</u> medium <u><10%</u> fine _____ very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: Ribbon: <u>3cm</u> Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand _____ Sand Size: very coarse coarse <u><5%</u> medium <u><10%</u> fine _____ very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P <u>when wet</u> | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: <u>1-weak</u> (poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: <u>Platy</u> Blocky Columnar sg m Granular Angular/Subangular Prismatic ir a S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) na s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) gi si Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar sg m Granular Angular/Subangular Prismatic ir a S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) na s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) gi si Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(bly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots | Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(bly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes <u>No</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water | Redoximorphic Characteristics: Yes <u>No</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: <u>Loose Soft</u> Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: <u>Loose Soft Sli.Hard</u> Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1-3 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many >100 ≥100 ≥10 ≥5 |
| Distribution: Inped Expd Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Expd Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> <u>slMoist (M)</u> Wet (W) | Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) |
| Limiting Depth: Comments: _____ | Limiting Depth: Comments: <u>Expect fast - mod. perc rate</u> |



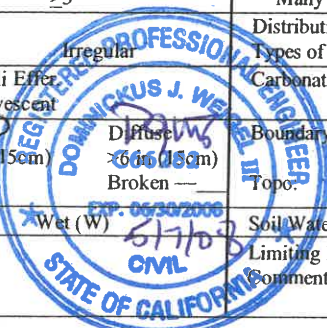
Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit#: 3 cont Total Depth: 8.5' file: Prototypes\Water\Dept Docs

| | |
|--|---|
| Horizon: <u>3</u> Depth: <u>3 to 8.5</u> Color Chip: <u>5YR 5/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: _____ Depth: _____ to _____ Color Chip: _____ O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: <u>Grav/peb(2-75mm)</u> <u>Cobbly(75-250mm)</u> <u>Stony(250-600mm)</u> <u>trace</u> Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) <u>Weathered Bedrock (WB)</u> | Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand _____ Sand Size: <u>very coarse</u> <u>coarse</u> <u>medium</u> <u>fine</u> <u>very fine</u> 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand _____ Sand Size: very coarse coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> S Granular Angular/Subangular Prismatic <u>ir a</u> I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) <u>na s</u> Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) <u>gi n</u> E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) <u>in s</u> V. Crse (11-50mm) <u>Coarse (21-50mm)</u> Coarse (51+mm) <u>ve e</u> | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> S Granular Angular/Subangular Prismatic <u>ir a</u> I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) <u>na s</u> Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) <u>gi n</u> E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) <u>in s</u> V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) <u>ve e</u> |
| Mottles: Yes <u>on rock</u> No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots | Mottles: Yes No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes No Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: <u>Iron / Clay</u> Depth to: obs/ind water | Redoximorphic Characteristics: Yes No Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard <u>Mod.Hard</u> Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> <u>alm. 0</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <u><10</u> <u><1</u> <u><1</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many <u>≥100</u> ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) | Soil Water: Dry (D) Moist (M) Wet (W) |
| Limiting Depth: Comments: <u>No Gw. Could dig deeper.</u> | Limiting Depth: Comments: |



Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit:# 4 Total Depth: 7.5' file: Prototypes/Wwater/Dept Docs

| | |
|--|---|
| Horizon: <u>1</u> Depth: <u>0 to 2.5</u> Color Chip: <u>5 YR 4/6 + 3/3</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: <u>2</u> Depth: <u>2.5 to 7.5</u> Color Chip: <u>5 YR 5/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: <u>Grav/peb(2-75mm)</u> <u>Cobbly(75-250mm)</u> <u>Stony(250-600mm)</u> Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded <u>Subrounded</u> Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: <u>Grav/peb(2-75mm)</u> <u>Cobbly(75-250mm)</u> <u>Stony(250-600mm)</u> Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) <u>trace</u> Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) <u>Weathered Bedrock (WB)</u> |
| Texture: Ribbon: Percent Clay: % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse <u>medium</u> fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: Ribbon: Percent Clay: % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse <u>medium</u> fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P <u>when wet</u> → | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: <u>1-weak</u> (poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: <u>Platy</u> <u>Blocky</u> Columnar sg m Granular Angular/Subangular Prismatic ir a S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) na s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) gi s Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) in i E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) e v e | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: <u>Platy</u> <u>Blocky</u> Columnar sg m Granular Angular/Subangular Prismatic ir a S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) na s I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) gi s Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) in i E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) e v e |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots | Mottles: <u>Yes? on rock</u> No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes <u>No</u> Redox concen: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water | Redoximorphic Characteristics: <u>Yes</u> No Redox concen: Nodules Concretions Masses Pore Linings Redox depletions: <u>Iron / Clay</u> Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: Loose <u>Soft Sli.Hard</u> Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard <u>Mod.Hard</u> Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: <u>Non C.</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution: Imped Exped Irregular Types of Pores: Vesicular Tubular Irregular | Distribution: Imped Exped Irregular Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer.. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer.. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear <u>Gradual</u> Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: <u>Smooth</u> Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) | Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) |
| Limiting Depth: Comments: | Limiting Depth: Comments: <u>No GW, could dig deeper but harder.</u> |



Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit:# 5 Total Depth: 7.5' file: Prototypes\Wwater\Dept Docs

Horizon: 1 Depth: 0 to 3' Color Chip: 2.5 YR 4/6
 O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
 e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
 r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite
 w-color & structure x-fragipan y-gypsum z-salts

Horizon: 2 Depth: 3 to 9' Color Chip: 5YR 5/8
 O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
 e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
 r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite
 w-color & structure x-fragipan y-gypsum z-salts

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
 >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
 Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm)
 Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
 Shape: Rounded Subrounded Angular Irregular
 Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB)

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
 >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
 Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) trace
 Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
 Shape: Rounded Subrounded Angular Irregular
 Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB)

Texture: Ribbon: 3-4cm Percent Clay: %
 clay silty clay sandy clay silty clay loam silt loam sandy loam
 loamy sand sand <5% <10% ?
 Sand Size: very coarse coarse medium fine very fine
 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Texture: Ribbon: Percent Clay: %
 clay silty clay sandy clay silty clay loam silt loam sandy loam
 loamy sand sand <5% <10% ?
 Sand Size: very coarse coarse medium fine very fine
 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Stickiness: Not S Slightly S Sticky Very S
 Plasticity: Not P Slightly P Plastic Very P when wet

Stickiness: Not S Slightly S Sticky Very S
 Plasticity: Not P Slightly P Plastic Very P

Structure:
 Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable)
 Shape: Platy Blocky Columnar sg m
Granular Angular/Subangular Prismatic ir a s
 S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) gi s i
 I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) in i v
 Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e
 E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Structure:
 Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable)
 Shape: Platy Blocky Columnar sg m
 Granular Angular/Subangular Prismatic ir a s
 S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) gi s i
 I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) in i v
 Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e
 E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Mottles: Yes No
 Size: Fine <5mm Medium 5-15mm Large >15mm
 Quantity: Few <2% Common 2-20% Many >20%
 Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible)
 Color Chip(s):
 Shape: Streaks Bands Spots

Mottles: Yes No
 Size: Fine <5mm Medium 5-15mm Large >15mm
 Quantity: Few <2% Common 2-20% Many >20%
 Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible)
 Color Chip(s):
 Shape: Streaks Bands Spots

Redoximorphic Characteristics: Yes? No
 Redox concn: Nodules Concretions Masses Pore Linings
 Redox depletions: Iron / Clay Depth to: obs/ind water

Redoximorphic Characteristics: Yes? NO on rock
 Redox concn: Nodules Concretions Masses Pore Linings
 Redox depletions: Iron / Clay Depth to: obs/ind water

Rupture Resistance / Consistence:
 Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
 Rigid V.Rigid
 Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
 Sli.Rigid Rigid V.Rigid

Rupture Resistance / Consistence:
 Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
 Rigid V.Rigid crumbles
 Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
 Sli.Rigid Rigid V.Rigid

Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C.
 Mod. C. Strongly C. V. Strongly C. Indurated

Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C.
 Mod. C. Strongly C. V. Strongly C. Indurated

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
 Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
 Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Roots: Size: V.Fine Fine Medium Coarse
 Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
 Average number per square decimeter
 Few <10 <10 <1 <1-3
 Common 10 to 100 10 to 100 1 to 10 1 to 10
 Many >100 >100 >10 >5

Roots: Size: V.Fine Fine Medium Coarse
 Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
 Average number per square decimeter
 Few <10 <10 <1 <1
 Common 10 to 100 10 to 100 1 to 10 1 to 10
 Many >100 >100 >10 >5

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
 Matted Around Stones Throughout

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
 Matted Around Stones Throughout

Pores: Size: V.Fine Fine Medium Coarse
 Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
 Average number per square decimeter
 Few <10 <10 <1 <1
 Common 10 to 100 10 to 20 1 to 10 1 to 10
 Many >100 >100 >10 >5

Pores: Size: V.Fine Fine Medium Coarse
 Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
 Average number per square decimeter
 Few <10 <10 <1 <1
 Common 10 to 100 10 to 100 1 to 10 1 to 10
 Many >100 >100 >10 >5

Distribution: Inped Exped
 Types of Pores: Vesicular Tubular Irregular

Distribution: Inped Exped
 Types of Pores: Vesicular Tubular Irregular

Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer.
 2-Strongly Effer. 3-Violently Effervescent

Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer.
 2-Strongly Effer. 3-Violently Effervescent

Boundary: Abrupt Clear Gradual Diffuse
 <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)
 Topo: Smooth Wavy Irregular Broken

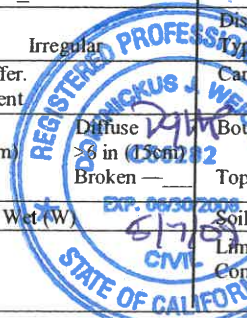
Boundary: Abrupt Clear Gradual Diffuse
 <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)
 Topo: Smooth Wavy Irregular Broken

Soil Water: Dry (D) sl. Moist (M) Wet (W)

Soil Water: Dry (D) sl. Moist (M) Wet (W)

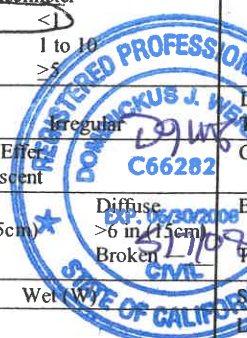
Limiting Depth:
 Comments:

Limiting Depth:
 Comments:



Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit#: 6 Total Depth: 8' file: Prototypes/Wwater/Dept Docs

| | |
|---|---|
| Horizon: <u>1</u> Depth: <u>0 to 3.5</u> Color Chip: <u>2.5 YR 4/6 + 4/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: <u>2</u> Depth: <u>3.5 to 8</u> Color Chip: <u>5 YR 5/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm) Boulder(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded <u>Subrounded</u> Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) | Rock Fragments: <u><15%-None</u> 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobble(75-250mm) Stony(250-600mm) <u>5-10%</u> Boulder(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: Ribbon: <u>3-4 cm</u> Percent Clay: % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm | Texture: Ribbon: % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: <u>very coarse</u> coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S Slightly S <u>Sticky</u> Very S Plasticity: Not P Slightly P <u>Plastic</u> Very P <u>when wet</u> | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: <u>1-weak</u> (poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: <u>Platy</u> Blocky Columnar S <u>Granular</u> Angular/Subangular Prismatic I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar S Granular Angular/Subangular Prismatic I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) |
| Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(bly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots | Mottles: Yes <u>No</u> Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(bly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: Yes <u>No</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water | Redoximorphic Characteristics: Yes? <u>on rock</u> Redox concn: Nodules Concretions Masses Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: <u>Loose Soft</u> Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid | Rupture Resistance / Consistence: Dry: Loose Soft <u>Sli.Hard Mod.Hard</u> Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: <u>Non C</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: <u>Non C</u> Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <10 <1-3 <1 Common 10 to 100 <u>10 to 20</u> 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones <u>Throughout</u> | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <u><10</u> <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many <u>>100</u> ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <u><10</u> <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many <u>>100</u> ≥100 ≥10 ≥5 |
| Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth <u>Wavy</u> Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: Dry (D) Moist (M) Wet (W) | Soil Water: Dry (D) <u>st Moist (M)</u> Wet (W) |
| Limiting Depth: Comments: | Limiting Depth: Comments: <u>No GW, could dig deeper.</u> |



Property Owner: Ron Sonntag

Location: 6480 Clark Rd

AP#: 050-200-020

Date: 11/6/06

Weather/Lighting/Temp: Sunny, pty cldy, warm

Test Pit:# 7

Total Depth: 7.5'

file: Prototypes/Wwater/Dept Docs

Horizon: 1 Depth: 0 to 1.5' Color Chip: 5YR 3/3
O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite
w-color & structure x-fragipan y-gypsum z-salts

Horizon: 2 Depth: 1.5 to 5' Color Chip: 2.5YR 4/6
O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5
k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica
r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite 5 YR 5/8
w-color & structure x-fragipan y-gypsum z-salts

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
>60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm)
Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
Shape: Rounded Subrounded Angular Irregular
Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB)

Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v)
>60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock
Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) trace
Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm)
Shape: Rounded Subrounded Angular Irregular
Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB)

Texture: Ribbon Percent Clay: _____ %
clay silty clay sandy clay silty clay loam silt loam sandy loam
loamy sand sand <5% <10% ?
Sand Size: very coarse coarse medium fine very fine
2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Texture: Ribbon Percent Clay: _____ %
clay silty clay sandy clay silty clay loam silt loam sandy loam
loamy sand sand <5% <10% ?
Sand Size: very coarse coarse medium fine very fine
2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm

Stickiness: Not S Slightly S Sticky Very S
Plasticity: Not P Slightly P Plastic Very P when wet

Stickiness: Not S Slightly S Sticky Very S
Plasticity: Not P Slightly P Plastic Very P

Structure:
Grade: 1-weak (poorly defined Ped) 2-moderate (well formed) 3-strong (durable)
Shape: Platy Blocky Columnar sg m a
Granular Angular/Subangular Prismatic ir r a
S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) n a s s
I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) g i n s i
Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e
E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Structure:
Grade: 1-weak (poorly defined Ped) 2-moderate (well formed) 3-strong (durable)
Shape: Platy Blocky Columnar sg m a
Granular Angular/Subangular Prismatic ir r a
S Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) n a s s
I Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) g i n s i
Z Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) e v e
E V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm)

Mottles: Yes No
Size: Fine <5mm Medium 5-15mm Large >15mm
Quantity: Few <2% Common 2-20% Many >20%
Contrast: Faint (brly visible) Distinct (seen/not strik.) Prominent (outstand. visible)
Color Chip(s):
Shape: Streaks Bands Spots

Mottles: Yes No
Size: Fine <5mm Medium 5-15mm Large >15mm
Quantity: Few <2% Common 2-20% Many >20%
Contrast: Faint (brly visible) Distinct (seen/not strik.) Prominent (outstand. visible)
Color Chip(s):
Shape: Streaks Bands Spots

Redoximorphic Characteristics: Yes No
Redox concen: Nodules Concretions Masses Pore Linings
Redox depletions: Iron / Clay Depth to: obs/ind water

Redoximorphic Characteristics: Yes? Yes on rock
Redox concen: Nodules Concretions Masses Pore Linings
Redox depletions: Iron / Clay Depth to: obs/ind water

Rupture Resistance / Consistence:
Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
Rigid V.Rigid
Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
Sli.Rigid Rigid V.Rigid

Rupture Resistance / Consistence:
Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard
Rigid V.Rigid Crumbly
Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm
Sli.Rigid Rigid V.Rigid

Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C.
Mod. C. Strongly C. V. Strongly C. Indurated

Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C.
Mod. C. Strongly C. V. Strongly C. Indurated

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1)
Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8)

Roots: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1-3
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many >100 >100 >10 >5

Roots: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many >100 >100 >10 >5

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
Matted Around Stones Throughout

Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon
Matted Around Stones Throughout

Pores: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 20 1 to 10 1 to 10
Many >100 >100 >10 >5

Pores: Size: V.Fine Fine Medium Coarse
Number: (1mm) (1-2mm) (2-5mm) (5-10+mm)
Average number per square decimeter
Few <10 <10 <1 <1
Common 10 to 100 10 to 100 1 to 10 1 to 10
Many >100 >100 >10 >5

Distribution: Inped Exped
Types of Pores: Vesicular Tubular Irregular

Distribution: Inped Exped
Types of Pores: Vesicular Tubular Irregular

Carbonates: 4-Non Effer. 0-V. Sli. Effer.. 1-Sli Effer.
2-Strongly Effer. 3-Violently Effervescent

Carbonates: 4-Non Effer. 0-V. Sli. Effer.. 1-Sli Effer.
2-Strongly Effer. 3-Violently Effervescent

Boundary: Abrupt Clear Gradual Diffuse
<3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)
Topo: Smooth Wavy Irregular Broken

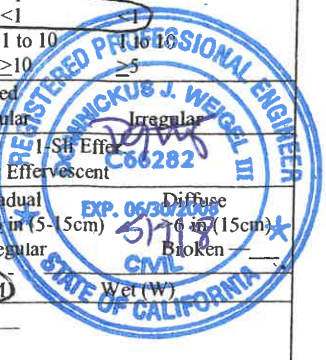
Boundary: Abrupt Clear Gradual Diffuse
<3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm)
Topo: Smooth Wavy Irregular Broken

Soil Water: Dry (D) Moist (M) Wet (W)

Soil Water: Dry (D) Moist (M) Wet (W)

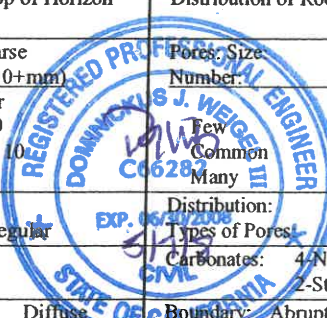
Limiting Depth:
Comments:

Limiting Depth:
Comments:



Property Owner: Ron Sonntag Location: 6480 Clark Rd
 AP#: 050-200-020 Date: 11/6/06 Weather/Lighting/Temp: Sunny, pty cldy, warm
 Test Pit#: 7 cont. Total Depth: 7.5' file: Prototypes\Wwater\Dept Docs

| | |
|---|---|
| Horizon: <u>3</u> Depth: <u>5</u> to <u>7.5</u> Color Chip: <u>5YR 5/8</u> O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts | Horizon: _____ Depth: _____ to _____ Color Chip: _____ O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction e-organic 1/6-2/5 f-frozen g-gleyed h-fluvial organic,v,c<3 i-organic>2/5 k-carbonates m-cemented n-sodium o-sesquioxides p-plowed q-silica r-rock s-fluvial organic,v,c>3 ss-slickensides t-clay v-plinthite w-color & structure x-fragipan y-gypsum z-salts |
| Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded <u>Subrounded</u> Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) ? | Rock Fragments: <15%-None 15 to 35% dom.rock 35 to 60% dom.rock+very(v) >60% (>10% fines) dom. rock+extremely(x) >60%(<10% fines) dom. rock Size: Grav/peb(2-75mm) Cobbly(75-250mm) Stony(250-600mm) Bouldery(>600mm flat) Channery(2-150mm) Flaggy(150-380mm) Shape: Rounded Subrounded Angular Irregular Rock: Unweather Bedrock (UWB) Weathered Bedrock (WB) |
| Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay <u>silty clay loam</u> silt loam sandy loam loamy sand sand <u><5%</u> <u><10%</u> ? Sand Size: very coarse coarse <u>medium</u> fine very fine 2.0-1.0mm 1.0-0.5mm <u>0.5-0.25mm</u> 0.25-0.1mm 0.1-0.05mm | Texture: _____ Ribbon: _____ Percent Clay: _____ % clay silty clay sandy clay silty clay loam silt loam sandy loam loamy sand sand Sand Size: very coarse coarse medium fine very fine 2.0-1.0mm 1.0-0.5mm 0.5-0.25mm 0.25-0.1mm 0.1-0.05mm |
| Stickiness: Not S <u>Slightly S</u> Sticky Very S Plasticity: Not P <u>Slightly P</u> Plastic Very P <u>when wet</u> | Stickiness: Not S Slightly S Sticky Very S Plasticity: Not P Slightly P Plastic Very P |
| Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> S Granular Angular/Subangular Prismatic <u>ir a</u> I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) <u>na s</u> Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) <u>in i</u> E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) <u>ve</u> V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) | Structure: Grade: 1-weak(poorly defined Ped) 2-moderate(well formed) 3-strong(durable) Shape: Platy Blocky Columnar <u>sg m</u> S Granular Angular/Subangular Prismatic <u>ir a</u> I Fine (2mm) Very Fine (2-5mm) V. Fine (2-10mm) <u>na s</u> Z Medium (3-5mm) Fine (6-10mm) Fine (11-20mm) <u>in i</u> E Coarse (6-10mm) Medium (11-20mm) Med (21-50mm) <u>ve</u> V. Crse (11-50mm) Coarse (21-50mm) Coarse (51+mm) |
| Mottles: <u>Yes on rock</u> No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots | Mottles: Yes No Size: Fine <5mm Medium 5-15mm Large >15mm Quantity: Few <2% Common 2-20% Many >20% Contrast: Faint(brlly visible) Distinct(seen/not strik.) Prominent(outstand. visible) Color Chip(s): _____ Shape: Streaks Bands Spots |
| Redoximorphic Characteristics: <u>Yes</u> No <u>rock</u> Redox concn: Nodules Concretions <u>Masses</u> Pore Linings Redox depletions: <u>Iron / Clay</u> Depth to: obs/ind water | Redoximorphic Characteristics: Yes No Redox concn: Nodules Concretions <u>Masses</u> Pore Linings Redox depletions: Iron / Clay Depth to: obs/ind water |
| Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard Mod.Hard <u>Hard V.Hard</u> Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid <u>V.Rigid</u> | Rupture Resistance / Consistence: Dry: Loose Soft Sli.Hard Mod.Hard Hard V.Hard Ex.Hard Rigid V.Rigid Moist: Loose V.Friable Friable Firm V.Firm Ex.Firm Sli.Rigid Rigid V.Rigid |
| Cementation: Non C. <u>Ex.Weakly C.</u> V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated | Cementation: Non C. Ex.Weakly C. V. Weakly C. Weakly C. Mod. C. Strongly C. V. Strongly C. Indurated |
| Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) | Penetration Resistance: Ex. Low (<0.01) V. Low (0.01 to 0.1) Low (0.1 to 1) Mod (1 to 2) High (2 to 4) V. High (4 to 8) Ex. High (>8) |
| Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> <u>alm. 0</u> Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Roots: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout | Distribution of Roots: Between Peds In Cracks In Mat at Top of Horizon Matted Around Stones Throughout |
| Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <u><10</u> <u><10</u> <u><1</u> <u><1</u> Common <u>10 to 100</u> 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 | Pores: Size: V.Fine Fine Medium Coarse Number: (1mm) (1-2mm) (2-5mm) (5-10+mm) Average number per square decimeter Few <10 <10 <1 <1 Common 10 to 100 10 to 100 1 to 10 1 to 10 Many ≥100 ≥100 ≥10 ≥5 |
| Distribution: <u>Inped</u> Exped Types of Pores: Vesicular Tubular Irregular | Distribution: Inped Exped Types of Pores: Vesicular Tubular Irregular |
| Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent | Carbonates: 4-Non Effer. 0-V. Sli. Effer. 1-Sli Effer. 2-Strongly Effer. 3-Violently Effervescent |
| Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken | Boundary: Abrupt Clear Gradual Diffuse <3/4 in (2cm) 3/4 to 2 in (2-5cm) 2-6 in (5-15cm) >6 in (15cm) Topo: Smooth Wavy Irregular Broken |
| Soil Water: <u>Dry (D)</u> Moist (M) Wet (W) | Soil Water: Dry (D) Moist (M) Wet (W) |
| Limiting Depth: Comments: <u>No GW, difficult to dig @ bottom.</u> | Limiting Depth: Comments: |



Property Owner: Sonntag Location: _____ Job #: 9399w
 AP#: 050-200-100 Date: 1/23/07 Weather/Lighting/Temp: Sunny, 55-65°F
 Borehole/Monitor Well #: 7 Drilled w/ 9" dia. auger Borehole/Monitor Well #: 7

Horizon Depth: 0-2.0'
 Color Chip: 2.5 YR 4/4 - 4/6
 Rock: 0-15% 15-35% 35-50% % Type: gravel + cobble
 Texture: Silty Clay
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence: <5% <5%
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 auger <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments: Loose-sli compact 0-6"

Horizon Depth: 9-9.7'
 Color Chip: S.G. H2
 Rock: 0-15% 15-35% 35-50% % Type: _____
 Texture: Silty Clay w/ gravel + dg cobble?
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence: <5% <10%
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments: Easy to auger. Some material appears gravelly but could be dg cobble, auger destroys

Borehole/Monitor Well #: 7
 Horizon Depth: 2' - 9.0'
 Color Chip: 2.5 YR 5/6
 Rock: 0-15% 15-35% 35-50% % Type: gravel, some weath. cobble?
 Texture: Silty Clay
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence: <10% <10%
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 auger >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no ?
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments: Easy to auger, sli. sticky

Borehole/Monitor Well #: _____
 Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% % Type: _____
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence: _____
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments: _____



Property Owner: Donn Taig Location: _____
AP#: _____ Date: 1/23/07

Job #: _____
Weather/Lighting/Temp: Sunny, 55-65°F

Borehole/Monitor Well #: 8

Borehole/Monitor Well #: _____

Horizon Depth: 0-1'
Color Chip: 2.5 YR 4/4 - 4/6
Rock: 0-15% 15-35% 35-50% % Type:
Texture: Silty clay
Structure:
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence: <5% <5%
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments:


Horizon Depth: 9.0 - 9.5'
Color Chip: S.a. 7H3
Rock: 0-15% 15-35% 35-50% % Type:
Texture:
Structure:
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence:
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments: Did not see full set of cuttings from

Borehole/Monitor Well #: 8

Borehole/Monitor Well #: align

Horizon Depth: 1 a B.O s.a. 7H2
Color Chip: 2.5 YR 5/6
Rock: 0-15% 15-35% 35-50% % Type:
Texture: S.a. above
Structure:
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence:
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments:

Horizon Depth: _____
Color Chip: _____
Rock: 0-15% 15-35% 35-50% % Type:
Texture:
Structure:
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence:
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments:



Property Owner: Saratag Location: _____
 AP#: _____ Date: 1/23/07 Weather/Lighting/Temp: Sunny Job #: _____

Test Pit #: 9

Test Pit #:

Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subanglar) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:

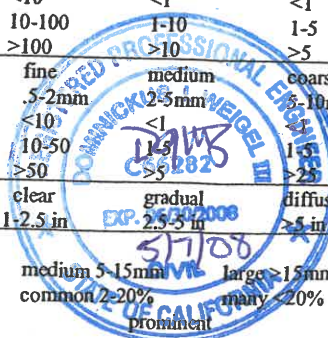
Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subanglar) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:

Test Pit:

Test Pit #:

Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subanglar) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:

Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subanglar) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistence:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:



Property Owner: _____ Location: _____ Job #: _____

AP#: _____ Date: 1/23/07 Weather/Lighting/Temp: _____

Test Pit #: 10 Test Pit #: 10

Horizon Depth: 0 - 2.0'
 Color Chip: S.a. 7H1
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistency:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:

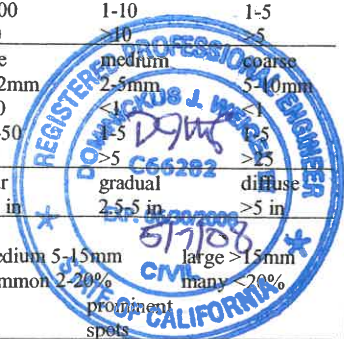
Horizon Depth: 8.5 - 10'
 Color Chip: w/ 6/4 some zones?
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: S.a. 7H3
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistency:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments: Saw full set of cuttings

Test Pit: 10

Horizon Depth: 2 - 8.5'
 Color Chip: S.a. 7H2
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistency:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:

Test Pit #: _____

Horizon Depth: _____
 Color Chip: _____
 Rock: 0-15% 15-35% 35-50% 50%-75% %
 Texture: _____
 Structure:
 Grade: structureless weak moderate strong
 Shape: platy prismatic columnar
 blocky (angular/subangular) granular single grain
 sandy texture massive
 Sand Size: very fine fine medium coarse very coarse
 Consistency:
 Dry: loose soft slight-hard hard very-hard Ex-hard
 Moist: loose V-friable friable firm V-firm Ex-firm
 Sticky: not s slight s s very s
 Plasticity: not p slight p p very p
 Roots: very fine fine medium coarse
 1mm 1-2mm 2-5mm 5-10mm
 Few: <10 <10 <1 <1
 Common: 10-100 10-100 1-10 1-5
 Many: >100 >100 >10 >5
 Pores: very fine fine medium coarse
 .1-.5mm .5-2mm 2-5mm 5-10mm
 Few: <25 <10 <1 <1
 Common: 25-200 10-50 1-5 1-5
 Many: >200 >50 >5 >25
 Boundary: abrupt clear gradual diffuse
 <1 in 1-2.5 in 2.5-5 in >5 in
 Mottles: yes no
 Size: fine <5mm medium 5-15mm large >15mm
 Quantity: few 2% common 2-20% many <20%
 Contrast: faint distinct prominent
 Shape: streaks bands spots
 Redoximorphic Characteristics yes no
 Redox concn: nodules concretions masses Pore linings
 Redox depletions: iron/clay Depth to: obs/ind water
 Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
 Comments:



Property Owner: Sonntag Location: _____ Job #: _____

AP#: _____ Date: 1/23/07 Weather/Lighting/Temp: _____

Borehole/Monitor Well #: 11

Borehole/Monitor Well #: 11

Horizon Depth: 0-2.0' *s.a. 7 H1, not all water, some d. rock +*

Color Chip: _____

Rock: 0-15% 15-35% 35-50% % Type: base gravel?

Texture: _____

Structure:

Grade: structureless weak moderate strong

Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive

Sand Size: very fine fine medium coarse very coarse

Consistence:

Dry: loose soft slight-hard hard very-hard Ex-hard

Moist: loose V-friable friable firm V-firm Ex-firm

Sticky: not s slight s s very s

Plasticity: not p slight p p very p

Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm

Few: <10 <10 <1 <1

Common: 10-100 10-100 1-10 1-5

Many: >100 >100 >10 >5

Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm

Few: <25 <10 <1 <1

Common: 25-200 10-50 1-5 1-5

Many: >200 >50 >5 >25

Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in

Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm

Quantity: few 2% common 2-20% many <20%

Contrast: faint distinct prominent
Shape: streaks bands spots

Redoximorphic Characteristics yes no

Redox concn: nodules concretions masses Pore linings

Redox depletions: iron/clay Depth to: obs/ind water

Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No

Comments: _____

Horizon Depth: 9.0-9'10"

Color Chip: S.A. 12 H3

Rock: 0-15% 15-35% 35-50% % Type: Gravel

Texture: Silty CL

Structure:

Grade: structureless weak moderate strong

Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive

Sand Size: very fine fine medium coarse very coarse
<10% <10%

Consistence:

Dry: loose soft slight-hard hard very-hard Ex-hard

Moist: loose V-friable friable firm V-firm Ex-firm

Sticky: not s slight s s very s

Plasticity: not p slight p p very p

Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm

Few: <10 <10 <1 <1

Common: 10-100 10-100 1-10 1-5

Many: >100 >100 >10 >5

Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm

Few: <25 <10 <1 <1

Common: 25-200 10-50 1-5 1-5

Many: >200 >50 >5 >25

Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in

Mottles: yes no?
Size: fine <5mm medium 5-15mm large >15mm

Quantity: few 2% common 2-20% many <20%

Contrast: faint distinct prominent
Shape: streaks bands spots

Redoximorphic Characteristics yes no?

Redox concn: nodules concretions masses Pore linings

Redox depletions: iron/clay Depth to: obs/ind water

Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No

Comments: Easy auger, sli. sticky/loose on auger

Borehole/Monitor Well #: 11

Borehole/Monitor Well #:

Horizon Depth: 2.0-9.0' *s.a. 7 H2*

Color Chip: _____

Rock: 0-15% 15-35% 35-50% % Type: _____

Texture: _____

Structure:

Grade: structureless weak moderate strong

Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive

Sand Size: very fine fine medium coarse very coarse

Consistence:

Dry: loose soft slight-hard hard very-hard Ex-hard

Moist: loose V-friable friable firm V-firm Ex-firm

Sticky: not s slight s s very s

Plasticity: not p slight p p very p

Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm

Few: <10 <10 <1 <1

Common: 10-100 10-100 1-10 1-5

Many: >100 >100 >10 >5

Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm

Few: <25 <10 <1 <1

Common: 25-200 10-50 1-5 1-5

Many: >200 >50 >5 >25

Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in

Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm

Quantity: few 2% common 2-20% many <20%

Contrast: faint distinct prominent
Shape: streaks bands spots

Redoximorphic Characteristics yes no

Redox concn: nodules concretions masses Pore linings

Redox depletions: iron/clay Depth to: obs/ind water

Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No

Comments: _____

Horizon Depth: _____

Color Chip: _____

Rock: 0-15% 15-35% 35-50% % Type: _____

Texture: _____

Structure:

Grade: structureless weak moderate strong

Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive

Sand Size: very fine fine medium coarse very coarse

Consistence:

Dry: loose soft slight-hard hard very-hard Ex-hard

Moist: loose V-friable friable firm V-firm Ex-firm

Sticky: not s slight s s very s

Plasticity: not p slight p p very p

Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm

Few: <10 <10 <1 <1

Common: 10-100 10-100 1-10 1-5

Many: >100 >100 >10 >5

Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm

Few: <25 <10 <1 <1

Common: 25-200 10-50 1-5 1-5

Many: >200 >50 >5 >25

Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in

Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm

Quantity: few 2% common 2-20% many <20%

Contrast: faint distinct prominent
Shape: streaks bands spots

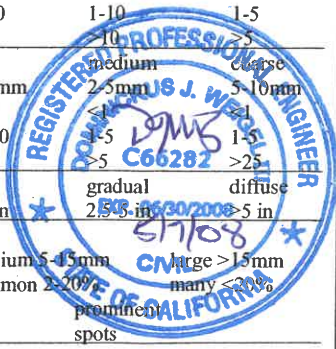
Redoximorphic Characteristics yes no

Redox concn: nodules concretions masses Pore linings

Redox depletions: iron/clay Depth to: obs/ind water

Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No

Comments: _____



Property Owner: Sonntag Location: _____ Job #: _____
AP#: _____ Date: 1/23/07 Weather/Lighting/Temp: _____

Borehole/Monitor Well #: 12

① Horizon Depth: 0-1.0 S.A. 7H1
Color Chip: _____
Rock: 0-15% 15-35% 35-50% % Type: _____
Texture: _____
Structure: _____
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence: _____
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments: _____

Borehole/Monitor Well #: 12

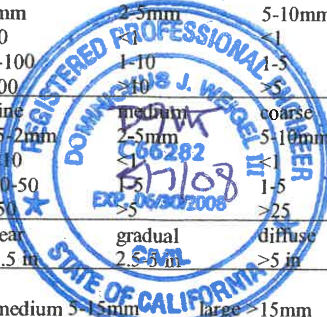
③ Horizon Depth: 7.0-10
Color Chip: 2.5 YR 4/3 - 7.5 YR 5/8
Rock: 0-15% 15-35% 35-50% % Type: Gravel/cobble
Texture: _____
Structure: _____
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence: _____
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments: Less sticky than H2, appears powdery + granular

Borehole/Monitor Well #: 12

② Horizon Depth: 1.0 - 7.0 S.A. 7H2
Color Chip: 2.5 YR 4/6 - 4/3
Rock: 0-15% 15-35% 35-50% % Type: _____
Texture: _____
Structure: _____
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence: _____
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes No
Comments: _____

Borehole/Monitor Well #:

Horizon Depth: _____
Color Chip: _____
Rock: 0-15% 15-35% 35-50% % Type: _____
Texture: _____
Structure: _____
Grade: structureless weak moderate strong
Shape: platy prismatic columnar
blocky (angular/subangular) granular single grain
sandy texture massive
Sand Size: very fine fine medium coarse very coarse
Consistence: _____
Dry: loose soft slight-hard hard very-hard Ex-hard
Moist: loose V-friable friable firm V-firm Ex-firm
Sticky: not s slight s s very s
Plasticity: not p slight p p very p
Roots: very fine fine medium coarse
1mm 1-2mm 2-5mm 5-10mm
Few: <10 <10 <1 <1
Common: 10-100 10-100 1-10 1-5
Many: >100 >100 >10 >5
Pores: very fine fine medium coarse
.1-.5mm .5-2mm 2-5mm 5-10mm
Few: <25 <10 <1 <1
Common: 25-200 10-50 1-5 1-5
Many: >200 >50 >5 >25
Boundary: abrupt clear gradual diffuse
<1 in 1-2.5 in 2.5-5 in >5 in
Mottles: yes no
Size: fine <5mm medium 5-15mm large >15mm
Quantity: few 2% common 2-20% many <20%
Contrast: faint distinct prominent
Shape: streaks bands spots
Redoximorphic Characteristics yes no
Redox concn: nodules concretions masses Pore linings
Redox depletions: iron/clay Depth to: obs/ind water
Soil Water: Dry Moist Sat. Groundwater/Seepage: Yes
Comments: _____



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ENGINEERING

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PERCOLATION TEST NO. 1

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 32 " Pipe Diameter: 4 "
 Soil Description: _____ Color: Reddish Brown Texture: Loamy Clay
 Cover: Weeds & Grass
 Test Method: _____ Standard: _____ Standpipe: X
 Location: _____ APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:00 PM | | " | 10 " | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA

Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 12:23 PM | 12:29 PM | ----- " | 10 " | 0:06 | ----- | ----- | |
| 12:29 PM | 12:34 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| 12:34 PM | 12:39 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| 12:39 PM | 12:44 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| 12:44 PM | 12:50 PM | 0 " | 4 " | 0:06 | 4 | 1.50 | |
| 12:50 PM | 12:56 PM | 0 " | 4 " | 0:06 | 4 | 1.50 | |
| 12:56 PM | 1:02 PM | 0 " | 4 " | 0:06 | 4 | 1.50 | |
| 1:02 PM | 1:09 PM | 0 " | 4 " | 0:07 | 4 | 1.75 | |
| Average: | | | | | 1.43 | Min/Inch | |

Interval: 7.00 minutes Drop: 4.00 inch Rate: 1.75 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 1.43 min/inch

Average Percolation Rate: 2.29 min/inch **Percolation Rate:** 2.80 min/inch

Signed: 

111 MISSION RANCH BLVD., STE. 100
 CHICO, CALIFORNIA 95926
 530-893-1600
 FAX-893-2113

R.C.E. No. C66282

Client: _____

Job No. _____

NorthStar

ENGINEERING

Civil Engineers • Surveyors

PERCOLATION TEST NO. 2

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 32 " Pipe Diameter: 4 "
Soil Description: Color: Reddish Brown Texture: Loamy Clay
Cover: Weeds & Grass
Test Method: Standard: _____ Standpipe: X
Location: APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:05 PM | | " | 10 " | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA

Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 12:08 PM | 12:25 PM | ----- " | 10 " | 0:17 | ----- | ----- | |
| 12:25 PM | 12:40 PM | 0 " | 4 " | 0:15 | 4 | 3.75 | |
| 12:41 PM | 12:59 PM | 0 " | 4 " | 0:18 | 4 | 4.50 | |
| 12:59 PM | 1:17 PM | 0 " | 4 " | 0:18 | 4 | 4.50 | |
| 1:18 PM | 1:37 PM | 0 " | 4 " | 0:19 | 4 | 4.75 | |
| 1:38 PM | 1:58 PM | 0 " | 4 " | 0:20 | 4 | 5.00 | |
| 2:00 PM | 2:18 PM | 0 " | 4 " | 0:18 | 4 | 4.50 | |
| | | " | " | | | | |
| | | | | Average: | 4.50 | Min/Inch | |

Interval: 18.00 minutes Drop: 4.00 inch Rate: 4.50 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 4.50 min/inch

Average Percolation Rate: 7.20 min/inch Percolation Rate: 7.20 min/inch

Signed: 

Client:

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CHICO, CALIFORNIA 95926
530-893-1600
FAX-893-2113

R.C.E. No. C66282

Job No. _____

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PERCOLATION TEST NO. 3

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 34 " Pipe Diameter: 4 "

Soil Description: _____ Color: Reddish Brown Texture: Loamy Clay

Cover: Weeds & Grass

Test Method: _____ Standard: _____ Standpipe: X

Location: _____ APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:10 PM | | " | 10 " | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA

Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 12:05 PM | 12:11 PM | ----- " | 10 " | 0:06 | ----- | ----- | |
| 12:11 PM | 12:14 PM | 0 " | 4 " | 0:03 | 4 | 0.75 | |
| 12:14 PM | 12:18 PM | 0 " | 4 " | 0:04 | 4 | 1.00 | |
| 12:18 PM | 12:23 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| 12:23 PM | 12:27 PM | 0 " | 4 " | 0:04 | 4 | 1.00 | |
| 12:27 PM | 12:32 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| 12:32 PM | 12:35 PM | 0 " | 4 " | 0:03 | 4 | 0.75 | |
| 12:35 PM | 12:40 PM | 0 " | 4 " | 0:05 | 4 | 1.25 | |
| Average: | | | | | 1.04 | Min/Inch | |

Interval: 5.00 minutes Drop: 4.00 inch Rate: 1.25 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 1.04 min/inch

Average Percolation Rate: 1.66 min/inch **Percolation Rate:** 2.00 min/inch

Signed:

111 MISSION RANCH BLVD., STE. 100
CHICO, CALIFORNIA 95926
530-893-1600
FAX-893-2113

R.C.E. No. C66282

Client: _____

Job No. _____

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PERCOLATION TEST NO. 4

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 30 " Pipe Diameter: 4 "
Soil Description: Color: Reddish Brown Texture: Loamy Clay
Cover: Weeds & Grass
Test Method: Standard: _____ Standpipe: X
Location: APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:15 PM | | " | 10 " | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA

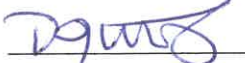
Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 2:08 PM | 2:29 PM | ----- " | 10 " | 0:21 | ----- | ----- | |
| 2:29 PM | 2:52 PM | 0 " | 4 " | 0:23 | 4 | 5.75 | |
| 2:52 PM | 3:22 PM | 0 " | 4 " | 0:30 | 4 | 7.50 | |
| 3:22 PM | 3:46 PM | 0 " | 4 " | 0:24 | 4 | 6.00 | |
| 3:46 PM | 4:12 PM | 0 " | 4 " | 0:26 | 4 | 6.50 | |
| 4:12 PM | 4:40 PM | 0 " | 4 " | 0:28 | 4 | 7.00 | |
| 4:43 PM | 5:12 PM | 0 " | 4 " | 0:29 | 4 | 7.25 | |
| | | " | " | | | | |
| | | | | Average: | 6.67 | Min/Inch | |

Interval: 29.00 minutes Drop: 4.00 inch Rate: 7.25 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 6.67 min/inch

Average Percolation Rate: 10.67 min/inch **Percolation Rate:** 11.60 min/inch

Signed: 

111 MISSION RANCH BLVD., STE. 100
CHICO, CALIFORNIA 95926
530-893-1600
FAX-893-2113

R.C.E. No. C66282

Client:

Job No. _____

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PERCOLATION TEST NO. 5

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 32 " Pipe Diameter: 4 "
 Soil Description: _____ Color: Reddish Brown Texture: Loamy Clay
 Cover: Weeds & Grass
 Test Method: _____ Standard: _____ Standpipe: X
 Location: _____ APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:20 PM | | " | 10 | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA

Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 2:11 PM | 2:20 PM | ----- | 10 | 0:09 | ----- | ----- | |
| 2:20 PM | 2:26 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| 2:27 PM | 2:33 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| 2:33 PM | 2:39 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| 2:39 PM | 2:44 PM | 0 | 4 | 0:05 | 4 | 1.25 | |
| 2:44 PM | 2:50 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| 2:50 PM | 2:56 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| 2:56 PM | 3:02 PM | 0 | 4 | 0:06 | 4 | 1.50 | |
| Average: | | | | | 1.46 | Min/Inch | |

Interval: 6.00 minutes Drop: 4.00 inch Rate: 1.50 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 1.46 min/inch

Average Percolation Rate: 2.34 min/inch **Percolation Rate:** 2.40 min/inch

Signed:

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 CHICO, CALIFORNIA 95926
 530-893-1600
 FAX-893-2113

R.C.E. No. C66282

Client: _____

Job No. _____

NorthStar

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PERCOLATION TEST NO. 6

SITE DATA

Hole Diameter: 6 " Hole Depth Below Ground Surface: 32 " Pipe Diameter: 4 "

Soil Description: _____ Color: Reddish Brown Texture: Loamy Clay

Cover: Weeds & Grass

Test Method: _____ Standard: _____ Standpipe: X

Location: _____ APN: 50 - 200 - 20 Address: 6480 Clark Rd.

PRESOAKING DATA

Date: 5/2/2007 Test Performed By: PSL

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Remarks |
|------------|-------------|--------------------------------|------------------------------------|-----------------------------------|
| 4:25 PM | | " | 10 | Presoak performed by Tyler Belair |
| | | " | " | |
| | | " | " | |
| | | " | " | |

PERCOLATION DATA


Date: 5/3/2007 Depth of Presoak Remaining: 0 "

| Start Time | Record Time | Depth of Water Level Remaining | Depth of Water Level After Filling | Time Measured | Inches of Drop | Minutes Per Inch | Remarks |
|------------|-------------|--------------------------------|------------------------------------|---------------|----------------|------------------|---------|
| 2:23 PM | 2:31 PM | ----- | 10 | 0:08 | ----- | ----- | |
| 2:32 PM | 2:40 PM | 0 | 4 | 0:08 | 4 | 2.00 | |
| 2:40 PM | 2:49 PM | 0 | 4 | 0:09 | 4 | 2.25 | |
| 2:49 PM | 2:59 PM | 0 | 4 | 0:10 | 4 | 2.50 | |
| 2:59 PM | 3:10 PM | 0 | 4 | 0:11 | 4 | 2.75 | |
| 3:10 PM | 3:21 PM | 0 | 4 | 0:11 | 4 | 2.75 | |
| 3:21 PM | 3:33 PM | 0 | 4 | 0:12 | 4 | 3.00 | |
| 3:33 PM | 3:46 PM | 0 | 4 | 0:13 | 4 | 3.25 | |
| | | | | Average: | 2.64 | Min/Inch | |

Interval: 13.00 minutes Drop: 4.00 inch Rate: 3.25 min/inch

Standpipe Method Multiplier: 1.6 Average Rate: 2.64 min/inch

Average Percolation Rate: 4.23 min/inch **Percolation Rate:** 5.20 min/inch

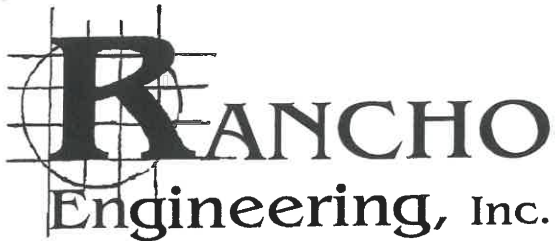
Signed: 

111 MISSION RANCH BLVD., STE. 100
CHICO, CALIFORNIA 95926
530-893-1600
FAX-893-2113

R.C.E. No. C66282

Client: _____

Job No. _____



SEPTIC CALCULATIONS

Rancho Job #15-098

for

Martin Septic Field Evaluation

6480 Clark Road

Paradise, CA 95969

APN: 050-200-154, 050-200-155, 050-200-156

Calculation Index:

Page #

- Project Layout
- Percolation Test

1
2



Revision Summary:

Rev. 0

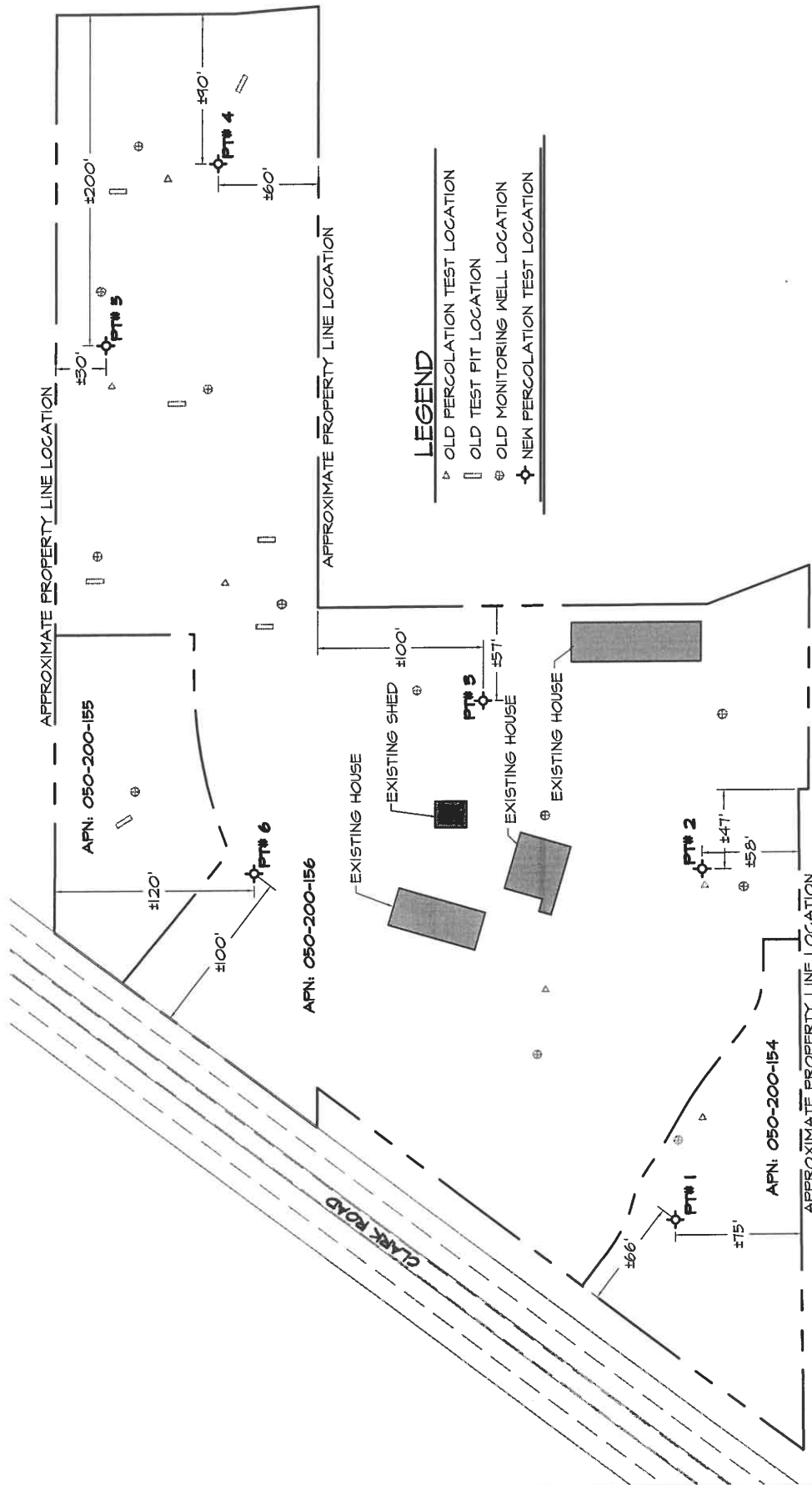
7/21/16

Initial Issue

This calculation package is valid for the project location as listed above only and may not be used or modified for another site without the authorization of Rancho Engineering Inc. Rancho Engineering Inc. disclaims responsibility for any design not specifically addressed in this calculation package. Calculations and plans are not valid until reviewed and approved by appropriate governmental agencies.

Jarrold Holliday, P.E.
Civil, Structural, Septic Design

5550 Skyway Suite C
Paradise CA 95969
(530) 877-3700 Phone/Fax
ranchoengineering@hotmail.com



LEGEND

- ▷ OLD PERCOLATION TEST LOCATION
- ▭ OLD TEST PIT LOCATION
- ⊕ OLD MONITORING WELL LOCATION
- ⊕• NEW PERCOLATION TEST LOCATION

SCALE = N.T.S.
JOB # 15-098

Percolation Test

Client: Bill Martin
Address: 6480 Clark Road
 Paradise, Ca 95969
APN: 050-200-154
 050-200-155
 050-200-156

Date: 8/1/2016
Tech: NJM

Weather: 85°F +/-, Sunny

| Hole # | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
|----------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
| | 38 | | 38 | | 36 | | 36 | | 40 | | 38 | |
| Test Number | Durration (min) | Drop (in) | Durration (min) | Drop (in) | Durration (min) | Drop (in) | Durration (min) | Drop (in) | Durration (min) | Drop (in) | Durration (min) | Drop (in) |
| 1 | 15.00 | 5.250 | 15.00 | 3.625 | 15.00 | 3.375 | 15.00 | 1.750 | 15.00 | 2.500 | 15.00 | 5.500 |
| 2 | 15.00 | 4.375 | 15.00 | 3.625 | 15.00 | 3.125 | 15.00 | 1.250 | 15.00 | 2.750 | 15.00 | 3.750 |
| 3 | 15.00 | 4.125 | 15.00 | 3.000 | 15.00 | 3.625 | 30.00 | 2.125 | 30.00 | 3.750 | 15.00 | 4.375 |
| 4 | 15.00 | 3.250 | 15.00 | 2.625 | 15.00 | 2.375 | 30.00 | 2.000 | 30.00 | 3.750 | 15.00 | 4.625 |
| 5 | 15.00 | 3.500 | 15.00 | 2.875 | 15.00 | 2.375 | 30.00 | 1.750 | 30.00 | 3.375 | 15.00 | 3.750 |
| 6 | 15.00 | 3.375 | 15.00 | 2.750 | 15.00 | 2.500 | 30.00 | 1.875 | 30.00 | 3.250 | 15.00 | 3.750 |
| 7 | 15.00 | 3.500 | 15.00 | 2.625 | | | | | | | | |
| 8 | | | | | | | | | | | | |
| Minutes/Inch | 4.4 | | 5.6 | | 6.2 | | 16.6 | | 9.1 | | 4.0 | |
| Adjusted * 1.6 | 7.0 | | 8.9 | | 9.9 | | 26.5 | | 14.5 | | 6.4 | |

Avg. Percolation Rate (Min/In) 12.2

APPENDIX F

ADDITIONAL SOURCES

Appendix F Contents:

1. U.S. Fish & Wildlife Service. *Coastal Barrier Resources Act*. Available at: <https://www.fws.gov/program/coastal-barrier-resources-act/maps-and-data>. Accessed July 2023.
2. Butte County Air Quality Management District. *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. October 23, 2014.
3. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
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6. Butte County Department of Public Health. *Camp Fire Alternative Fire Debris Removal Program, Completion of Property Cleanup, 6249 Pinecrest Drive, Paradise, CA 95969*. November 27, 2019.
7. U.S. Fish and Wildlife Service. *Critical Habitat for Threatened & Endangered Species [USFWS]*. Available at: <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>. Accessed July 2023.
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10. California Environmental Protection Agency. *CalEPA Regulated Site Portal*. Available at: <https://siteportal.calepa.ca.gov/nsite/map/measure/filters>. Accessed July 2023.
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13. Butte County. *Butte County Airport Land Use Compatibility Plan [Exhibit 7-4]*. November 15, 2017.
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- <https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/home/>. Accessed July 2023.
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 20. U.S. Census Bureau. *QuickFacts Paradise town, California*. Available at: <https://www.census.gov/quickfacts/fact/table/paradisetowncalifornia/COM100221>. Accessed July 2023.
 21. Town of Paradise. *2022-2030 Housing Element Update [pg. 14]*. June 14, 2022.
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 27. Town of Paradise Sewer Project. *Notice of Preparation*. April 2021. Available at: https://paradisewater.com/wp-content/uploads/2021/04/Paradise-NOP_20210423_.pdf. Accessed July 2023.
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 34. Town of Paradise. *1994 General Plan Environmental Impact Report. [pgs. 4-16 through 4-20]*. May 1992.
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 36. California Energy Commission. *2022 Building Energy Efficiency Standards Summary*. August 2021.



Coastal Barrier Resources Act

Image Details

The Coastal Barrier Resources Act (CBRA) of 1982 and subsequent amendments established the John H. Chafee Coastal Barrier Resources System (CBRS). The CBRS consists of relatively undeveloped coastal barriers and other areas located the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts. The CBRS currently includes 588 System Units, which comprise nearly 1.4 million acres of land and associated aquatic habitat. There are also 282 "Otherwise Protected Areas," a category of coastal barriers that are mostly held for conservation and/or recreation purposes that include an additional 2.1 million acres of land and associated aquatic habitat. The CBRS units are identified and depicted on a series of official maps entitled "John H. Chafee Coastal Barrier Resources System." These maps are controlling and indicate which areas are within the CBRS. The maps are maintained by the Department of the Interior through the U.S. Fish and Wildlife Service. A spreadsheet containing metrics on the CBRS (including acreage and shoreline miles) by state is available here.

CBRS Mappers

Official and draft maps can be obtained by opening the mappers below. These mappers are best viewed by maximizing your browser window.

[Existing Units: CBRS Mapper](#) 

Use this mapper to view the existing CBRS units.

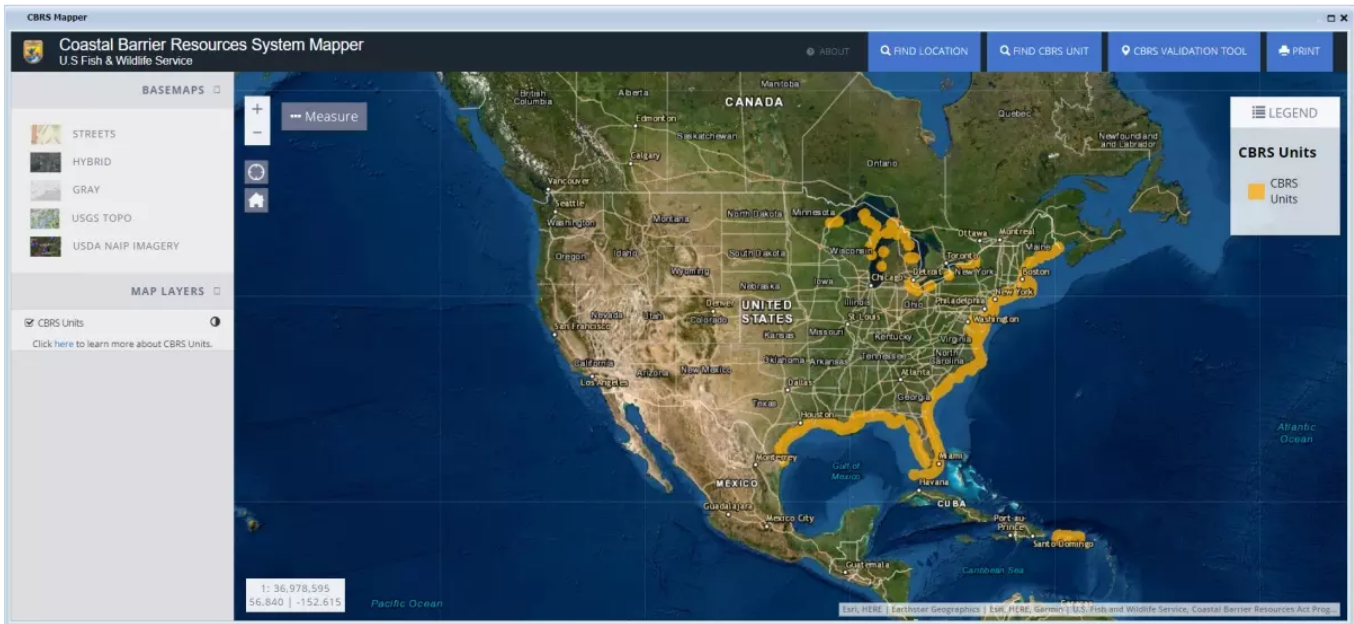


Image Details

Use the "CBRS Validation Tool" in this map to produce the information which a local user will or out of the CBRS

*Note: Data last modified August 16, 2023

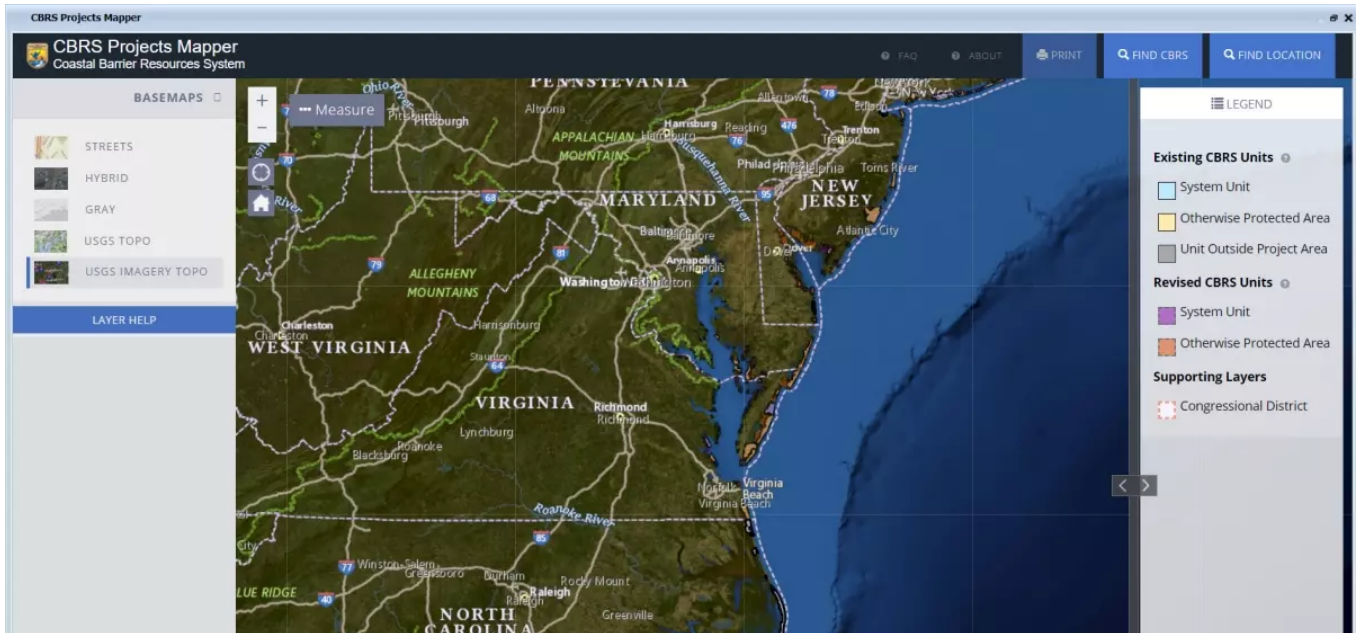



Image Details

Draft Revised Units: CBRS Projects Mapper

Use this mapper to view DRAFT revised CBRS units.

*Note: Data last modified August 16, 2023. The revised units depicted in this mapper are not currently effective.

Digital CBRS Boundaries

Geospatial CBRS boundary data is available in a variety of formats (see  [Accessing CBRS Maps and Digital Data](#) fact sheet). These data are representations of the CBRS boundaries shown on the official CBRS maps referenced in 16 U.S.C. 3503(a). In general, these digital boundaries can be considered accurate to within approximately 20 feet of the actual CBRS boundaries as shown on the official maps. Before using the data, please read the [metadata](#) for additional information.


Additionally, because CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit), the true seaward extent of the units is not shown. The Service is not responsible for any misuse or misinterpretation of this digital data set, including use of the data to determine eligibility for federal funding or financial assistance.

Learn more about obtaining an official [determination](#) of whether or not an area or specific property is located within the CBRS.

Learn more about [project consultations](#).

Download Shapefile(s)

The CBRS data are available for download as three separate shapefiles; compressed by using the .zip format. The shapefiles can be viewed using ESRI's free software, among others. The Extensible Markup Language (XML) metadata for the shapefiles are included in the zip file and are also available below. Shapefile users are encouraged to subscribe to the [CBRA Listserv](#) to receive notifications when boundary changes are made.

View the  [user guide for CBRS data](#) to learn about the contents of each shapefile and how to use it.

DOWNLOAD

Metadata

Metadata or "data about data" describes the content, quality, condition, and other characteristics of data. Metadata are used to organize and maintain investments in data, to provide information to data catalogs and clearinghouses, and to aid data transfers. The Federal Geographic Data Committee approved the Content Standard for Digital Geospatial Metadata on June 8, 1994. Since that time, many organizations within and outside of the Federal Government have adopted the FGDC metadata standard and are using automated indexing and serving mechanisms to provide access to their holdings through the Internet.

View/download the XML* CBRS Metadata file for the Coastal Barrier Resources System (CBRS)

Polygons:

[CBRS-Polygons-Metadata.txt](#)

View/download the XML CBRS Metadata file for the CBRS Prohibitions:

[CBRS-Prohibitions-Metadata.txt](#)

View/download the XML CBRS Metadata file for the CBRS Buffer Zone:

[CBRS-Buffer-Zone-Metadata.txt](#)

***XML** - Extensible Markup Language

Web Map Service (WMS)

Geospatial CBRS Data is available through an Open GIS Consortium (OGC) Web Map Service (WMS)

WMS service name: CBRAMapper/GeoCBRA

Projection: GCS, NAD83

OGC Version: 1.3.0

CBRS Data WMS Address:

<https://cbrsgis.wim.usgs.gov/arcgis/services/CoastalBarrierResourcesSys...> 

Connecting to the CBRS WMS in ESRI's ArcGIS

Launch ArcCatalog.

Under the "GIS Servers" directory in the explorer window on the left, double click on "Add WMS Server" to open the Add WMS Server dialog box.

Enter the following WMS address in the URL text box:

<https://cbrsgis.wim.usgs.gov/arcgis/services/CoastalBarrierResourcesSys...> 

Click on the “Get Layers” button to view the service and layer information.

Click on the “OK” button to add the connection and view it in ArcCatalog. You will see the connection show up under “GIS Servers”

This WMS connection will now also be available in ArcMap under “GIS Servers” after you select “add data”.

ArcGIS Representational State Transfer (REST) Service

<https://cbrsgis.wim.usgs.gov/arcgis/rest> 



Official Coastal Barrier Resources System Maps

The Coastal Barrier Resources Act (CBRA) of 1982 and subsequent amendments established the John H. Chafee Coastal Barrier Resources System (CBRS). The CBRS consists of relatively undeveloped coastal barriers and other areas located the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and...

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CEQA

Air Quality Handbook

GUIDELINES FOR ASSESSING
AIR QUALITY AND GREENHOUSE GAS IMPACTS
FOR PROJECTS SUBJECT TO CEQA REVIEW

2014



Adopted October 23, 2014

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**Butte County Air Quality
Management District
Mission**

*Our mission is to protect the people and environment of Butte County
from the harmful effects of air pollution.*

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APPENDICES

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- B AIR QUALITY AND GREENHOUSE GAS SETTING
- C BEST PRACTICES, MITIGATION MEASURES AND DISTRICT RULES

List of Acronyms

| | |
|------------------|--|
| AAQS | Ambient Air Quality Standards |
| ACM | Asbestos Containing Material |
| ADT | Average Daily Trips |
| AQAP | Air Quality Attainment Plan |
| ATCM | Air Toxics Control Measure |
| BAMM | Best Available Mitigation Measures |
| CAAA | 1990 Clean Air Act Amendments |
| CAP | Clean Air Plan for Butte County |
| CARB | California Air Resources Board |
| CBACT | Best Available Control Technology for Construction Equipment |
| CDPF | Catalyzed Diesel Particulate Filter |
| CEQA | California Environmental Quality Act |
| CNG | Compressed Natural Gas |
| CO | Carbon Monoxide |
| District | Butte County Air Quality Management District |
| DOC | Diesel Oxidation Catalyst |
| (D)EIR | (Draft) Environmental Impact Report |
| EPA | United States Environmental Protection Agency |
| H ₂ S | Hydrogen Sulfide |
| H&SC | California Health & Safety Code |
| IS | Initial Study |
| ITE | Institute of Transportation Engineers |
| LNG | Liquid Natural Gas |
| LOS | Level of Service |
| MND | Mitigated Negative Declaration |
| ND | Negative Declaration |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |

| | |
|-------------------|--|
| NOP | Notice of Preparation |
| NO _x | Oxides of Nitrogen |
| PM ₁₀ | Particulate Matter (less than 10 microns) |
| PM _{2.5} | Particulate Matter (less than 2.5 microns) |
| ROG | Reactive Organic Gases |
| SIP | State Implementation Plan |
| SO ₂ | Sulfur Dioxide |
| TAC | Toxic Air Contaminants |
| T-BACT | Toxic Best Available Control Technology |
| TDM | Transportation Demand Management |
| VMT | Vehicle Miles Traveled |
| VOC | Volatile Organic Compounds |

GLOSSARY

Baseline for Stationary Source Projects: The average of Greenhouse Gas (GHG) emissions for a type of equipment or operation within an identified class and category for a given period of time (for example, as determined by a local Climate Action Plan or Lead Agency), expressed as annual GHG emissions per unit.

Business-as-Usual (BAU): The emissions for a type of equipment or operation within an identified class and category projected for the year 2020, assuming no change in GHG emissions per unit of activity as established for the baseline period as determined by a local Climate Action Plan or Lead Agency. To relate BAU to an emissions generating activity, the District proposes to establish emission factors per unit of activity, for each class and category, using the baseline period as the reference.

Carbon Monoxide (CO) is a colorless, odorless gas. It results from the incomplete combustion of carbon-containing fuels such as gasoline or wood, and is emitted by a wide variety of combustion sources. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen. Exposure to CO is especially harmful to those with heart disease because the heart has to pump harder to get enough oxygen to the body. CO exposure has been associated with aggravation of angina pectoris and other aspects of coronary heart disease, decreased exercise tolerance in people with peripheral vascular disease and lung disease, impairment of central nervous system functions, and possible increased risk to fetuses.

Climate Change: Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases (GHGs) particularly those generated from the human production and use of fossil fuels.

Diverted Trips: Diverted linked trips, as defined by Institute of Transportation Engineers (ITE), are attracted from the traffic volume on a roadway within the vicinity of the generator but require a diversion from that roadway to another roadway to gain access to the site.

Fugitive Dust: Small particles which are entrained and suspended into the air by the wind or external disturbances. Fugitive dust typically originates over an area and not a specific point. Typical sources include unpaved or paved roads, construction sites, mining operations, disturbed soil and tilled agricultural areas.

Greenhouse Gases (GHGs): The warming trend in Earth's atmosphere, also known as climate change, is related to the release of greenhouse gases (GHGs) into the atmosphere. The GHGs of main concern are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), hydro fluorocarbons (HFC), chlorofluorocarbons (CFC) and sulfur hexafluoride (F₆S).

Health Risk Assessment (HRA) is a comprehensive analysis of the dispersion of hazardous substances in the environment, their potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels exposed. For more information see the OEHHA Air Toxics "Hot Spots" Program Risk Assessment Guidelines (August 2003).

Hydrogen Sulfide (H₂S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.

Lead is a relatively soft and chemically resistant metal. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Because it was emitted in large amounts from vehicles when leaded gasoline was used, lead is present in many soils (especially urban soils) and can get re-suspended into the air.

Non-Cancer Acute Hazard Index represents the potential non-cancer health impacts resulting from a one-hour exposure to toxic substances. The total hazard index includes the sum of hazard indices for pollutants with non-cancer health effects that have the same or similar adverse health effects (endpoints). An acute hazard index is calculated by dividing the one-hour concentration of a toxic pollutant by the acute reference exposure level for that pollutant.

Non-Cancer Chronic Hazard Index represents the potential non-cancer health impacts resulting from exposure to toxic substances usually lasting from one year to a lifetime. The total hazard index includes the sum of hazard indices for pollutants with non-cancer health effects that have the same or similar adverse health effects (endpoints). A chronic hazard index is calculated by dividing the annual average concentration of a toxic pollutant by the chronic reference exposure level for that pollutant.

Odors: The evaluation of potential odor impacts pertains directly to the following question regarding air quality from the Environmental Checklist Form (Appendix G) of the State CEQA Guidelines (available here: http://ceres.ca.gov/ceqa/guidelines/Appendix_G.html):

III.e. Would the project create objectionable odors affecting a substantial number of people?

The following are common odor sources: agricultural and food processing facilities, landfills, composting facilities, and wastewater treatment plants.

Ozone: Important ingredient of smog, a result of gaseous compounds formed by the process of photochemistry. Ozone is a highly reactive and unstable gas capable of damaging the linings of the respiratory tract. Key pollutants involved in ozone formation are reactive organic gases (ROG) and nitrogen oxides (NO_x), which are known as ozone precursors. Sources of these precursors include chemicals directly emitted from vehicles, industrial plants, and many other sources.

During summer, in areas with high emissions and high ozone concentrations, ozone concentrations are very dependent on the amount of solar radiation. Ozone levels typically peak in late afternoon, at the end of the longest period of daily solar radiation. After the sun sets, the chemical reaction between nitrous oxide and ozone begins to dominate and ozone decreases.

Nitrogen Dioxide (NO₂) is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract. This pollutant is also an essential ingredient in the formation of ground-level ozone pollution. NO₂ is one of the nitrogen oxides emitted from high-temperature combustion processes, such as those occurring in trucks, cars and power plants. In the presence of sunlight, complex reactions of nitrogen oxides with ozone and other air pollutants produce the majority of NO₂ in the atmosphere. Indoors, home heaters and gas stoves also produce substantial amounts of NO₂.

Exposure to NO₂ along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.

Particulate Matter (PM): is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. Particles 10 microns or less in diameter are defined as “respirable particulate matter” or “PM₁₀.” Fine

particles are 2.5 microns or less in diameter (PM_{2.5}) and can contribute significantly to regional haze and reduction of visibility in California.

Extensive research indicates that exposure to outdoor PM₁₀ and PM_{2.5} levels exceeding current air quality standards is associated with increased adverse health impacts from lung and heart-related respiratory illnesses.

Primary Trips: Trips made for the specific purpose of visiting the proposed facility.

Sensitive Receptors: Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The location of sensitive receptors is needed to assess toxic impacts on public health.

Smart Growth: Smart growth is an urban and transportation planning concept that concentrates new development and redevelopment in areas that have existing or planned infrastructure to avoid sprawl. Smart growth is characterized by compact, transit-oriented, bicycle-friendly land use, with neighborhood schools, walkable streets, mixed-use development and a wide range of housing choices. Its purpose is to conserve valuable natural resources through the efficient use of land, water and air; create a sense of community and place; expand transportation, employment, and housing choices; distribute the costs and benefits of development in an equitable manner; and promote public health.

Sulfur Dioxide (SO₂) is a gaseous compound of sulfur and oxygen. SO₂ is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO₂ is also emitted from several industrial processes, such as petroleum refining and metal processing.

Sulfates (SO₄²⁻) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and / or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO₂) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

Toxic Air Contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may have the potential to cause a hazard to human health. Section 5 discusses sources of TACs and health impacts.

Visibility-Reducing Particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Vinyl Chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Volatile Organic Compounds (as defined by 40 CFR 51.100(s)) are any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

EXECUTIVE SUMMARY

Purpose

This Handbook provides guidance for applicants and lead agencies to comply with the requirements of the California Environmental Quality Act (CEQA) when evaluating potential air quality and greenhouse gas impacts that may occur with a proposed project. Included is information and approaches necessary to analyze air quality impacts, screening criteria to determine the extent of the analysis, approaches to modelling and determining the significance of impacts, and mitigation of impacts that are significant.

District Mission and Local Air Quality

The Butte County Air Quality Management District (District) is responsible for attainment of the National and California Air Quality Standards in Butte County. Depending upon the project, the District may act as a lead agency, responsible agency or, most often, a commenting agency when reviewing CEQA documents. The District’s primary role when reviewing projects is to evaluate their consistency with ambient air quality standards and the provisions of the State Implementation Plan (SIP) and regional Northern Sacramento Valley Planning Area 2012 Triennial Air Quality Attainment Plan (Attainment Plan) as required by the Federal and State Clean Air Acts. Lead agencies should provide the District with all notices of exemption, initial studies and environmental impact reports for review. In addition to its role under CEQA, the District’s mission includes adopting and enforcing rules and regulations (some of which may be applicable to projects being considered by lead agencies).

The District web site (www.bcaqmd.org) provides the County’s current attainment status, air quality trends, and rules and regulations that may be applicable to projects under consideration by lead agencies. Table ES-1 provides Butte County’s attainment status as of September 2014:

| Pollutant | State Designation | Federal Designation |
|------------------|--------------------------|----------------------------|
| 1-hour ozone | Nonattainment | -- |
| 8-hour ozone | Nonattainment | Nonattainment |
| Carbon monoxide | Attainment | Attainment |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Attainment | Attainment |
| 24-Hour PM10 | Nonattainment | Attainment |
| 24-Hour PM2.5 | No Standard | Nonattainment |
| Annual PM10 | Attainment | No Standard |
| Annual PM2.5 | Nonattainment | Attainment |

Source: Butte County Air Quality Management District, 2014

Analysis of Air Quality and GHG Impacts

A project’s potential impact to air quality is determined by evaluating the types and levels of direct and indirect emissions associated with the project and their effect upon existing (baseline) air quality conditions and neighboring land uses. The primary pollutants of concern for CEQA analysis – criteria air pollutants, toxic air contaminants, greenhouse gases, and such other pollutants as odors and naturally occurring asbestos (collectively referred to as air pollutants) – are identified and discussed separately. Although approaches to screening and modeling vary according to the pollutant, the Handbook’s organization follows the general sequence for analyzing and mitigating non-exempt, discretionary project impacts under CEQA (also summarized in Chart ES-1 at the end of this Summary):

1. Establish a thorough project description, including an inventory of air pollutants resulting from construction and operation of the project. The inventory of emissions should include those from both construction and operation of the project, and be summarized in a table with adequate discussion in the project description regarding emission sources and their timing (i.e., duration and project phasing, if any).
2. Describe the environmental and regulatory setting within which the project will occur. The environmental setting includes local land use, topography, vegetation, weather, and sources of air pollutants that influence air quality and air quality trends over time. The regulatory setting includes a succinct discussion of the District's ambient air quality attainment status, the provisions of the Northern Sacramento Valley Air Quality Attainment Plan, California and Federal air quality standards, and greenhouse gas reduction policies, as applicable. This information is presented in this Handbook and is available at the District web site.
3. Evaluate potential impacts to air quality and global climate change by using screening tools (located in their respective chapters below) appropriate for the pollutant in question. If the project meets applicable screening criteria, the lead agency may assume a less than significant impact for the pollutant.
4. Project emissions should be quantified by appropriate modeling methods if the project does not meet applicable screening criteria or involves:
 - a. Significant material transport (e.g., greater than 10,000 cubic yards);
 - b. Grading in contaminated soils or in areas with suspected or known naturally-occurring asbestos (see Section 7.2);
 - c. Simultaneous construction of more than one land use type (not applicable to high density infill development);
 - d. Only a construction phase; that is, the project has no operational land use component, (for example, a road construction or levee project); or
 - e. Preparation of an environmental impact report.
5. Determine the impact significance for each pollutant that is modeled (see Table ES-2). The impact analysis should include an evaluation of the project's direct or primary, indirect or secondary, and cumulative impacts. If the impact is significant, mitigation measures must be implemented to reduce the impact to the maximum extent feasible.
6. If mitigation measures cannot reduce impact(s) to a less than significant level, the lead agency must adopt a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 if it wishes to approve the project.

With adequate descriptions of the project and its setting, the impact analysis thus follows a sequential approach (first screening and then, if necessary, modeling) requiring increasing effort and data to reach a significance determination based upon substantial evidence.

Best Management Practices

All projects should implement best practices to reduce air pollutant emissions during construction and operation. Best practices during construction include measures to minimize fugitive dust and unnecessary engine idling; during operation they include compliance with applicable District rules and regulations for stationary sources. Best practices, which may apply to more than one category of pollutant, should be incorporated into a project's description as commitments by the applicant and are distinct from mitigation measures. Lists of best practices and standard mitigation measures – many of which also apply to more than one category of pollutant – are included in Appendix C.

Stationary Sources

Stationary sources subject to District permitting should be included in the project description but evaluated separately from the land-use related mobile and area source emissions associated with a project. The District should be notified early in review process when a project includes a stationary source.

Screening Criteria

Each of the air pollutant categories discussed in the Handbook has its own screening criteria:

- Table 4-1 provides screening criteria for **criteria air pollutants** (Section 4.3).
- For **toxic air contaminants**, screening criteria involves certain tools for impacting (*Type A*) projects (Section 5.4.1) and buffer distances around proposed (*Type B*) projects affected by an existing source (Section 5.4.2).
- For **greenhouse gases**, projects that are consistent with a lead agency's greenhouse gas reduction plan do not require further quantification (Section 6.2). Projects in jurisdictions without a reduction plan should quantify their greenhouse gas emissions and may choose to evaluate results relative to state goals (for example, those derived from AB 32) or those of a neighboring jurisdiction (that has a similar air quality setting) with a reduction plan or some other adopted threshold.
- Screening criteria for **odors** (Section 7.1.2) and **naturally-occurring asbestos** (Section 7.2.2) relate to distance between the disturbance and receptors, and the characteristics of the disturbance area, respectively.

If a project meets the applicable screening criteria, it may be assumed to have a less than significant impact upon the environment under CEQA; if not, modelling should be done to further analyze a potential impact. When relying on screening criteria, lead agencies should provide a reasoned discussion that the criteria, and the assumptions behind the criteria, are applicable to the whole of a project. Applicants and lead agencies should not assume that if a project meets the screening criteria for one category (e.g., criteria air pollutants) it will also have a less than significant impact for others (e.g., GHGs). Again, if a project meets any of the exceptions listed in 4 (a) – (e) above, emissions should be quantified regardless of whether or not the project meets screening criteria.

Modeling and Thresholds of Significance

Depending upon the project and the pollutant(s) in question, there are several approaches to modeling emissions. For criteria air pollutants, diesel PM and GHGs, the district recommends the latest version of CalEEMod (software and guidance are available at www.caleemod.com). CalEEMod's default values for project characteristics may be used to the extent project details are unavailable; however, project-specific information should be evaluated whenever possible to meet CEQA's substantial evidence requirement (see CEQA Guidelines Section 15384). Toxic air contaminants require different modeling approaches (for example, a health risk assessment for diesel PM) that are discussed in Section 5. Significance determinations made on the basis of modeling should include tables and discussion in the environmental document, as necessary. Model files should be provided to the District in their native (not pdf) format.

Table ES-2 summarizes the District's thresholds for criteria air pollutants, toxic air contaminants and greenhouse gases. Thresholds for criteria air pollutants are based upon District Rule 430 *State New Source Review (SNSR)* (see Appendix A), which incorporates stationary permitting significance thresholds for ambient air quality standards as required by California Health and Safety Code Section 40918. The District has only established thresholds of significance for criteria air pollutants; while it provides guidance with regards to impacts related to toxic air contaminants and GHGs, determination of

significance is at the discretion of the lead agency and must be based upon substantial evidence in light of the whole of the record for the project in question.

Handbook Organization

Section 1 provides introductory information regarding the Handbook, District responsibilities, projects subject to and exempt from CEQA, and consultation with the District.

Section 2 provides the District's expectations regarding analysis of air quality and greenhouse gas emissions, including guidance for responses to the Air Quality, Greenhouse Gases, and Hazardous Emissions sections of the CEQA Guidelines Appendix G Environmental Checklist.

Section 3 provides the basic information in the environmental document necessary for the District to evaluate impacts to air quality and greenhouse gases, including the project description (construction and operational phases, emissions inventory), and the environmental and regulatory setting.

Sections 4, 5, 6 and 7 provide the District's approach to evaluating criteria air pollutants, toxic air contaminants, greenhouse gases, and other air quality impacts (odors and naturally occurring asbestos), respectively, including guidance for screening, modeling, determining the significance of impacts, and mitigation.

Section 8 provides references for additional information.

Appendix A provides background information regarding federal, state and local regulation of air quality and global climate change, including the national and state ambient air quality standards.

Appendix B provides information on the air quality setting in Butte County and the northern Sacramento Valley.

Appendix C provides best practices and mitigation measures to reduce project air quality and greenhouse gas emissions, and the District's rules and regulations that are potentially applicable to discretionary projects.

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Table ES-2. District Air Quality Thresholds of Significance for Criteria Air Pollutants and Recommended Thresholds for Greenhouse Gases and Toxic Air Contaminants.

| Pollutant | Construction-Related | Operational-Related |
|---|--|---|
| ROG | 137 lbs/day, not to exceed 4.5 tons/year | 25 lbs/day |
| NO _x | 137 lbs/day, not to exceed 4.5 tons/year | 25 lbs/day |
| PM < 10 microns (PM ₁₀ or smaller) | 80 lbs/day | 80 lbs/day |
| Non-Stationary Source GHGs | Same as Operational Thresholds | No Adopted Threshold. Recommend compliance with Qualified Greenhouse Gas Reduction Strategy, Lead Agency's threshold, or consistency with goals of AB 32 |
| Stationary Source GHGs | Same as Operational Thresholds | No Adopted Threshold. Recommend compliance with Qualified Greenhouse Gas Reduction Strategy, Lead Agency's threshold, or consistency with goals of AB 32 |
| New Source Toxic Air Contaminant Risks and Hazards - Individual Project | Same as Recommended Operational Thresholds | No Adopted Threshold. Recommend mitigating below: Increased cancer risk of > 10 in one million |
| | | Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) |
| | | Ambient Diesel PM _{2.5} increase > 0.3 ug/m ³ annual average |
| | | Zone of Influence: 1,000-foot radius from parcel(s) of source or receptor |
| New Receptor Toxic Air Contaminant Risks and Hazards - Individual Project | Same as Recommended Operational Thresholds | No Adopted Threshold. Recommend mitigating below: Increased cancer risk of > 10 in one million |
| | | Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) |
| | | Ambient Diesel PM _{2.5} increase > 0.3 ug/m ³ annual average |
| | | Zone of Influence: 1,000-foot radius from parcel(s) of source or receptor |
| New Source Toxic Air Contaminant Risks and Hazards - Cumulative Impacts | Same as Operational Thresholds | No Adopted Threshold. Recommend mitigating below: Cancer Risk > 10 in a million from all local sources |
| | | Non-Cancer Risk > 1.0 Hazard Index (from all local sources - chronic) |
| | | Diesel PM _{2.5} > 0.8 ug/m ³ annual average |
| | | Zone of Influence: 1,000-foot radius from parcel(s) of sources or receptors |
| New Receptor Toxic Air Contaminant Risks and Hazards - Cumulative Impacts | Same as Recommended Operational Thresholds | No Adopted Threshold. Recommend mitigating below: Increased cancer risk of > 10 in one million |
| | | Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) |
| | | Ambient Diesel PM _{2.5} increase > 0.3 ug/m ³ annual average |
| | | Zone of Influence: 1,000-foot radius from parcel(s) of sources or receptors |

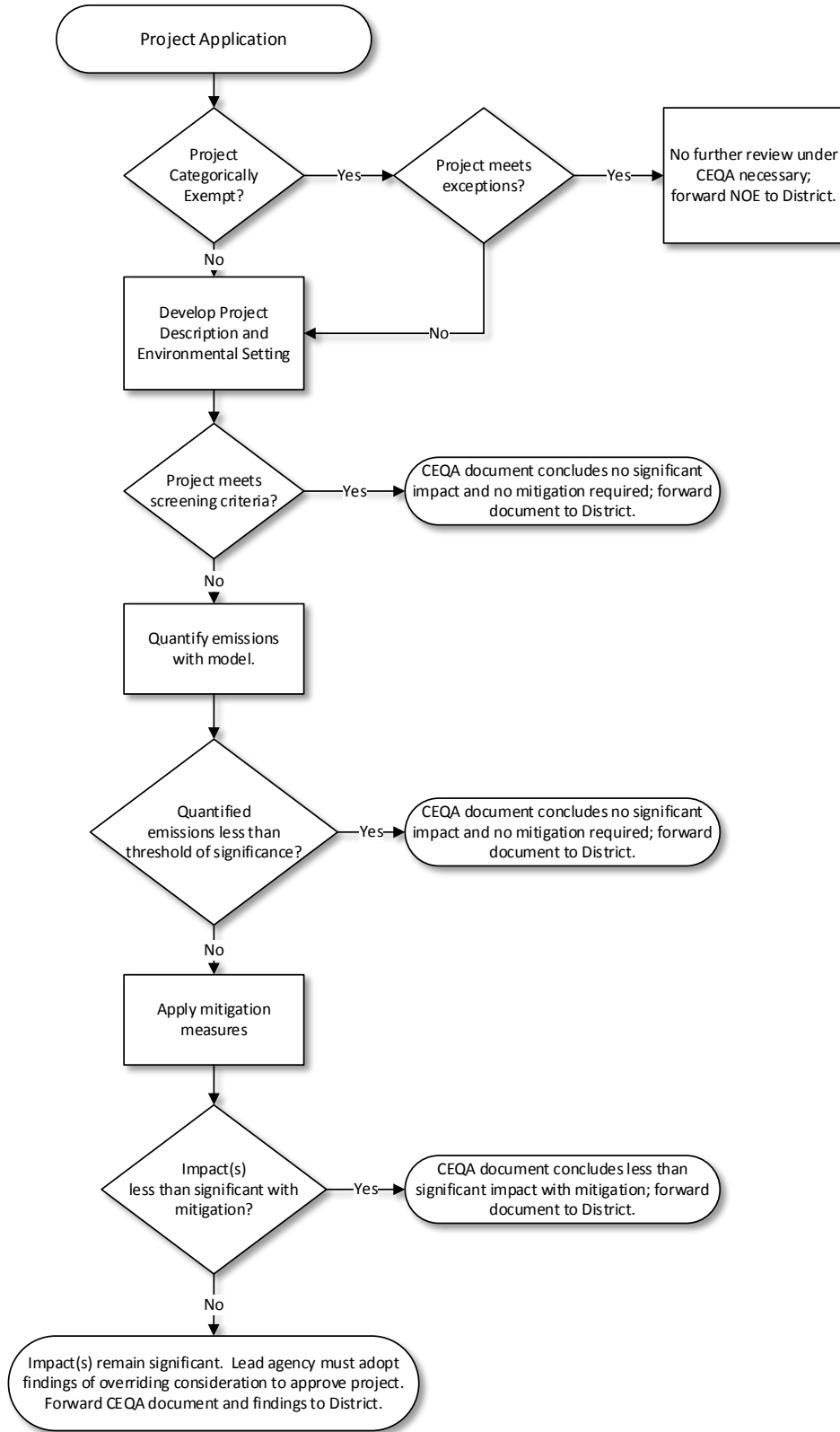


Chart ES-1. General Process for Analysis and Mitigation of Air Quality and Greenhouse Gas Impacts.

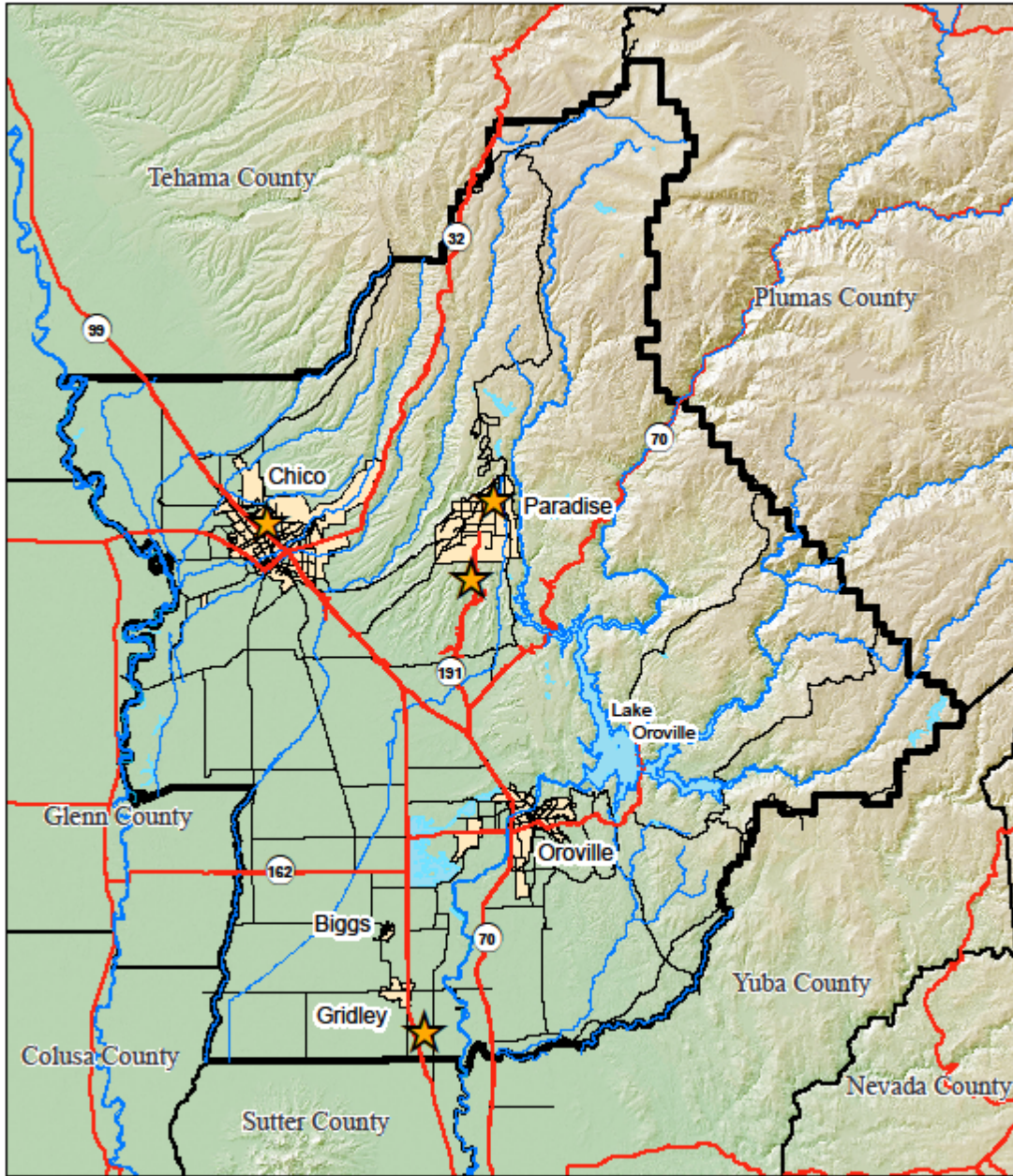


Figure 1

Butte County and Incorporated Cities

★ Air Quality Monitoring Stations

1 INTRODUCTION

This section provides basic information regarding the Handbook, District responsibilities, air quality and greenhouse gas analysis under CEQA, and consultation with the District.

1.1 Purpose and Use of this Handbook

The Butte County Air Quality Management District (the District) has prepared this handbook to assist lead agencies and project applicants in complying with the requirements of the California Environmental Quality Act (CEQA) when evaluating potential air quality impacts that may occur with a project proposed in Butte County or its incorporated cities.

CEQA requires that environmental impacts of proposed projects be identified, assessed and, if significant, avoided or mitigated to the maximum extent feasible. Projects, in particular land development projects, may generate harmful air pollutants that degrade air quality and greenhouse gases that affect global climate change. Guidance is provided to determine the type of analysis that should be performed, the significance of the impacts predicted by the analysis and, if necessary, the mitigation measures needed to reduce impacts. The primary pollutants of concern – criteria air pollutants, toxic air contaminants, greenhouses gases (GHGs), odors and asbestos – are identified and discussed separately in their respective regulatory contexts.

This Handbook is an advisory document and shall not be interpreted as limiting a lead agency's authority to adopt a statement of overriding consideration for projects with significant air quality impacts.

1.2 Role of the District

1.2.1 CEQA Review

The District takes on one of three roles in the CEQA process. Depending on the nature of a proposed project, the District acts as a:

- **Lead Agency** when it has the primary authority to implement or approve a project, such as when it adopts air quality plans for the region, issues stationary source permits, or adopts rules and regulations.
- **Responsible Agency** when it has limited discretionary authority over a portion of a project, but does not have the primary discretionary authority of a lead agency. As a Responsible Agency, the District may coordinate the environmental review process with the lead agency regarding the District's permitting process, provide comments to the lead agency regarding potential impacts, and recommend mitigation measures.
- **Commenting Agency** when it has "jurisdiction by law" over a particular natural resource, but does not exercise discretionary approval over a project. For example, under the Federal and the California Clean Air Acts, the District is tasked with implementing certain programs and regulations in Butte County to improve and maintain air quality. CEQA Guidelines §15004(b)(2) requires lead agencies to consult with "any other State, Federal, and local agencies which have jurisdiction by law with respect to the project or which exercise authority over resources which may be affected by the project...."

Although the District has no statutory authority over land-use, nearly all discretionary projects in Butte County, from general plans to individual development applications, have the potential to

result in pollutants that will worsen air quality and make it more difficult for the District to achieve national and State air quality attainment standards. In order to most efficiently carry out its commenting responsibilities, the District requests that lead agencies submit all Notices of Exemption, Initial Studies, Notices of Preparation, Draft and Final EIRs, and Mitigation and Monitoring Plans for review at the earliest possible date.

When provided sufficient project details, the District's review of potential environmental impacts upon air quality include the following determinations:

- Accuracy of the air quality and greenhouse gas (baseline) setting;
- Appropriate use of screening criteria and modeling assumptions;
- Whether air quality and greenhouse gas impacts are adequately described;
- Whether the District agrees with the overall conclusions regarding impacts to air quality global climate change: and
- Whether feasible and effective mitigation measures are identified.

At the conclusion of its review, the District may submit comments to the lead agency that identify deficiencies in the air quality and/or greenhouse gas analysis and may suggest approaches to correct the deficiencies. Where appropriate, the District will recommend feasible mitigation measures.

1.2.2 Other District Responsibilities

The District is the primary agency responsible for assuring that the national and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively) are attained and maintained in Butte County, which is one of 35 local air districts in California monitored by the California Air Resources Board (CARB). The District's mission to improve air quality includes adopting and enforcing rules and regulations to attain and maintain air quality standards, issuing permits for and inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring air quality and meteorological conditions, awarding grants to reduce mobile emissions, implementing public outreach campaigns, assisting Butte County jurisdictions in addressing climate change, and updating and evaluating consistency with the Northern Sacramento Valley Air Quality Attainment Plan.

The stationary "direct" sources of air contaminants over which the District has permit authority includes, but are not limited to, power plants, gasoline stations, dry cleaners, internal combustion engines, and surface coating operations. The District does not, however, exercise permit authority over "indirect" emission sources. Indirect sources are contributors to air pollution and include facilities and land uses which may not emit significant amounts of pollution directly themselves, but are responsible for indirect emissions, such as:

- Motor vehicle trips attracted to or generated by a land use;
- On-site combustion of natural gas and propane for heating;
- Architectural coatings (paints, stains) and consumer products; and
- Landscape maintenance.

Emissions from both direct and indirect sources should be identified in the project description. Applicable permit requirements for direct sources should be identified in the project description and included as project conditions of approval. Indirect sources should, if needed, be mitigated through the lead agency land use planning and permitting process under the guidelines and statutes of CEQA. The rules and regulations, permits, Butte County's attainment status with

regard to criteria air pollutants, and a variety of other information are available at the District's web site: <http://www.bcaqmd.org/>.

1.3 Projects Subject to CEQA

The CEQA Statutes (Public Resources Code Section 21065) define a "project" as the whole of an activity, which may cause either a direct or a reasonably foreseeable indirect physical change in the environment, including:

1. An activity directly undertaken by a public agency;
2. An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies;
3. An activity that involves the issuance to a person of a lease, permit, license, certificate; or
4. Other entitlement for use by one or more public agencies.

If a project is not otherwise statutorily or categorically exempt from CEQA review, and if the lead agency will exercise discretion in considering the project for approval, then further analysis (in the form of an initial study or environmental impact report) of the project's potential effects upon the environment is necessary. Typical discretionary projects include:

- Site, area and specific development plans;
- General plan updates and amendments;
- Conditional and special use permits;
- Parcel and subdivision maps;
- Large residential, commercial or industrial developments;
- Surface mining and grading projects; and
- Remediation projects.

1.3.1 Projects Exempt from CEQA

Projects determined to be statutorily or categorically exempt from environmental review pursuant to CEQA would have less than significant individual and cumulative impacts for air quality and GHG emissions. (Note, however, that projects exempt under CEQA must still comply with all applicable District rules and regulations.) Applicants and lead agencies considering a categorical exemption under CEQA should carefully consider the exemption requirements of CEQA Guidelines Section 15300.2 (Exceptions) with regards to air quality and greenhouse gas emissions, in particular sub-sections (a), (b) and (c):

- (a) Location. Classes 3, 4, 5, 6, and 11 (see CEQA Guidelines Sections 15303, 15304, 15305, 15306, and 15311, respectively, for class definitions) are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may, in a particularly sensitive environment, have a significant impact upon the environment. Therefore, these class exemptions are considered to apply in all instances, except where the project may have an impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
- (b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

- (c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

Categorically exempt projects that may emit or be affected by toxic air contaminants may also require environmental review (see Section 5.3.4).

All Notices of Exemption should be forwarded to the District.

1.4 Consultation with the District

CEQA provides that if a project may have a significant environmental effect the Lead Agency shall either prepare an initial study or proceed directly with preparation of an EIR [CEQA Guidelines Section 15063(a)]. Upon determining that an initial study is required, the Lead Agency shall consult informally with all Responsible Agencies and all Trustee Agencies responsible for resources affected by the project to obtain recommendations as to whether an EIR or a Negative Declaration should be prepared [CEQA Guidelines Section 15063(g)].

CEQA guidelines do not specify a time period for informal consultation; however, lead agencies should allow the District a minimum of ten working days for its review and comment. Again, the District requests that lead agencies forward all Notices of Exemption, Initial Studies, Notices of Preparation and Environmental Impact Reports for review. Identification of significant air quality impacts and mitigation measures early in the development process will allow for design changes that benefit air quality at the lowest possible cost to the project proponent. The District invites project proponents, lead agencies, and interested parties to contact District staff or visit the District's office for consultation on the use of this guidance document or project review:

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2 ANALYTIC AND MITIGATION APPROACH

This section discusses the general approach the District recommends to evaluating and mitigating air quality impacts, applying a level of analysis appropriate for the project description and its setting in order to conclude, based upon substantial evidence consistent with CEQA Guidelines Section 15384, whether or not a significant impact to air quality or greenhouse gases will occur.

The level of analysis will depend upon the complexity of the project, its air pollutant emissions and baseline setting. If less than significant impacts cannot be determined with appropriate screening criteria, emissions should be calculated by modeling.

2.1 Overview

CEQA requires that significant project impacts to air quality and global climate change be mitigated to a less than significant level to the maximum extent feasible. The District recommends applicants and lead agencies take the following general steps in determining whether or not a project's air pollutant and GHG emissions are significant:

1. Prepare Project Description and Baseline Setting: A concise project description and baseline setting that adequately describes the types of emission and their sources, and their relationship to existing air quality and GHG conditions, provides the basis for evaluating a project's potential impacts. The project description should include an inventory of all potential air pollutants from both construction and operation of the project.
2. Screening: Criteria air pollutants, toxic air contaminants, GHGs, odors and asbestos (air pollutants) each have unique characteristics and analytic approaches to determine their impact upon the environment within the context of a project. Screening criteria for each varies; however, if a project meets the applicable screening criteria, then it may be considered to have a less-than-significant impact for that air pollutant. Screening criteria for air pollutants are found in their respective sections.
3. Modeling and Impact Analysis: For projects that do not meet a screening criteria and require further evaluation, criteria air pollutants and GHG emissions that may occur during the construction and operational phases should be quantified through the latest version of CalEEMod or another acceptable modeling approach. Toxic air contaminants require advanced modeling techniques that, although referenced herein, are beyond the scope of this Handbook.
4. Determine Significance: Modeling results for criteria air pollutants should be compared with Table ES-2 (found in the Executive Summary) to determine their significance. The District has not established thresholds of significance for toxic air contaminants and GHGs, and the lead agency must exercise its own discretion for those determinations (although the District is available for consultation).
5. Mitigation and Monitoring: If emissions are determined to be significant, they must be mitigated to a level of less-than-significant to the maximum extent feasible and a monitoring plan that insures implementation of all mitigation measures must be approved. For impacts that cannot be reduced to less-than-significant, the lead agency must adopt a statement of overriding considerations pursuant to the CEQA Guidelines Section 15093 if it wishes to approve the project.

2.2 Project Type

The analytic focus for assessing air quality and greenhouse gas impacts will vary depending upon whether the project is programmatic (such as general plans, land use ordinances) or specific (generally development, conditional and special use projects).

2.2.1 Programmatic Projects

Evaluation of air pollutant effects that may result from adoption of or amendment to general plans and land use ordinances should focus upon potential growth-inducing and cumulative impacts. Changes in land use patterns that could affect emissions of air pollutants include, but are not limited to, changes in:

- Transportation patterns and modes;
- Water and energy use;
- Vegetation and land cover; and
- Disposal of wastewater and solid waste.

2.2.2 Development, Conditional and Special-Use Projects

Development, conditional and special-use projects typically have construction and operational components with the potential to affect air quality and GHGs in distinct ways. The construction phase consists of activities to prepare a site and build a facility. The operation of a project begins when construction is complete and its use(s) commence. Phased projects may have periods when some portions are in construction and others are in operation.

Construction activities with air quality and GHG impacts may include:

- Demolition;
- Vegetation removal;
- Grading, cut and fill;
- Material import/export;
- Equipment and electrical power use;
- Preparation and application of concrete, asphalt and architectural coatings;
- Building construction; and
- Construction crew and vendor vehicle trips and associated emissions.

Operational components with air quality and GHG impacts may include:

- Energy, water and wastewater use;
- Vehicle trips generated by the land use and associated emissions;
- Heating (including hearths and woodstoves), ventilation, air conditioning, appliances;
- Landscaping and landscaping equipment;
- Solid waste; and
- Architectural coatings.

While this Handbook is generally applicable to programmatic projects, the emphasis is primarily on the air quality and GHG analysis of development, conditional and special use projects that typically involve site specific proposals.

2.3 Air Pollutants Subject to Analysis

The principal air pollutants subject to analysis under CEQA are **criteria air pollutants**, **toxic air contaminants (TACs)** and **greenhouse gases (GHGs)**. Additional review is also required for **odors** and various **special situations** such as land-disturbing work in areas with naturally occurring asbestos and the location of a facility for sensitive receptors (i.e., a school, day care center or elder care facility) in the vicinity of an air pollutant source.

Air pollutants disperse through the atmosphere but, depending upon the emission and the physical setting, their potential impact range does vary. Criteria air pollutants tend to be regional, toxic air contaminants local, and greenhouse gases global in effect. More specific information for each pollutant is provided in Sections 4, 5, 6 and 7.

2.4 Analysis Expectations

2.4.1 Adequate Project Description and Baseline Environmental Setting

Evaluation of project impacts related to air quality, hazardous emissions and greenhouse gases depends upon adequate descriptions of the project and its baseline environmental setting. The project description should include a discussion of all on- and off-site project activities and phasing, an inventory of potential pollutant emissions, applicable District permits with which the project must comply, and the best practices that will be implemented to reduce emissions such as fugitive dust and diesel particulate matter. Section 3 provides the District's recommendations for specific project description and environmental setting information that should be included in the environmental document.

2.4.2 Evaluation of Impacts

Sections 15355 and 15358 of the CEQA Guidelines use the terms "effects" and "impacts" interchangeably and define three types:

1. **Direct or primary effects** that are caused by a project and occur at the same time and place.
2. **Indirect or secondary effects** that are not immediately related to the project, but which are caused indirectly by the project.
3. **Cumulative impacts** which refers to two or more individual effects resulting from past, present and reasonably foreseeable future projects which, when considered together, are considerable or which compound or increase other environmental impacts.

CEQA Guidelines Section 15382 defines a significant effect on the environment as "...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..." Projects can cause significant impacts by direct physical changes to the environment or by triggering reasonably foreseeable indirect physical changes. Physical changes caused by a project can also contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are not. Lead agencies should consider the potential for direct, indirect and cumulative impacts related to air quality and greenhouse gases from both the construction and operational phases of a project (Table 2-1).

Air pollutants are inherently dispersive in the atmosphere. (Again, TACs, criteria air pollutants and GHGs are generally evaluated as local, regional and global impacts, respectively.) Cumulative impacts may be evaluated by the "list" or "summary of projections" method as

provided by CEQA Guidelines Section 15130. The geographic extent for determining direct and cumulative impacts is at the discretion of the lead agency, may vary according to the pollutant evaluated and, in certain instances, with meteorological conditions. Whatever the geographic extent selected, it should account for the project’s potential to “compound or increase” the air quality impacts of other “past, present and reasonably foreseeable future projects” in the vicinity. The geographic extent for determining GHG impacts, which are inherently cumulative and global in their effect upon climate change, should be evaluated according to an applicable Climate Action Plan. If there is no applicable Climate Action Plan, the lead agency may consider the GHG emissions of the project in relation to the goals of Assembly Bill 32 and related legislation (see Appendix A) or according to the criteria used by other jurisdictions with a similar air quality setting. Whatever the extent, it should be based upon substantial evidence in regards to the pollutant and receptors.

Table 2-1. Potential Construction and Operational Impacts to Air Quality

| | | Impact | |
|--------------|---------------------|--|--|
| | | Direct | Indirect |
| Phase | Construction | <ul style="list-style-type: none"> • Heavy equipment • Demolition • Grading, loss of vegetation • Worker and vendor trips • Energy demand from power tools • Application of asphalt and architectural coatings | <ul style="list-style-type: none"> • Asphalt and concrete batch plants necessary for project • Local congestion due to construction |
| | Operation | <ul style="list-style-type: none"> • Resident, employee, customer or vendor vehicle trips • Energy demand from on-site equipment and appliances • On-site heating and cooling | <ul style="list-style-type: none"> • Local congestion due to increased traffic • Off-site energy necessary to supply water and treat wastewater • Transport and disposal of solid waste |

In the unusual circumstance that a proposed project involves the removal of existing emission sources, those existing emissions levels may be subtracted from the emissions levels estimated for the project if the existing emission sources: (1) were operational at the time that the Notice of Preparation (NOP) for the CEQA project was circulated (or when the environmental analysis began); and (2) would continue if the proposed project were not approved. When emission sources ceased to operate or the land uses were vacated and/or demolished before circulation of the NOP or commencement of the environmental analysis this net calculation cannot be included in the project’s emissions analysis.

2.4.3 Screening and Modeling of Impacts

Screening

Once the description and environmental setting have been established, the project may be evaluated by screening criteria appropriate to the inventoried pollutant(s) to determine if a significant impact may occur. Sections 4, 5, 6 and 7 provide screening approaches for criteria air pollutants, toxic air contaminants, greenhouse gases, odors and asbestos, respectively. Lead agencies should provide a reasoned discussion as to how a project is consistent with the applicable criteria for projects determined to have a less than significant effect on the basis of

screening. Note that applicants and/or lead agencies may elect to directly model emissions if it is clear a project will not meet its screening criteria.

Modeling

If screening indicates a project may have a significant impact upon air quality or global climate change – or if the applicant and/or lead agency assumes significant impacts without screening – the project’s air pollutant emissions must be modeled. The District recommends the latest version of CalEEMod for calculating emissions of ROG, NO_x, CO, and CO₂, GHGs, and dust and exhaust PM. The modeling software and instruction may be downloaded without charge at:

www.caleemod.com

When quantifying air pollutants with CalEEMod (which exports an Excel file) or another accepted emissions model, the native electronic file (not a pdf) should be submitted to the District with the environmental document, along with a summary table showing all daily and, if applicable, annual emissions. The environmental document should include tables as necessary and provide a thorough discussion of the inputs and assumptions made for the estimates. Modeling analysis submitted as part of a CEQA evaluation should include a discussion of summer, winter and annual emissions, including a comparison with the Table ES-2 thresholds.

2.5 CEQA Guidelines Appendix G Environmental Checklist

This section provides the District’s general guidance for substantive responses to the Air Quality, Greenhouse Gases, and Hazardous Emissions sections of the CEQA Guidelines Appendix G Environmental Checklist (Sections III, VII, and VIII(c), respectively).

2.5.1 Air Quality (Section III)

The Air Quality Section III addresses the impacts of the project on ambient air quality and the exposure of people, especially sensitive individuals, to hazardous pollutant concentrations. The pollutants of concern include both criteria pollutants and toxic air contaminants. The CEQA Guidelines Appendix G Environmental Checklist Form provides the following significance criteria to determine if a project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

The California Clean Air Act requires preparation of air quality attainment plans for designated National and/or California Ambient Air Quality Standards nonattainment or maintenance areas. In order to meet these standards, attainment plans first project future emissions based upon growth assumptions for the jurisdictions within a given plan area. Measures are then promulgated to limit nonattainment emissions to the required standard. In general, a project conflicts with or obstructs implementation of the applicable attainment plan if it would result in or induce growth in population, employment, land use, or regional vehicle miles traveled (VMT) that is inconsistent with the growth (and therefore the emission projection) assumptions in the applicable attainment plan.

As discussed in Appendix A, the currently applicable air quality plan for the District is the latest edition of the Northern Sacramento Valley Planning Area Air Quality Attainment Plan (at present, the 2012 Triennial Air Quality Attainment Plan). Although the 2012 Attainment Plan provides estimated ROG and NO_x emissions from 2006 to 2020 for the entire Northern Sacramento Valley, they are not apportioned by local air district, county or municipality.

Baseline and projected population and vehicle miles travelled data are also not provided by the 2012 Attainment Plan.

The Butte County Association of Governments (BCAG) provides projections for population, employment and VMT for the County through 2035. Until such time as Butte County's applicable air quality plan provides the locally appropriate data necessary to evaluate the consistency of a project's potential air quality impacts (due to non-stationary sources) with the attainment plan's emission projections, the District recommends that lead agencies and applicants evaluate a project's contribution to changes in employment, population and VMT in relation to those projections made by BCAG. BCAG data may be accessed at the following web site:

<http://www.bcag.org/Demographics/Growth-Projections/>

Note that many of the District's rules (see Appendix A) are intended to meet the attainment goals of the 2012 Northern Sacramento Valley Planning Area Air Quality Attainment Plan. Lead agencies and applicants should discuss project consistency with, for example, Rule 205 (Fugitive Dust Emissions), Rule 230 (Architectural Coatings), Rule 430 (State New Source Review) or other applicable rules.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

For criteria air pollutants, the air quality standards are provided by the National and stricter California Ambient Air Quality Standards (see Table A-1). Butte County attainment status for each pollutant is given in Table ES-1 and discussed in Appendix A. Updates to the County's attainment status are available at: www.bcaqmd.org and should be checked for changes.

Butte County is currently nonattainment for the State and Federal 8-hour ozone standards, the State 1-hour ozone standard, the Federal 24-hour PM_{2.5} standard, and the State PM₁₀ 24-hour standard. Based upon screening or, if necessary, modeling, lead agencies should demonstrate that a project's criteria air pollutants will not exceed the applicable values in the Federal and/or California Ambient Air Quality Standards. If a project meets the screening criteria, it may be assumed that it will not violate or contribute substantially to an air quality standard. If quantification through modeling is necessary, results should be presented in a table with a discussion comparing the project emissions with the standards. The lead agency must make a determination based upon substantial evidence that a project will or will not violate or contribute "substantially" to an existing or projected air quality violation.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

To respond, and as provided by CEQA Guidelines Sections 15130 and 15355, lead agencies must determine if a project's incremental contribution to a non-attainment criteria pollutant is cumulatively considerable, taking into account either "closely related past, present and reasonably foreseeable probable future projects" or a summary of projections contained in an adopted and applicable planning document. As discussed in Section 2.5 above, the geographic extent of a cumulative impact analysis should be based upon the pollutant, land use and the presence of receptors, the environmental setting (topography and climate), and air quality trends. Again, the geographic extent analyzed should account for the project's potential to "compound or increase" the air quality impacts of other "closely related past,

present and reasonably foreseeable future projects” or in relation to projections made by an adopted planning document. If a list approach is used, a map – preferably with a recent aerial photo base – should be used to provide a visual sense of the project locations and geographic extent evaluated.

If a project meets the Table 4-1 screening criteria subject to the limitations provided in Section 4.2.2 below, it may be assumed that a cumulatively considerable net increase of any criteria pollutant for which Butte County is in non-attainment will not occur.

If modeling and quantification are necessary, the ROG, NO_x and PM emission results should be evaluated in relation to past, present and reasonably foreseeable future projects and Table ES-2 to determine significance. The lead agency should provide a reasoned discussion of the geographic extent evaluated and the projects considered for the cumulative analysis. The Table ES-2 significance thresholds are derived from District Rule 430, which in turn is based upon the State ambient air quality standards provided in Appendix A. Projects that do not exceed the Table ES-2 significance thresholds may be assumed to have a less than significant impact in regards to a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment.

d) Expose sensitive receptors to substantial pollutant concentrations; or

This significance threshold relates to criteria air pollutants, toxic air contaminants (TACs, discussed in Section 5) and pollutants such as asbestos (discussed in Section 7.2). Construction emissions of concern include diesel and other particulate matter. The project’s environmental document should present a map – preferably with a recent aerial photo base – showing the whole of the project (that is, its total footprint, components and phases) and any residences, hospitals, nursing homes, day care centers, schools, churches, or other structures or land uses indicating a possible sensitive receptor within 1,000 feet of the project parcel(s). Roads, commercial, and industrial facilities should also be indicated to provide a visual sense of existing emitters of air pollutants in the area. Potential sensitive receptors within 1,000 feet of the project parcel(s) should be identified on the map and their distance from the project provided in a table.

e) Create objectionable odors affecting a substantial number of people.

The project description should discuss any potential odor emitted by the project including, but not limited to, heavy equipment exhaust. A potential odor impact can occur under two different circumstances: the proposed project would: 1) generate odors that could adversely affect a substantial number of persons in the project vicinity; or 2) locate receptors where they would be affected by an existing odor source. In either circumstance, the discussion should include the lead agency’s assessment as to the nature of the odor, its source and dispersal characteristics, noxiousness and anticipated intensity with distance, and surrounding land uses and receptors within 1,000 feet of the project parcel(s). The same map discussed in (d) for sensitive receptors may be used and the lead agency should provide its standards for determining whether or not a significant impact would occur. Reference may be made to similar circumstances elsewhere as a means of comparison. Section 7.1 provides more discussion regarding evaluation of odors.

2.5.2 Greenhouse Gases (Section VII)

Section VII of the CEQA Guidelines Appendix G Environmental Checklist provides the following significance criteria to determine if a project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The District has not established a threshold of significance for GHGs. As it is unlikely that any one project would substantially contribute to global climate change, the District considers GHG impacts to be cumulative in nature and lead agencies should evaluate whether a project's incremental direct and indirect GHG emissions are cumulatively considerable. If the lead agency jurisdiction has adopted a Climate Action Plan or General Plan goals and policies with regard to GHGs, the environmental review should base its analysis on the provisions of those documents. If the lead agency jurisdiction has not adopted a Climate Action Plan or General Plan goals and policies, then the District recommends that lead agencies consider a project's total emissions in relation to the AB 32 and AB 32 Scoping Plan goals (and additional state goals as they are promulgated) or the thresholds established by other jurisdictions. Applicants and lead agencies are referred to Section 6.3 and Appendix A of this Handbook for more discussion regarding GHGs.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Climate Action Plans set out GHG baseline inventories, reduction goals and various measures to achieve those goals. Lead agencies should evaluate projects according to their compliance with their Climate Action Plan. If a project is implementing the measures stipulated by its Climate Action Plan or the goals and policies of its General Plan, the lead agency may determine that it will have a less-than-significant impact on global climate change. Until such Climate Action Plans and/or General Plan goals and policies are adopted, and for jurisdictions in Butte County without a Climate Action Plan, the District recommends that lead agencies evaluate the project's total GHG emissions according to the goals of AB 32 and the AB 32 Scoping Plan or those of other jurisdictions.

2.5.3 Hazards and Hazardous Materials (Section VIII)

Section VIII(c) of the CEQA Guidelines Appendix G Environmental Checklist provides the following significance criteria to determine if a project would:

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

In this context, hazardous emissions are those with potential ill-health effects upon students and/or school staff, including (but not limited to) particulate matter, carbon monoxide, certain TACs and VOCs. The same map discussed in Section III(d) for sensitive receptors may be used in a discussion of potential impacts upon students and the lead agency should provide its standards for determining whether or not a significant impact would occur. Applicants and lead agencies should consult with the District when screening criteria are not met to determine if a health risk assessment should be prepared. More information on TACs is provided in Section 5.

2.6 Mitigation

CEQA requires the implementation of all feasible mitigation measures for impacts that are determined to be significant to reduce them to a less-than-significant level. The CEQA Guidelines Section 15370 definition for mitigation includes:

- a) Avoiding the impact altogether by not taking a certain action or parts of an action.

- b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e) Compensating for the impact by replacing or providing substitute resources or environments.

CEQA does not require mitigation measures that are infeasible for legal, economic, technological, or other reasons.

There are four broad approaches to mitigating impacts to air quality and GHGs:

1. The project or activity can be avoided so emissions are not created;
2. The project or activity can be modified so that it creates fewer emissions;
3. Emission control technology or actions can be applied to the project or activity to reduce or prevent release of emissions; and, in the case of GHGs,
4. Released emissions can be sequestered in the environment so they do not contribute to global warming or mitigated off-site through monetary support of an approved GHG reduction program.

In general, project emissions and mitigation measures to reduce those emissions are measured according to a *source metric* and its *emission factor*. The source metric is the emissions' unit of measure. For example, the metric for transportation sources is vehicle miles traveled and "energy intensity" or the energy demand per square foot of building space is the metric for energy used by a structure. Reduction of source emissions involves measures that reduce its particular metric. Thus land use or transportation demand policies reduce vehicle-related emissions by reducing vehicle miles travelled. These reductions are often termed avoided emissions.

The emission factor is the rate at which emissions are generated per unit of source metric. Emission factors are reduced when there are fewer emissions generated per unit of the source metric. For example, when electricity from photovoltaics is substituted for grid electricity (that is, a carbon-neutral for a carbon-intensive energy source), or when electricity is used instead of gasoline to power a car, the emission factor is reduced.

On-site mitigation thus includes technical approaches to reducing emissions and modification of how a project is constructed and operates. Off-site mitigation includes payment to a fund that is used, for example, to reduce emissions or energy demand elsewhere.

Appendix C includes a list of standard mitigation measures for criteria air pollutants, diesel particulate matter, and GHGs; many measures have the ability to reduce more than one pollutant and may apply during both the project's construction and operational phases. Additional discussion specific to mitigation of criteria air pollutants, toxic air contaminants, greenhouse gases, odors and naturally-occurring asbestos, are included in their respective sections. As discussed in Sections 4 and 6 below, criteria air pollutant and GHG emissions and mitigation measures to reduce those emissions may be measured using modeling programs such as CalEEMod. Estimating toxic air contaminants and their mitigation require other methods that are discussed in Section 5.

CEQA requires that mitigation measures be enforceable; lead agencies must verify that mitigation measures are fully implemented through a monitoring and reporting program (CEQA Guidelines Section 15097). For a Mitigated Negative Declaration, individual mitigation measures typically identify the lead agency entity that will monitor the measure to insure proper implementation. Mitigated Negative Declarations sent to the District should clearly identify the responsible party (for example, the Planning Division, the Department of Public Works, Environmental Health, etc.), and its specific mitigation monitoring and reporting responsibilities.

For EIRs, a comprehensive Mitigation, Monitoring and Reporting Plan must be prepared specifying the specific mitigation measures and actions, and the party responsible for implementation, monitoring and reporting. The District recommends that a draft version of the Mitigation, Monitoring and Reporting Plan be submitted with the Draft EIR for its review.

CEQA Guidelines Section 15126.4(c) provides the following specific guidance for mitigation measures related to greenhouse gas emissions:

“Consistent with Section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

- 1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency’s decision;
- 2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in [CEQA Guidelines] Appendix F;
- 3) Off-site measures, including offsets that are not otherwise required, to mitigate a project’s emissions;
- 4) Measures that sequester greenhouse gases;
- 5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.”

The environmental document should demonstrate the quantity of reductions that will be achieved with mitigation using CalEEMod or another acceptable model.

3 BASIC INFORMATION FOR THE ANALYSIS

The essential function of the impact analysis is to determine the significance of a project's effect upon the non-project or baseline setting. The proper scope of that analysis depends upon an adequate description of the project and its environmental setting as they pertain to existing and potential changes to air quality and GHGs.

3.1 Project Description

A thorough, stable description of the whole of the project is necessary to understand its potential effects upon the baseline environmental setting. In order to facilitate screening and, if necessary, modeling of air quality and greenhouse gas emissions, the District further recommends separate descriptions of both the **construction** and **operational** phases of the project that are sufficiently detailed to allow an understanding of the types and timing of emissions that will occur.

The District is aware that the level of detail for project descriptions prepared by applicants varies considerably. For some development projects, detailed construction and operational information may be premature or otherwise not available. Note, however, that the due diligence often performed by applicants may contain estimates of, for example, construction costs based upon a breakdown of equipment, material, labor and time necessary to complete the project. If such information is available, it should be used to model air quality and GHG impacts for those projects that do not meet the Table 4-1 screening criteria.

In order to provide the most accurate assessment of air quality and greenhouse gas impacts – and consistent with the CEQA Guidelines Section 15124 (Project Description) – the District recommends that lead agencies provide the following information in the environmental document's project description:

- a) To the extent possible, the precise location, assessor's parcel(s), boundaries and components (e.g., structures, roads, parking lots, and landscaping) of the proposed project should be shown on a detailed map or maps that include a current aerial photo base layer at a resolution adequate to visually understand the project footprint and its setting. The project location should also appear on a regional map. Additional maps showing topography, hydrography, land use, vegetation and soils within the project site and vicinity should also be prepared to the extent they will assist in understanding any loss of vegetation, grading, cut and fill volumes, and potential fugitive dust emissions within the context of surrounding land uses and conditions.
- b) A clearly articulated statement of objectives sought by the proposed project that will help the District understand the reasons for air quality and greenhouse gas emission impacts (if any). Should an EIR be required, a statement of objectives will help explain a reasonable range of alternatives and, if necessary, a statement of overriding considerations.
- c) A general description of the project's technical, economic, and environmental characteristics, including the principal engineering processes (if any) and supporting public service facilities and services (e.g., roads, public transit, power supply, water, wastewater and solid waste).

3.1.1 Construction Phase

The construction phase includes site preparation and construction of project components such as parking lots, site infrastructure and buildings. The primary emissions of concern during construction include exhaust emissions of particulate matter (e.g., diesel PM) and oxides of nitrogen (NO_x) from fuel combustion that powers heavy duty equipment, fugitive dust from soil disturbance and demolition, evaporative emissions of reactive organic gases (ROG and VOC) from paving and the application of architectural coatings (e.g., paints and solvents), and exhaust emissions of GHGs such as carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

Construction activities can generate a significant amount of air pollution. In some cases, the emissions from construction represent the largest air quality impact associated with a project. While construction-related emissions are considered temporary, these short-term impacts can contribute to the pollution load recorded at monitoring stations and exceedances of air quality standards.

The most common construction activities include site preparation, earthmoving and general construction. Site preparation includes general land clearing and grubbing; earthmoving activities include cut and fill operations, trenching, soil compaction, and grading; and general construction includes adding improvements such as roadway surfaces, structures and facilities. In some cases, a project requires existing buildings and other obstacles to be demolished as part of site preparation.

The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. CalEEMod can be used to quantify both diesel and fugitive dust PM emissions associated with grading and earthmoving. During construction, fugitive dust, the dominant source of PM₁₀ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Demolition and renovation of buildings can also generate PM₁₀ emissions, and is of particular concern if the building(s) contain any asbestos-bearing materials. An asbestos survey of the existing structure may be required prior to any renovation or demolition activity. If you have any questions concerning asbestos related requirements, please contact the District.

Off-road construction equipment is often diesel powered and can be a substantial source of NO_x emissions. Typical construction equipment includes scrapers, tractors, dozers, graders, loaders, and rollers. The CalEEMod construction equipment defaults allow for a wide range of scenarios. Where specific information concerning construction activities is known at the time the CEQA document is being prepared, the District recommends modifying the construction equipment assumptions to reflect real-world project conditions. All changes to defaults should be clearly identified and supported.

Consideration of potential impacts of construction-related emissions of criteria air pollutants, toxic air contaminants, GHGs and other air pollutants should include the following information in a narrative and tabular format, as appropriate:

- Demolition - any structure(s) that need to be demolished in order for the project to proceed should be described in terms of area and volume, with an estimate for the equipment and time necessary to remove the structure(s) and dispose of debris;

- Site preparation – area affected, vegetation removed and grading (including cut/fill, material import/export) required for structures, roads, parking lots, infrastructure (on and off-site utilities);
- Facilities – roads and parking lots (paving type), structures, infrastructure, landscaping, architectural coatings (paints, stains);
- Equipment – construction equipment and fuel type, construction personnel and vendor trips;
- Best practices – use of best management practices (Appendix C) to minimize combustion and particulate matter emissions; and
- District rules – identify applicable District rules with which the project must comply (Appendix A).

An inventory of emissions and their sources should be provided in a table and evaluated in the context of project timing, phasing and duration. Again, although construction emissions are relatively short-term, even temporary emissions can have significant impacts on air quality. The more detail provided for construction activities in the project description, the better potential air quality and GHG impacts can be evaluated and, if necessary, quantified through modeling.

3.1.2 Operational Phase

The operational phase begins with the end of construction and the start of the project use(s) as defined by the project objective. Fuel and energy expended for a variety of operational activities, including induced traffic, lighting and heating, provision of water and disposal of wastewater, and volatilization of organic compounds from asphalt and architectural coatings, have the potential to result in emissions. Analysis of potential impacts of operational-related emissions of criteria air pollutants, toxic air contaminants, GHGs and other air pollutants relies upon the following information:

- The nature of operational activities including the emission sources and level of activity associated with each (e.g., energy demand and induced traffic); and
- The earliest time when operational emissions are anticipated to commence. If a project will be constructed in phases and portions will become operational after each phase, then the timing should be disclosed in a narrative and tabular format.

For projects that do not meet the Table 4-1 screening criteria, quantification of emissions should be made using CalEEMod or other appropriate modeling software. A transportation study can provide data to determine the vehicular emissions associated with a project, such as customer, employee and resident trips. Estimates should also be developed for emissions resulting from the energy necessary for lighting and heating, provision of water, and the handling of wastewater and solid waste.

As a guide, lead agencies and applicants may discuss, to the extent applicable, a project's consistency with the state CEQA Guidelines Appendix F (Energy Conservation), which includes the following categories.

Energy Consumption and Conservation

- List equipment (machinery, heating and cooling, lighting, vehicles and landscaping equipment, etc.) used in the operation of the project, including equipment and design features intended to reduce energy consumption.
- Provide an estimate of their energy requirements, and the total energy requirements for operation of the project by fuel type.
- Describe the effects of the project on local and regional energy supplies and on requirements for additional capacity, if any.
- Describe the effects of the project on peak and base period demands for electricity and other forms of energy.
- Describe the degree to which operation of the project complies with existing energy standards (for example, compliance with Title 24 Building Standards).
- Discuss project siting, orientation and design to reduce energy demand (for example, for heating and cooling).

Transportation and Measures to Promote Efficient Transportation Alternatives

- Total estimated commuting and work-related trips by vehicle type and mode.
- Land use and design measures intended to reduce reliance on single occupancy commute vehicles (for example, smart growth elements such as higher residential density to support public transportation, improving the walking and biking environment, employee trip reduction program and/or vanpool, etc.).

Water, Wastewater and Solid Waste

- Estimate water consumption, and wastewater and solid waste production.
- Water conservation (use of reclaimed or grey water, low-flow appliances, landscaping).
- Solid waste reduction (recycling, composting)

3.1.3 Compliance with District Permits, Rules and Regulations

The District enforces various rules and regulations to maintain air quality (see Appendix A). Air quality emission controls that are otherwise required by District rules or some other regulation should be considered part of the baseline. In regards to development projects, District permitting authority is primarily focused on stationary sources. A stationary source consists of an identified emission point, such as a stack at a facility. Multiple emission point sources may be located on-site such that the facility as a whole is considered a stationary source. Major stationary sources are usually associated with industrial processes such as manufacturing or refining. Minor stationary sources include fuel combustion in diesel generators, boilers, heaters, and cement and asphalt batch plants. Non-combustion stationary sources include facilities that produce reactive organic gases (ROG) and/or volatile organic compounds (VOC) such as gas stations, dry cleaning services and coating operations.

Compliance with District rules and regulations should be included in the project description and cannot be used as mitigation for a project's impacts to air quality. Rules that may be applicable to development projects are listed in Appendix A. All District rules and regulations may be accessed at www.bcaqmd.org.

3.1.4 Best Practices to Minimize Impacts to Air Quality

Best management practices consist of feasible measures and actions to minimize air pollutant emissions during both the construction and operational phases of a project. They include a range of standard construction and operational practices applicable to a variety of circumstances that should be incorporated into the project description and included as project commitments or conditions of approval. For construction, they include standard practices to control fugitive dust, limit engine emissions, and provide for citizen complaints. For operation, they include site design measures and energy efficient appliances to reduce energy demand for heating, cooling and lighting. For stationary sources, they include Best Available Control Technology (BACT). Examples of best management practices, which may apply to one or more pollutant, are provided in Appendix C.

3.2 Environmental and Regulatory Setting

The CEQA Guidelines Section 15125(a) (Environmental Setting) states:

“An EIR¹ must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.”

Section 15125(c) continues:

“Knowledge of the regional setting is critical to the assessment of environmental impacts...The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.”

The baseline environmental setting represents the existing conditions at a given time to be used as the point of comparison for determining the significance of a proposed project's potential environmental effects. The “time” for which baseline conditions are evaluated is normally when a notice of preparation is published or, if no notice of preparation is published (when an initial study is prepared, for example), when the environmental review commences.

The baseline may be better represented by trends over a given period determined appropriate by the lead agency. For example, air quality or greenhouse gas emissions may vary over a period of years such that emissions for a single year may not provide an accurate measure of the pre-project baseline. In other instances, the near-completion of significant road infrastructure or unusual, temporary circumstances such as forest fires or construction detours may skew the baseline assessment of existing conditions. In such instances, the lead agency is encouraged to consult with the District to determine the appropriate period of time represented by the baseline.²

¹ Note that pursuant to the CEQA Guidelines Section 15063(d), initial studies must also include “identification of the environmental setting” of a project.

² Under such circumstances, the baseline period may be different for different environmental impact analyses.

Annual District air quality reports can be found at the following web site:

<http://www.bcqamd.org/page/monitoring-air-quality.php>

A variety of District and regional air quality data, including trends over time for criteria air pollutants and projections, may be obtained at the following California Air Resources Board web site:

<http://www.arb.ca.gov/html/ds.htm>.

The baseline setting should also include a discussion and map of sensitive receptors within the vicinity of the project. The distance evaluated may vary depending upon the air pollutant, meteorology, topography and other factors; in general, the District recommends evaluation of sensitive receptors within 1,000 feet of the project parcel(s) for toxic air contaminants (including diesel PM and naturally occurring asbestos) and up to one mile for criteria air pollutants and odors.

Although there is no strict definition of what constitutes an adequate baseline discussion, it must provide a point of comparison for determining the significance of a project's impacts. The District recommends that the baseline description include a discussion of the physical and regulatory setting as provided in Sections 3.2.1 and 3.2.2 below.

3.2.1 Physical Setting

The CEQA document should include qualitative and, where relevant data is available, quantitative descriptions of the following environmental baseline characteristics as they pertain to air quality and greenhouse gases:

- Sacramento Valley Air Basin;
- Land use as it may influence the physical setting, including general plan and zoning designations, and past, present and foreseeable future projects in the vicinity of the project under consideration as indicators of other potential sources of air pollutants;
- Proximity of sensitive receptors;
- Landcover (presence of hardscape, roads, vegetation, bare or disturbed soil, etc.) as they may influence existing air quality and be altered with implementation of the project;
- Climate, topography and wind patterns as they may influence seasonal changes in air quality and issues with fugitive dust;
- Ambient air quality, attainment status and trends as points of comparison with anticipated emissions from the project;
- Butte County greenhouse gas baseline inventory (expressed in carbon dioxide equivalents) and future projections, by source; and
- Existing energy supplies for the project and energy use patterns in the region and locality.

Additional information regarding these physical setting characteristics may be found in Appendix B.

3.2.2 Regulatory Setting

Lead agencies should include a brief discussion of the air quality laws and regulations that are applicable to the project. Section III (Air Quality) of the Appendix G Environmental Checklist directs the lead agency to determine if the project would: (a) "conflict with or obstruct implementation of the applicable air quality plan" and (c) "result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and

applicable federal or state ambient air quality standard...” In order to respond to these questions and place the project within its regulatory context, the environmental document should briefly discuss the following as they may be applicable to the potential air quality and greenhouse gas emission impacts of the project:

- Federal and State Clean Air Acts
- California Air Resources Board
- State Implementation Plan (SIP) and Northern Sacramento Valley Attainment Plan (however, see discussion in Section 2.5.1)
- Butte County Air Quality Management District
- Climate change and applicable climate action plan (if any)
- General Plan policies applicable to air quality and climate change

(Note that pursuant to California Public Resources Code Section 21151.8(a)(2), any new school or proposed industrial or commercial project site to be located within one quarter of a mile of a use that might reasonably be anticipated to emit hazardous emissions or handle hazardous or extremely hazardous substances or waste must be referred to the District for review. Pursuant to California Health and Safety Code Section 42301.6, the air pollution control officer is required to issue a public notice prior to making a final decision on a permit application for any new or modified source of hazardous air emissions located within 1,000 feet of the outer boundary.)

The regulatory setting applicable to air quality in Butte County is provided in Appendix A. Information is also available at the District’s web site (www.bcaqmd.org) and the California Air Resource Board’s web site (<http://www.arb.ca.gov/>).

4 EVALUATION OF CRITERIA AIR POLLUTANTS

This Section provides the District's recommendations on how criteria air pollutants should be evaluated in the environmental document, including:

1. Criteria air pollutants subject to analysis;
2. Use of Table 4-1 Screening Criteria;
3. Quantification and impact determination with CalEEMOD; and
4. Mitigation.

4.1 Criteria Air Pollutants Subject to Review

Criteria air pollutants are those air pollutants or precursors to air pollutants that are subject to the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS). The seven NAAQS criteria air pollutants are:

1. Carbon monoxide (CO);
2. Lead (Pb);
3. Nitrogen dioxide (N₂O);
4. Ozone (O₃);
5. Respirable particulate matter less than 10 microns in diameter (PM₁₀);
6. Fine particulate matter less than 2.5 microns in diameter (PM_{2.5}); and
7. Sulfur dioxide (SO₂).

In addition to these seven Federal criteria air pollutants, the California Air Resources Board has established California Ambient Air Quality Standards for the following four:

1. Sulfates;
2. Hydrogen sulfide;
3. Vinyl chloride (chloroethene); and
4. Visibility reducing particles.

Permissible levels of criteria air pollutants are set according to human health and/or environmentally-based standards. Limits established to protect human health are termed primary standards; limits established to prevent environmental and property damage are termed secondary standards. The regulatory context for criteria air pollutants is further discussed in Appendix A.

4.2 Analytic Approach

Evaluation of criteria air pollutants consists of five steps:

1. Compare project type and size with Table 4-1 Screening Criteria;
2. If project type and size do not meet Table 4-1 Screening Criteria, construction and operational project emissions must be quantified using a modelling software such as CalEEMod;
3. Compare quantified, unmitigated emissions with Table ES-2 Thresholds of Significance (see page 5);
4. If unmitigated emissions exceed the Table ES-2 Thresholds of Significance, apply mitigation measures; and
5. Recalculate mitigated emissions and compare with Table ES-2 Thresholds of Significance.

Applicants should be sure to include all applicable best practices to reduce emissions of criteria air pollutants in the project description. Best practices – many of which reduce more than one pollutant – are provided in Appendix C.

When using CalEEMod to estimate emissions, the District recommends that, at a minimum, the seven federal criteria air pollutants be evaluated. Evaluation of reactive organic gases (ROGs) and toxic air contaminants (TACs) will capture the potential effects of volatile organic compounds (VOCs), which are hydrocarbon compounds emitted into the air from gasoline, alcohol, architectural coatings (paints and stains), asphalt, and a wide variety of other substances. VOCs may be toxic, contribute to the formation of smog, and are a primary precursor to ozone formation.

4.3 Screening for Criteria Air Pollutants

Table 4-1 provides the District’s screening criteria to determine whether or not modeling for criteria air pollutants is necessary. The screening criteria were created using CalEEMod version 2013.2.2 for the given land use types, with default Butte County urban settings (see Table 4-2 limitations discussed below) and relate to both the size of the project facility (units or square feet) and the surface area that will be disturbed to support the facility. Using the default settings, the quantity of criteria pollutant emissions is proportional to the size of the project. To determine whether or not a proposed project meets the screening criteria, the size and metric for the land use type (units or thousands of square feet) should be compared with that of the proposed project.

| Land Use Type | Model Emissions for Projects Greater Than |
|--|--|
| Single Family Unit Residential | 30 units |
| Multi-Family (Low Rise) Residential | 75 units |
| Commercial | 15,000 square feet |
| Educational | 24,000 square feet |
| Industrial | 59,000 square feet |
| Recreational | 5,500 square feet |
| Retail | 11,000 square feet |
| 1. Screening levels were created using CalEEMod 2013.2.2, based on daily ozone precursor emissions with default Butte County urban settings modeled for winter emissions (which are typically higher than summer emissions). | |
| 2. CalEEMod provides numerous land use sub-types for each of the land use types provided in the left column. Please consult the CalEEMod User Guide for more information regarding specific land use sub-types. | |
| 3. Screening criteria assume no woodburning devices, unpaved roads, parking or mixed land uses. | |
| 4. Emissions from engines and industrial sources subject District Rules and Regulations are not included in the screening estimates. | |

If the screening criteria are met by a proposed project, then further quantification of criteria air pollutants is not necessary and a less-than-significant impact for criteria air pollutants may be assumed. If a project exceeds the size provided by the screening criteria for a given land use type then modeling and quantification of criteria air pollutants should be performed as described in Section 4.4.

The screening criteria identified in Table 4-1 represent project sizes by land use where a significant impact to air quality *may* occur (that is, a Table ES-2 criteria air pollutant threshold *may* be exceeded) such that additional evaluation and modeling is warranted. They are not thresholds of significance or comprehensive, and should be used for general guidance only.

Lead agencies should carefully consider how a proposed project relates to the land use categories and sizes provided in Table 4-1 as not all projects will offer a simple match. The land use types represent new development on greenfield sites in urban areas without mitigation measures. The size criteria for the different land use categories are based upon default assumptions made by CalEEMod regarding the scope of numerous activities and characteristics associated with the construction and operational phases: demolition, grading, cut and fill, vegetation removal and landscaping, material import/export, equipment, vehicle miles travelled, energy demand and production, and many others. The screening criteria do not account for project design features, attributes, or local development requirements that could result in lower emissions. For example, projects that mix land uses, involve infill development or are proximate to transit and local services, would have less emissions than the greenfield projects these screening criteria are based upon.

A determination that a proposed project will not have a significant impact with regard to criteria air pollutants (and that further modeling and quantification is unnecessary) should be based upon an assessment of the whole of the project. If there is substantial evidence that the criteria air pollutant emissions are cumulatively considerable, notwithstanding compliance with the screening levels in this table, a refined emissions quantification and analysis should be conducted. If modeling of criteria air pollutants is determined to be unnecessary because the project meets the screening criteria, the initial study should still identify the main sources of construction and operational emissions with sufficient discussion to support the conclusion that they will have a less than significant impact on air quality.

In relying on Table 4-1 to not model emissions, lead agencies should insure that all applicable best management practices are incorporated into construction and operation of the project and identified in the project description. As noted in the Executive Summary, Table 4-1 should not be used and modeling and quantification should be performed if a project involves any of the following:

- Significant material transport involving a considerable amount of hauling (e.g., greater than 10,000 cubic yards);
- Grading in contaminated soils or in areas with suspected or known naturally-occurring asbestos (see Section 7.2);
- Simultaneous construction of more than one land use type (not applicable to high density infill development);
- Only a construction phase; that is, the project has no operational land use component, (for example, a road construction or levee project); or
- Preparation of an environmental impact report.

When relying upon screening criteria, lead agencies should also take care to evaluate the potential presence of sensitive receptors. Stationary-source emissions are not included in the screening estimates in Table 4-1; again, however, a project's stationary source emissions that must be permitted by the District should be discussed in the environmental document but analyzed separately from the land use-related indirect mobile- and area-source emissions.

Finally, any conclusions made in regards to impacts via screening criteria should be based on substantial evidence as that term is defined in CEQA Guidelines Section 15384. The

environmental document should provide a succinct and reasoned discussion concerning the applicability of screening criteria in reaching a determination regarding impact significance.

4.4 Impact Analysis and Determining Significance

If a project does not meet the screening criteria provided in Table 4-1, then emissions of nonattainment pollutants (ROG, NO_x, PM) and, if appropriate given the project, other criteria or toxic air pollutants, should be modeled and quantified to determine whether or not a significant impact will occur pursuant to the thresholds of significance presented in Table ES-2.

4.4.1 Modeling Air Quality Emissions

There are several approaches available to modeling air pollutants; applicants and lead agencies are encouraged to consult with the District regarding the most suitable model. The basic steps are provided in Table 4-2.

| Step | Evaluate | Construction | | | Operation | | |
|------|--|---|--|------------|------------|-----------------|------------|
| | | ROG | NO _x | PM | ROG | NO _x | PM |
| 1 | Area Sources | A | A | A | A | A | A |
| | Mobile Sources | B | B | B | B | B | B |
| | Total Unmitigated Emissions | A+B=C | A+B=C | A+B=C | A+B=C | A+B=C | A+B=C |
| 2 | BCAQMD Threshold | Max 137 lbs/day not to exceed annual 4.5 tons/year | Max 137 lbs/day not to exceed annual 4.5 tons/year | 80 lbs/day | 25 lbs/day | 25 lbs/day | 80 lbs/day |
| 3 | Unmitigated Emissions Exceed BCAQMD Threshold? | Are unmitigated emissions C > Threshold? If yes, the impact is significant - go to Step 4. If no, the impact is less than significant and mitigation is not required. | | | | | |
| 4 | Emissions Mitigated to Maximum Extent Feasible | D | D | D | D | D | D |
| 5 | Mitigated Emissions Exceed BCAQMD Threshold? | Are mitigated emissions D > Threshold? If no, the impact is less than significant with mitigation incorporated. If yes, the impact is significant and unavoidable. | | | | | |

Note: Letters "A" and "B" represent numeric values that would be obtained through modeling for sources of construction and operational emissions. "C" represents the sum of unmitigated emissions "A" and "B"; "D" represents mitigated emissions.

For most development projects, the District recommends using the latest version of CalEEMod to estimate criteria air pollutants (and, as discussed in Section 6, greenhouse gases). CalEEMod, developed and maintained by the California Air Pollution Control Officers Association (CAPCOA), is widely used and provides a consistent approach to estimating air pollutant emissions resulting from construction and operation. It calculates emissions for a variety of project types, including ROG, NO_x, fugitive dust and exhaust PM, GHGs, and other air pollutants.

Accurate modeling and quantification of criteria air pollutants depends upon correctly evaluating their relevant source(s) and emission rates. CalEEMod provides emission factors for both the

construction and operational phases of a project combined with appropriate default data that can be used if site-specific information is not available. (Each source has a default value based upon surveys conducted by the South Coast Air Quality Management District.) Although applicants can simply use the default settings provided by the software, the District recommends using project-specific data to achieve the most accurate estimate possible. General guidance in the use of CalEEMod is provided in the following sections. More specific guidance is available at the CalEEMod web site: www.caleemod.com.

Other freely available emissions analysis aids include EMFAC (developed by the California Air Resources Board) and the EPA document AP-42 “Compilation of Air Pollutant Emission Factors.” For linear construction projects, such as pipeline, road or levee work, the Sacramento Metropolitan Air Quality Management District’s Roadway Construction Emissions Model provides a spreadsheet approach to quantifying emissions. Information is available at: <http://airquality.org/ceqa/>.

4.4.2 Construction Emissions

The CalEEMod construction module consists of construction phases and various emission sources that could occur (depending upon the project) during one or more of those phases. The construction phases consist of demolition, site preparation, grading, building construction, paving, and architectural coatings. The emission sources evaluated by CalEEMod (on separate tabs) are off-road equipment, dust from material movement, demolition, trips and vehicle miles travelled (VMT), on-road fugitive dust and architectural coatings. Each of these emission sources, in turn, provides additional options to characterize the source.

As noted, CalEEMod includes default assumptions for a variety of construction-related activities associated with a particular land development project, such as:

- Construction phase duration;
- Daily disturbed acreage;
- Fugitive dust emission rate;
- Asphalt paving (if applicable);
- Construction worker trips;
- Equipment fleet for each phase;
- Construction vendor trips; and
- Architectural coating emissions

Table 4-3 provides the metrics by which CalEEMod measures construction emission sources. Applicants should make every attempt to provide project-specific values for as many of the applicable metrics as possible in order to accurately estimate construction emissions. Users may enter their own data or use the default settings based upon the project type, size and location but, regardless of whether user or default data is used, the environmental document should discuss the basis for the analysis and its conclusions. A project construction emissions source not provided by CalEEMod as a default setting can and should be entered on the construction tab and evaluated as part of a project’s potential impacts to air quality.

Table 4-3. Construction Source Emissions and Metrics Evaluated by CalEEMod*

| Source | Metric | | | | | |
|-----------------------------|---|---|---|---|-------------------------------|---------------------|
| Off-Road Equipment | Equipment type and number | Equipment horsepower | Equipment load factor | | | |
| Dust from Material Movement | Material imported, exported | Volume, weight | Mean vehicle speed | Total acres disturbed | Material moisture content | Silt content |
| Demolition | volume | weight | | | | |
| Trips and VMT | Worker, vender, hauling trips/day | Trip lengths | Class of vehicle | | | |
| On-Road Fugitive Dust | Percentage paved road | Road silt (g/m ²) | Material silt content (%) | Material Moisture content (%) | Average vehicle weight (tons) | Vehicle speed (mph) |
| Architectural Coatings | residential interior and exterior VOC (g/L) | Residential interior and exterior area (sf) | Non-residential interior and exterior VOC (g/L) | Non-residential interior and exterior area (sf) | | |

* Evaluated as applicable during demolition, site preparation, grading, building construction, paving and architectural coating phases.

4.4.3 Operational Emissions

CalEEMod evaluates operational emissions associated with mobile (VMT, emissions by fleet mix, road dust), area (hearths, consumer products, area architectural coatings, landscape equipment), energy use associated with heating, cooling, lighting, appliance, water use and wastewater, and solid waste disposal components of a project once it is in use. The direct, indirect and cumulative air quality impacts that result from operational activities of a project should be fully evaluated and quantified as part of the CEQA review process for projects that do not meet the screening criteria. Table 4-4 summarizes the various operational emissions metrics by source.

CalEEMod also provides a module evaluating vegetation removed and planted (one-time loss and provision of carbon sequestration, respectively) using acreage and number of trees as the default metrics.

Similar to estimating construction emissions, applicants and lead agencies should obtain as much information as possible regarding operation of the project to improve the accuracy of the estimate. For example, motor vehicles are a primary source of long-term emissions from residential, commercial, institutional, and industrial land uses. These land use projects may not emit significant amounts of vehicular air pollutants directly, but are likely to attract motor vehicle trips (for example, employees and vendors) that do produce emissions. Such induced vehicle trips are examples of indirect sources.

Non-Vehicular Emissions from Residential and Commercial Facilities (Area Sources)

Non-vehicular emissions sources associated with most residential and commercial development include: energy used to power lights, appliances, heating and cooling equipment; evaporative emissions from paints and solvents; fuel combustion by lawnmowers, leaf blowers and other small utility equipment; residential wood burning; household products; and other small sources.

Table 4-4. Operational Source Emissions and Metrics Evaluated by CalEEMod

| Source | Metric | | | | |
|----------------------|--|--|---|--|--|
| Mobile | Vehicle trips | Vehicle emissions | Road dust | | |
| Area | Hearths | Consumer products | Area architectural coatings | Landscape equipment | |
| Energy Use | Title-24 electricity energy intensity (kWhr/size/yr) | Non-title-24 electricity energy intensity (kWhr/size/yr) | Lighting energy intensity (kWhr/size/yr) | Title-24 natural gas energy intensity (KBTU/size/yr) | Non-title 24 natural gas energy intensity (KBTU/size/yr) |
| Water and Wastewater | Indoor/outdoor water use (gals/year) | Electricity intensity factor to supply, treat and distribute (kWhr/Mgal) | Electricity intensity factor for wastewater treatment (kWhr/Mgal) | Septic, aerobic, facultative lagoons (%) | Anaerobic digestion with combustion or cogeneration of gas (%) |
| Solid Waste | Solid waste generation rate (tons/yr) | Landfill no gas capture (%) | Landfill capture gas flare (\$) | Landfill capture gas energy recovery (%) | |

Collectively, these are referred to as “area sources” and are important from a cumulative perspective even though they may appear insignificant when viewed individually. CalEEMod provides default emissions estimations from area sources based on land use types.

Industrial Emission Sources

Industrial facilities and operations are typically categorized as being “point” or “area” sources for emissions. Point sources are stationary and generally refer to a site that has one or more emission sources at a facility with an identified location (e.g., power plants, refinery, boilers). In contrast, area sources include:

- Stationary or mobile sources with categories of stationary facilities whose emissions may be small individually but significant as a group (e.g., gas stations, dry cleaners, etc.) within a given area;
- Sources whose emissions emanate from a broad area (e.g., fugitive dust from storage piles and dirt roads, landfills, surface mines, etc.); and
- Mobile equipment used in industrial operations (e.g., drill rigs, loaders, haul-trucks, etc.).

Emissions from new, modified or relocated point sources are directly regulated by the District through the New Source Review program (Rule 430) and facility permitting program (see Appendix C). New development that includes these source types should be forwarded to the District for a determination of District permitting and control requirements.

Certain other stationary and mobile area sources are also subject to District permitting (for example, various equipment at surface mining operations and fugitive dust from stockpiles). However, area sources of combustion emissions from mobile equipment at a facility (for example, loaders, haul trucks, compressors, portable generators, etc.) are generally not subject to direct permitting by the District and their impact analysis and mitigation must occur through the CEQA review process. For input into CalEEMod, the appropriate emission factors and calculation

methods for such sources are contained in the federal Environmental Protection Agency publication, *Compilation of Air Pollutant Emission Factors*, AP-42 (latest edition available at <http://www.epa.gov/ttnchie1/ap42/>)

One CalEEMod default area source value which could have a significant impact on project emissions is “hearth fuel combustion.” While the Table 4.1 residential screening criteria do not include hearths or fireplaces, this setting requires attention if a project does include wood-burning devices.

Estimates submitted during the environmental review process should include supporting documents and files with project calculations (in Excel format) to allow the District to verify quantification of the emissions.

4.4.4 Determining Significance

The threshold criteria for criteria pollutants established by the District to determine the significance and appropriate mitigation level for a project are presented in Table ES-2 in the Executive Summary. The thresholds are based upon District Rule 430 *State New Source Review (SNSR)* which incorporates stationary source permitting significance thresholds required by the California Health and Safety Code Section 40918. Emissions which equal or exceed the designated threshold levels are considered potentially significant and should be mitigated to the maximum extent feasible. For **construction activities**, any project generating more than 137 lbs/day or 4.5 tons/year of ROG or NO_x, or 80 lbs/day of particulate matter, should make every feasible attempt to mitigate below those thresholds. For **operational activities**, any project generating more than 25 lbs/day of ROG or NO_x, or 80 lbs/day of particulate matter for should similarly make every feasible attempt to mitigate below those thresholds.

4.5 Mitigation

As discussed, emissions may occur during both the construction and operational phases of a project with direct, indirect and/or cumulative effects upon ambient air quality. In order to reduce a potentially significant impact to less than significant, mitigation measures must be implemented that reduce emissions of NO_x, ROG and PM to levels below the thresholds in Table ES-2³. Mitigation of construction emissions includes using a low-emission fuel such as natural gas or bio-diesel and the most effective engine technology for reducing emissions. Control of fugitive dust beyond standard best practices such as using soil stabilizers or replacing disturbed ground cover may also be employed. For operational emissions, applicants should first seek to mitigate to a less than significant level with on-site measures. If these measures are inadequate, then off-site measures should be proposed and implemented (see Appendix C). The District will review all mitigation measures to evaluate their efficacy and insure their successful application.

Table 4-5 provides general mitigation strategies that may, with sufficient detail, be evaluated in CalEEMod. In order to achieve the most accurate reductions estimate possible, the applicant should provide project-specific inputs for each mitigation measure.

In practical terms, the on-site mitigation measures address fugitive dust, diesel particulate matter and exhaust, trip reduction in construction and operational vehicle miles travelled, efficient energy and water use, methods to reduce wastewater and solid waste, and off-site measures.

³ If a lead agency wishes to approve a project with a significant impact, it must adopt a statement of overriding considerations explaining its decision.

Table 4-5. CalEEMod Mitigation Strategies for Construction and Operation-Related Impacts

| Source | Mitigation Measure | | | |
|---|---|---|---|--|
| Off-Road Construction Equipment | Change fuel (diesel, bio-diesel, CNG) | Change engine tier (Tiers 1 - 4) | Install diesel particulate filter (Levels 1 -3) | Use oxidation catalyst (% reduction) |
| Dust Reduction (PM10, PM2.5) | Soil stabilizer for unpaved roads | Replace ground cover of area disturbed | Water exposed area, clean paved road | Traffic and dust control on unpaved roads |
| Traffic - Land Use and Site Enhancement | Increase dwelling unit density, land use diversity, improve walkability, destination and transit access | Improve pedestrian network, traffic calming, implement NEV network | Limit parking supply, unbundle parking costs, on-street market pricing | Provide BRT system, expand transit network, increase transit frequency |
| Traffic - Commute | Implement trip reduction program, provide transit subsidy, workplace parking measures | Implement school bus program, encourage telecommuting, alternative work schedules | Provide market commute trip reduction option, employee vanpoo/shuttle, ride sharing program | |
| Area | No hearth/natural gas only hearth, low VOC paint, electric yard tools | Low VOC cleaning supplies | Landfill capture gas flare (\$) | Landfill capture gas energy recovery (%) |
| Energy Demand | Exceed Title 24 standards | Install high efficiency lighting | On-site renewable energy | Energy efficient appliances |
| Water Use | Apply water conservation strategy, use reclaimed/grey water | Install low-flow faucets, shower, toilet | Reduce turf, use water efficient irrigation | Water efficient landscaping |
| Solid Waste | Institute recycling and composting services | | | |

A variety of standard on- and off-site mitigation measures for minimizing construction and operational emissions of criteria air pollutants are provided in Appendix C. The efficacy of the mitigation measures must be verified and the District recommends that CalEEMod be used to quantify the emissions reductions anticipated with implementation. Mitigation applicable to the construction, traffic, area, energy, water and solid waste options for reducing air quality and greenhouse gas emission impacts are also provided in the CalEEMod User Guide (available at <http://www.caleemod.com>).

5 EVALUATION OF TOXIC AIR CONTAMINANTS (TACs)

This Section provides the District's recommendations on how toxic air contaminants should be evaluated in the environmental document, including:

1. An inventory and discussion in the project description regarding potential sources of TACs;
2. Screening methods to determine if further quantification is necessary;
3. Methods to model and quantify TACs;
4. Guidance on significance thresholds; and
5. Approaches to mitigation.

A general approach for determining impacts resulting from TACs is provided in Chart 5-1.

5.1 Toxic Air Contaminants Subject to Review

TACs, also referred to as toxic or hazardous air pollutants, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. TACs come from a variety of sources, ranging in scale and complexity from household products to industrial plants, and can be emitted directly or formed in the atmosphere via reactions between different pollutants. They are identified, assessed for potential risk to humans, and regulated as determined necessary under the US EPA's National Air Toxics Assessments (<http://www.epa.gov/nata/>) and/or CARB's California Air Toxics (<http://www.arb.ca.gov/toxics/toxics.htm>) programs with the goal of eliminating, avoiding or otherwise minimizing the risks of adverse health effects to humans from exposure. As of this writing, there are some 200 TACs on the California Air Toxics Program's list which may be accessed at: <http://www.arb.ca.gov/toxics/id/taclist.htm>.

TACs are not classified as criteria air pollutants (CAPs) and – except as noted immediately below – are not included in the California Ambient Air Quality Standards. Fine particulate matter or PM_{2.5} is a criteria air pollutant, and certain fine particulates such as diesel PM and components of smoke are also classified as TACs and generally agreed to be some of the most harmful air pollutants in relation to their impact on human health.

5.2 Health Risk Assessments

The health effects of TACs vary considerably and may be assessed by means of a health risk assessment, which in simple terms is a measure of the chance that humans will experience health problems due to exposure. A health risk assessment combines known health effects to animals and humans resulting from exposure with estimates of the level of exposure to humans at different distances from the source of the TAC. For regulatory purposes, TACs are divided into carcinogens and non-carcinogens, depending upon the physiological effects associated with exposure. For carcinogens, there is no safe threshold assumed below which health impacts would not occur and risk is expressed as excess cancer cases per one million exposed individuals (usually over a lifetime of exposure).

Non-carcinogenic substances differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur; that safe level of exposure varies with the TAC. For projects that do not meet screening criteria referenced in Section 5.4 below, a health risk assessment must be done in order to evaluate the level of exposure. Acute and chronic exposure to non-carcinogens are expressed separately as a hazard index (HI) representing the ratio of expected exposure levels to acceptable reference exposure levels.

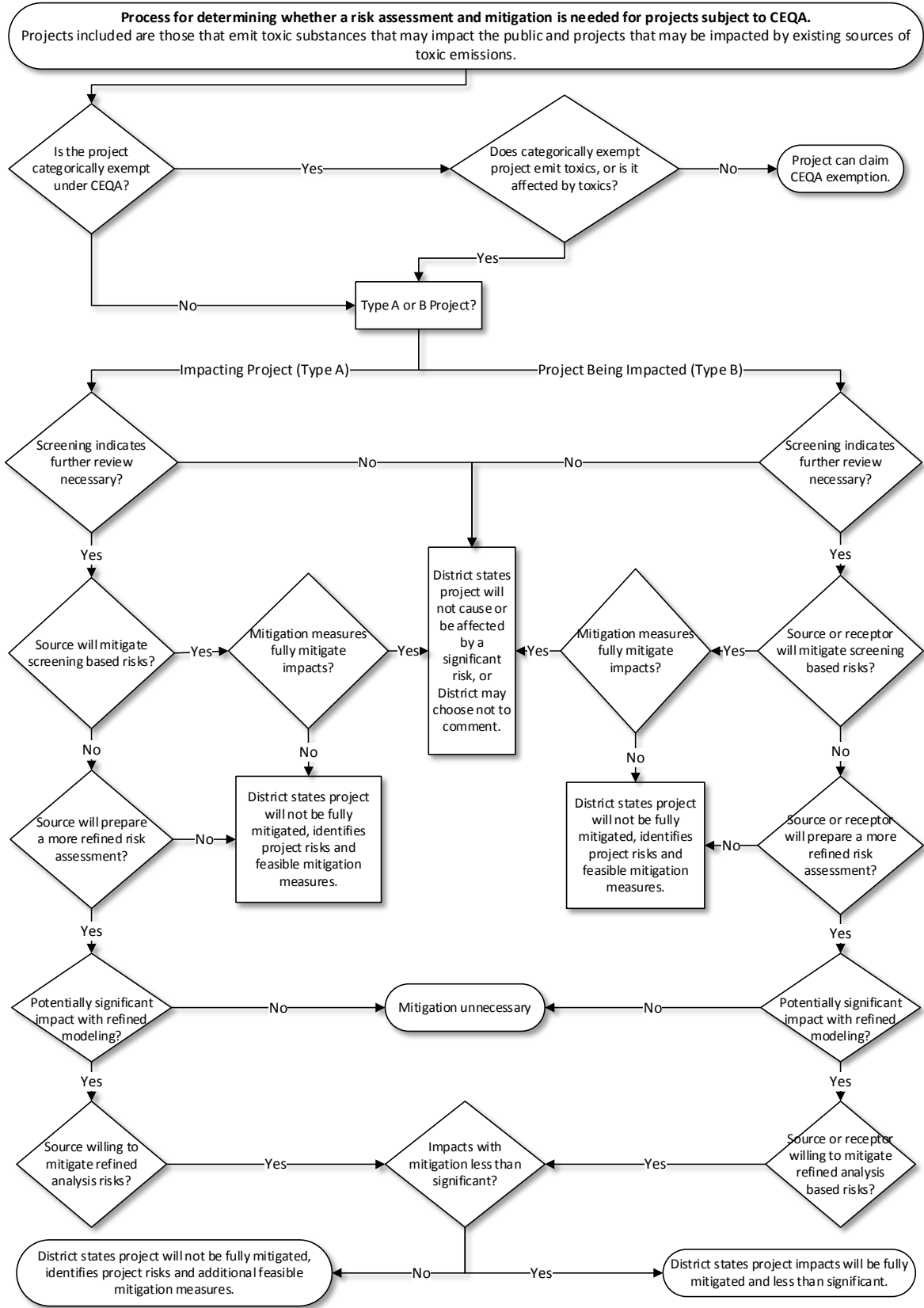


Chart 5-1. CEQA Evaluation Process for Toxic Air Contaminants

The health effects of TACs are evaluated by the California Office of Environmental Health Hazard Assessment (OEHHA). Cancer potencies and reference exposure levels (RELs) for individual air contaminants established by the Air Toxics Hot Spots Program (Health and Safety Code Section 44360(b)(2)) reflect their potentially different effects upon the health of infants, children and other sensitive populations.

The US EPA (1991) identifies the following four steps in a health risk assessment:

1. Hazard Identification – what health problems are caused by the TAC?
2. Exposure Assessment – how much of the pollutant do people inhale during a specific time period and how many people are exposed?
3. Dose-Response Assessment – what are the health problems at different exposures?
4. Risk Characterization – what is the extra risk of health problems in the exposed populations?

The principal factor used to determine health risk focuses on the dose(s) to which receptors are exposed to one or more TACs according to their concentration and persistence in the environment. Dose and health risk thus increase with the concentration and duration of exposure to the TAC, which in turn are affected by various physical conditions affecting its dispersion through the atmosphere such as weather conditions and topography. The age and sensitivity of the receptor also interact with the dose; children, the infirm and the elderly are generally more susceptible to the health effects of a TAC.

In general, a project's site-specific characteristics and surrounding conditions are used to evaluate its potential cancer risk, hazard, and PM_{2.5} concentrations. The environmental document should provide an inventory of all TACs that may occur with construction and operation of the project itself and identify significant sources and receptors within a 1,000 foot radius around the project parcels for the cumulative analysis. Applicants and lead agencies may find the *California Almanac of Emissions and Air Quality*, published by CARB, useful for its discussion of trends of various TAC emissions in California. The Almanac may be accessed at:

<http://www.arb.ca.gov/aqd/almanac/almanac.htm>

While many TACs are associated with specific industrial processes, a pervasive TAC common in many land development projects is fine particulate matter (PM_{2.5}) emitted from diesel powered equipment. Both short and long-term exposure to diesel PM_{2.5} is known to be particularly harmful to human health due to its effects on the respiratory and cardiovascular systems.

5.3 Analytic Approach by Project

5.3.1 Type A and B Projects

In evaluating TACs, the 2009 CAPCOA *Health Risk Assessments for Proposed Land Use Projects* identifies **Type A** and **B** land use projects with the potential to cause long-term public health risk impacts. **Type A** land use projects involve new facilities or facility activities that emit TACs with a potential to impact receptors, such as

- Freeways and high traffic volume roads;
- Goods distribution centers;
- Rail yards;
- Refineries;
- Chrome platers;
- Autobody shops;
- Gasoline dispensing facilities;

- Fossil fuel power plants;
- Asphalt batch plants;
- Quarry operations; and
- Other stationary sources that emit toxic substances.

Type A projects generally involve stationary sources of air pollutants (and are therefore subject to permitting by the District), but they may also involve mobile sources, such as road traffic, delivery vehicles, or diesel-powered locomotives, and be further distinguished as point or area sources. A point source is a single, identifiable source of air emissions such as a stack or collection of isolated vents. With area sources, air pollutant emissions are dispersed across a certain land use, such as a landfill, construction site or wastewater lagoon. Regardless of the nature of the source, and pursuant to Government Code Section 65850.2 and Health and Safety Code Sections 42301.6 to 42301.9, projects with the potential to emit dust, soot, odors, fumes, vapors, or other volatile compounds that are within 1,000 feet of the outer boundary of a school or school site must be forwarded to the District for review.

For Type A projects, the lead agency should evaluate:

- The extent to which the new source would increase risk levels, hazard index, and/or PM_{2.5} concentrations at nearby receptors;
- Whether or not the source should be permitted by the District (as a stationary source); and
- Whether the project should implement Best Available Control Technology for Toxics (T-BACT), as determined by the District.

Type B land use projects are residential, commercial and institutional developments that will place receptors in the vicinity of an existing TAC source; for example, a residential subdivision within a certain distance of a freeway interchange or a rendering plant. If a project will provide a place for people to live, recreate, learn or convalesce, it should be considered a receptor in the context of an existing TAC source.

The project description should consider those segments of the population most vulnerable to poor air quality, including children, the elderly and those with pre-existing health problems affected by air quality (CARB 2005). Receptors include residences (i.e., houses, apartments, mobile home parks, and senior living complexes), schools and school yards, parks and play grounds, daycare centers, nursing homes, and medical facilities (i.e., hospitals, convalescent homes, and health clinics).

5.3.2 District Permitted and Non-Permitted Sources

Stationary sources of potential TAC emissions, such as gas stations or back-up diesel generators, are subject to District permit requirements. For discretionary projects with sources that must be permitted by the District, the project type, size, location and planned level of use are the bases for estimating TAC emissions. As discussed in Sections 5.4 and 5.5 below, screening and, if necessary, modeling should be used to determine cancer and non-cancer risk for existing and reasonably foreseeable future receptors within 1,000 feet of the project boundary. Depending upon the source and risk, the District may make recommendations for Best Available Control Technology specific to the TAC source (otherwise known by the acronym T-BACT). Note that stationary sources emitting TACs are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Air Toxic Control Measures (ATCMs) promulgated by the EPA and CARB, respectively. More information regarding federal and state standards may be found at:

<http://www.epa.gov/compliance/monitoring/programs/caa/neshaps.html>

and

<http://www.arb.ca.gov/toxics/atcm/atcm.htm>

New stationary sources of TACs would not receive authority to construct or a permit to operate if it would result in:

- An incremental increase in cancer risk greater than ten (10) in one million at any offsite receptor; and/or
- An off-site ground-level concentration of non-carcinogenic TACs generated from the project that would result in a Hazard Index greater than one (1) (unless approved by Office of Environmental Health and Hazard Assessment).

For discretionary projects that include sources of TAC and/or PM_{2.5} emissions that are not subject to District permitting, such as a distribution center or manufacturing facility, the project description should include the type, number and use of diesel-powered on-road and off-road equipment and the presence of existing and reasonably foreseeable future receptors within 1,000 feet of the project boundary.

The District recognizes that the operation of a project may include permitted stationary sources and non-permitted sources of TACs. In such cases, lead agencies should evaluate the combined impact of all TAC emissions generated on the project site, in addition to the potential cumulative impacts within the project vicinity. In general, cumulative impacts may be analyzed within a 1,000 foot radius around the project fence line, although a larger or smaller radius may be appropriate in certain circumstances. Applicants and lead agencies may consult the District to determine the locations of existing permitted sources (if any) within a project area.

5.3.3 Best Practices to Minimize TAC Emissions

The breadth of best practices to reduce TAC emissions reflects the variety of TAC sources. Construction best practices include limiting equipment idling, use of diesel particulate filters and other measures to minimize diesel particulate matter. Operational best practices include use of Best Available Control Technology specific to the TAC source (T-BACT). Best practices, which should be referenced in the environmental document as applicable, are provided in Appendix C.

5.3.4 Analytic Expectations

The goal of the impact analysis is for the lead agency to make a determination, based upon substantial evidence, as to whether or not the TAC emissions associated with the construction and operation of the project will have a significant effect upon air quality in general and sensitive receptors in particular. Lead agencies may start with appropriate screening tools as described in Section 5.4 below. If the screening tool(s) indicate an impact may occur, or if the project information does not allow for reasonably accurate use of the screening tool(s), then quantitative modeling and a Health Risk Assessment (HRA) should be performed as described in Section 5.5.

The *Health Risk Assessments for Proposed Land Use Projects* provides the following phased approach for the CEQA review process when either a Type A or Type B project is proposed:

1. Determine if the project is categorically exempt from CEQA;
2. Determine if the project is impacting, or being impacted (Type A or B);
3. Identify sources, receptors and impact area (project radius);

4. Using screening methods, calculate acute, chronic, and cancer risk;
5. If the screening analysis indicates significant health risk as defined by the lead agency, demonstrate that risks will be mitigated with all feasible measures even though a refined risk assessment may show that less mitigation is needed; or
6. Conduct a refined screening (health) risk assessment; and,
7. If the risk continues to be deemed significant by the lead agency even with the refined assessment, demonstrate that the risks will be adequately mitigated with feasible measures.

This process is summarized by the flow chart in Chart 5-1. Some projects that would otherwise be categorically exempt from CEQA (see Section 1.3.1 above) may emit toxic emissions or may be impacted by existing toxic sources. Such projects may require a Health Risk Assessment (HRA) and thus be an exception to a categorical exemption pursuant to CEQA Guidelines Section 15300.2). Table 5-1 shows exceptions from categorical exemptions where an HRA evaluation may be needed and a negative declaration or EIR should be prepared.

| Categorical Exemption | Exempt Activity with Possible Impact |
|---|--|
| 15301. Existing Facilities | This exemption also allows use of a single-family residence as a day care facility without CEQA review. <i>However, such uses near existing TAC emissions may warrant further review.</i> |
| 15302. Replacement or Reconstruction | This exemption allows the replacement or construction of existing schools and hospitals in certain cases without CEQA review. <i>However, locating new facilities near existing TAC emissions may warrant further review</i> |
| 15303. New Construction or Conversion of Small Structures | This exemption class allows small new construction projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources.</i> |
| 15314. Minor Additions to Schools | This exemption class allows small school addition projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources.</i> |
| 15316. Transfer of Ownership of Land in Order to Create Parks | Exemptions in this class should be reviewed for <i>possible impacts from locating near ongoing sources of TAC.</i> |
| 15332. In-Fill Development Projects. | This exemption class allows certain in-fill development projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources such as high volume roadways and freeways.</i> |

Source: Table 1, *Health Risk Assessments for Proposed Land Use Projects*. CAPCOA 2009.

As with criteria air pollutants and greenhouse gas emissions, applicants should provide as much project-specific information as possible in order to accurately disclose all potential TAC emissions. Construction activity can result in emissions of diesel PM while airborne asbestos can occur with demolition or soil disturbance in areas with naturally-occurring asbestos (see Section 7-2 and “Special Conditions” in Appendix C). The environmental document should include the following information:

- The type of construction activities, their timing, and the TAC emissions associated with those activities, and a significance determination without mitigation;
- Permitted and non-permitted operational sources of TAC emissions;
- Receptors in the vicinity of TAC emission sources;
- A quantitative health risk assessment (HRA) disclosing health risk levels to affected receptors if qualitative screening tools are not sufficient in determining impact, and a significance determination without mitigation; and
- Feasible mitigation measures as necessary to reduce TAC exposure from construction and operation, with an assessment as to whether the reductions reduce impact(s) to a less-than-significant level.

The District has not established numeric screening levels (aside from the buffers discussed in Section 5.4 below) or thresholds of significance for TACs. In reviewing an environmental document, the District will determine if hazards and risks to the community from a project are fully described, evaluate the method(s) of assessment, assumptions and resulting conclusions, and whether or not mitigation measures (if any) are sufficient to mitigate significant impacts.

5.4 Screening

Although the District does not have screening criteria for TACs, lead agencies may use established screening approaches to decide if further quantification through modeling is necessary to determine impact significance. Thorough discussions and examples regarding screening tools and methods may be found in the following two documents:

1. *Health Risk Assessments for Proposed Land Use Project* (CAPCOA 2009), accessed at http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf; and
2. *Recommended Methods for Screening and Modeling Local Risks and Hazards* (Bay Area Air Quality Management District 2011), accessed at <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx>.

Similar to screening for criteria air pollutants, the screening methods for TACs are intended as general guidance to determine whether or not a more refined quantification and health risk assessment are necessary. CARB's *Health Risk Assessments for Proposed Land Use Projects* distinguishes the screening for Type A and B land use projects as follows.

5.4.1 Type A Projects

For Type A projects (new sources that may affect existing or reasonably foreseeable receptors), the source or sources of TACs should be identified. For evaluation of a new source's *project-specific* impact, the location of maximum risk and/or hazard to a receptor should be identified (rather than placing a 1,000 foot radius around the project boundary). For evaluation of a new source's *cumulative* impact, the District recommends evaluating significant TAC sources within a 1,000-foot radius around the project source.

The variety of screening tables and tools reflect the variety of TAC sources. For stationary sources (and in addition to the screening information referenced above), several screening tools such as AERSCREEN are available at the following US EPA web site:

http://www.epa.gov/scram001/dispersion_screening.htm.

AERSCREEN, based on the more robust AERMOD model, produces estimates of “worst-case” TAC concentrations for a single source. Other EPA screening tools may be used for screening multiple point sources and plume dispersion.

For mobile sources such as diesel trucks and heavy equipment, the State of California’s EMFAC and OFFROAD emissions inventories, used for screening on- and off-road road vehicles, respectively, may be accessed at:

http://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles.

These screening tools require specialized knowledge and experience, and guidance in their use is beyond the scope of this document; however, more information may be obtained by contacting the District or found in the sources noted above.

5.4.2 Type B Projects

For Type B projects (those placing receptors in locations that may be affected by existing sources), applicants and lead agencies should again generally assess impacts from sources of TACs within 1,000 feet of the proposed project. Both stationary and mobile sources should be evaluated – mobile sources include traffic on roadways and delivery vehicles associated with a facility. The 1,000 foot radius may be used for evaluating risks and hazards from both individual sources and the cumulative effect of multiple sources. In certain instances (for example, a large industrial facility), a larger radius may be appropriate.

For screening, CARB’s *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) proposes buffer distances from various sources (Table 5-2). These buffer distances are advisory; if the lead agency determines a buffer distance between source and receptor is adequate and a health risk analysis is unnecessary, the environmental document should provide an explanation based upon substantial evidence that the buffer is adequate to prevent a significant risk to receptors. If significant stationary and/or mobile sources exist within the Table 5-2 buffer distances, additional screening tools may be used to determine whether additional modeling is required. A thorough discussion of these more sophisticated screening tools and methods is provided in the Bay Area Air Quality Management District’s guidance document, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, available as noted above.

| Table 5.2. Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities | |
|--|--|
| Source | Advisory Recommendations |
| Freeways and high-traffic roads | Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day. |
| Distribution centers | Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). |
| | Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points. |
| Railyards | Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. |
| | Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. |
| Refineries | Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation. |
| Chrome platers | Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. |
| Gasoline dispensing facilities | Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities. |
| Note: These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues. | |
| Source: Table 2, Health Risk Assessments for Proposed Land Use Projects. CAPCOA 2009. | |

5.5 Impact Analysis and Determining Significance

5.5.1 Modeling Approaches

When screening indicates that a project may result in (Type A projects) or be subject to (Type B projects) significant exposure to one or more TACs, the applicant should conduct and lead agencies evaluate a more refined modeling analysis. As with screening tools, various modeling tools are available to evaluate the wide variety of source and receptor circumstances that may be encountered depending upon the project and its setting. In order to provide a more definitive conclusion regarding hazards and risk, modeling should assess the site-specific air dispersion characteristics of the TACs in question. This in turn requires specific inputs for a number of parameters, including, but not limited to:

- Emission estimates (types of TACs, emission rates, solid/vapor phase state);
- Site parameters (land use, buildings, terrain, source location);
- Meteorological data (wind speed, direction, temperature, mixing height);
- Receptors (location defined by a grid).

Several models requiring varying amounts of data and analysis are available at the following United States Environmental Protection Agency web site:

http://www.epa.gov/scram001/dispersion_screening.htm.

Specific guidance in the use of these models is beyond the scope of this Handbook. However, both *Recommended Methods for Screening and Modeling Local Risks and Hazards* (BAAQMD, 2011) and *Health Risk Assessments for Proposed Land Use Projects* (CAPCOA 2009) provide direction and examples for a variety of modeling circumstances. Applicants and lead agencies are encouraged to consult these documents and the District in regards to the screening and modeling of TACs.

5.5.2 Estimating Health Risk and Hazard

The District has not established thresholds of significance for exposure to TACs. However, for stationary Type A projects (new sources impacting existing receptors), *Health Risk Assessments for Proposed Land Use Projects* states that an excess cancer risk of greater than 10 in a million is considered significant by a majority of air districts in the state (CAPCOA 2009, p. 11). For TACs with acute and chronic non-carcinogenic health effects, CAPCOA states that

“a hazard index of one must not be exceeded. Depending on the substances being emitted, a project with a hazard index greater than one could result in adverse health effects of various sorts. It should be noted that a hazard index exceeding one may need additional analysis to determine whether the acceptable level of acute or chronic risk could be higher depending upon the safety factors that were incorporated into the reference exposure levels (RELS) associated with the hazard index results.”

Note that these thresholds apply to individual permits; under CEQA, the thresholds would apply to permitted and non-permitted sources.

For Type B projects (new receptors affected by existing sources), *Health Risk Assessments for Proposed Land Use Projects* (p. 12) provides the following conceptual significance levels that lead agencies may wish to consider:

- Thresholds can be based on a specific risk level such that a 10 per million excess cancer risk and an acute and chronic hazard index of one should not be exceeded. These thresholds tend to be consistent with the Hot Spot Program thresholds.
- Thresholds can also be based on the region's existing background cancer risk value if one exists.
 - One option is to establish a risk level equal to a region's background risk level.
 - Another option is to establish a risk level equal to twice a region's background risk level.
 - Still another option is to look at the ambient risk in the immediate vicinity of the project area rather than the regional risk level.
- Case by case thresholds may also be defined.

5.6 Mitigation for Impacts Related to Toxic Air Contaminants

Mitigation measures for significant impacts resulting from TACs generally comprise (1) engineered technologies at the source to reduce TAC emissions to a less-than-significant level; and (2) modifying site and project design to maximize distances between sources and recipients. Further discussion of mitigation approaches are provided below. Standard mitigation measures

for diesel PM – many of which offer reductions for more than one air pollutant – are also provided in Appendix C.

5.6.1 Construction Impacts

Diesel PM Exhaust from Construction Equipment

- Fuel all off-road and portable diesel powered equipment with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- Use alternatively fueled construction equipment on site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Best Available Control Technology (BACT) for Construction Equipment

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
- Repowering equipment with the cleanest engines available;
- Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>;
- Implementing a design measure to minimize emissions from on and off-road equipment associated with the construction phase. This measure should include but not be limited to the following elements:
 - Tabulation of on and off-road construction equipment (type, age, horse-power, engine model year and miles and/or hours of operation);
 - Calculate daily worst case emissions and the quarterly emissions that include the overlapping segments of construction phases
 - Equipment scheduling (to estimate NOx and PM)
 - Schedule activities to minimize the amount of large construction equipment operating simultaneously during any given time period;
 - Locate staging areas at least 1,000 feet away from sensitive receptors;
 - Where feasible:
 - i. Limit the amount of cut and fill to 2,000 cubic yards per day;
 - ii. Limit the length of the construction work-day period; and,
 - iii. Phase construction activities.

5.6.2 Operational Impacts

Best Available Control Technology for Toxics (T-BACT)

T-BACT, comprising a wide variety of control techniques and technologies to minimize operational TAC emissions at the source, should be implemented when risks exceed a cancer

risk of ten in a million and/or a hazard index of one. Numerous examples of specific T-BACTs may be found in the Bay Area Air Quality Control Management District's *Best Available Control Technology Workbook*.

Facility Design and Land Use

To a certain extent, the long-term air quality impact of a project is a function of its design and the broader land use context. The air quality impacts of a project are often not considered until after a project has been designed when it can be very difficult to make any substantial changes to reduce its air quality impact(s). The layout of streets, the mix of land uses, and the placement of homes and businesses can all influence the effect of overall project emissions. The following land use and facility design measures should be considered when potential impacts from TACs may occur:

- Increase project distance from freeways and/or major roadways;
- Redesign the site layout to locate sensitive receptors as far as possible from any freeways, major roadways, or other non-permitted TAC sources (e.g., loading docks, parking lots);
- For large mixed-use projects, consider phasing development so commercial/retail portions of the project are developed first, allowing time for CARB's diesel regulations to effectively reduce diesel emissions along major highways and arterial roadways. Ultimately lower concentrations would be predicted along the roads reducing diesel PM risks to residential development during the later phases of the project;
- Projects that propose sensitive receptors adjacent to sources of diesel PM (e.g., freeways, major roadways, rail lines, and rail yards) should consider tiered plantings of trees such as redwood, deodar cedar, live oak and oleander to reduce TAC and PM exposure (BAAQMD May, 2012);
- For receptors, install and maintain air filtration systems of fresh air supply either on an individual unit-by-unit basis, with individual air intake and exhaust ducts ventilating each unit separately, or through a centralized building ventilation system. The ventilation system should be certified to achieve a specified effectiveness (for example, to remove at least 80% of ambient PM_{2.5} concentrations from indoor areas). The air intake for these units should be located away from areas producing the air pollution (i.e., away from major roadways and highways);
- Where appropriate, install passive (drop-in) electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph);
- Locate air intakes and design windows to reduce PM exposure (e.g., windows nearest to the freeway do not open);
- Install indoor air quality monitoring units in buildings;
- Require rerouting of nearby heavy-duty truck routes;
- Enforce illegal parking and/or idling of heavy-duty trucks in vicinity.

6 EVALUATION OF GREENHOUSE GASES

6.1 Impacts to Global Climate Change Subject to Review

As discussed in Appendix A, greenhouse gases (GHGs) are natural and anthropogenic gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. Naturally occurring greenhouse gases include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Halogenated compounds that contain fluorine, chlorine, or bromine (generally a product of industrial activities) are also greenhouse gases. Project CO₂ emissions may be distinguished as biogenic (derived from living cells and generated from biological decomposition, combustion and numerous other processes) and non-biogenic (derived from fossil fuels, limestone, and other materials transformed by geologic processes).

Although the direct greenhouse gases CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities largely associated with the combustion of carbon-based fuels have increased their atmospheric concentrations since the start of the industrial age. The state of California has adopted a number of statutes and regulations to control and reduce the emission of GHGs, reflecting a belief that increasing concentration of GHGs will result in a number of deleterious impacts to public health, safety and the environment through the effects of global climate change (Appendix A).

To the extent they may occur with either the construction or operation of a project, the following six GHGs should be evaluated by applicants and lead agencies and expressed in metric tons (MT) of CO₂e (carbon dioxide equivalents) per year:

- Carbon dioxide (CO₂);
- Nitrous oxide (N₂O);
- Methane (CH₄);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF₆).

Individual GHGs are converted to CO₂e by multiplying their values expressed in tons per year by their global warming potential (GWP). The GWP is a ratio of a gas' heat-trapping characteristics relative to CO₂, which has a GWP of 1. Appendix A provides more discussion regarding greenhouse gases.

The District recommends that applicants use the latest version of CalEEMod to estimate construction and operational GHG emissions. Land development projects typically include the following sources of GHG emissions:

- Construction activities resulting in exhaust emissions of GHGs from fuel combustion for mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, material delivery trucks, and worker commuter trips;
- Motor vehicle trips generated by the particular land use (i.e. vehicles arriving and leaving the project site), including those by residents, shoppers, workers, and vendors;

- Onsite fuel combustion for space and water heating, landscape maintenance equipment, and fireplaces/stoves; and
- Offsite emissions at utility providers associated with the project's demand for electricity, water conveyance and wastewater processing.

There are no "attainment" concentration standards established by the Federal or State government for greenhouse gases. GHG influence on global climate change is inherently global in nature, while air pollutants affect the health of people and other living things at ground level, in the regional (criteria air pollutants) or local (toxic air contaminants) area of their release.

The District recommends that CEQA analyses addressing the potential impacts of project-generated GHG emissions include:

- An inventory of the project's construction and operational sources of GHGs and the time periods when emissions are expected, distinguishing District-permitted stationary sources from mobile and other non-permitted sources;
- The current state of the science with respect to GHGs and climate change and the existing regulatory environment;
- The non-project GHG setting representing the baseline for determining the project's impact; and
- Identification of the thresholds of significance applicable to the proposed project. The lead agency may consider thresholds of significance adopted or recommended by other lead agencies, or adopt its own thresholds, provided the decision is supported by substantial evidence. Alternatively the lead agency may consider thresholds based on the goals of Assembly Bill 32 (see Appendix A).

6.2 Screening

The District has not established numeric screening criteria for greenhouse gas emissions such as those provided in Table 4-1 for criteria air pollutants. However, projects that are consistent with an approved GHG Emissions Reduction Plan would have a less than significant impact upon global climate change and, unless modeling indicates otherwise, would not require further analysis. In addition, GHG emissions from cars and light duty trucks would have a less than significant impact for certain "special projects" as discussed in Section 6.2.2 below. Initial studies should provide specific reasons demonstrating why projects meeting these screening criteria do not need quantification of their GHGs.

6.2.1 Projects Complying with an Approved GHG Mitigation Program or Emission Plan

CEQA Guidelines Section 15183.5(a) provides for the tiering and streamlining of GHG emissions analysis:

"Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review."

Climate Action Plans (CAPs) identify limits and/or targets for reduction of GHGs within a given geographic area, with feasible goals, policies, measures that will achieve that target. Such reduction plans must be specified in law and approved by the lead agency with jurisdiction over the affected resource and supported by an environmental document adopted by the lead agency pursuant to CEQA.

Specific projects that are consistent with the goals, policies and actions of a GHG mitigation program or Climate Action Plan may be determined to have a less-than significant impact with regard to GHG impacts unless modeling indicates otherwise. The environmental document should include a discussion based upon substantial evidence demonstrating the project's consistency with the GHG mitigation program.

CEQA Guidelines Section 15183.5(b) provides guidance on the elements to be included in an emissions reduction or climate action plan.

- 1) "Plan Elements. A plan for the reduction of greenhouse gas emissions should:
 - (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
 - (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
 - (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
 - (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
 - (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
 - (F) Be adopted in a public process following environmental review."

Per CEQA Guidelines Section 15183.5(b)(2) emission reduction plans may also be used for cumulative impact analysis of greenhouse gas emissions:

"Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable, notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project. Lead agencies should include an evaluation of how the project complies with these provisions in the environmental document."

Again, a project must demonstrate its consistency with the emissions reduction plan by identifying and implementing all of its applicable feasible measures and policies.

The City of Chico and Butte County have adopted Climate Action Plans. Once adopted, projects within these jurisdictions should make every effort to be consistent with its Climate Action Plan.

6.2.2 Special Situation Projects

The CEQA Guidelines Section 15183.5(c) identifies special situations when global warming impacts resulting from cars and light duty trucks do not need to be analyzed:

“Special Situations. As provided in Public Resources Code sections 21155.2 and 21159.28, environmental documents for certain residential and mixed use projects, and transit priority projects, as defined in section 21155, that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in an applicable sustainable communities strategy or alternative planning strategy need not analyze global warming impacts resulting from cars and light duty trucks. A lead agency should consider whether such projects may result in greenhouse gas emissions resulting from other sources, however, consistent with these Guidelines.”

If a determination is made to not analyze greenhouse gas emissions associated with cars and light duty trucks, lead agencies should demonstrate how the project complies with the sustainable communities and transit priority project provisions of Public Resources Code Section 21155. Note that GHG emissions from sources other than cars and light trucks still need to be evaluated.

6.3 Impact Analysis and Determining Significance

If the project does not meet the screening criteria provided in Section 6.2 (that is, it is not consistent with a Climate Action Plan or applicable General Plan greenhouse gas reduction goals and policies, then the following information should be included:

- A quantification of the finite mass emissions of GHGs that will be generated by construction and operation of the project, with the input parameters and assumptions used to estimate these values;
- A discussion of whether the quantified GHG emissions will result in a cumulatively considerable contribution to global climate change; and
- A discussion of feasible construction and operational mitigation measures necessary to reduce impacts to a less-than-significant and cumulatively considerable level.

All direct and indirect GHG emissions from a project’s construction and operation should be identified and estimated. Direct emissions include emissions produced from construction machinery, onsite combustion of energy (such as natural gas used in furnaces and boilers), emissions from industrial processes, and fuel combustion from other mobile sources. Indirect emissions include emissions produced offsite from energy production and the provision of water and wastewater services for the project. Again, CalEEMod may be used to estimate both construction and operational GHG emissions and the environmental document should tabulate each separately.

The GHG emissions from permitted stationary sources should also be calculated separately from a project’s operational emissions. For example, if a proposed project anticipates having a permitted stationary source on site, such as a back-up generator, the GHG emissions from the generator should not be added to the project’s total emissions, but calculated separately as part of the District’s permitting process for stationary sources. Applicants and lead agencies should

consult the District as to which stationary sources are subject to the District's own permitting process.

Modeling files should be sent to the District in their native (not pdf) format. Results should be presented in summary tables for unmitigated and mitigated construction and operational emissions, with total amounts of biogenic and non-biogenic CO₂, CH₄, N₂O and other anthropogenic GHGs expressed in pounds per day and summed as CO₂ equivalents (CO₂e).

The District has not determined a threshold of significance for GHGs. In determining the significance of impacts from GHG emissions, the CEQA Guidelines Section 15064.4(a) directs that GHG emissions be either (1) quantified or (2) described using a qualitative analysis or performance-based standards. The GHG emissions of all projects that do not meet the screening criteria provided in Section 6.2 be quantified using the latest version of CalEEMod. Projects requiring an EIR should also have their GHG emissions quantified. Applicants and lead agencies relying on other modeling approaches, performance-based standards, or a qualitative analysis should consult the District.

CEQA Guidelines Section 15064.4(b) states that a "lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emission on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

6.4 Mitigation for Impacts Related to Greenhouse Gases

CEQA Guidelines Section 15126.4(c) provides the following guidance in regards to GHG mitigation measures:

"(c) Mitigation Measures Related to Greenhouse Gas Emissions.

Consistent with section 15126.4(a), lead agencies shall consider feasible means of mitigating greenhouse gas emissions that may include, but not be limited to:

- (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision;
- (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F;
- (3) Off-site measures, including offsets, to mitigate a project's emissions;
- (4) Measures that sequester greenhouse gases; and

(5) In the case of the adoption of a plan, such as a general plan, long range development plan, or greenhouse gas reduction plan, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.”

For those projects with a significant impact upon global climate change that cannot tier from a previously approved, community-wide GHG Reduction or Climate Action Plan, the applicant must develop project-specific mitigation measures to reduce GHG emissions generated during both the construction and the operational phases of the project.

A lead agency is not responsible for eliminating all GHG emissions from a project but to mitigate impacts to a level that is “less than significant” and “less than cumulatively considerable.” The District recommends that lead agencies clearly explain why each GHG mitigation measure is feasible, the amount of reduction it achieves, and who will be responsible for its implementation and monitoring. GHG emission reduction measures that relate directly or indirectly to policies in the local jurisdiction’s Climate Action Plan or General Plan should be discussed in the environmental document.

If, after the identification of all feasible mitigation measures, a project is still deemed to have a cumulatively considerable contribution to global climate change, then the lead agency must, if it wishes to approve the project, adopt a Statement of Overriding Consideration to explain why further mitigation measures are not feasible, and why approval of a project with significant unavoidable impacts is warranted.

A number of standard mitigation measures – many of which reduce emissions of GHGs and other pollutants – are provided in Appendix C. Guidance for mitigation measures specific to construction and operational impacts is provided below.

6.4.1 Mitigation Measures for Construction-Related GHGs

The following mitigation measures can be quantified in CalEEMod and, if adequately applied, could reduce construction-related impacts to GHG emissions to a less-than-significant level. (Note that these mitigation measures would also serve to reduce impacts resulting from construction-related criteria air pollutants).

1. Improve fuel efficiency from construction equipment:
 - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes (a five minute limit is required by the State Airborne Toxics Control Measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]) and provide clear signage posting this requirement for workers at the entrances to the site;
 - Maintain all construction equipment in proper working condition according to manufacturer’s specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated;
 - Train equipment operators in proper use of equipment;
 - Use the proper size of equipment for the job; and
 - Use equipment with new technologies (repowered engines, electric drive trains).

2. Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines).
3. Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power.
4. Use an ARB approved low carbon fuel for construction equipment. (NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.)
5. Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
6. Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
7. Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).
8. Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.
9. Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.
10. Produce concrete on-site if determined to be less emissive than transporting ready mix.
11. Use SmartWay (see <http://www.epa.gov/smartway/>) certified trucks for deliveries and equipment transport.
12. Develop a plan to efficiently use water for adequate dust control.

6.4.2 Mitigation Measures for Operational-Related GHGs

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* (August, 2010) includes extensive guidance regarding approaches to GHG mitigation and hundreds of documented mitigation measures with emission reductions. Tables 6-1 and 6-2 are derived from *Quantifying Greenhouse Gas Mitigation Measures* and organize operational mitigation measures according to a number of transportation, energy, water, landscaping, solid waste, vegetation, construction, general plan and miscellaneous strategies designed to reduce GHG emissions. Applicants and lead agencies are encouraged to consult *Quantifying Greenhouse Gas Mitigation Measures* to determine which specific measures are most feasible and effective for the project.

6.4.3 Off-Site Mitigation Measures for Operational-Related GHGs

The District is exploring establishing an offsite mitigation program to assist lead agencies and project applicants in achieving emission reductions. A project applicant would enter into an agreement with the District, pay into a District fund, and the District would commit to reducing the type and amount of emission identified in the agreement. The District or a responsible proxy would identify, implement, and manage offsite mitigation projects.

Table 6-1. CAPCOA GHG Mitigation Non-Transportation Strategies Organization

| Energy | | | Water Supply | | Area Landscaping | Solid Waste | Vegetation | Construction | Miscellaneous | General Plans |
|---|-------------------------------|---|-------------------------------------|-----------------------------------|--|---|--------------------------|--|---|---|
| Be | AE | LE | WSW | WUW | A | SW | V | C | Misc | GP |
| Building Energy | Alternative Energy | Lighting | Water Supply | Water Use | Landscaping Equipment | Solid Waste | Vegetation | Construction | Miscellaneous | General Plans |
| Exceed Title 24 | Onsite Renewable Energy | Install High Efficacy Lighting | Adopt a Water Conservation Strategy | | Prohibit Gas Powered Landscape Equipment | Institute or Extend Recycling & Composting Services | Plant Urban Trees | Use Alternative Fuels for Construction Equipment | Establish Carbon Sequestration | Fund Incentives for Energy Efficiency |
| Install Energy Efficient Appliances | Utilize Combined Heat & Power | Limit Outdoor Lighting | Use Reclaimed Water | Install Low-Flow Fixtures | Implement Lawnmower Exchange Program Reduction: Grouped | Recycle Demolished Construction Material | New Vegetated Open Space | Use Electric or Hybrid Construction Equipment | Establish Off-Site Mitigation | Establish a Local Farmer's Market |
| Install Programmable Thermostats Reduction: Grouped | Establish Methane Recovery | Replace Traffic Lights with LED Reduction: Additional | Use Graywater | Design Water-Efficient Landscapes | Electric Yard Equipment Compatibility Reduction: Grouped | | | Limit Construction Equipment Idling | Implement an Innovative Strategy | Establish Community Gardens |
| Obtain 3rd Party Commissioning Reduction: Grouped | | | Use Locally Sourced Water | Use Water-Efficient Irrigation | | | | Institute a Heavy-Duty Off-Road Vehicle Plan | Use Local and Sustainable Building materials | Plant Urban Shade Trees |
| | | | | Reduce Turf | | | | Implement a Construction Vehicle Inventory Tracking System | Require BMP in Agricultural and Animal Operations | Implement Strategies to Reduce Urban Heat-Island Effect |
| | | | | | | | | | Require Environmentally Responsible Purchasing | |

Source: CAPCOA 2010, Chart 6-1, p.54

| Table 6-2. CAPCOA GHG Mitigation Transportation Strategies Organization | | | | | | |
|---|--|----------------------------------|----------------------------------|--|---|-------------------------------------|
| Transportation Measures (Five Subcategories) Global Maximum Reduction (all VMT): urban = 75%; compact infill = 40%; suburban center or suburban with NEV = 20%; suburban = 15% | | | | | Global Cap for Road Pricing needs further study | |
| Transportation Measures (Four Categories) Cross-Category Max Reduction (all VMT): urban = 70%; compact infill = 35%; suburban center or suburban with NEV = 15%; suburban = 10% | | | | Max Reduction = 15% overall; work VMT = 25%; school VMT = 65% | Max Reduction = 25% (all VMT) | |
| LAND USE / LOCATION | NEIGHBORHOOD / SITE ENHANCEMENT | PARKING POLICY / PRICING | TRANSIT SYSTEM IMPROVEMENTS | COMMUTE TRIP REDUCTION | ROAD PRICING MANAGEMENT | VEHICLES |
| Max Reduction: urban = 65%; compact infill = 30% suburban center = 10% suburban = 5% | Max Reduction: without NEV = 5% with NEV = 15% | Max Reduction = 20% | Max Reduction = 10% | (assumes mixed use) Max Reduction = 25% (work VMT) | Max Eeduction = 25% | |
| Density (30%) | Pedestrian Network (2%) | Parking Supply Limits (12.5%) | Network Expansion (8.2%) | CTR Program Required = 21% work VMT Voluntary = 6.2% work VMT | Cordon Pricing (22%) | Electrify Loading Docks |
| Design (21.3%) | Traffic Calming (1%) | Unbundled Parking Costs (13%) | Service Frequency / Speed (2.5%) | Transit Fare Subsidy (20% work VMT) | Traffic Flow Improvements (45% CO2) | Utilize alternative Fueled Vehicles |
| Location Efficiency (65%) | NEV Network (14.4%) <NEV Parking> | On-Street Market Pricing (5.5%) | Bus Rapid Transit (3.2%) | Employee Parking Cash-out (7.7% work VMT) | Required contributions by Project | Utilize Electric or Hybrid Vehicles |
| Destination Accessibility (20%) | Car Share Program (0.7%) | Residential Area Parking Permits | Access Improvements | Workplace Parking Pricing (19.7% work VMT) | | |
| Transit Accessibility (25%) | Bicycle Network <Lanes, Parking, Land Dedication for Trails> | | Station Bike Parking | Alternative Work Schedules & Telecommute (5.5% work VMT) | | |
| BMR Housing (1.2%) | Urban Non-Motorized Zones | | Local Shuttles | CTR Marketing (5.5% work VMT) | | |
| Orientation toward Non-Auto Corridor | | | Park & Ride Lots* | Employer-Sponsored Vanpool/Shuttle (13.4% work VMT) | | |
| Proximity to Bike Path | | | | Ride Share Program (15% work VMT) | | |
| | | | | Bike Share Program | | |
| | | | | End of Trip Facilities | | |
| | | | | Preferential Parking Permit | | |
| | | | | School Pool (15.8% VMT) | | |
| | | | | School Bus (6.3% school VMT) | | |

Source: CAPCOA 2010, Chart 6-2, p.55

7 OTHER AIR QUALITY IMPACTS SUBJECT TO CEQA

This section includes information regarding air quality impacts associated with odors and naturally occurring asbestos, including approaches to assessment and mitigation.

7.1 Odors

7.1.1 Basic Information for the Environmental Document

Offensive or strong odors may come from a wide variety of temporary and more or less permanent sources: exhaust from heavy equipment, garbage dumpsters, restaurants, animal boarding facilities, feed lots and general agricultural operations, food processing, compost/green waste and wastewater treatment facilities, rendering plants, various industrial processes, landfills, painting/coating operations and others.

Pollutants associated with odors such as sulfur compounds and methane can be a nuisance to healthy people and they can trigger asthmatic conditions in people with sensitive airways. Given the somewhat subjective nature of human response to odors, the District does not provide quantitative or formulaic methods to evaluate the presence of an impact. Any project with the potential to repeatedly or frequently expose the public to objectionable odors should be considered in the CEQA review under the CEQA Guidelines Appendix G Air Quality Section III(e) (see Section 2.6.1 of this Handbook), including sources, recipients and environmental conditions as they pertain to the significance of the odor impact (if any).

Although offensive odors rarely result in health impacts to humans, they can lead to public distress and complaints to local governments and the District. In screening for odors, project applicants and lead agencies should first identify potential sources. If nuisance odors may occur, possible recipients should be identified. The vicinity map that identifies residences and land uses within 1,000 feet of the project parcel(s) may be used for this task. Potential odor impacts to residential areas and other sensitive receptors such as hospitals, day-care centers, schools and convalescent facilities should be noted, along with other land uses where people may congregate.

7.1.2 Screening

Although reactions to odors vary and are somewhat subjective, lead agencies must still determine if a project's odor(s) represent a significant impact to the surrounding area. While most odors are highly dispersive, the significance of an odor impact is generally related to its intensity with distance from the source. Table 7.1 presents the District's screening distances for various odors sources. If a project is proposed within the screening distance indicated in Table 7-1, the District should be contacted for information regarding potential odor problems. For projects that involve new receptors located near an existing odor source, an information request should be submitted to the District to review the inventory of odor complaints for the nearest odor emitting facility or facilities during the previous three years. For projects involving new receptors to be located near an existing odor source where there is currently no nearby development, and for new odor sources locating near existing receptors, the information request and analysis should be based on a review of odor complaints for similar facilities. Lead agencies must use their discretion in determining how or whether Table 7-1 correlates with a given project.

| Type of Facility | Screening Distance (miles) |
|--|-----------------------------------|
| Wastewater Treatment Plant | 2 |
| Wastewater Pumping Facilities | 1 |
| Sanitary Landfill | 1 |
| Transfer Station | 1 |
| Composting Facility | 2 |
| Petroleum Refinery | 2 |
| Asphalt Batch Plant | 2 |
| Chemical Manufacturing | 1 |
| Fiberglass Manufacturing | 1 |
| Painting/Coating Operations | 1 |
| Rendering Plant | 4 |
| Coffee Roaster | 1 |
| Food Processing Facility | 1 |
| Feed Lot/Dairy | 1 |
| Green Waste and Recycling Operations | 2 |
| Metal Smelting Plants | 1 |
| Note: Odor screening distances should not be used as absolute thresholds of significance for an odor significance determination. | |
| Source: Sacramento Metropolitan Air Quality Management District, 2013, p. 88 | |

7.1.3 Impact Analysis and Determining Significance

If a proposed project would result in potentially objectionable odors, and if it is located closer than the screening level distances provided in Table 7-1, then a more detailed analysis should be provided, evaluating the proximity between source and receptor(s), the nature of the odor, and the local meteorology, including the predominant wind direction and frequency of temperature inversions. For projects that locate new receptors near an existing odor source, any complaint history should be provided. Lead agencies may need to contact residents or institutions such as schools or hospitals near a source to gain an understanding of adverse experiences.

Significance determinations should be made on a case-by-case basis in light of any relevant information about the source and the setting. The lead agency may need to consider more than one parameter; for example, the proximity between source and receptors, intervening vegetation, predominant wind patterns and complaint history (if any). The lead agency should clearly present the reasoning used to support its significance determination.

7.1.4 Mitigation

All feasible mitigation measures to reduce a significant impact resulting from objectionable odor(s) should be implemented to reduce that impact to less than significant. As there are no formulaic measures to reduce odor impacts, lead agencies should develop measures on a project-specific basis. The District notes that planning based on zoning that adequately separate odor sources from recipients are the most effective measures. Short of a rezoning, it may be possible to locate the source downwind of recipients or recipients upwind of sources. Typically, however, projects are proposed for an existing land use setting where anticipatory planning-based measures are not possible. To the extent site and facility design allows, odor sources should be located as far from recipients as possible. Engineered technologies that control odors

may be required for the emitting source. A number of odor control technologies specific to the source are available; the Sacramento Metropolitan Air Quality Control District provides a list of odor control technologies at the following site:

<http://www.airquality.org/ceqa/cequguideupdate/Ch7OdorReductionMeasuresFINAL.pdf>

For proposed projects with a significant odor, it may be necessary to limit the odor source during certain meteorological conditions, such as a temperature inversion or prevailing wind in the direction of recipients.

7.2 Naturally and Non-Naturally Occurring Asbestos

7.2.1 Basic Information for the Environmental Document

Naturally occurring asbestos (NOA) has been identified by the CARB as a toxic air contaminant. Serpentine and ultramafic rocks, which may contain NOA, are found in certain mountainous areas of Butte County. NOA can take the form of long, thin separable fibers; there is no health threat if asbestos fibers in the soil remain undisturbed and do not become airborne. However, natural weathering or human disturbance can break NOA down into microscopic fibers that are easily suspended in the air. When airborne, fibers may be inhaled, irritate tissues and resist the body's natural defenses. Asbestos can cause cancers of the lung and the lining of internal organs, as well as asbestosis and other diseases that inhibit lung function.

The District has identified areas in Butte County where NOA may be present (see “ultramafic rock units” identified in Figure 2 at the end of Section 7.2). Applicants for projects that will involve ground-disturbing activities in areas where NOA may be present should conduct a geologic evaluation and comply with the mitigation measures in Section 7.2.4 if NOA is found to be present. The environmental document should provide a regional map showing the project's proximity to serpentine rock and indicate the potential for naturally-occurring asbestos (NOA).

Asbestos fibers may also be present in structures that are being demolished to make way for a project. In such instances, the environmental document should provide adequate description of the asbestos material and the measures taken to insure its safe removal.

7.2.2 Screening

The District does not provide any numeric screening criteria for NOA. Project applicants and lead agencies should consult the map of known serpentine rock formations shown in Figure 2 located in front of the Appendices. If a project is within 1,000 feet of ultramafic rock units identified in Figure 2, the applicant and lead agency are encouraged to consult with the District prior to commencing environmental review in regards to whether a site-specific analysis is necessary to assess the potential for a project to release NOA into the atmosphere. Projects one acre or less are presumed to result in insignificant impacts with regard to NOA if the measures in Section 7.2.4 are incorporated into the project description and made project commitments.

7.2.3 Impact Analysis and Determining Significance

If a project involves ground-disturbing activities at a site with NOA, a potentially significant impact may occur and the applicant must comply with all requirements outlined in the Asbestos Airborne Toxic Control Measures for Construction, Grading, Quarrying and Surface Mining Operations (17 California Code of Regulations Section 93106) as specified in Section 7.2.4 immediately below.

7.2.4 Mitigation

For project sites with NOA of one (1) acre or less the following provisions shall apply:

No person shall engage in any construction or grading operation on property where the area to be disturbed is one (1) acre or less unless all of the following dust mitigation measures are initiated at the start and maintained throughout the duration of the construction or grading activity:

1. Construction vehicle speed at the work site must be limited to fifteen (15) miles per hour or less;
2. Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line;
3. Areas to be graded or excavated must be kept adequately wetted to prevent visible emission from crossing the property line;
4. Storage piles must be kept adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile;
5. Equipment must be washed down before moving from the property onto a paved public road; and
6. Visible track-out on the paved public road must be cleaned using wet sweeping or a HEPA filter equipped vacuum device within twenty-four (24) hours.

For project sites with NOA greater than one (1) acre the following provisions shall apply:

No person shall engage in any construction or grading operation on property where the area to be disturbed is greater than one (1.0) acre unless an Asbestos Dust Mitigation Plan for the operation has been:

- a. Submitted to and approved by the local air district before the start of any construction or grading activity; and
- b. The provisions of that dust mitigation plan are implemented at the beginning and maintained throughout the duration of the construction or grading activity.

An Asbestos Dust Mitigation Plan must specify dust mitigation practices, which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line. See Section 93105 (e)(4) for specific provisions and requirements of an Asbestos Dust Mitigation Plan.

Additional information is available at the following District web site:

<http://www.bcaqmd.org/page/naturally-occurring-asbestos-noa.php>

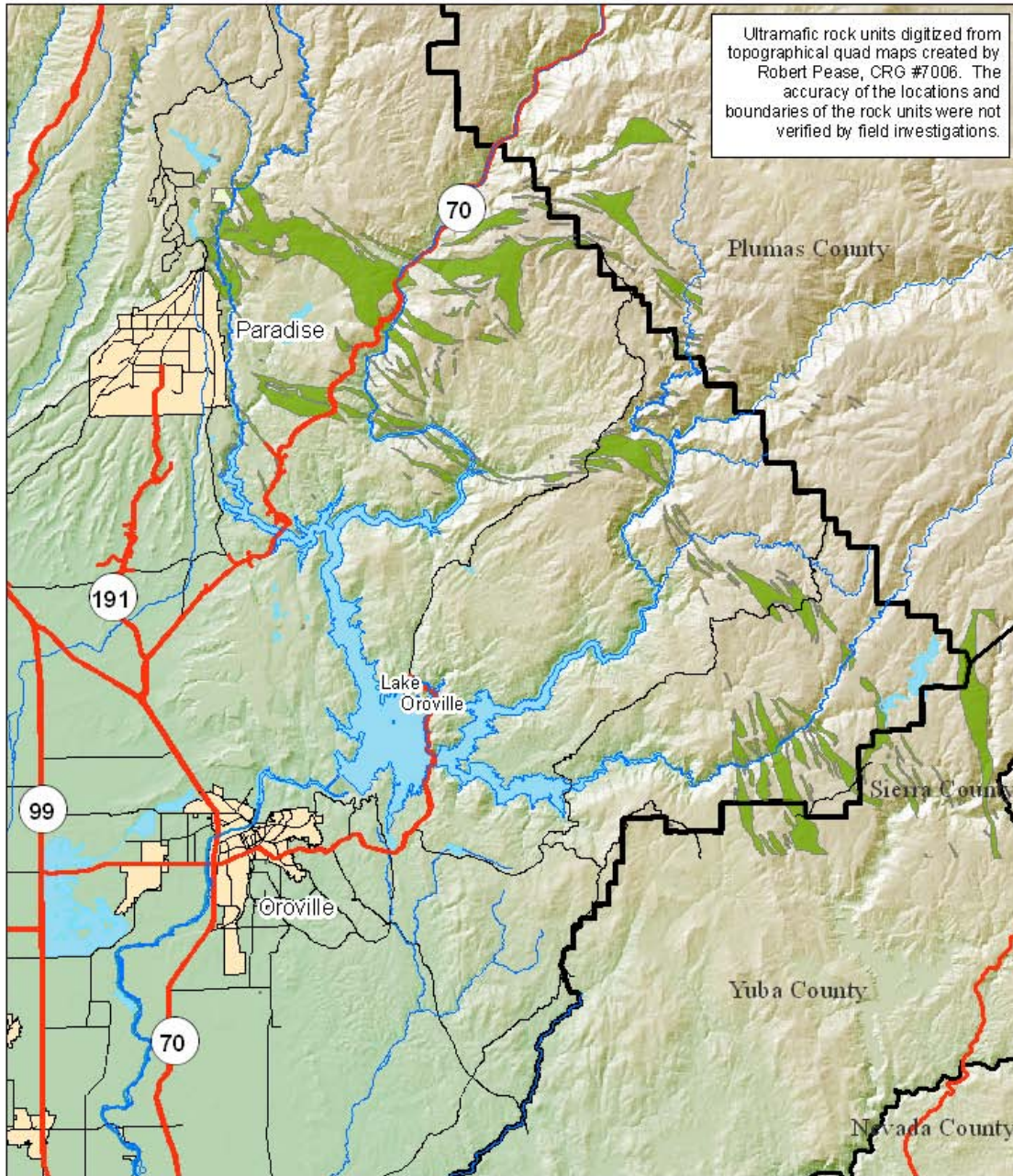

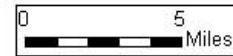
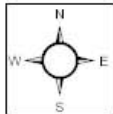


Figure 2
Potential Locations of
Naturally Occurring Asbestos

 Ultramafic Rock Units



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APPENDIX A

Regulatory Context

A-1 Federal and State Air Quality Regulation

A-2 Air Pollutants

A-3 Regional and Local Air Quality Regulation, Policies and Rules

A-1 Federal and State Air Quality Regulation

The goal of improving and protecting air quality in the United States is primarily pursued through the Federal Clean Air Act (FCAA) and implemented at the state level through their specific clean air laws and regulations. The principal law regulating air quality in California is the California Clean Air Act (CCAA), which is implemented at the individual air basin level by local air quality districts such as the Butte County Air Quality Management District.

The FCAA establishes statutes for various programs and strategies to improve the nation's air quality, including the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and provisions for enforcement.

The NAAQS set forth the maximum permissible levels of certain common pollutants in the ambient air. The EPA designates areas within each State where the level of the pollutant exceeds the NAAQS as nonattainment areas. The states are then responsible with meeting the NAAQS in nonattainment areas within their borders through State Implementation Plans (SIPs). A SIP is the vehicle for identifying which sources must reduce emissions and by how much in order to attain the NAAQS and, in California's case, the stricter California Ambient Air Quality Standards (CAAQS). The state SIP must be submitted to the EPA within three years of each new or revised NAAQS.

Areas that were previously designated nonattainment but have now met the standard – with EPA approval of a suitable air quality plan – are called "maintenance" areas. In nonattainment or maintenance areas, transportation projects must, in particular, conform to the applicable SIP if they will be funded by the Federal Highways Administration, Federal Transit Administration, or any agency that has been delegated project approval by these agencies.

A number of California's air pollution control laws are found in various state codes outside the CCAA and may be accessed at the following web site:

<http://www.arb.ca.gov/bluebook/bb12/bb12.htm>.

The CAAA (Division 26 of the state Health and Safety Code) is administered by the California Air Resources Board (CARB). The CARB, which is part of the California Environmental Protection Agency, is responsible for improving and protecting the state's air quality through:

- Adoption and enforcement of California ambient air quality standards (CAAQS) for California criteria air pollutants;
- Designation of California air basins as either in attainment or non-attainment with the CAAQS for a given pollutant;
- Preparation of the State Implementation Plan (SIP) as required by the federal Clean Air Act;
- Establishment of programs for controlling toxic air contaminants (TACs);
- Conducting research and monitoring programs;
- Monitoring consumer products to reduce emissions of volatile organic compounds (VOCs); and
- Overseeing regulatory activities of regional and local air districts.

Local air districts such as the Butte County Air Quality Management District are responsible for permitting and enforcing emissions standards for stationary sources, preparing regional and local air quality attainment or maintenance plans, regulating toxic air contaminants, serving as a trustee agency under CEQA, and providing public outreach and education.

A-2 Air Pollutants

This section provides an overview of the regulatory context for criteria air pollutants, toxic air contaminants, and greenhouse gases.

Criteria Air Pollutants

The EPA has set both primary (health) and secondary (welfare) standards for the following six criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulates (PM₁₀ and PM_{2.5}). California has established state standards for these six pollutants and, in addition, sulfates, hydrogen sulfide, vinyl chloride (chloroethane), and visibility reducing particles. State and federal ambient air quality standards are provided in Table A-1. The criteria pollutants are described below.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon during fuel combustion. When CO enters the bloodstream, it reduces the delivery of oxygen to the body's organs and tissues. Health threats are most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Exposure to elevated CO levels can cause impairment of visual perception, manual dexterity, learning ability and performance of complex tasks.

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders; low doses of Pb can lead to damage of the central nervous system. Pb may also be a factor in high blood pressure and subsequent heart disease.

Nitrogen dioxide (NO₂) is a brownish, highly reactive gas that is present in all urban atmospheres. NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O₃) and acid rain, and may affect both terrestrial and aquatic ecosystems. NO₂ is primarily formed in the atmosphere by oxidation of the primary air pollutant nitric oxide (NO_x) which, in turn, reacts in the atmosphere with VOCs to produce O₃. The two major emission sources for NO_x, which forms when fuel is burned at high temperatures, are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Ozone (O₃) is a photochemical oxidant and the major component of smog. Although O₃ in the upper atmosphere is essential to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O₃ at ground level represent a significant health and environmental concern, capable of causing damage to lung tissue and plants. O₃ is formed when precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) react in the presence of sunlight and higher temperatures. Peak O₃ levels thus generally occur during warm periods. VOCs are emitted from sources as

diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents. NO_x results from fuel combustion occurring with transportation and industrial sources.

Health-based State and Federal ambient air quality standards for ozone in Table A-2 identify outdoor pollutant levels considered safe for the public. As of this writing, Butte County does not meet the State or the federal 1-hour and 8-hour standards.

Sulfur dioxide (SO₂) affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO₂ is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. Ambient SO₂ results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Particulate Matter (PM) is fine material, metal, soot, smoke, and dust particles suspended in the air. For health reasons, we are most concerned with inhalable particulate matter less than 10 micrometers in diameter (PM₁₀), and less than 2.5 micrometers in diameter (PM_{2.5}). Particles of these sizes can permanently lodge in the deepest and most sensitive areas of the lung, and can aggravate many respiratory illnesses including asthma, bronchitis, and emphysema. Sources of directly emitted particulates in Butte County include soil from farming, construction dust, paved road dust, smoke from residential wood combustion, and exhaust from mobile sources such as cars and trucks. The valley can also be impacted by agricultural and residential burning.

In general, primary pollutants are directly emitted into the atmosphere and secondary pollutants are formed by chemical reactions in the atmosphere. Air pollution in the north Sacramento Valley results from emissions generated in the valley as well as from emissions and secondary pollutants transported into the Valley. Due to the north Sacramento Valley's meteorology, topography, and the chemical composition of air pollutants in the region, oxides of nitrogen (NO_x) are the primary precursors of both ozone and PM_{2.5}.

| Ambient Air Quality Standards | | | | | | |
|--|-------------------------|------------------------------------|--|---|-----------------------------------|---|
| Pollutant | Averaging Time | California Standards ¹ | | National Standards ² | | |
| | | Concentration ³ | Method ⁴ | Primary ^{3,5} | Secondary ^{3,6} | Method ⁷ |
| Ozone (O ₃) | 1 Hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | — | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m ³) | | 0.075 ppm (147 µg/m ³) | | |
| Respirable Particulate Matter (PM ₁₀) ⁸ | 24 Hour | 50 µg/m ³ | Gravimetric or Beta Attenuation | 150 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m ³ | | — | | |
| Fine Particulate Matter (PM _{2.5}) ⁸ | 24 Hour | — | — | 35 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m ³ | Gravimetric or Beta Attenuation | 12.0 µg/m ³ | 15 µg/m ³ | |
| Carbon Monoxide (CO) | 1 Hour | 20 ppm (23 mg/m ³) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m ³) | — | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9.0 ppm (10 mg/m ³) | | 9 ppm (10 mg/m ³) | — | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | — | — | |
| Nitrogen Dioxide (NO ₂) ⁸ | 1 Hour | 0.18 ppm (339 µg/m ³) | Gas Phase Chemiluminescence | 100 ppb (188 µg/m ³) | — | Gas Phase Chemiluminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m ³) | | 0.053 ppm (100 µg/m ³) | Same as Primary Standard | |
| Sulfur Dioxide (SO ₂) ¹⁰ | 1 Hour | 0.25 ppm (655 µg/m ³) | Ultraviolet Fluorescence | 75 ppb (196 µg/m ³) | — | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m ³) | |
| | 24 Hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm (for certain areas) ¹⁰ | — | |
| | Annual Arithmetic Mean | — | | 0.030 ppm (for certain areas) ¹⁰ | — | |
| Lead ^{11,12} | 30 Day Average | 1.5 µg/m ³ | Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m ³ (for certain areas) ¹² | Same as Primary Standard | |
| | Rolling 3-Month Average | — | | 0.15 µg/m ³ | | |
| Visibility Reducing Particles ¹³ | 8 Hour | See footnote 13 | Beta Attenuation and Transmittance through Filter Tape | No National Standards | | |
| Sulfates | 24 Hour | 25 µg/m ³ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride ¹¹ | 24 Hour | 0.01 ppm (26 µg/m ³) | Gas Chromatography | | | |

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (6/4/13)

Table A-1. Ambient Air Quality Standards.

The federal 8-hour ozone standard and the State 8-hour ozone standard are based on an 8-hour continuous average of the ozone level.

Toxic Air Contaminants

Under the Clean Air Act, toxic air contaminants (TACs) are airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs are also referred to as toxic air pollutants or hazardous air pollutants.

Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes, locomotives), area sources (e.g. dry cleaners) and stationary sources (e.g., factories or refineries). Because it is not practical to eliminate all TACs, these compounds are regulated through risk management programs designed to eliminate, avoid, or minimize the risk of adverse health effects from exposure.

The CARB regulates TACs under the California Clean Air Act. Under the Federal Clean Air Act, the EPA regulates air toxic compounds as hazardous air pollutants, subject to various National Emission Standards for Hazardous Air Pollutants (NESHAPs). A chemical becomes a regulated TAC after it is identified by CARB's California Air Toxics Program or the U.S. Environmental Protection Agency's (EPA) National Air Toxics Assessments, analyzed for its potential for human exposure, and evaluated for its health effects on humans.

The CARB currently maintains a list of approximately 200 toxic substances, including those identified by EPA and the California Air Toxics Program's TAC List, which may be accessed at:

<http://www.arb.ca.gov/toxics/id/taclist.htm>.

All Federal air toxics are incorporated into the California lists by reference. In addition, California regulates a large number other substances not currently on the Federal list. Key California-only air toxics related to large construction and transportation projects include diesel exhaust particulate matter and naturally-occurring asbestos.

Mobile Source Air Toxics (MSAT), emitted from highway vehicles and non-road equipment, are a subset of the 187 air toxics defined by the Clean Air Act. Interim Guidance on Air Toxic Analysis can be viewed at the Federal Highway Administration Agency web site:

http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/agtntquidmem.cfm

TACs include heavy metals, organic chemicals, pesticides, and radionuclides. Gaseous air toxics such as benzene are precursor volatile organic compounds that form ground-level ozone. Some common TACs include benzene (found in gasoline), perchloroethylene (emitted from some dry cleaning facilities); and methylene chloride (used as a solvent and paint stripper). Other examples include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds.

Once emitted, TACs disperse through the atmosphere and, depending upon the TAC, meteorological conditions and other factors, may expose people through various pathways, such as:

- Breathing contaminated air;
- Eating contaminated food products, such as fish from contaminated waters; meat, milk, or eggs from animals that feed on contaminated plants; and fruits and vegetables grown in contaminated soil on which air toxics have been deposited;

- Drinking water contaminated by toxic air pollutants;
- Ingesting contaminated soil. Young children are especially vulnerable because they often ingest soil from their hands or from objects they place in their mouths; and
- Touching (making skin contact with) contaminated soil, dust, or water (for example, during recreational use of contaminated water bodies).

Certain persistent TACs can accumulate in body tissues, leading to various health impacts. Comprehensive information regarding the science and regulation of TACs is available at the following CARB web site:

<http://www.arb.ca.gov/toxics/toxics.htm>

Greenhouse Gases

Greenhouse gases (GHGs) are natural and anthropogenic gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. Naturally occurring greenhouse gases include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Halogenated compounds that contain fluorine, chlorine, or bromine (generally a product of industrial activities) are also greenhouse gases. Project CO₂ emissions may be distinguished as biogenic (derived from living cells and generated from biological decomposition, combustion and numerous other processes) and non-biogenic (derived from fossil fuels, limestone, and other materials transformed by geologic processes).

Although the direct greenhouse gases CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities largely associated with the combustion of carbon-based fuels have increased their atmospheric concentrations since the start of the industrial age. The state of California has adopted a number of statutes and regulations to control and reduce the emission of GHGs, reflecting a belief that increasing concentration of GHGs will result in a number of deleterious impacts to public health, safety and the environment through the effects of global climate change (Appendix A).

In 2007 a federal district court ruled in *Massachusetts et al. v. Environmental Protection Agency* 549 US 497 that greenhouse gases (GHGs) are a pollutant as defined by the Clean Air Act and may be regulated as such. The EPA has subsequently made various findings and begun several actions to monitor and limit emissions, including new standards for oil refineries, power plants and other large GHG producers.

California is addressing greenhouse gases and the threat of global climate change with the following legislation:

Senate Bill (SB) 527, approved October 11, 2001, requires the California Climate Action Registry to coordinate with the State Energy Resources Conservation and Development Commission to adopt industry-specific GHG reporting metrics. The bill requires separate reporting of direct and indirect emissions by participants in the California Climate Action Registry, and requires the Registry to periodically report the number of participating organizations, the percentage of total State emissions represented by participants, and any GHG reductions achieved by participating organizations. Under SB 527, the responsibilities of the California Climate Action Registry are adjusted to meet State goals to promote voluntary reporting and reduction of GHG emissions. The bill defines the terms "annual emissions results," "baseline," "certification," "emissions," "emissions inventory," "greenhouse gases," "material," and "de minimis emissions" as they pertain to

climate change, the California Climate Action Registry and the California Air Resources Board (CARB).

Assembly Bill (AB) 1493 (Pavley) of 2002 requires CARB to develop and adopt the nation's first GHG emission standards for automobiles, also known as "Pavley I." With AB 1493 the California Legislature declared that global warming is a matter of increasing concern for public health and the environment, citing several risks that California faces from climate change including a reduction in the State's water supply, an increase in air pollution caused by higher temperatures, a loss of agricultural productivity, an increase in wildfires, damage to the coastline from rising sea levels, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs.

SB 812 requires the California Climate Action Registry to cooperate with the CARB to develop and adopt protocols for reporting and certification of GHG emissions reductions from forestry conservation and conservation-based management projects. SB 812 also requires the registry to develop protocols for reporting and certifying GHG reduction projects of participants.

California Executive Order S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, provides goals to reduce California's GHG emissions to 2000 levels by 2010, 1990 levels by the 2020, and 80% below 1990 levels by the year 2050.

Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, sets the goal to reduce overall GHG emissions to 1990 levels by 2020 while further directing CARB to create a plan which includes market mechanisms and implements rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Included are GHG reductions of CO₂e emissions by 169 million metric tons (MMT), about 30 percent of the state's projected 2020 emissions level of 596 MMT CO₂e that would occur without the reductions.

Assembly Bill 32 - Climate Change Scoping Plan, adopted by CARB on December 11, 2008, provides the following strategies to achieve the AB 32 reductions:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- The Low-Carbon Fuel Standard (15.0 MMT CO₂e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO₂e).

Executive Order #S-01-07 establishes a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 through a Low Carbon Fuel Standard to be incorporated into a State Alternative Fuels Plan promulgated by CARB in response to AB 32.

Senate Bill 97 required the Governor's Office of Planning and Research (OPR) to develop amendments to the State CEQA Guidelines for addressing greenhouse gas emissions. The Amendments, which became effective on March 18, 2010, provide

guidance regarding the analysis and mitigation of greenhouse gas emissions in draft CEQA documents.

Sen. Bill 375 adds to AB 32 with a broad requirement for regional transportation agencies to develop a Sustainable Communities Strategy (SCS) that will reduce GHG emissions from passenger vehicles. The SCS is one component of an existing Regional Transportation Plan (RTP) that coordinates transportation and land use planning to reduce vehicular travel as part of an overall strategy to meet the AB 32 GHG reduction targets. The SCS must consider the region's housing needs, transportation demands, and protection of resource and farmlands.

In providing guidance to local governments updating their general plans, the Attorney General has stated that community-wide targets should align with an emissions trajectory that reflects California's aggressive near term, interim (1990 levels by 2020), and long-term (80 percent below 1990 levels by 2050) GHG emissions limits set forth in AB 32 and Executive order S-3-05.

CEQA Guidelines

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze greenhouse gas emissions as a part of the CEQA process. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. These amendments provide guidance for several procedural and analytic issues, including the following:

- Lead agencies must analyze the greenhouse gas emissions of proposed projects and reach a conclusion regarding the significance of those emissions. (CEQA Guidelines § 15064.4.)
- When a project's greenhouse gas emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (CEQA Guidelines § 15126.2(a))
- Lead agencies may significantly streamline the analysis of greenhouse gases on a project level by using a programmatic greenhouse gas emissions reduction plan meeting certain criteria. (CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives (Appendix F of the CEQA Guidelines.)

For more information, see the Office of Planning and Research CEQA and Climate Change web site: http://opr.ca.gov/s_ceqaandclimatechange.php.

As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. Other rulemaking documents can be accessed on the Natural Resources Agency's rulemaking website (<http://ceres.ca.gov/ceqa/guidelines/>). The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

A-3 Regional and Local Air Quality Regulation and Policies

Sacramento Valley Air Basin

The CARB has delineated the jurisdiction of regional air basins and local air districts throughout the state. The Sacramento Valley Air Basin consists of nine air districts divided into southern and northern sections defined by the amount of air pollutant transport from one section to the other and the pollutant levels in each. Butte County belongs to the Northern Sacramento Valley Air Basin (NSVAB), comprised by Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba Counties.

Air pollutants are not confined by jurisdictional boundaries as they disperse through the atmosphere. For example, depending upon the time of year and meteorological conditions, a significant share of Butte County's air pollutants may come from the Sacramento metropolitan area which, in turn, may receive a share of its air pollutants from the San Francisco Bay Area or the San Joaquin Valley.

As specified in the California Clean Air Act of 1988, Chapters 1568 – 1588, it is the responsibility of each District within the State to attain and maintain California's ambient air quality standards, specifically for all criteria pollutants for which a District is in nonattainment. The CCAA requires that an attainment plan be developed and updated every three years by all nonattainment Districts for ozone (O₃), carbon monoxide (CO), sulfur oxides (SO_x), and nitrogen oxides (NO_x) (as either receptors or contributors of transported air pollutants). The District's Air Quality Attainment Plan was first adopted in 1994 and updated in 1994, 1997, 2000 and 2003. In 2006 the District collaborated with other air pollution control districts in the NSVAB to prepare a joint Air Quality Attainment Plan. That joint plan has been updated in 2006, 2009 and 2012 as the Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan.

An attainment plan is the basis for an air district's functional strategy to meet federal air quality standards. Air basins covered by an attainment plan (which are enforceable by the courts) must realize attainment goals by mandated deadlines or sanctions may result. Key elements of an attainment plan are:

1. Current and future emission inventories;
2. Modeling to quantify needed reductions;
3. Measures to achieve reductions;
4. Analytical demonstration with reductions that provide for attainment;
5. Transportation conformity budgets; and
6. Legal commitment to secure reductions

The applicable attainment plan for stationary sources in Butte County is the Northern Sacramento Valley Planning Area 2012 Triennial Air Quality Attainment Plan (Attainment Plan), which provides a description, designated attainment status, air monitoring and emission inventory, public education programs, pollutant transport, feasible control measures, and ozone trends for the Attainment Plan area. The Attainment Plan is available at the District web site: www.bcaqmd.org. Ambient air quality trends for the Northern Sacramento Valley are presented in Appendix B.

Butte County Air Quality Management District

The Butte County Air Quality Management District (District) is the primary agency responsible for assuring that the National and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively) are attained and maintained in Butte County. The District is one of six air quality management entities within the Northern Sacramento Valley Planning Area. As noted, air quality districts are created pursuant to the California Clean Air Act.

The District's responsibilities to improve air quality in Butte County include:

- Preparing plans for attaining and maintaining air quality standards; adopting and enforcing rules and regulations;
- Issuing and enforcing permits for stationary sources of air pollutants;
- Inspecting stationary sources and responding to citizen complaints;
- Monitoring air quality and meteorological conditions;
- Implementing and enforcing open burning regulations;
- Reviewing air quality analyses prepared pursuant to the California Environmental Quality Act (CEQA);
- Awarding grants to reduce mobile emissions; implementing public outreach campaigns; and
- Assisting local governments in addressing climate change.

The District has statutory authority over certain air quality matters in Butte County, including regulation of stationary sources of air pollution such as processing facilities, service industries, factories, industrial sites, and gasoline service stations through building permit requirements and specific rules and regulations. The District rules and regulations apply to many manufacturing and industrial processes as well as evaporative compounds, gasoline, paint, odors, incineration, smoke and open burning; those that may be applicable to development projects are provided below.

District Rules and Regulations

Through the authority granted it by the CCAA, the District has adopted a number of rules and regulations to implement its air quality plans, including permitting, prohibitions and limits to emissions from a variety of stationary sources, regulation of open burning, regulation of toxic air contaminants, and implementation of FCAA requirements. The District's rules and regulations may be accessed at the District web site: <http://www.bcaqmd.org>. Compliance with District rules cannot serve as mitigation for projects subject to CEQA. District rules that may be applicable for discretionary projects are provided below, but applicants and lead agencies should consult the District web site to insure that all applicable rules are followed.

Rule 200 - Nuisance

No person shall discharge from any non-vehicular source such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property

Rule 201 – Visible Emissions

No person shall discharge into the atmosphere from any single non-vehicular source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one hour which is:

1.1 As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the U.S. Bureau of Mines; or,

2.2 Of such opacity as to obscure an observers view to a degree equal to or greater than does smoke described in Section 1 of this Rule.

Rule 202 – Particulate Matter Concentration

A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grains per cubic foot of gas at standard conditions.

When the source involves a combustion process, the concentration must be calculated to 12 percent (12%) carbon dioxide (CO₂). In measuring the combustion contaminants from incinerators used to dispose of combustible refuse by burning, the carbon dioxide (CO₂) produced by combustion of any liquid or gaseous fuels shall be excluded from the calculation of 12 percent (12%) of carbon dioxide (CO₂).

Rule 205 – Fugitive Dust Emissions

The purpose of this Rule is to reduce ambient concentrations and limit fugitive emissions of fine particulate matter (PM₁₀) from construction activities, bulk material handling and storage, carryout and track-out, and similar activities, weed abatement activities, unpaved parking lots, unpaved staging areas, unpaved roads, inactive disturbed land, disturbed open areas, and windblown dust.

Rule 207 – Wood Burning Devices

The purpose of this Rule is to provide requirements related to sale, installation, operation and testing of wood burning stoves in order to minimize air pollutant emissions.

Rule 220 – Hold-Open Latch Requirement for Retail Service Stations

The purpose of this Rule is to reduce the emissions of gasoline vapors with requirements for the installation and maintenance of hold-open latches on all gasoline dispensing nozzles.

Rule 221 – Phase I Vapor Recovery Requirements

The purpose of this Rule is to reduce the emissions of gasoline vapors during transfer of gasoline through the use a CARB-certified Phase I vapor recovery system installed on the stationary storage tank.

Rule 222 – Phase II Vapor Recovery Requirements

The purpose of this Rule is to reduce the emissions of gasoline vapors during the transfer of gasoline through the use of a CARB-certified Phase II vapor recovery system installed on the stationary storage tank.

Rule 223 – Delivery Vessels Equipped with Vapor Recovery

The purpose of this Rule is to reduce the emissions of gasoline vapors during the loading of gasoline into a gasoline delivery vessel through the use of a CARB-certified vapor recovery system or its equivalent approved by the Air Pollution Control Officer.

Rule 224 – Delivery Vessels Not Equipped With Vapor Recovery

The purpose of this Rule is to reduce the emissions of gasoline vapors by prohibiting the loading of a gasoline transfer vessel that does not have a vapor recovery system.

Rule 225 – Vapor Collection and Disposal System at Loading Facilities

The purpose of this Rule is to reduce the emissions of gasoline vapors during the loading of any organic liquids above a specified vapor pressure with an approved vapor collection and disposal system.

Rule 226 – Storage of Gasoline Products at Bulk Facilities

The purpose of this rule is to the emissions of gasoline vapors by regulating the size, working pressures and vapor loss controls of stationary storage tanks at bulk facilities.

Rule 227 – Vapor Recovery Requirements at Bulk Gasoline Facilities

The purpose of this Rule is to reduce the emissions of gasoline vapors from gasoline transfer operations at bulk gasoline facilities.

Rule 228 – Dry Cleaning

The purpose of this rule is to limit air pollutant emissions from petroleum based solvents used in dry cleaning.

Rule 229 – Solvent Storage

The purpose of this rule is to limit air pollutant emissions from petroleum based paints and solvents through proper storage.

Rule 230 – Architectural Coatings

The purpose of this Rule to limit the quantity of Volatile Organic Compounds (VOCs) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

Rule 231 – Cutback and Emulsified Asphalt

The purpose of this Rule is to limit emissions of volatile organic compounds (VOCs) from the use of cutback and emulsified asphalt in paving, construction, or maintenance of parking lots, driveways, streets, and highways.

Rule 232 – Polyester Resin

The purpose of this Rule is to control Volatile Organic Compound (VOC) emissions from polyester resin operations.

Rule 233 – Organic Solvent Degreasing Operations

The purpose of this Rule is to control volatile organic compound (VOC) emissions from solvent cleaning and degreasing operations.

Rule 234 – Disposal of Organic Waste

The purpose of this Rule is to reduce the emissions of volatile organic compounds (VOC) resulting from the generation, storage, transfer, treatment, recycling or disposal of volatile organic wastes.

Rule 235 – Requirements for Vehicle and Mobile Equipment Coating Operations

The purpose of this Rule is to reduce the emissions of volatile organic compounds (VOC) by regulating limits to VOC coatings on vehicles and mobile equipment.

Rule 236 – Implementation of the Emission Guidelines for Municipal Solid Waste Landfills

The purpose of this Rule is to reduce gas emissions associated with municipal landfills through requirements for site-specific gas collection and control.

Rule 237 – Soil Decontamination

The purpose of this Rule is to limit emissions of volatile organic compounds (VOC) from soil excavation and remediation, or treatment of soil that has been contaminated by volatile organic compounds.

Rule 250 – Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters Oxides of Nitrogen Control Measure

The purpose of this Rule is to reduce Oxides of Nitrogen emissions during the operations of Industrial, Institutional and Commercial Boilers, Steam Generators and Process Heaters.

Rule 252 – Stationary Internal Combustion Engines

The purpose of this Rule is to limit emissions of nitrogen oxides (NO_x) and carbon monoxide (CO) from stationary internal combustion engines.

Rule 261 – Reduced Sulfur Emission Standards

The purpose of this Rule is to reduce sulfur and other air contaminant emissions from pulp mills.

Rule 262 – Sulfur Oxides Emission Standards

The purpose of this Rule is to minimize emissions of sulfur oxides from any single source.

Rule 300 – Open Burning Requirements, Prohibitions and Exemptions

The purpose of this Rule is to ensure that open burning in the District is conducted in a manner that minimizes emissions and smoke and is managed consistent with State and federal law.

Rule 400 – Permit Requirements

The purpose of this Rule is to require any person constructing, altering, or operating a source that emits or may emit air contaminants to request an Authority to Construct or Permit to Operate from the Air Pollution Control Officer (APCO) and to provide an orderly procedure for application, review, and authorization of new sources and of the modification and operation of existing sources of air pollution. Stationary sources that are subject to Rule 1101-Title V-Federal Operating Permits of these Rules and Regulations shall also comply with the procedures specified in this Rule.

Rule 430 – State New Source Review (SNSR)

The purpose of this Rule is to establish pre-construction review requirements for new and modified stationary sources of air pollution for use of Best Available Control Technology (BACT), offsets, and analysis of air quality impacts, and to ensure that the operation of such sources does not interfere with the attainment or maintenance of ambient air quality

standards, and complies with all other applicable Butte County Air Quality Management District (DISTRICT) Rules and Regulations.

Rule 432 – Federal New Source Review (FNSR)

The purpose of this Rule is to establish pre-construction review requirements for new and modified major stationary sources and major modifications of air pollution for use of Best Available Control Technology (BACT), offsets, and analysis of air quality impacts, and to ensure that the operation of such sources does not interfere with the attainment or maintenance of ambient air quality standards, and complies with all other applicable requirements.

Rule 440 – Portable Equipment Registration

The purpose of this Rule is to establish standards and procedures for the issuance of Certificate(s) of Registration by the Air Pollution Control Officer (APCO) of the Butte County Air Quality Management District (DISTRICT) for registration of certain portable emissions units for operation within the District and to recognize registrations issued by other districts within the State of California with comparable requirements. The DISTRICT may update, through rulemaking, the emission standards for new emissions units as more effective control technology becomes available.

Rule 441 – Registration Requirements for Stationary Compression Ignition (CI) Engines Used in Agricultural Operations

The purpose of this Rule is to establish procedures for the issuance of Certificate(s) of Registration by the Air Pollution Control Officer (APCO) of the Butte County Air Quality Management District (DISTRICT) for registration of stationary compression ignition (CI) engines utilized in Agricultural Operations within the DISTRICT.

Rule 450 – Large Confined Animal Facilities

The purpose of this Rule is to establish permitting requirement intended to reduce emissions of air contaminants associated with operation of large confined animal facilities.

Rule 1000 – State Airborne Toxic Control Measures

The purpose of this Rule is to incorporate California State Airborne Toxic Control Measures (ATCM) as per Health and Safety Code (HSC) Section 39666.

Rule 1001 – Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines Used in Agricultural Operations

The purpose of this Rule is to reduce emissions of diesel particulate matter (PM) from stationary diesel-fueled compression ignition (CI) engines used in agricultural operations.

Rule 1002 – Airborne Toxic Control Measure (ACTM) for Compression Ignition (CI) Engines Used at Stationary Sources

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) from stationary diesel-fueled compression ignition (CI) engines.

Rule 1101 – Title V – Federal Operating Permits

This Rule implements the requirements of Title V of the federal Clean Air Act (CAA) as amended in 1990 for Permits to Operate. Title V provides for the establishment of

operating permit programs for sources, which emit regulated air pollutants, including attainment and nonattainment pollutants.

Rule 1102 – conformity to State Implementation Plans of Transportation Plans, Programs, and projects Developed, Funded or Approved Under title 23 U.S.C. or the Federal Transit Act

The purpose of this Rule is to implement Section 176(c) of the federal Clean Air Act (CAA), as amended (42 United States Code (U.S.C.) 7401 et seq.), the related requirements of 23 U.S.C. 109(j), and regulations under 40 Code of Federal Regulations (CFR) Part 51 Subpart T, with respect to the conformity of transportation plans, programs, and projects which are developed, funded, or approved by the United States Department of Transportation (DOT), and by metropolitan planning organizations (MPOs), or other recipients of funds under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.). This Rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such activities to this applicable implementation plan, developed and applicable pursuant to Section 110 and Part D of the CAA.

Rule 1103 – conformity of General Federal Actions to State Implementation Plans

The purpose of this Rule is to implement Section 176(c) of the federal Clean Air Act (CAA), as amended (42 United States Code (U.S.C.) 7401 et seq.) and regulations under 40 Code of Federal Regulations (CFR) Part 51 Subpart W, with respect to the conformity of general federal actions to the applicable implementation plan. Under those authorities, no department, agency or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. This Rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such actions to the applicable implementation plan.

Rule 1107 – Prevention of Significant Deterioration (PSD) Permits

The federal Prevention of Significant Deterioration (PSD) program is a construction permitting program for new major facilities and major modifications to existing major facilities located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The application, processing requirements and procedures are those contained in Butte County Air Quality Management District (DISTRICT) Rule 400-Permit Requirements and Rule 432-Federal New Source Review unless otherwise superseded by federal regulation. The intent of this Rule is to incorporate the federal PSD rule requirements into the DISTRICT's Rules and Regulations by incorporating the federal requirements by reference.

Local General Plan Polices

Policies related to air quality and greenhouse gases are often found in the mandatory Conservation Element of a jurisdiction's required General Plan. The air quality section typically provides a description of existing conditions, sources of emissions, and a series of goals, policies and actions to ensure that healthful air quality is achieved to the extent feasible. Project applicants and lead agencies should ensure that projects are consistent with the air quality and greenhouse gas goals and policies provided in the lead agency's general plan. Links to current general plans for jurisdictions within Butte County are provided below:

City of Biggs:

<http://www.biggsgeneralplan.com>

Butte County:

www.buttegeneralplan.net

City of Chico:

http://www.chico.ca.us/document_library/general_plan/GeneralPlan.asp

City of Gridley:

<http://www.gridley.ca.us/city-departments/planning-department/documents>

Town of Paradise:

http://www.townofparadise.com/index.php/component/docman/doc_view/659-town-of-paradise-1994-general-plan-policy-document?Itemid=354

A-4 Permit Requirements

What is the District's Role in Permitting?

The Butte County Air Quality Management District (District) regulates stationary sources of air pollution such as processing facilities, service industries, factories, industrial sites, and gasoline stations. The District regulations apply to many manufacturing and industrial processes as well as evaporative compounds, gasoline, paint, odors, incineration, smoke and open burning.

Government Code section (GC § 65850.2) identifies certain air pollution information that cities and counties are required to collect for new building and development projects. California Health & Safety Code sections (HSC § 42301.6 to 42301.9) address the release of hazardous air contaminants near schools, and discuss requirements for air district permits for new or modified facilities.

The following overview describes how the law may affect a discretionary project subject to CEQA.

Building Permit Requirements

Under the law, final certificates of occupancy may not be issued unless certain requirements are met. All applicants must comply with District permit regulations, or demonstrate to the District that the air permit regulations do not apply to their particular project.

The District recommends a hazardous material and emissions questionnaire (questionnaire) accompany all building permit applications which have the potential to emit air pollutants. The questionnaires are distributed by City and County Building Departments (and occasionally by County Environmental Health). The questionnaire pertains to facility location and equipment, processes, and materials which may require an air District permit or other written authorization. The questionnaire should be completed and returned to the Building Department for initial screening and processing. The questionnaire is forwarded to the District if either or both of the following questions are answered YES: (1) Is the business/facility/operation is located within 1000 ft. of the outer boundary a school or school site?; (2) Does the business/facility/operation have

the potential to emit any air pollutant: e.g. dust, soot, odors, fumes, vapors, or other volatile compounds?

The District currently receives a pink copy of hazardous material and emissions questionnaire from the County and City of Chico. The process for completing the questionnaire begins on page A-20. Although the law does not require city/county to use a questionnaire, the District has found them valuable in notifying applicants of local, state and federal requirements. The District encourages all jurisdictions to use this type of questionnaire for hazardous materials and emissions. Page A-18 lists several examples of District Permit Categories. It should be noted that all residential construction is exempt from these requirements.

If you are unsure whether or not your project is subject to permit requirements, the necessary information can be obtained by contacting the District and describing the proposed project. District staff can then determine if an application for a Permit must be filed.

Requirements for Existing or Proposed Projects Near Schools

Under the California Health and Safety Code, there are specific requirements which must be met by both the District and existing or proposed commercial or industrial facilities near a school.

Upon receipt of the questionnaire, the District will evaluate it for equipment or processes requiring a permit and for proximity to sensitive receptors. This initial screening will occur within fourteen (14) days of receipt of the questionnaire. The District will notify the applicant if further action is necessary under the law and/or the District permit process. If additional action is required under the law or the District permitting process, a description of required actions will be included in the letter sent to the applicant.

Construction of New Schools

For construction of new schools, any person or agency preparing an Environmental Impact Report for a proposed school site must consult with the city, county, and the District to identify facilities within one-quarter mile of the proposed school site which may emit hazardous air emissions, or have the potential to explode or catch fire. The city, county, and District have 30 days to provide this information to the person or agency seeking it. This requirement is spelled out in the Public Resources Code Sec. 21151.8, Subd.(a) (4).

Foreseeable Threat of Release of Hazardous Air Contaminant

Under certain conditions, the law requires the District to take action when there is a reasonable threat of release of a hazardous air contaminant. District action is required if:

1. The release is predicted from a facility located within 1000 feet of a school; and
2. The release has the potential to impact persons at the school to the extent that a public health threat or nuisance could result.

When the release of a hazardous air contaminant is forecast, the District must notify the agency responsible for administering the hazardous materials policy. In addition, the District may respond to this reasonable threat of release by:

1. Issuing an immediate order to prevent the release; or,
2. Mitigating the foreseeable threat of a release, pending a hearing; or,
3. Applying to the District Hearing Board for issuance of an Order of Abatement.

Furthermore, if the principal of a school contacts the District to request an investigation of odors or possible air pollution sources as the cause of illness among school children, within 24 hours the District must respond and notify the city or county official responsible for administering hazardous materials policy and the fire department having jurisdiction over the school.

Butte County Air Quality Management District Permit Categories

The following is a list of processes, operations, and pollution control equipment that will normally require an Authority to Construct and a Permit to Operate from the District.

CHEMICALS

Ethylene Oxide Sterilizers
Acid Chemical Milling
Evaporators, Dryers, and
Stills
Processing Organic Materials
Dry Chemical Mixing and
Storage
Soap & Detergent
Fertilizer Manufacturing and
Storage

COATINGS AND SURFACE PREPARATION

Abrasive Blasting Equipment
Coating and Painting
Operations
Paint, Stain, and Ink
Manufacturing
Printing, Graphic Arts
Operations

COMBUSTION

Internal Combustion Engines
(50 hp or larger)
Incinerators
Crematories
Boilers and Heaters (1 million
BTU/hr or larger)
Furnaces

AIR POLLUTION CONTROL EQUIPMENT

Cyclones, Bag houses,
Settling Chambers
Scrubbers, Electric Static
Precipitators (ESP)

ELECTRONICS

Solder Levelers
Wave Solder Machines
Vapor Degreasers
Fume Hood Scrubbers
Electrolytic Plating
Silicone Chip Manufacturing

FOOD & AG PROCESSING

Smokehouses
Feed and Grain Mills
Coffee Roasters
Bulk Flour/Grain Storage

METALS

Metal Smelters
Galvanizing Operations
Nickel, Cadmium or Chrome
Plating
Chromic Acid Anodizing
Metal Ore Processing

ROCK AND MINERAL

Hot Asphalt Batch Plants
Sand, Rock, Aggregate
Plants
Concrete Batch, Concrete
Mixers, and Silos
Brick Manufacturing
Screening and Crushing
Operations

PETROLEUM FUELS

MARKETING

Gasoline and Alcohol Bulk
Plants and Terminals
Gasoline and Alcohol Fuel
Dispensing

SOLVENT USE

Vapor and Cold Degreasing
Solvent and Extract Dryers
Dry Cleaning

OTHER

Aqueous Waste
Neutralization
Landfill Gas Flare or
Recovery Systems
Waste Disposal, Rendering,
Reclamation Units
Grinding Booths and Rooms
Oil Field Exploration or
Production
Plastic/Fiberglass/Resin
Operations
Soil Aeration/Reclamation or
Remediation
Storage of Organic Liquids
Powder Coating
Fiberglass Chopper Guns
Waste Water Treatment
Works
Synthetic Fiber Production
Wood Processing
Sources of volatiles, dust or
toxics

Examples of Hazardous Materials:

Businesses which store, handle, or use hazardous materials will require clearance from the City or County Fire Department or Butte County Environmental Health before obtaining a Building Permit or Certificate of Occupancy.

| | | |
|------------------------------|---------------------------------|-----------------------|
| Ammonia | Gasoline | Poisons |
| Acids and Bases | Hazardous Material Mixtures | Pyrophoric/Hypergolic |
| Chlorine | Herbicides | Materials |
| Compressed Gases | Industrial Cleaners | Radioactives |
| Corrosives | Infectious/Biological Materials | Solvents |
| Cryogenic Fluids | Oxidizing Materials | Waste Oils |
| Explosives | Paint Thinners | Water Reactives |
| Fertilizers | Paints | Welding Gases |
| Flammable Liquids and Solids | Pesticides | |
| | Petroleum Products | |

NOTE: Other equipment not listed here that is capable of emitting air contaminants may require a Butte County Air Quality Management District Permit. If there are any questions, contact the District at (530) 332-9400. For information on Hazardous Materials located within the County of Butte contact the Butte County Environmental Health Department at (530) 538-7281.

IF YOU INSTALL AND/OR OPERATE EQUIPMENT WITHOUT A REQUIRED PERMIT, YOU MAY BE SUBJECT TO LEGAL ACTION AND PENALTIES OF UP TO \$25,000 PER DAY FOR EACH DAY OF VIOLATION.

Timeline and Implementation Process

Outside Agency (Building Department) Responsibilities

- A. Building Department distributes Application Packet to applicant. This packet should include GC §65850.2, HSC §§ 42301.6 to 42301.9 and District Permit information.
- B. Applicant completes the application packet, and returns it to the Building Department.
- C. Building Department conducts initial screening of Hazardous Materials Questionnaire (hereafter referred to as the Questionnaire). This screening consists of reviewing the Questionnaire for answers to the following questions:
 1. (Question #3) Is the business/facility/operation to be located within 1000 feet or the outer boundary of a school or school site?
 2. (Question #4) Does the business/facility/operation have the potential to emit any air pollutants; e.g., dust, soot, odors, fumes, vapors, or other volatile compounds? (Will the intended occupant(s) install or use any of the equipment listed on attached list "Butte County AQMD Permit Categories").
- D. The Building Department performs one of the following actions, based on the response to the questions listed in Section I.C. above:
 1. If the answer to Question #3 is NO, then this project is exempt from GC §65850.2 and HSC §§ 42301.6 to 42301.9 requirements.

2. If the answer to Question #4 is YES, the questionnaire is forwarded to the District for further review.

District Responsibilities

The District reviews Questionnaire received from the Building Department or applicant. Within 14 days, one of the following determinations will be made:

- A. If the answer to Question #4 is YES and the facility is not located within 1000 feet of a school, then the project is exempt from further processing under GC §65850.2 and HSC §§ 42301.6 to 42301.9, but IS subject to District permitting requirements. As a result, the District will take the following actions:

Within 30 days of receipt of the questionnaire from the Building Department or applicant, the District will:

1. Send a letter to the project applicant indicating that this project IS subject to a District permit. Accompanying this letter will be an Authority to Construct (AC) application, and other explanatory information.
 2. Upon receipt of an AC application, the District has 30 days to determine if the application is complete. A letter of completeness (or incompleteness) is sent to the applicant prior to the end of the 30-day period. If the application is incomplete, the District will request additional information in the aforementioned letter. If the application is complete, then the District will issue a completeness letter indicating that they have 180 days to issue an AC.
 3. After project construction is completed, the applicant must notify the District that construction is complete. A field inspection will then be conducted by District staff to determine compliance with applicable District Rules and Regulations. Upon verification of compliance, a Permit-to-Operate (PO) for the subject facility is issued by the District.
- B. District Permit required; potentially subject to GC §65850.2 and HSC §§ 42301.6 to 42301.9 Requirements. If the answer to Questions #4 is YES, and the facility is within 1000 feet of a school, the proposed project will be subject to the District permitting process. The District will perform the following actions:

Within 30 days of receipt of the questionnaire from the Planning or Building Department, the District will:

1. Send a letter to the project applicant indicating that this project IS subject to District permit and applicable public noticing requirements in accordance to District policies and procedures. Accompanying this letter will be an AC application, a description of public noticing requirements and other explanatory information.
2. Upon receipt of an AC application, the District has 30 days to determine if the application is complete. A letter of completeness (or incompleteness) is sent to the applicant prior to the end of the 30-day period. If the application is incomplete, the District will request additional information in the aforementioned letter.
3. When the District has deemed the AC application complete, the applicant will then be required to comply with the District's requirements implementing the HSC §§ 42301.6 to 42301.9. When public noticing requirements must be demonstrated, the requirements are as follows:
 - a. The Air Pollution Control Officer (APCO) shall, at the expense of the permit applicant, distribute (or mail) a public notice to the parents or guardians of children enrolled in

ANY school that is located within 1/4 mile of the proposed project site, and to each address within a 1000 ft. radius of the proposed source. An assessor's parcel map will be used to determine the area encompassing addresses within the 1000 ft. radius of the proposed project.

- b. The public noticing period extends for 30 days, and MUST begin at least 30 days prior to the District taking final action on the AC application for the proposed project. This notice may be combined with any other notice on the project or permit, which is required by law. The APCO shall review and consider all public comments received during the 30 days after the notice is distributed, and shall include written responses to the comments in the permit application file prior to taking final action on the application.
- c. State law requires the District approve or deny the AC within 180 days of the date on which the A/C application was deemed complete. The public noticing period and the District response to public comments MUST occur within this time period. The District cannot issue the AC until the District's policies and procedures implementing the public noticing requirements for HSC §§ 42301.6 to 42301.9 have been satisfied.
- d. After project construction is completed, the applicant must indicate in writing to the District that construction is complete. A field inspection will then be conducted by District staff to determine compliance with applicable District Rules and Regulations. Upon verification of compliance, a PO for the subject facility is issued by the District.

APPENDIX B

B-1 Regional and Local Air Quality

B-2 Measuring Air Quality

B-3 Regional and Local Air Quality Trends

B-1 Sacramento Valley Air Basin and Local Air Quality

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is composed of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the Sacramento Valley Air Basin, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years, additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high pressure cell that deflects storms from the region.

In Butte County, winters are generally mild with daytime average temperatures in the low 50s°F and nighttime temperatures in the upper 30s°F. Temperatures range from an average January low of approximately 36°F to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the County. Periodic rainstorms contrast with occasional stagnant weather and thick ground or "tule" fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a "lid" over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution "hot spots" near emission sources. Carbon monoxide, nitrogen oxides, particulate matters and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM_{2.5}) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NOx) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest.

B-2 Monitoring Air Quality

The local air districts within the Northern Sacramento Valley Air Basin (under the auspices of CARB) maintain 14 monitoring stations to continuously measure criteria air pollutants. In Butte County, CARB monitors air quality at four stations: Chico (East Avenue); Paradise (4405 Airport Road and Paradise Theater); and Gridley (Cowee Avenue). The Paradise Theater and Gridley Cowee Avenue monitoring sites do not have official air quality data on record. The Paradise 4405 Airport Road site has data for ozone and the Chico East Avenue site has data for ozone, carbon monoxide, nitrogen dioxide and particulate matter. Prior to June 2012 the Chico site was located at Manzanita Avenue. Note that the federal ozone 1-hour standard was revoked by the EPA and is no longer applicable for federal standards.

B-3 Regional and Local Air Quality Trends

Between 1980 and 2020, the population in the Sacramento Valley Air Basin is projected to increase 120 percent compared with an 86 percent increase statewide, representing growth from 1.5 million in 1980 to almost 3.3 million in 2020. With the growth in population will be a projected 200 percent increase in vehicle miles travelled, from about 30 million miles in 1980 to nearly 90 million miles in 2020.

Ozone Emission Trend Peak values in the Sacramento Valley Air Basin have declined since 2000 with the peak 8-hour indicator showing a decrease of about 15 percent in Butte County. Looking at the number of days above the State and federal standard, the trend is much more variable and dependent on climatic conditions and exceptional events. However, the number of 8-hour exceedance days in Butte County has declined by nearly 78% since 2000.

Local, Butte County and regional air quality data and trends are available at the following CARB web site: <http://www.arb.ca.gov/adam/index.html>. Tables B-1 through B-3 provide ozone, PM2.5 and PM10 trends in the Sacramento Valley Air Basin for the period 2010 – 2012.

Table B-1. SVAB Ambient Air Quality Monitoring Data Summary for Ozone 2010 - 2012

| Year | Days>Standard | | | | 1-Hour Observations | | | 8-Hour Averages | | | | Year Coverage | |
|------|---------------|------|----------|-------|---------------------|-------------------|-------------------|-----------------|--------------|--------------|----------------------|---------------|-----|
| | State | | National | | Max | State | Nat'l | State | | National | | Min | Max |
| | 1-hr | 8-hr | 1-hr | 08-hr | | D.V. ¹ | D.V. ² | Max | D.V.1 | Max | 08 D.V. ² | | |
| 2012 | 22 | 75 | <i>1</i> | 46 | 0.125 | 0.12 | <i>0.123</i> | 0.106 | 0.107 | 0.106 | 0.095 | 0 | 100 |
| 2011 | 26 | 59 | <i>0</i> | 46 | 0.123 | 0.12 | <i>0.12</i> | 0.098 | 0.112 | 0.098 | 0.095 | 17 | 100 |
| 2010 | 15 | 46 | <i>0</i> | 29 | 0.124 | 0.13 | <i>0.132</i> | 0.112 | 0.116 | 0.112 | 0.102 | 85 | 100 |

Source: California Air Resources Board Air Quality Trends Summary: <http://www.arb.ca.gov/adam/trends/trends2.php>

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in italics.

State and federal exceedances are indicated in bold. An exceedance is not necessarily a violation.

¹D.V. = State Designation Value

²D.V. = National Design Value

Table B-2. SVAB Ambient Air Quality Monitoring Data Summary for PM_{2.5} 2010 - 2012

| Year | Est. Days > Nat'l '06 Std. | Annual Average | | Nat'l Ann. Std. D.V. ¹ | State Annual D.V. ² | Nat'l '06 Std. 98th Percentile | Nat'l '06 24-Hr Std. D.V. ¹ | High 24-Hour Average | | Year Coverage | |
|------|----------------------------|----------------|-------------|-----------------------------------|--------------------------------|--------------------------------|--|----------------------|-------|---------------|-----|
| | | Nat'l | State | | | | | Nat'l | State | Min | Max |
| 2012 | 3.1 | 9.1 | 12.1 | 9.5 | 15 | 27.1 | 31 | 28.6 | 46.8 | 46 | 100 |
| 2011 | 36.5 | 12.1 | 14.6 | 10.1 | 15 | 46.2 | 35 | 51.8 | 66 | 86 | 100 |
| 2010 | 1.1 | 8.8 | 10.9 | 11.5 | 19 | 29 | 51 | 31.9 | 39.8 | 46 | 100 |

Source: California Air Resources Board Air Quality Trends Summary: <http://www.arb.ca.gov/adam/trends/trends2.php>

All concentrations expressed in micrograms per cubic meter.

State and federal exceedances are indicated in bold. An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

¹D.V. = National Design Value

²D.V. = State Designation Value

Table B-3. SVAB Ambient Air Quality Monitoring Data Summary for PM₁₀ 2010 - 2012

| Year | Est > Std. | | Annual Average | | 3-Year Average | | High 24-Hr Average | |
|------|------------|-------------|----------------|-------------|----------------|-----------|--------------------|-------------|
| | Nat'l | State | Nat'l | State | Nat'l | State | Nat'l | State |
| 2012 | 0 | 18.7 | 27.7 | 24.3 | 23 | 25 | 94.6 | 96.7 |
| 2011 | 0 | 24.4 | 24.2 | 25.1 | 23 | 26 | 73.5 | 73.0 |
| 2010 | 0 | 12.2 | 20.5 | 21 | 26 | 33 | 87.4 | 87.4 |

Source: California Air Resources Board Air Quality Trends Summary: <http://www.arb.ca.gov/adam/trends/trends2.php>

All concentrations expressed in micrograms per cubic meter.

The national annual average PM₁₀ standard was revoked in December 2006 and is no longer in effect.

State and federal exceedances are indicated in bold. An exceedance is not necessarily a violation.

Statistics may include data that are related to an exceptional event such as high winds and/or fire.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Tables B-4 and B-5 provide ozone and PM_{2.5} trends in Butte County for the period 2010 – 2012 (PM₁₀ data is not available at the CARB web site).

Table B-4. Butte County Ambient Air Quality Monitoring Data Summary for Ozone 2010 - 2012

| Year | Days > Standard | | | 1-Hour Observations | 8-Hour Averages | |
|------|-----------------|--------|----------|---------------------|-----------------|--------------------------------|
| | 1-Hour State | 8-Hour | | Maximum | Maximum | National Standard Design Value |
| | | State | National | | | |
| 2012 | 0 | 25 | 5 | 0.088 | 0.08 | 0.077 |
| 2011 | 0 | 16 | 6 | 0.094 | 0.081 | 0.077 |
| 2010 | 0 | 14 | 4 | 0.085 | 0.078 | 0.079 |

Source: California Air Resources Board Air Quality Trends Summary: <http://www.arb.ca.gov/adam/trends/trends2.php>

Table B-5. Butte County Ambient Air Quality Monitoring Data Summary for PM_{2.5} 2010 - 2012

| Year | Est. Days > Nat'l '06 Std. | Annual Average | | Nat'l Ann. Std. D.V. ¹ | State Annual D.V. ² | Nat'l '06 Std. 98th Percentile | Nat'l '06 24-Hr Std. D.V. ¹ | High 24-Hour Average | | Year Coverage | |
|------|----------------------------|----------------|-------------|-----------------------------------|--------------------------------|--------------------------------|--|----------------------|-------|---------------|------|
| | | Nat'l | State | | | | | Nat'l | State | Min. | Max. |
| 2012 | * | * | 12.1 | * | 15 | * | * | 28.6 | 123.3 | 46 | 65 |
| 2011 | 36.5 | 12.1 | 14.6 | 10.1 | 15 | 46.2 | 35 | 51.8 | 66 | 100 | 100 |
| 2010 | 0 | 8 | 10.9 | 11.5 | 18 | 29 | 51 | 31.9 | 39.8 | 91 | 91 |

Source: California Air Resources Board Air Quality Trends Summary: <http://www.arb.ca.gov/adam/trends/trends2.php>

All concentrations expressed in micrograms per cubic meter.

State and federal exceedances are indicated in bold. An exceedance is not necessarily a violation.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

¹D.V. = National Design Value

²D.V. = State Designation Value

*There was insufficient (or no) data available to determine the value.

APPENDIX C

Best Practices and Mitigation Measures to Reduce Air Quality and Greenhouse Gas Impacts

C-1 Best Practices

C-2 Standard On- and Off-Site Mitigation Measures

C-1 Best Practices to Minimize Air Quality and GHG Impacts

The following best practice measures to reduce impacts to air quality should be incorporated into project descriptions as commitments by the applicant. Note that some of these best practice measures are required by federal, state or local regulations.

Diesel PM Exhaust from Construction Equipment

- All on- and off-road diesel equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project (see <http://www.arb.ca.gov/toxics/atcm/atcm.htm>).
- Stationary sources shall comply with applicable District rules and regulations.

Diesel Idling Restrictions for Construction Phases

The District recognizes the public health risk reductions that can be realized by idle limitations for both on and off-road equipment. The following idle restricting measures are required for the construction phase of projects:

a) Idling Restrictions for On-Road Vehicles

Section 2485 of Title 13 California Code of Regulations applies to California and non-California based and diesel-fueled commercial motor vehicles operating in the State with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. In general, the regulation specifies that drivers of said vehicles:

- Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.

- Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5 minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

b) Idling Restrictions for Off-Road Equipment

- Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/froal.pdf.
- Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.

Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200 and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.

- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in a prominent location visible to the public with the telephone numbers of the contractor and District for any questions or concerns about dust from the project.

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.

Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to \$25,000 per violation.

C-2 On- and Off-Site Mitigation Measures

This section provides a number of on- and off-site mitigation measures intended to reduce criteria air pollutants, diesel PM and GHGs resulting from construction and operation of a project. (Mitigation of toxic air contaminants is discussed in Section 5.) Additional discussion of GHG mitigation measures providing an introduction to use of the hundreds of measures in *Quantifying Greenhouse Gas Measures* (CAPCOA 2010) may be found in Section 6.

Construction Mitigation Measures

Construction Equipment Emission Reductions

Standard mitigation measures for reducing NOx, ROG, PM and Diesel PM include:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance;
- All on- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is prohibited;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;

- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- Use alternatively fueled construction equipment on site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Best Available Control Technology (BACT) for Construction Equipment

If the estimated construction phase ozone precursor emissions from the actual fleet for a given phase are expected to exceed the District's threshold of significances after the standard mitigation measures are factored into the estimation, then BACT needs to be implemented to further reduce these impacts. BACT measures include:

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
- Repowering equipment with the cleanest engines available; and
- Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>
- Implementing a design measure to minimize emissions from on and off-road equipment associated with the construction phase. This measure should include but not be limited to the following elements:
 - Tabulation of on and off-road construction equipment (type, age, horse-power, engine model year and miles and/or hours of operation);
 - Calculate daily worst case emissions and the quarterly emissions that include the overlapping segments of construction phases;
 - Equipment Scheduling (NO_x and PM)
 - Schedule activities to minimize the amount of large construction equipment operating simultaneously during any given time period;
 - Locate staging areas at least 1000 feet away from sensitive receptors;
 - Where feasible
 - Limit the amount of cut and fill to 2,000 cubic yards per day;
 - Limit the length of the construction work-day period; and,
 - Phase construction activities.

On-Road Truck Management (NO_x and PM)

- Schedule construction truck trips during non-peak hours to reduce peak hour emissions;
- Locate staging areas at least 1000 feet away from sensitive receptors;
- Proposed truck routes should be evaluated to define routing patterns with the least impact to residential communities and sensitive receptors and identify these receptors in the truck route map;
- To the extent feasible, construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions; and

- Trucks and vehicles should be kept with the engine off when not in use, to reduce vehicle emissions. Signs shall be placed in queuing areas to remind drivers to limit idling to no longer than 5 minutes.

Off-Site Mitigation for Construction Equipment

The District recommends the off-site mitigation rate be based on the current project cost effectiveness factor from the Carl Moyer Memorial Air Quality Standards Attainment Program. The current off-site mitigation rate is \$17,720 per ton of ozone precursor emissions (NO_x or ROG) over the District threshold calculated over the length of the expected exceedance. The applicant may use these funds to implement District approved emission reduction projects near the project site. If off-site mitigation is chosen as a mitigation strategy, the plan for it should be agreed upon and in place prior to the start of construction to help facilitate emission offsets that are as real-time as possible.

Examples off-site mitigation strategies include, but are not limited to, the following:

- Fund a program to buy and scrap older heavy-duty diesel vehicles or equipment;
- Replace/repower transit buses;
- Replace/repower heavy-duty diesel school vehicles (i.e. bus, passenger or maintenance vehicles);
- Retrofit or repower heavy-duty construction equipment, or on-road vehicles;
- Repower or contribute to funding clean diesel locomotive main or auxiliary engines;
- Purchase VDECs for local school buses, transit buses or construction fleets;
- Install or contribute to funding alternative fueling infrastructure (i.e. fueling stations for CNG, LPG, conductive and inductive electric vehicle charging, etc.); and
- Fund expansion of existing transit services.

Construction Worker Trips (NO_x)

Implement a District approved Trip Reduction Program to reduce construction worker commute trips, which includes carpool matching, vanpooling, transit use, etc. Monitor worker use of alternative transportation throughout the project to ensure compliance.

Complaint Response (NO_x and PM)

The project mitigation program should include a section that addresses complaints and complaint handling. At a minimum this section shall include the following:

1. The person(s) responsible for addressing and resolving all complaints regarding the construction activity and their contact information:
 - a. Name(s)
 - b. Company and Title(s)
 - c. Phone numbers and physical address.

2. A hotline telephone number shall be established and publicized to help facilitate rapid complaint identification and resolution. In addition, Prop 65 notifications with regard to toxic diesel emissions must be made when applicable.
3. An action plan section shall be outlined that includes additional measures or modifications to existing mitigation measures in the event of complaints.
4. All complaints shall be reported immediately to the District.

Construction Phase Greenhouse Gas (GHG) Emission Reductions

CEQA requires GHG impact evaluation and the implementation of feasible mitigation at the project level. As such, the project's Mitigated Negative Declaration should evaluate the project's carbon dioxide (CO₂) emissions as well as other GHG sources converted to carbon dioxide equivalents and should identify feasible mitigation that the project shall implement. In some cases where the available measures are marginally effective, off-site GHG mitigation fees may be appropriate. Many of the mitigation measures provided in Table C-1 at the end of this Appendix are provided by the California Air Pollution Control Officer Association as effective approaches to reducing GHG (as well as other pollutant) emissions.

Permitting Requirements

Portable equipment, 50 horsepower (hp) or greater, used during construction activities may require California statewide portable equipment registration (issued by the California Air Resources Board) or a District registration or permit. Operational sources may also require District permits. A guide to equipment and operations that may have permitting requirements may be found in Appendix A, but should not be viewed as exclusive.

Special Conditions

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (CARB). If the project site is located in an area identified as containing NOA (see Figure 2), then applicants must comply with the CARB Air Toxics Control Measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the District. Alternatively, a geologic evaluation can be conducted to demonstrate that NOA is not present within the area to be disturbed. If NOA is not present, an exemption request can be filed with the District. Please contact the District for more information.

Demolition of Asbestos Containing Materials

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (transit pipes or insulation on pipes). If utility pipelines are scheduled for removal or relocation or building(s) are removed or renovated, this project may be subject to various regulatory jurisdictions, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include but are not limited to: 1) notification requirements to the ARB and the District, 2) asbestos survey conducted by a Certified Asbestos Inspector, and 3)

applicable removal and disposal requirements of identified ACM. Please contact the ARB at (916) 322-6036 for further information.

Lead During Demolition

Demolition of structures coated with lead based paint is a concern for the District. Improper demolition can result in the release of lead containing particles from the site. Sandblasting or removal of paint by heating with a heat gun can result in significant emissions of lead. Therefore, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on removal method, a District permit may be required. Contact the District Engineer at (530) 332-9400 for more information.

Operational Mitigation Measures

Site Design Mitigation Measures

Site design and project layout can be effective methods of mitigating air quality impacts of development. Land use development that incorporates urban infill, higher density, mixed use and walk-able, bike-friendly, and transit oriented designs can significantly reduce vehicle activity and associated air quality impacts. The District recommends that developers contact its staff early in the scoping phase of a project to discuss project factors which may influence indirect source emissions and reduce mobile source emissions.

Energy Efficiency Mitigation Measures

Residential and commercial energy use for lighting, heating and cooling is a significant source of direct and indirect air pollution nationwide. Reducing site and building energy demand will reduce emissions at the power plant source and natural gas combustion in homes and commercial buildings. The energy efficiency of both commercial and residential buildings can be improved by orienting buildings to maximize natural heating and cooling.

Transportation Mitigation Measures

Vehicle emissions are often the largest continuing source of emissions from the operational phase of a development. Reducing the demand for single-occupancy vehicle trips is a simple, cost-effective means of reducing vehicle emissions. In addition, using cleaner fueled vehicles or retrofitting equipment with emission control devices can reduce the overall emissions without impacting operations. In today's marketplace, clean fuel and vehicle technologies exist for both passenger and heavy-duty applications.

Off-Site Mitigation

Operational phase emissions from large development projects that cannot be adequately mitigated with on-site mitigation measures alone may require off-site mitigation in order to reduce air quality impacts to a level of insignificance. Whenever off-site mitigation measures are deemed necessary, it is important that the developer, lead agency and District work together to develop and implement the measures to ensure successful outcome, and should be developed and agreed upon by all parties prior to the start of construction.

The current (2013) recommended off-site mitigation rate is \$17,720 per ton of ozone precursor emissions (NOx or ROG) over the District threshold calculated over the length of the expected exceedance. The applicant may use these funds to implement District approved emission reduction projects near the project site. Off-site emission reductions should relate to the on-site impacts from the project in order to provide proper "nexus" for the air quality mitigation.

Examples off-site mitigation strategies include, but are not limited to, the following:

- Fund a program to replace uncertified woodstoves with EPA phase II certified woodstoves, gas units or pellet stoves;
- Develop or improve park-and-ride lots;
- Retrofit existing homes in the project area with District-approved natural gas combustion devices;
- Retrofit existing homes in the project area with energy-efficient devices;
- Construct satellite worksites;
- Fund a program to buy and scrap older, higher emission passenger and heavy-duty vehicles;
- Replace/repower transit buses;
- Replace/repower heavy-duty diesel school vehicles (i.e. bus, passenger or maintenance vehicles);
- Fund an electric lawn and garden equipment exchange program;
- Retrofit or repower heavy-duty construction equipment, or on-road vehicles;
- Install bicycle racks on transit buses;
- Purchase VDEC Strategies for local school buses, transit buses or construction fleets;
- Install or contribute to funding alternative fueling infrastructure (i.e. fueling stations for CNG, LPG, conductive and inductive electric vehicle charging, etc.);
- Fund expansion of existing transit services;
- Fund public transit bus shelters;
- Subsidize vanpool programs;
- Subsidize transportation alternative incentive programs;
- Contribute to funding of new bike lanes or paths;
- Install bicycle storage facilities; and
- Provide assistance in the implementation of projects that are identified in city or county Bicycle Master Plans.

Note: On-site mitigation measures are preferred over off-site mitigation measures.

The following information will assist the user in evaluating the fugitive dust and combustion emissions from a project and in proposing appropriate mitigation measures to reduce these impacts to a level of insignificance.

1. Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, provisions for construction of new residences, and where natural gas is available, the installation of a gas outlet for use with outdoor cooking appliances, such as a gas barbecue or outdoor recreational fire pits.
2. As mitigation for air quality impacts, a bike lane is required for the project. Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the

applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction) , as defined elsewhere in these conditions of approval.

3. Wood burning appliances, including fireplaces and woodstoves, shall not be installed within any residential units associated with this project. Language relating to this restriction shall be included within the project's CC&R's.
4. Diesel trucks shall be prohibited from idling more than five minutes. Prior to the issuance of a Building Permit, the applicant shall show on the submitted building elevations that all truck loading and unloading docks shall be equipped with one 110/208 volt power outlet for every two dock doors. Diesel trucks idling for more than the allotted time shall be required to connect to the 110/208 volt power to run any auxiliary equipment. A minimum 2'x3' signage which indicates "Diesel engine idling limited to a maximum of _____ minutes" shall be included with the submittal of building plans.
5. Prior to design review approval, the applicant shall show that on-site bicycle racks, as required by the District, shall be reviewed and approved by the Design Site Review Committee site review agency.
6. As required by the District, Landscape Plans submitted for Design Review shall include native drought-resistant species (plants, trees and bushes) in order to reduce the demand for irrigation and gas powered landscape maintenance equipment. In addition, a maximum of 25% lawn area will be allowed on site. As a part of the project design, the applicant shall include irrigation systems which efficiently utilize water (e.g., prohibit systems that apply water to non- vegetated surfaces and systems which create runoff). In addition, the applicant shall install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls, rain "shut off" valves, or other devices as reviewed and approved by the Design Site Review Committee.
7. The proposed project estimates significant cumulative air quality impacts. In order to mitigate the project's contribution to long-term emission of pollutants, the applicant shall include one of the following off-site mitigation measures:
 - a. Establish mitigation off-site within the same region (i.e. Butte County) by participating in an offsite mitigation program, coordinated through the District. Examples include, but are not limited to: participation in a "Biomass" program that provides emissions benefits; retrofitting, repowering, or replacing heavy duty engines from mobile sources (e.g., busses, construction equipment, on-road heavy duty diesel trucks); or other programs that the project proponent may propose to reduce emissions.
 - b. Participate in an Offsite Mitigation Program by paying the equivalent amount of money, which is equal to the project's contribution of pollutants (ROG and NOx), which exceeds the District's threshold of significance. The estimated payment for the proposed project is \$_____ based on \$17,720 (or current equivalent based on the Carl Moyer Program's most recent cost effectiveness level) per ton for a one year period. The actual amount to be paid shall be determined, and satisfied per current CARB guidelines, at the time of recordation of the Final Map (residential projects), or issuance of a Building Permit (non-residential projects).
 - c. Any combination of a, or b, as determined feasible by the District.

NOTE: The above mitigation measure(s) must be satisfied prior to (Choose one): [recordation of the Final Map, issuance of a Building Permit]. In addition, local jurisdictions shall work with the District in order to arrange a method of satisfying any Condition(s) of Approval associated with this mitigation measure.

Alternatively, the applicant can pay a mitigation fee based on the amount of emissions reductions needed to reduce impacts to a less than significant level. The District uses the following general guidelines in calculating the amount of off-site mitigation fees required for a given project:

1. Calculate the operational phase emissions for the project using CALEEMOD, or an equivalent calculation tool approved by the District; include the emission reduction benefits of any onsite mitigation measures included in the project. Any project emissions calculated to be above the District significance thresholds are defined as excess emissions and must be reduced below the emission thresholds by off-site mitigation.
2. Project emissions above the lbs/day threshold must be converted to tons/year and divided by the daily-to-annual equity ratio value of 5.5 to obtain an equivalent tons/year value.

The excess tons/year emissions are then multiplied by the project life (i.e., 50 years for residential projects and 25 years for commercial projects) and the most current cost-effectiveness value as approved for the Carl Moyer grant program.

On-Site Mitigation

Table C-1 summarizes mitigation measures for ozone, particulate matter, diesel particulate matter, and greenhouse gases by project type and pollutant reduced. Note that many measures reduce more than one pollutant. Applicants and lead agencies should make every effort to quantify the reductions made by the mitigation measure.

Table C-1. Standard Mitigation Measures

| Land Use Residential (R) Commercial (C) Industrial (I) | Measure Type | Mitigation Measure | Pollutant Reduced |
|--|-----------------------------|---|---------------------------------|
| | | | Ozone (O) |
| | | | Particulate (P) |
| | | | Diesel Particulate Matter (DPM) |
| | | | Greenhouse Gas (GHG) |
| R, C, I | Site design, Transportation | Improve job / housing balance opportunities within communities. | O, P, GHG |
| R, C, I | Site design | Orient buildings toward streets with automobile parking in the rear to promote a pedestrian-friendly environment. | O, P, GHG |
| R, C, I | Site design | Provide a pedestrian-friendly and interconnected streetscape to make walking more convenient, comfortable and safe (including appropriate signalization and signage). | O, P, GHG |
| R, C, I | Site design | Provide good access to/from the development for pedestrians, bicyclists, and transit users. | O, P, GHG |
| R, C, I | Site design | Incorporate outdoor electrical outlets to encourage the use of electric appliances and tools. | O, P, GHG |
| R, C, I | Site design | Provide shade tree planting in parking lots to reduce evaporative emissions from parked vehicles. Design should provide 50% tree coverage within 10 years of construction using low ROG emitting, low maintenance native drought resistant trees. ¹ | O, P, GHG |
| R, C, I | Site design | Pave and maintain the roads and parking areas. | P |
| R, C, I | Site design | Driveway design standards (e.g., speed bumps, curved driveway) for self-enforcing of reduced speed limits for unpaved driveways. | P |
| R, C, I | Site design | Use of an APCD-approved suppressant on private unpaved roads leading to the site, unpaved driveways and parking areas; applied at a rate and frequency that ensures compliance with APCD Rule 401, visible emissions and ensures offsite nuisance impacts do not occur. | P |
| R, C | Site Design | Development is within 1/4 mile of transit centers and transit corridors. | O, P, GHG |
| R, C | Site Design | Design and build compact communities in the urban core to prevent sprawl. | O, P, GHG |
| R, C | Site Design | Increase density within the urban core and urban reserve lines. | O, P, GHG |
| R, C | Site Design | For projects adjacent to high-volume roadways or railroad idling zones, design project to include provide effective buffer zone between the source and the receptor. | DPM |
| R, C | Site Design | For projects adjacent to high-volume roadways, plant vegetation ² between receptor and roadway. | DPM, P |
| R | Site Design | No residential wood burning appliances. | O, P, GHG |
| R, C, I | Site design, Transportation | Incorporate traffic calming modifications to project roads, such as narrower streets, speed platforms, bulb-outs and intersection designs that reduce vehicles speeds and encourage pedestrian and bicycle travel. | O, P, GHG |

Table C-1. Standard Mitigation Measures

| Land Use Residential (R) Commercial (C) Industrial (I) | Measure Type | Mitigation Measure | Pollutant Reduced |
|--|-----------------------------|---|---------------------------------|
| | | | Ozone (O) |
| | | | Particulate (P) |
| | | | Diesel Particulate Matter (DPM) |
| | | | Greenhouse Gas (GHG) |
| R, C, I | Site design, Transportation | Increase number of connected bicycle routes/lanes in the vicinity of the project. | O, P, GHG |
| R, C, I | Site design, Transportation | Provide easements or land dedications and construct bikeways and pedestrian walkways. | O, P, GHG |
| R, C, I | Site design, Transportation | Link cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel to adjacent land uses. | O, P, GHG |
| R, C, I | Site design, Transportation | Project is located within one-half mile of a ‘Park and Ride’ lot or project installs a ‘Park and Ride’ lot with bike lockers in a location of need defined by SLOCOG. | O, P, GHG |
| C, I | Site design, Transportation | Provide onsite housing for employees. | O, P, GHG |
| C, I | Site design, Transportation | Implement on-site circulation design elements in parking lots to reduce vehicle queuing and improve the pedestrian environment. | O, P, GHG |
| C, I | Site design, Transportation | Provide employee lockers and showers. One shower and 5 lockers for every 25 employees are recommended. | O, P, GHG |
| C, I | Site design, Transportation | Parking space reduction to promote bicycle, walking and transit use. | O, P, GHG |
| R | Site design | Tract maps resulting in parcels of one-half acre or less shall orient at least 75% of all lot lines to create easy due south orientation of future structures. | GHG |
| R | Site design | Trusses for south-facing portions of roofs shall be designed to handle dead weight loads of standard solar-heated water and photovoltaic panels. Roof design shall include sufficient southfacing roof surface, based on structures size and use, to accommodate adequate solar panels. For south facing roof pitches, the closest standard roof pitch to the ideal average solar exposure shall be used. | O, GHG |
| R, C, I | Energy efficiency | Increase the building energy rating by 20% above Title 24 requirements. Measures used to reach the 20% rating cannot be double counted. | O, GHG |
| R, C, I | Energy efficiency | Plant drought tolerant, native shade trees along southern exposures of buildings to reduce energy used to cool buildings in summer. ⁵ | O, GHG |
| R, C, I | Energy efficiency | Utilize green building materials (materials which are resource efficient, recycled, and sustainable) available locally if possible. | O, DPM, GHG |
| R, C, I | Energy efficiency | Install high efficiency heating and cooling systems. | O, GHG |

Table C-1. Standard Mitigation Measures

| Land Use | Measure Type | Mitigation Measure | Pollutant Reduced |
|----------|-------------------|---|---------------------------------|
| | | | Ozone (O) |
| | | | Particulate (P) |
| | | | Diesel Particulate Matter (DPM) |
| | | | Greenhouse Gas (GHG) |
| R, C, I | Energy efficiency | Orient 75 percent or more of homes and/or buildings to be aligned north / south to reduce energy used to cool buildings in summer. | O, GHG |
| R, C, I | Energy efficiency | Design building to include roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows (passive solar design). | O, GHG |
| R, C, I | Energy efficiency | Utilize high efficiency gas or solar water heaters. | O, P, GHG |
| R, C, I | Energy efficiency | Utilize built-in energy efficient appliances (i.e. Energy Star®). | O, P, GHG |
| R, C, I | Energy efficiency | Utilize double-paned windows. | O, P, GHG |
| R, C, I | Energy efficiency | Utilize low energy street lights (i.e. sodium). | O, P, GHG |
| R, C, I | Energy efficiency | Utilize energy efficient interior lighting. | O, P, GHG |
| R, C, I | Energy efficiency | Utilize low energy traffic signals (i.e. light emitting diode). | O, P, GHG |
| R, C, I | Energy efficiency | Install door sweeps and weather stripping (if more efficient doors and windows are not available). | O, P, GHG |
| R, C, I | Energy efficiency | Install energy-reducing programmable thermostats. | O, P, GHG |
| R, C, I | Energy efficiency | Participate in and implement available energy-efficient rebate programs including air conditioning, gas heating, refrigeration, and lighting programs. | O, P, GHG |
| R, C, I | Energy efficiency | Use roofing material with a solar reflectance values meeting the EPA/DOE Energy Star® rating to reduce summer cooling needs. | O, P, GHG |
| R, C, I | Energy efficiency | Utilize onsite renewable energy systems (e.g., solar, wind, geothermal, low-impact hydro, biomass and bio-gas). | O, P, GHG |
| R, C, I | Energy efficiency | Eliminate high water consumption landscape (e.g., plants and lawns) in residential design. Use native plants that do not require watering and are low ROG emitting. | O, GHG |
| R, C, I | Energy efficiency | Provide and require the use of battery powered or electric landscape maintenance equipment for new development. | O, GHG |
| C, I | Energy efficiency | Use clean engine technologies (e.g., alternative fuel, electrification) engines that are not subject to regulations. | O, DPM, GHG |

Table C-1. Standard Mitigation Measures

| Land Use Residential (R) Commercial (C) Industrial (I) | Measure Type | Mitigation Measure | Pollutant Reduced |
|--|----------------|--|---------------------------------|
| | | | Ozone (O) |
| | | | Particulate (P) |
| | | | Diesel Particulate Matter (DPM) |
| | | | Greenhouse Gas (GHG) |
| R, C, I | Transportation | Provide and maintain a kiosk displaying transportation information in a prominent area accessible to employees and patrons. | O, P, GHG |
| R, C, I | Transportation | Develop recreational facility (e.g., parks, gym, pool, etc.) within one-quarter of a mile from site. | O, P, GHG |
| R, C, I | Transportation | If the project is located on an established transit route, provide improved public transit amenities (i.e., covered transit turnouts, direct pedestrian access, covered bench, smart signage, route information displays, lighting etc.). | O, P, GHG |
| R, C, I | Transportation | Project provides a display case or kiosk displaying transportation information in a prominent area accessible to employees or residents. | O, P, GHG |
| R, C, I | Transportation | Provide electrical charging station for electric vehicles. | O, P, GHG |
| R, C, I | Transportation | Provide neighborhood electric vehicles / car share program for the development. | O, P, GHG |
| R, C, I | Transportation | Provide bicycle-share program for development. | O, P, GHG |
| R, C, I | Transportation | Provide preferential parking / no parking fee for alternative fueled vehicles or vanpools. | O, P, GHG |
| R, C, I | Transportation | Provide bicycle lockers for existing ‘Park and Ride’ lots where absent or insufficient. | O, P, GHG |
| R, C, I | Transportation | Provide vanpool, shuttle, mini bus service (alternative fueled preferred). | O, P, DPM, GHG |
| C, I | Transportation | Provide secure on-site bicycle indoor storage, lockers, or racks. | O, P, GHG |
| C, I | Transportation | For large developments, provide day care facility on site. | O, P, GHG |
| C, I | Transportation | Provide on-site bicycle parking both short term (racks) and long term (lockers, or a locked room with standard racks and access limited to bicyclist only) to meet peak season maximum demand. One bike rack space per 10 vehicle/employee space is recommended. | O, P, GHG |
| C, I | Transportation | On-site eating, refrigeration and food vending facilities. | O, P, GHG |
| C, I | Transportation | Implement a Transportation Choice Program to reduce employee commute trips. The applicant shall work with Rideshare for free consulting services on how to start and maintain a program. | O, P, GHG |
| C, I | Transportation | Provide incentives (e.g., bus pass, “Lucky Bucks”, etc.) to employees to carpool/vanpool, take public transportation, telecommute, walk bike, etc. | O, P, GHG |

| Table C-1. Standard Mitigation Measures | | | |
|--|---------------------|--|---------------------------------|
| Land Use | Measure Type | Mitigation Measure | Pollutant Reduced |
| Residential (R) | | | Ozone (O) |
| Commercial (C) | | | Particulate (P) |
| Industrial (I) | | | Diesel Particulate Matter (DPM) |
| | | | Greenhouse Gas (GHG) |
| C, I | Transportation | Implement compressed work schedules (i.e., 9–80s or 4–10s). | O, P, GHG |
| C, I | Transportation | Implement a telecommuting program. | O, P, GHG |
| C, I | Transportation | Implement a lunchtime shuttle to reduce single occupant vehicle trips. | O, P, GHG |
| C, I | Transportation | Include teleconferencing capabilities, such as web cams or satellite linkage, which will allow employees to attend meetings remotely without requiring them to travel out of the area. | O, P, DPM, GHG |
| C, I | Transportation | If the development is or contains a grocery store or large retail facility, provide customers home delivery service in clean fueled vehicles. | O, P, DPM, GHG |
| C, I | Transportation | At community event centers (i.e., amphitheaters, theaters, and stadiums) provide valet bicycle parking. | O, P, GHG |
| C, I | Transportation | Implement a “No Idling” program for heavy-duty diesel vehicles, which includes signage, citations, etc. | DPM, GHG |
| C, I | Transportation | Develop satellite work sites. | O, GHG |
| C, I | Transportation | Require the installation of electrical hookups at loading docks and the connection of trucks equipped with electrical hookups to eliminate the need to operate diesel-powered TRUs at the loading docks. | DPM, GHG |
| C, I | Transportation | If not required by other regulations (ARB’s on-road or offroad diesel), restrict operation to trucks with 2007 model year engines or newer trucks. | O, DPM, GHG |
| C, I | Transportation | If not required by other regulations (ARB’s on-road or offroad diesel), require or provide incentives to use diesel particulate filters for truck engines. | DPM |
| R | Transportation | Provide storage space in garage for bicycle and bicycle trailers, or covered racks / lockers to service the residential units. | O, P, GHG |
| R | Transportation | Provide free-access telework terminals and/or wi-fi access in multi-family projects. | O, P, GHG |
| C | Transportation | Develop core commercial areas within 1/4 to 1/2 miles of residential housing or industrial areas. | O, P, GHG |

AIR QUALITY AND LAND USE HANDBOOK: A COMMUNITY HEALTH PERSPECTIVE



April 2005

California Environmental Protection Agency
California Air Resources Board



Air Agency Contacts

Federal-

U.S. EPA, Region 9

Phone: (866)-EPA-WEST
Website: www.epa.gov/region09
Email: r9.info@epa.gov

-State-

California Air Resources Board

Phone: (916) 322-2990 (public info)
(800) 363-7664 (public info)
(800) 952-5588 (complaints)
(866)-397-5462 (env. justice)
Website: www.arb.ca.gov
Email: helpline@arb.ca.gov

-Local-

Amador County APCD

Phone: (209) 257-0112
Website: www.amadorapcd.org
E-Mail: jharris@amadorapcd.org

Antelope Valley AQMD

Phone: (661) 723-8070
Complaint Line: (888) 732-8070
Website: www.avaqmd.ca.gov
E-Mail: bbanks@avaqmd.ca.gov

Bay Area AQMD

Phone: (415) 749-5000
Complaint Line: (800) 334-6367
Website: www.baaqmd.gov
E-Mail: webmaster@baaqmd.gov

Butte County AQMD

Phone: (530) 891-2882
Website: www.bcaqmd.org
E-Mail: air@bcaqmd.org

Calaveras County APCD

Phone: (209) 754-6504
E-Mail: jgrewal@co.calaveras.ca.us

Colusa County APCD

Phone: (530) 458-0590
Website: www.colusanet.com/apcd
E-Mail: ccair@colusanet.com

El Dorado County AQMD

Phone: (530) 621-6662
Website: www.co.el-dorado.ca.us/emd/apcd
E-Mail: mcctaggart@co.el-dorado.ca.us

Feather River AQMD

Phone: (530) 634-7659
Website: www.fraqmd.org
E-Mail: fracmd@fracmd.org

Glenn County APCD

Phone: (530) 934-6500
http://www.countyofglenn.net/air_pollution_control
E-Mail: ktokunaga@countyofglenn.net

Great Basin Unified APCD

Phone: (760) 872-8211
Website: www.gbuapcd.org
E-Mail: gb1@greatbasinapcd.org

Imperial County APCD

Phone: (760) 482-4606
E-Mail: reyesromero@imperialcounty.net

Kern County APCD

Phone: (661) 862-5250
Website: www.kernair.org
E-Mail: kcapcd@co.kern.ca.us

Lake County AQMD

Phone: (707) 263-7000
Website: www.lcaqmd.net
E-Mail: bohr@pacific.net

Lassen County APCD

Phone: (530) 251-8110
E-Mail: lassenag@psln.com

Mariposa County APCD

Phone: (209) 966-2220
E-Mail: air@mariposacounty.org

Mendocino County AQMD

Phone: (707) 463-4354
Website: www.co.mendocino.ca.us/aqmd
E-Mail: mcaqmd@co.mendocino.ca.us

Modoc County APCD

Phone: (530) 233-6419
E-Mail: modapcd@hdo.net

Mojave Desert AQMD

Phone: (760) 245-1661
(800) 635-4617
Website: www.mdagmd.ca.gov

Monterey Bay Unified APCD

Phone: (831) 647-9411
(800) 253-6028 (Complaints)
Website: www.mbuapcd.org
E-Mail: dquetin@mbuapcd.org

North Coast Unified AQMD

Phone: (707) 443-3093
Website: www.ncuaqmd.org
E-Mail: lawrence@ncuaqmd.org

Northern Sierra AQMD

Phone: (530) 274-9360
Website: www.myairdistrict.com
E-Mail: office@myairdistrict.com

Northern Sonoma County APCD

Phone: (707) 433-5911
E-Mail: nsc@sonic.net

Placer County APCD

Phone: (530) 889-7130
Website: <http://www.placer.ca.gov/airpollution/airpollut.htm>
E-Mail: pcapcd@placer.ca.gov

Sacramento Metro AQMD

Phone: (916) 874-4800
Website: www.airquality.org
E-Mail: kshearer@airquality.org

San Diego County APCD

Phone: (858) 650-4700
Website: www.sdapcd.org

San Joaquin Valley APCD

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To My Local Government Colleagues....

I am pleased to introduce this informational guide to air quality and land use issues focused on community health. As a former county supervisor, I know from experience the complexity of local land use decisions. There are multiple factors to consider and balance. This document provides important public health information that we hope will be considered along with housing needs, economic development priorities, and other quality of life issues.

An important focus of this document is prevention. We hope the air quality information provided will help inform decision-makers about the benefits of avoiding certain siting situations. The overarching goal is to avoid placing people in harm's way. Recent studies have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities. What is encouraging is that the health risk is greatly reduced with distance. For that reason, we have provided some general recommendations aimed at keeping appropriate distances between sources of air pollution and land uses such as residences.

Land use decisions are a local government responsibility. The Air Resources Board's role is advisory and these recommendations do not establish regulatory standards of any kind. However, we hope that the information in this document will be seriously considered by local elected officials and land use agencies. We also hope that this document will promote enhanced communication between land use agencies and local air pollution control agencies. We developed this document in close coordination with the California Air Pollution Control Officers Association with that goal in mind.

I hope you find this document both informative and useful.



Mrs. Barbara Riordian
Interim Chairman
California Air Resources Board

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- Appendix A** Land Use Classifications And Associated Facility Categories That Could Emit Air Pollutants
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The ARB staff would like to acknowledge the exceptional contributions made to this document by members of the ARB Environmental Justice Stakeholders Group. Since 2001, ARB staff has consistently relied on this group to provide critical and constructive input on implementing the specifics of ARB's environmental justice policies and actions. The Stakeholders Group is convened by the ARB, and comprised of representatives from local land use and air agencies, community interest groups, environmental justice organizations, academia, and business. Their assistance and suggestions throughout the development of this Handbook have been invaluable.

Executive Summary

The Air Resources Board's (ARB) primary goal in developing this document is to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution. Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. Also, ARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.

Focusing attention on these siting situations is an important preventative action. ARB and local air districts have comprehensive efforts underway to address new and existing air pollution sources under their respective jurisdictions. The issue of siting is a local government function. As more data on the connection between proximity and health risk from air pollution become available, it is essential that air agencies share what we know with land use agencies. We hope this document will serve that purpose.

The first section provides ARB recommendations regarding the siting of new sensitive land uses near freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities. This list consists of the air pollution sources that we have evaluated from the standpoint of the proximity issue. It is based on available information and reflects ARB's primary areas of jurisdiction – mobile sources and toxic air contaminants. A key air pollutant common to many of these sources is particulate matter from diesel engines. Diesel particulate matter (diesel PM) is a carcinogen identified by ARB as a toxic air contaminant and contributes to particulate pollution statewide.

Reducing diesel particulate emissions is one of ARB's highest public health priorities and the focus of a comprehensive statewide control program that is reducing diesel PM emissions each year. ARB's long-term goal is to reduce diesel PM emissions 85% by 2020. However, cleaning up diesel engines will take time as new engine standards phase in and programs to accelerate fleet turnover or retrofit existing engines are implemented. Also, these efforts are reducing diesel particulate emissions on a statewide basis, but do not yet capture every site where diesel vehicles and engines may congregate. Because living or going to school too close to such air pollution sources may increase both cancer and non-cancer health risks, we are recommending that proximity be considered in the siting of new sensitive land uses.

There are also other key toxic air contaminants associated with specific types of facilities. Most of these are subject to stringent state and local air district regulations. However, what we know today indicates that keeping new homes and other sensitive land uses from siting too close to such facilities would provide additional health protection. Chrome platers are a prime example of facilities that should not be located near vulnerable communities because of the cancer health risks from exposure to the toxic material used during their operations.

In addition to source specific recommendations, we also encourage land use agencies to use their planning processes to ensure the appropriate separation of industrial facilities and sensitive land uses. While we provide some suggestions, how to best achieve that goal is a local issue. In the development of these guidelines, we received valuable input from local government about the spectrum of issues that must be considered in the land use planning process. This includes addressing housing and transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. All of these factors are important considerations. The recommendations in the Handbook need to be balanced with other State and local policies.

Our purpose with this document is to highlight the potential health impacts associated with proximity to air pollution sources so planners explicitly consider this issue in planning processes. We believe that with careful evaluation, infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level. One suggestion for achieving this goal is more communication between air agencies and land use planners. Local air districts are an important resource that should be consulted regarding sources of air pollution in their jurisdictions. ARB staff will also continue to provide updated technical information as it becomes available.

Our recommendations are as specific as possible given the nature of the available data. In some cases, like refineries, we suggest that the siting of new sensitive land uses should be avoided immediately downwind. However, we leave definition of the size of this area to local agencies based on facility specific considerations. Also, project design that would reduce air pollution exposure may be part of the picture and we encourage consultation with air agencies on this subject.

In developing the recommendations, our first consideration was the adequacy of the data available for an air pollution source category. Using that data, we assessed whether we could reasonably characterize the relative exposure and health risk from a proximity standpoint. That screening provided the list of air pollution sources that we were able to address with specific recommendations. We also considered the practical implications of making hard and fast recommendations where the potential impact area is large, emissions will be reduced with time, and air agencies are in the process of looking at options for additional emission control. In the end, we tailored our recommendations to minimize the highest exposures for each source category independently. Due to the large variability in relative risk in the source categories, we chose not to apply

a uniform, quantified risk threshold as is typically done in air quality permitting programs. Instead, because these guidelines are not regulatory or binding on local agencies, we took a more qualitative approach in developing the distance-based recommendations.

Where possible, we recommend a minimum separation between a new sensitive land use and known air pollution risks. In other cases, we acknowledge that the existing health risk is too high in a relatively large area, that air agencies are working to reduce that risk, and that in the meantime, we recommend keeping new sensitive land uses out of the highest exposure areas. However, it is critical to note that our implied identification of the high exposure areas for these sources does not mean that the risk in the remaining impact area is insignificant. Rather, we hope this document will bring further attention to the potential health risk throughout the impact area and help garner support for our ongoing efforts to reduce health risk associated with air pollution sources. Areas downwind of major ports, rail yards, and other inter-modal transportation facilities are prime examples.

We developed these recommendations as a means to share important public health information. The underlying data are publicly available and referenced in this document. We also describe our rationale and the factors considered in developing each recommendation, including data limitations and uncertainties. These recommendations are advisory and should not be interpreted as defined “buffer zones.” We recognize the opportunity for more detailed site-specific analyses always exists, and that there is no “one size fits all” solution to land use planning.

As California continues to grow, we collectively have the opportunity to use all the information at hand to avoid siting scenarios that may pose a health risk. As part of ARB’s focus on communities and children’s health, we encourage land use agencies to apply these recommendations and work more closely with air agencies. We also hope that this document will help educate a wider audience about the value of preventative action to reduce environmental exposures to air pollution.

1. ARB Recommendations on Siting New Sensitive Land Uses

Protecting California's communities and our children from the health effects of air pollution is one of the most fundamental goals of state and local air pollution control programs. Our focus on children reflects their special vulnerability to the health impacts of air pollution. Other vulnerable populations include the elderly, pregnant women, and those with serious health problems affected by air pollution. With this document, we hope to more effectively engage local land use agencies as partners in our efforts to reduce health risk from air pollution in all California communities.

Later sections emphasize the need to strengthen the connection between air quality and land use in both planning and permitting processes. Because the siting process for many, but not all air pollution sources involves permitting by local air districts, there is an opportunity for interagency coordination where the proposed location might pose a problem. To enhance the evaluation process from a land use perspective, section 4 includes recommended project related questions to help screen for potential proximity related issues.

Unlike industrial and other stationary sources of air pollution, the siting of new homes or day care centers does not require an air quality permit. Because these situations fall outside the air quality permitting process, it is especially important that land use agencies be aware of potential air pollution impacts.

The following recommendations address the issue of siting "sensitive land uses" near specific sources of air pollution; namely:

- High traffic freeways and roads
- Distribution centers
- Rail yards
- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas dispensing facilities

The recommendations for each category include a summary of key information and guidance on what to avoid from a public health perspective.

Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses).

We are characterizing sensitive land uses as simply as we can by using the example of residences, schools, day care centers, playgrounds, and medical facilities. However, a variety of facilities are encompassed. For example, residences can include houses, apartments, and senior living complexes. Medical facilities can include hospitals, convalescent homes, and health clinics. Playgrounds could be play areas associated with parks or community centers.

In developing these recommendations, ARB first considered the adequacy of the data available for each air pollution source category. We assessed whether we could generally characterize the relative exposure and health risk from a proximity standpoint. The documented non-cancer health risks include triggering of asthma attacks, heart attacks, and increases in daily mortality and hospitalization for heart and respiratory diseases. These health impacts are well documented in epidemiological studies, but less easy to quantify from a particular air pollution source. Therefore, the cancer health impacts are used in this document to provide a picture of relative risk. This screening process provided the list of source categories we were able to address with specific recommendations. In evaluating the available information, we also considered the practical implications of making hard and fast recommendations where the potential impact area is large, emissions will be reduced with time, and air agencies are in the process of looking at options for additional emission control. Due to the large variability in relative risk between the source categories, we chose not to apply a uniform, quantified risk threshold as is typically done in regulatory programs. Therefore, in the end, we tailored our recommendations to minimize the highest exposures for each source category independently. Additionally, because this guidance is not regulatory or binding on local agencies, we took a more qualitative approach to developing distance based recommendations.

Where possible, we recommend a minimum separation between new sensitive land uses and existing sources. However, this is not always possible, particularly where there is an elevated health risk over large geographical areas. Areas downwind of ports and rail yards are prime examples. In such cases, we recommend doing everything possible to avoid locating sensitive receptors within the highest risk zones. Concurrently, air agencies and others will be working to reduce the overall risk through controls and measures within their scope of authority.

The recommendations were developed from the standpoint of siting new sensitive land uses. Project-specific data for new and existing air pollution sources are available as part of the air quality permitting process. Where such information is available, it should be used. Our recommendations are designed to fill a gap where information about existing facilities may not be readily available. These recommendations are only guidelines and are not designed to substitute for more specific information if it exists.

A summary of our recommendations is shown in Table 1-1. The basis and references¹ supporting each of these recommendations, including health studies, air quality modeling and monitoring studies is discussed below beginning with freeways and summarized in Table 1-2. As new information becomes available, it will be included on ARB's community health web page.

¹Detailed information on these references are available on ARB's website at: <http://www.ARB.ca.gov/ch/landuse.htm>.

Table 1-1

**Recommendations on Siting New Sensitive Land Uses
Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical
Facilities***

| Source Category | Advisory Recommendations |
|---------------------------------------|--|
| Freeways and High-Traffic Roads | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. |
| Distribution Centers | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). • Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points. |
| Rail Yards | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. |
| Ports | <ul style="list-style-type: none"> • Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks. |
| Refineries | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation. |
| Chrome Platers | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. |
| Dry Cleaners Using Perchloro-ethylene | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations. |
| Gasoline Dispensing Facilities | <ul style="list-style-type: none"> • Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities. |

***Notes:**

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in Table 1-2.

Table 1-2

Summary of Basis for Advisory Recommendations

| Source Category | Range of Relative Cancer Risk^{1,2} | Summary of Basis for Advisory Recommendations |
|---|--|--|
| Freeways and High-Traffic Roads | 300 – 1,700 | <ul style="list-style-type: none"> In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70% drop off in particulate pollution levels at 500 feet. |
| Distribution Centers ³ | Up to 500 | <ul style="list-style-type: none"> Because ARB regulations will restrict truck idling at distribution centers, transport refrigeration unit (TRU) operations are the largest onsite diesel PM emission source followed by truck travel in and out of distribution centers. Based on ARB and South Coast District emissions and modeling analyses, we estimate an 80 percent drop-off in pollutant concentrations at approximately 1,000 feet from a distribution center. |
| Rail Yards | Up to 500 | <ul style="list-style-type: none"> The air quality modeling conducted for the Roseville Rail Yard Study predicted the highest impact is within 1,000 feet of the Yard, and is associated with service and maintenance activities. The next highest impact is between a half to one mile of the Yard, depending on wind direction and intensity. |
| Ports | Studies underway | <ul style="list-style-type: none"> ARB will evaluate the impacts of ports and develop a new comprehensive plan that will describe the steps needed to reduce public health impacts from port and rail activities in California. In the interim, a general advisory is appropriate based on the magnitude of diesel PM emissions associated with ports. |
| Refineries | Under 10 | <ul style="list-style-type: none"> Risk assessments conducted at California refineries show risks from air toxics to be under 10 chances of cancer per million.⁴ Distance recommendations were based on the amount and potentially hazardous nature of many of the pollutants released as part of the refinery process, particularly during non-routine emissions releases. |
| Chrome Platers | 10-100 | <ul style="list-style-type: none"> ARB modeling and monitoring studies show localized risk of hexavalent chromium diminishing significantly at 300 feet. There are data limitations in both the modeling and monitoring studies. These include variability of plating activities and uncertainty of emissions such as fugitive dust. Hexavalent chromium is one of the most potent toxic air contaminants. Considering these factors, a distance of 1,000 feet was used as a precautionary measure. |
| Dry Cleaners Using Perchloroethylene (perc) | 15-150 | <ul style="list-style-type: none"> Local air district studies indicate that individual cancer risk can be reduced by as much as 75 percent by establishing a 300 foot separation between a sensitive land use and a one-machine perc dry cleaning operation. For larger operations (2 machines or more), a separation of 500 feet can reduce risk by over 85 percent. |

| Source Category | Range of Relative Cancer Risk ^{1,2} | Summary of Basis for Advisory Recommendations |
|---|---|--|
| Gasoline Dispensing Facilities (GDF) ⁵ | <p>Typical GDF: Less than 10</p> <p>Large GDF: Between Less than 10 and 120</p> | <ul style="list-style-type: none"> Based on the CAPCOA Gasoline Service Station Industry-wide Risk Assessment Guidelines, most typical GDFs (less than 3.6 million gallons per year) have a risk of less than 10 at 50 feet under urban air dispersion conditions. Over the last few years, there has been a growing number of extremely large GDFs with sales over 3.6 and as high as 19 million gallons per year. Under rural air dispersion conditions, these large GDFs can pose a larger risk at a greater distance. |

¹For cancer health effects, risk is expressed as an estimate of the increased chances of getting cancer due to facility emissions over a 70-year lifetime. This increase in risk is expressed as chances in a million (e.g., 10 chances in a million).

²The estimated cancer risks are a function of the proximity to the specific category and were calculated independent of the regional health risk from air pollution. For example, the estimated regional cancer risk from air toxics in the Los Angeles region (South Coast Air Basin) is approximately 1,000 in a million.

³Analysis based on refrigerator trucks.

⁴Although risk assessments performed by refineries indicate they represent a low cancer risk, there is limited data on non-cancer effects of pollutants that are emitted from these facilities. Refineries are also a source of non-routine emissions and odors.

⁵A typical GDF in California dispenses under 3.6 million gallons of gasoline per year. The cancer risk for this size facility is likely to be less than 10 in a million at the fence line under urban air dispersion conditions.

A large GDF has fuel throughputs that can range from 3.6 to 19 million gallons of gasoline per year. The upper end of the risk range (i.e., 120 in a million) represents a hypothetical worst case scenario for an extremely large GDF under rural air dispersion conditions.

Freeways and High Traffic Roads

Air pollution studies indicate that living close to high traffic and the associated emissions may lead to adverse health effects beyond those associated with regional air pollution in urban areas. Many of these epidemiological studies have focused on children. A number of studies identify an association between adverse non-cancer health effects and living or attending school near heavily traveled roadways (see findings below). These studies have reported associations between residential proximity to high traffic roadways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children.

One such study that found an association between traffic and respiratory symptoms in children was conducted in the San Francisco Bay Area. Measurements of traffic-related pollutants showed concentrations within 300 meters (approximately 1,000 feet) downwind of freeways were higher than regional values. Most other studies have assessed exposure based on proximity factors such as distance to freeways or traffic density.

These studies linking traffic emissions with health impacts build on a wealth of data on the adverse health effects of ambient air pollution. The data on the effects of proximity to traffic-related emissions provides additional information that can be used in land use siting and regulatory actions by air agencies. The key observation in these studies is that close proximity increases both exposure and the potential for adverse health effects. Other effects associated with traffic emissions include premature death in elderly individuals with heart disease.

Key Health Findings

- Reduced lung function in children was associated with traffic density, especially trucks, within 1,000 feet and the association was strongest within 300 feet. (Brunekreef, 1997)
- Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume. (Lin, 2000)
- Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet. (Venn, 2001)
- Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality. (Kim, 2004)
- A San Diego study found increased medical visits in children living within 550 feet of heavy traffic. (English, 1999)

In these and other proximity studies, the distance from the roadway and truck traffic densities were key factors affecting the strength of the association with adverse health effects. In the above health studies, the association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was

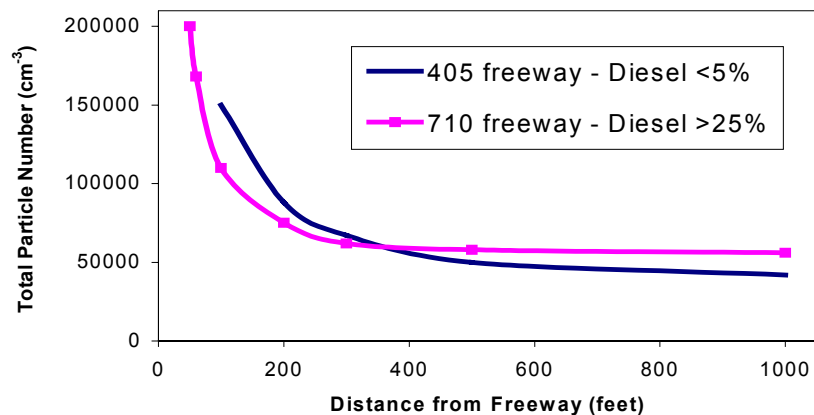
strongest within 300 feet. This demonstrates that the adverse effects diminished with distance.

In addition to the respiratory health effects in children, proximity to freeways increases potential cancer risk and contributes to total particulate matter exposure. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risk from motor vehicle traffic – diesel particulate matter (diesel PM) from trucks, and benzene and 1,3-butadiene from passenger vehicles. On a typical urban freeway (truck traffic of 10,000-20,000/day), diesel PM represents about 70 percent of the potential cancer risk from the vehicle traffic. Diesel particulate emissions are also of special concern because health studies show an association between particulate matter and premature mortality in those with existing cardiovascular disease.

Distance Related Findings

A southern California study (Zhu, 2002) showed measured concentrations of vehicle-related pollutants, including ultra-fine particles, decreased dramatically within approximately 300 feet of the 710 and 405 freeways. Another study looked at the validity of using distance from a roadway as a measure of exposure

**Figure 1-1
Decrease In Concentration of Freeway Diesel PM Emissions
With Distance**



to traffic related air pollution (Knape, 1999). This study showed that concentrations of traffic related pollutants declined with distance from the road, primarily in the first 500 feet.

These findings are consistent with air quality modeling and risk analyses done by ARB staff that show an estimated range of potential cancer risk that decreases with distance from freeways. The estimated risk varies with the local meteorology, including wind pattern. As an example, at 300 feet downwind from a freeway (Interstate 80) with truck traffic of 10,000 trucks per day, the potential cancer risk was as high as 100 in one million (ARB Roseville Rail Yard Study). The cancer health risk at 300 feet on the upwind side of the freeway was much

less. The risk at that distance for other freeways will vary based on local conditions – it may be higher or lower. However, in all these analyses the relative exposure and health risk dropped substantially within the first 300 feet. This phenomenon is illustrated in Figure 1-1.

State law restricts the siting of new schools within 500 feet of a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles with some exceptions.² However, no such requirements apply to the siting of residences, day care centers, playgrounds, or medical facilities. The available data show that exposure is greatly reduced at approximately 300 feet. In the traffic-related studies the additional health risk attributable to the proximity effect was strongest within 1,000 feet.

The combination of the children's health studies and the distance related findings suggests that it is important to avoid exposing children to elevated air pollution levels immediately downwind of freeways and high traffic roadways. These studies suggest a substantial benefit to a 500-foot separation.

The impact of traffic emissions is on a gradient that at some point becomes indistinguishable from the regional air pollution problem. As air agencies work to reduce the underlying regional health risk from diesel PM and other pollutants, the impact of proximity will also be reduced. In the meantime, as a preventative measure, we hope to avoid exposing more children and other vulnerable individuals to the highest concentrations of traffic-related emissions.

Recommendation

- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.

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Distribution Centers

Distribution centers or warehouses are facilities that serve as a distribution point for the transfer of goods. Such facilities include cold storage warehouses, goods transfer facilities, and inter-modal facilities such as ports. These operations involve trucks, trailers, shipping containers, and other equipment with diesel engines. A distribution center can be comprised of multiple centers or warehouses within an area. The size can range from several to hundreds of acres, involving a number of different transfer operations and long waiting periods. A distribution center can accommodate hundreds of diesel trucks a day that deliver, load, and/or unload goods up to seven days a week. To the extent that these trucks are transporting perishable goods, they are equipped with diesel-powered transport refrigeration units (TRUs) or TRU generator sets.

The activities associated with delivering, storing, and loading freight produces diesel PM emissions. Although TRUs have relatively small diesel-powered engines, in the normal course of business, their emissions can pose a significant health risk to those nearby. In addition to onsite emissions, truck travel in and out of distribution centers contributes to the local pollution impact.

ARB is working to reduce diesel PM emissions through regulations, financial incentives, and enforcement programs. In 2004, ARB adopted two airborne toxic control measures that will reduce diesel PM emissions associated with distribution centers. The first will limit nonessential (or unnecessary) idling of diesel-fueled commercial vehicles, including those entering from other states or countries. This statewide measure, effective in 2005, prohibits idling of a vehicle more than five minutes at any one location.³ The elimination of unnecessary idling will reduce the localized impacts caused by diesel PM and other air toxics

³ For further information on the Anti-Idling ATCM, please click on:
<http://www.arb.ca.gov/toxics/idling/outreach/factsheet.pdf>

in diesel vehicle exhaust. This should be a very effective new strategy for reducing diesel PM emissions at distribution centers as well as other locations.

The second measure requires that TRUs operating in California become cleaner over time. The measure establishes in-use performance standards for existing TRU engines that operate in California, including out-of-state TRUs. The requirements are phased-in beginning in 2008, and extend to 2019.⁴

ARB also operates a smoke inspection program for heavy-duty diesel trucks that focuses on reducing truck emissions in California communities. Areas with large numbers of distribution centers are a high priority.

Key Health Findings

Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

Distance Related Findings

Although distribution centers are located throughout the state, they are usually clustered near transportation corridors, and are often located in or near population centers. Diesel PM emissions from associated delivery truck traffic and TRUs at these facilities may result in elevated diesel PM concentrations in neighborhoods surrounding those sites. Because ARB regulations will restrict truck idling at distribution centers, the largest continuing onsite diesel PM emission source is the operation of TRUs. Truck travel in and out of distribution centers also contributes to localized exposures, but specific travel patterns and truck volumes would be needed to identify the exact locations of the highest concentrations.

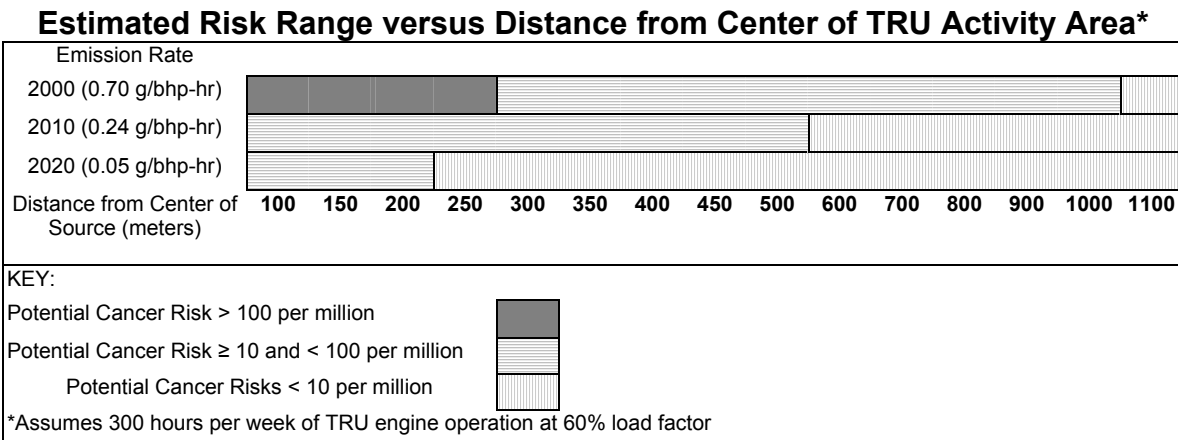
As part of the development of ARB's regulation for TRUs, ARB staff performed air quality modeling to estimate exposure and the associated potential cancer risk of onsite TRUs for a typical distribution center. For an individual person, cancer risk estimates for air pollution are commonly expressed as a probability of developing cancer from a lifetime (i.e., 70 years) of exposure. These risks were calculated independent of regional risk. For example, the estimated regional cancer risk from air toxics in the Los Angeles region (South Coast Air Basin) is approximately 1,000 additional cancer cases per one million population.

⁴ For further information on the Transport Refrigeration Unit ATCM, please click on: <http://www.arb.ca.gov/diesel/documents/trufa.pdf>

The diesel PM emissions from a facility are dependent on the size (horsepower), age, and number of engines, emission rates, the number of hours the truck engines and/or TRUs operate, distance, and meteorological conditions at the site. This assessment assumes a total on-site operating time for all TRUs of 300 hours per week. This would be the equivalent of 40 TRU-equipped trucks a day, each loading or unloading on-site for one hour, 12 hours a day and seven days a week.

As shown in Figure 1-2 below, at this estimated level of activity and assuming a current fleet diesel PM emission rate, the potential cancer risk would be over 100 in a million at 800 feet from the center of the TRU activity. The estimated potential cancer risk would be in the 10 to 100 per million range between 800 to 3,300 feet and fall off to less than 10 per million at approximately 3,600 feet. However with the implementation of ARB’s regulation on TRUs, the risk will be significantly reduced.⁵ We have not conducted a risk assessment for distribution centers based on truck traffic alone, but on an emissions basis, we would expect similar risks for a facility with truck volumes in the range of 100 per day.

Figure 1-2

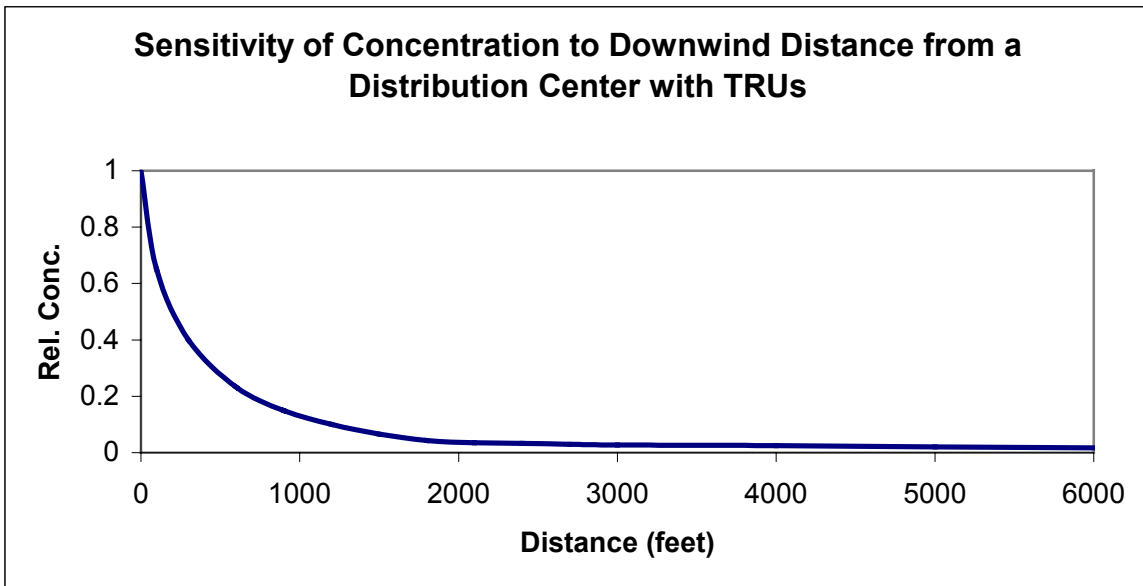


The estimated potential cancer risk level in Figure 1-2 is based on a number of assumptions that may not reflect actual conditions for a specific site. For example, increasing or decreasing the hours of diesel engine operations would change the potential risk levels. Meteorological and other facility specific parameters can also impact the results. Therefore, the results presented here are not directly applicable to any particular facility or operation. Rather, this information is intended to provide an indication as to the potential relative levels of risk that may be observed from operations at distribution centers. As shown in Figure 1-2, the estimated risk levels will decrease over time as lower-emitting diesel engines are used.

⁵ These risk values assume an exposure duration of 70 years for a nearby resident and uses the methodology specified in the 2003 OEHHA health risk assessment guidelines.

Another air modeling analysis, performed by the South Coast Air Quality Management District (South Coast AQMD), evaluated the impact of diesel PM emissions from distribution center operations in the community of Mira Loma in southern California. Based on dispersion of diesel PM emissions from a large distribution center, Figure 1-3 shows the relative pollution concentrations at varying distances downwind. As Figure 1-3 shows, there is about an 80 percent drop off in concentration at approximately 1,000 feet.

Figure 1-3
Decrease In Relative Concentration of Risk
With Distance



Both the ARB and the South Coast AQMD analyses indicate that providing a separation of 1,000 feet would substantially reduce diesel PM concentrations and public exposure downwind of a distribution center. While these analyses do not provide specific risk estimates for distribution centers, they provide an indication of the range of risk and the benefits of providing a separation. ARB recommends a separation of 1,000 feet based on the combination of risk analysis done for TRUs and the decrease in exposure predicted with the South Coast AQMD modeling. However, ARB staff plans to provide further information on distribution centers as we collect more data and implement the TRU control measure.

Taking into account the configuration of distribution centers can also reduce population exposure and risk. For example, locating new sensitive land uses away from the main entry and exit points helps to reduce cancer risk and other health impacts.

Recommendations

- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating TRUs per day, or where TRU unit operations exceed 300 hours per week).
- Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

References

- *Airborne Toxic Control Measure To Limit Diesel-Fueled Commercial Motor Vehicle Idling*. ARB (August 20, 2004). Rule effectiveness date awaiting submittal of regulation to the Office of Administration Law.
<http://www.arb.ca.gov/regact/idling/idling.htm>
- *Revised Staff Report: Initial Statement of Reasons for Proposed Rulemaking. Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate*. ARB (October 28, 2003).
<http://www.arb.ca.gov/regact/trude03/revisor.doc>
- *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. SCAQMD (August 2003) http://www.aqmd.gov/ceqa/handbook/diesel_analysis.doc
- “*Mira Loma Study: Analysis of the Impact of Diesel Particulate Emissions from Warehouse/Distribution Center Operations*”, PowerPoint presentation. SCAQMD (July 31, 2002)

Rail Yards

Rail yards are a major source of diesel particulate air pollution. They are usually located near inter-modal facilities, which attract heavy truck traffic, and are often sited in mixed industrial and residential areas. ARB, working with the Placer County air district and Union Pacific Railroad, recently completed a study⁶ of the Roseville Rail Yard (Yard) in northern California that focused on the health risk from diesel particulate. A comprehensive emissions analysis and air quality modeling were conducted to characterize the estimated potential cancer risk associated with the facility.

⁶ To review the study, please click on: <http://www.arb.ca.gov/diesel/documents/rstudy.htm>

The Yard encompasses about 950 acres on a one-quarter mile wide by four-mile long strip of land that parallels Interstate 80. It is surrounded by commercial, industrial, and residential properties. The Yard is one of the largest service and maintenance rail yards in the West with over 30,000 locomotives visiting annually.

Using data provided by Union Pacific Railroad, the ARB determined the number and type of locomotives visiting the Yard annually and what those locomotives were doing - moving, idling, or undergoing maintenance testing. Union Pacific provided the annual, monthly, daily, and hourly locomotive activity in the yard including locomotive movements; routes for arrival, departure, and through trains; and locomotive service and testing. This information was used to estimate the emissions of particulate matter from the locomotives, which was then used to model the potential impacts on the surrounding community.

The key findings of the study are:

- Diesel PM emissions in 2000 from locomotive operations at the Roseville Yard were estimated at about 25 tons per year.
- Of the total diesel PM in the Yard, moving locomotives accounted for about 50 percent, idling locomotives about 45 percent, and locomotive testing about five percent.
- Air quality modeling predicts potential cancer risks greater than 500 in a million (based on 70 years of exposure) in a 10-40 acre area immediately adjacent to the Yard's maintenance operations.
- The risk assessment also showed elevated cancer risk impacting a larger area covering about a 10 by 10 mile area around the Yard.

The elevated concentrations of diesel PM found in the study contribute to an increased risk of cancer and premature death due to cardiovascular disease, and non-cancer health effects such as asthma and other respiratory illnesses. The magnitude of the risk, the general location, and the size of the impacted area depended on the meteorological data used to characterize conditions at the Yard, the dispersion characteristics, and exposure assumptions. In addition to these variables, the nature of locomotive activity will influence a risk characterization at a particular rail yard. For these reasons, the quantified risk estimates in the Roseville Rail Yard Study cannot be directly applied to other rail yards. However, the study does indicate the health risk due to diesel PM from rail yards needs to be addressed. ARB, in conjunction with the U.S. Environmental Protection Agency (U.S. EPA), and local air districts, is working with the rail industry to identify and implement short term, mid-term and long-term mitigation strategies. ARB also intends to conduct a second rail study in southern California to increase its understanding of rail yard operations and the associated public health impacts.

Key Health Findings

Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

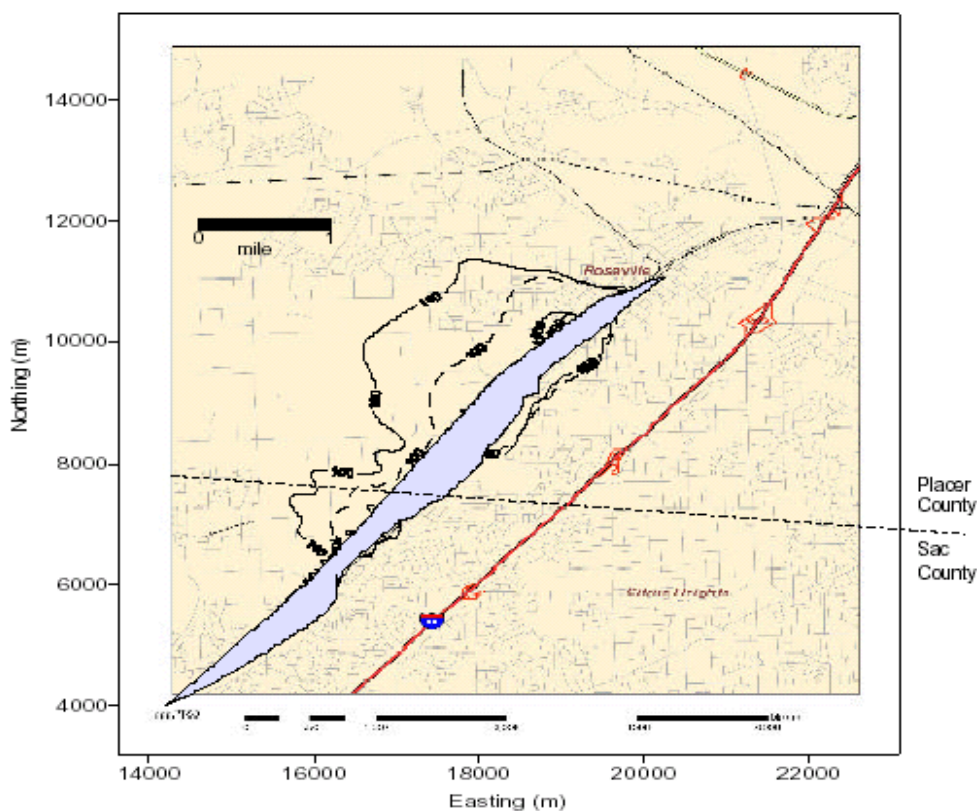
Distance Related Findings

Two sets of meteorological data were used in the Roseville study because of technical limitations in the data. The size of the impact area was highly dependent on the meteorological data set used. The predicted highest impact area ranged from 10 - 40 acres with the two different meteorological data sets. This area, with risks estimated above 500 in a million, is adjacent to an area that includes a maintenance shop (see Figure 1-4). The high concentration of diesel PM emissions is due to the number of locomotives and nature of activities in this area, particularly idling locomotives.

The area of highest impact is within 1,000 feet of the Yard. The next highest impact zone as defined in the report had a predicted risk between 500 and 100 in one million and extends out between a half to one mile in some spots, depending on which meteorological conditions were assumed. The impact areas are irregular in shape making it difficult to generalize about the impact of distance at a particular location. However, the Roseville Rail Yard Study clearly indicates that the localized health risk is high, the impact area is large, and mitigation of the locomotive diesel PM emissions is needed.

For facilities like rail yards and ports, the potential impact area is so large that the real solution is to substantially reduce facility emissions. However, land use planners can avoid encroaching upon existing rail facilities and those scheduled for expansion. We also recommend that while air agencies tackle this problem, land use planners try not to add new sensitive individuals into the highest exposure areas. Finally, we recommend that land use agencies consider the potential health impacts of rail yards in their planning and permitting processes. Additional limitations and mitigation may be feasible to further reduce exposure on a site-specific basis.

Figure 1-4
Estimated Cancer Risk from the Yard
(100 and 500 in a million risk isopleths)



Notes: 100/Million Contours: Solid Line – Roseville Met Data; Dashed Line-McClellan Met Data, Urban Dispersion Coefficients, 80th Percentile Breathing Rate, All Locomotives' Activities (23 TPY), 70-Year Exposure

Recommendation

- Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard⁷.
- Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

References

- *Roseville Rail Yard Study*. ARB (2004)

⁷ The rail yard risk analysis was conducted for the Union Pacific rail yard in Roseville, California. This rail yard is one of the largest in the state. There are other rail yards in California with comparable levels of activity that should be considered "major" for purposes of this Handbook.

Ports

Air pollution from maritime port activities is a growing concern for regional air quality as well as air quality in nearby communities. The primary air pollutant associated with port operations is directly emitted diesel particulate. Port-related activities also result in emissions that form ozone and secondary particulate in the atmosphere. The emission sources associated with ports include diesel engine-powered ocean-going ships, harbor craft, cargo handling equipment, trucks, and locomotives. The size and concentration of these diesel engines makes ports one of the biggest sources of diesel PM in the state. For that reason, ARB has made it a top priority to reduce diesel PM emissions at the ports, in surrounding communities, and throughout California.

International, national, state, and local government collaboration is critical to reducing port emissions based on both legal and practical considerations. For example, the International Maritime Organization (IMO) and the U.S. EPA establish emission standards for ocean-going vessels and U.S.-flagged harbor craft, respectively. ARB is pursuing further federal actions to tighten these standards. In addition, ARB and local air districts are reducing emissions from ports through a variety of approaches. These include: incentive programs to fund cleaner engines, enhanced enforcement of smoke emissions from ships and trucks, use of dockside electricity instead of diesel engines, cleaner fuels for ships, harbor craft, locomotives, and reduced engine idling. The two ATCMs that limit truck idling and reduce emissions from TRUs (discussed under “Distribution Centers”) also apply to ports.

ARB is also developing several other regulations that will reduce port-related emissions. One rule would require ocean-going ships to use a cleaner marine diesel fuel to power auxiliary engines while in California coastal waters and at dock. Ships that frequently visit California ports would also be required to further reduce their emissions. ARB has adopted a rule that would require harbor craft to use the same cleaner diesel fuel used by on-road trucks in California. In 2005, ARB will consider a rule that would require additional controls for in-use harbor craft, such as the use of add-on emission controls and accelerated turnover of older engines.

Key Health Findings

Port activities are a major source of diesel PM. Diesel PM has been identified by ARB as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Diesel PM is an important contributor to particulate matter air pollution. Particulate matter exposure is associated with premature mortality and health effects such as asthma exacerbation and hospitalization due to aggravating heart and lung disease.

Distance Related Findings

The Ports of Los Angeles and Long Beach provide an example of the emissions impact of port operations. A comprehensive emissions inventory was completed in June 2004. These ports combined are one of the world's largest and busiest seaports. Located in San Pedro Bay, about 20 miles south of downtown Los Angeles, the port complex occupies approximately 16 square miles of land and water. Port activities include five source categories that produce diesel emissions. These are ocean-going vessels, harbor craft, cargo handling equipment, railroad locomotives, and heavy-duty trucks.

The baseline emission inventory provides emission estimates for all major air pollutants. This analysis focuses on diesel PM from in-port activity because these emissions have the most potential health impact on the areas adjacent to the port. Ocean vessels are the largest overall source of diesel PM related to the ports, but these emissions occur primarily outside of the port in coastal waters, making the impact more regional in nature.

The overall in-port emission inventory for diesel particulate for the ports of Los Angeles and Long Beach is estimated to be 550 tons per year. The emissions fall in the following major categories: ocean-going vessels (17%), harbor craft (25%), cargo handling (47%), railroad locomotive (3%), and heavy duty vehicles (8%). In addition to in-port emissions, ship, rail, and trucking activities also contribute to regional emissions and increase emissions in nearby neighborhoods. Off-port emissions associated with related ship, rail, and trucking activities contribute an additional 680 tons per year of diesel particulate at the Port of Los Angeles alone.

To put this in perspective, the diesel PM emissions estimated for the Roseville Yard in ARB's 2004 study are 25 tons per year. The potential cancer risk associated with these emissions is 100 in one million at a distance of one mile, or one half mile, depending on the data set used. This rail yard covers one and a half square miles. The Los Angeles and Long Beach ports have combined diesel PM emissions of 550 tons per year emitted from a facility that covers a much larger area - 16 miles. The ports have about twice the emission density of the rail yard - 34 tons per year per square mile compared to 16 tons per year per square mile. However, while this general comparison is illustrative of the overall size of the complex, a detailed air quality modeling analysis would be needed to assess the potential health impact on specific downwind areas near the ports.

ARB is in the process of evaluating the various port-related emission sources from the standpoint of existing emissions, growth forecasts, new control options, regional air quality impacts, and localized health risk. A number of public processes - both state and local - are underway to address various aspects of these issues. Until more of these analyses are complete, there is little basis for recommending a specific separation between new sensitive land uses and ports.

For example, the type of data we have showing the relationship between air pollutant concentrations and distance from freeways is not yet available.

Also, the complexity of the port facilities makes a site-specific analysis critical. Ports are a concentration of multiple emission sources with differing dispersion and other characteristics. In the case of the Roseville rail yard, we found a high, very localized impact associated with a particular activity, service and maintenance. By contrast, the location, size, and nature of impact areas can be expected to vary substantially for different port activities. For instance, ground level emissions from dockside activities would behave differently from ship stack level emissions.

Nonetheless, on an emissions basis alone, we expect locations downwind of ports to be substantially impacted. For that reason, we recommend that land use agencies track the current assessment efforts, and consider limitations on the siting of new sensitive land uses in areas immediately downwind of ports.

Recommendations

Avoid siting new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.

References

- *Roseville Rail Yard Study*. ARB (2004)
- Final Draft, "*Port-Wide Baseline Air Emissions Inventory*." Port of Los Angeles (June 2004)
- Final Draft, "*2002 Baseline Air Emissions Inventory*." Port of Long Beach (February 2004)

Petroleum Refineries

A petroleum refinery is a complex facility where crude oil is converted into petroleum products (primarily gasoline, diesel fuel, and jet fuel), which are then transported through a system of pipelines and storage tanks for final distribution by delivery truck to fueling facilities throughout the state. In California, most crude oil is delivered either by ship from Alaska or foreign sources, or is delivered via pipeline from oil production fields within the state. The crude oil then undergoes many complex chemical and physical reactions, which include distillation, catalytic cracking, reforming, and finishing. These refining processes have the potential to emit air contaminants, and are subject to extensive emission controls by district regulations.

As a result of these regulations covering the production, marketing, and use of gasoline and other oil by-products, California has seen significant regional air quality benefits both in terms of cleaner fuels and cleaner operating facilities. In

the 1990s, California refineries underwent significant modifications and modernization to produce cleaner fuels in response to changes in state law. Nevertheless, while residual emissions are small when compared to the total emissions controlled from these major sources, refineries are so large that even small amounts of fugitive, uncontrollable emissions and associated odors from the operations, can be significant. This is particularly the case for communities that may be directly downwind of the refinery. Odors can cause health symptoms such as nausea and headache. Also, because of the size, complexity, and vast numbers of refinery processes onsite, the occasional refinery upset or malfunction can potentially result in acute or short-term health effects to exposed individuals.

Key Health Findings

Petroleum refineries are large single sources of emissions. For volatile organic compounds (VOCs), eight of the ten largest stationary sources in California are petroleum refineries. For oxides of nitrogen (NO_x), four of the ten largest stationary sources in California are petroleum refineries. Both of these compounds react in the presence of sunlight to form ozone. Ozone impacts lung function by irritating and damaging the respiratory system. Petroleum refineries are also large stationary sources of both particulate matter under 10 microns in size (PM₁₀) and particulate matter under 2.5 microns in size (PM_{2.5}). Exposure to particulate matter aggravates a number of respiratory illnesses, including asthma, and is associated with premature mortality in people with existing cardiac and respiratory disease. Both long-term and short-term exposure can have adverse health impacts. Finer particles pose an increased health risk because they can deposit deep in the lung and contain substances that are particularly harmful to human health. NO_x are also significant contributors to the secondary formation of PM_{2.5}.

Petroleum refineries also emit a variety of toxic air pollutants. These air toxics vary by facility and process operation but may include: acetaldehyde, arsenic, antimony, benzene, beryllium, 1,3-butadiene, cadmium compounds, carbonyl sulfide, carbon disulfide, chlorine, dibenzofurans, diesel particulate matter, formaldehyde, hexane, hydrogen chloride, lead compounds, mercury compounds, nickel compounds, phenol, 2,3,7,8 tetrachlorodibenzo-p-dioxin, toluene, and xylenes (mixed) among others. The potential health effects associated with these air toxics can include cancer, respiratory irritation, and damage to the central nervous system, depending on exposure levels.

Distance Related Findings

Health risk assessments for petroleum refineries have shown risks from toxic air pollutants that have quantifiable health risk values to be around 10 potential cancer cases per million. Routine air monitoring and several air monitoring studies conducted in the San Francisco Bay Area (Crockett) and the South Coast Air Basin (Wilmington) have not identified significant health risks specifically

associated with refineries. However, these studies did not measure diesel PM as no accepted method currently exists, and there are many toxic air pollutants that do not have quantifiable health risk values.

In 2002, ARB published a report on the results of the state and local air district air monitoring done near oil refineries. The purpose of this evaluation was to try to determine how refinery-related emissions might impact nearby communities. This inventory of air monitoring activities included 10 ambient air monitoring stations located near refineries in Crockett and four stations near refineries in Wilmington. These monitoring results did not identify significant increased health risks associated with the petroleum refineries. In 2002-2003, ARB conducted additional monitoring studies in communities downwind of refineries in Crockett and Wilmington. These monitoring results also did not indicate significant increased health risks from the petroleum refineries.

Consequently, there are no air quality modeling or air monitoring data that provides a quantifiable basis for recommending a specific separation between refineries and new sensitive land uses. However, in view of the amount and potentially hazardous nature of many of the pollutants released as part of the refinery process, we believe the siting of new sensitive land uses immediately downwind should be avoided. Land use agencies should consult with the local air district when considering how to define an appropriate separation for refineries within their jurisdiction.

Recommendations

- Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.

References

- *Review of Current Ambient Air Monitoring Activities Related to California Bay Area and South Coast Refineries.* ARB (March 2002)
<http://www.arb.ca.gov/aaqm/qmosqual/special/mldrefinery.pdf>
- *Community Air Quality Monitoring: Special Studies – Crockett.* ARB (September 2004)
<http://www.arb.ca.gov/ch/communities/studies/crockett/crockett.htm>
- *Wilmington Study - Air Monitoring Results.* ARB (2003)
<http://www.arb.ca.gov/ch/communities/studies/wilmington/wilmington.htm>

Chrome Plating Operations

Chrome plating operations rely on the use of the toxic metal hexavalent chromium, and have been subject to ARB and local air district control programs for many years. Regulation of chrome plating operations has reduced statewide emissions substantially. However, due to the nature of chrome plating

operations and the highly toxic nature of hexavalent chromium, the remaining health risk to nearby residents is a continuing concern.

Chrome plating operations convert hexavalent chromium in solution to a chromium metal layer by electroplating, and are categorized based upon the thickness of the chromium metal layer applied. In “decorative plating”, a layer of nickel is first plated over a metal substrate. Following this step, a thin layer of chromium is deposited over the nickel layer to provide a decorative and protective finish, for example, on faucets and automotive wheels. “Hard chrome plating” is a process in which a thicker layer of chromium metal is deposited directly on metal substrates such as engine parts, industrial machinery, and tools to provide greater protection against corrosion and wear.

Hexavalent chromium is emitted into the air when an electric current is applied to the plating bath. Emissions are dependent upon the amount of electroplating done per year and the control requirements. A unit of production referred to as an ampere-hour represents the amount of electroplating produced. Small facilities have an annual production rate of 100,000 – 500,000 ampere-hours, while medium-size facilities may have a production rate of 500,000 to about 3 million ampere-hours. The remaining larger facilities have a range of production rates that can be as high as 80 million ampere-hours.

The control requirements, which reduce emissions from the plating tanks, vary according to the size and type of the operation. Facilities either install add-on pollution control equipment, such as filters and scrubbers, or in-tank controls, such as fume suppressants and polyballs. With this combination of controls, the overall hexavalent chromium emissions have been reduced by over 90 percent. Larger facilities typically have better controls that can achieve efficiencies greater than 99 percent. However, even with stringent controls, the lack of maintenance and good housekeeping practices can lead to problems. And, since the material itself is inherently dangerous, any lapse in compliance poses a significant risk to nearby residents.

A 2002 ARB study in the San Diego community of Barrio Logan measured unexpectedly high concentrations of hexavalent chromium near chrome platers. The facilities were located in a mixed-use area with residences nearby. The study found that fugitive dust laden with hexavalent chromium was an important source of emissions that likely contributed to the elevated cancer risk. Largely as a result of this study, ARB is in the process of updating the current requirements to further reduce the emissions from these facilities.

In December 2004, the ARB adopted an ATCM to reduce emissions of hexavalent chromium and nickel from thermal spraying operations through the installation of best available control technology. The ATCM requires all existing facilities to comply with its requirements by January 1, 2006. New and modified thermal spraying operations must comply upon initial startup. An existing thermal spraying facility may be exempt from the minimum control efficiency

requirements of the ATCM if it is located at least 1,640 feet from the nearest sensitive receptor and emits no more than 0.5 pound per year of hexavalent chromium.⁸

Key Health Findings

Hexavalent chromium is one of the most toxic air pollutants regulated by the State of California. Hexavalent chromium is a carcinogen and has been identified in worker health studies as causing lung cancer. Exposure to even very low levels of hexavalent chromium should be avoided.

The California Office of Environmental Health Hazard Assessment has found that: 1) many epidemiological studies show a strong association between hexavalent chromium exposure in the work place and respiratory cancer; and 2) all short-term assays reported show that hexavalent chromium compounds can cause damage to human DNA.

Hexavalent chromium when inhaled over a period of many years can cause a variety of non-cancer health effects. These health effects include damage to the nose, blood disorders, lung disease, and kidney damage. The non-cancer health impacts occur with exposures considerably higher than exposures causing significant cancer risks. It is less likely that the public would be exposed to hexavalent chromium at levels high enough to cause these non-cancer health effects. Non-cancer health effects, unlike cancer health effects, have a threshold or exposure level below which non-cancer health effects would not be expected.

Distance Related Findings

ARB's 2002 Barrio Logan Study measured concentrations of hexavalent chromium in the air near two chrome plating facilities. The study was conducted from December 2001 to May 2002. There were two chrome platers on the street - one decorative and one hard plater. The purpose of the study was to better understand the near source impact of hexavalent chromium emissions. Air monitors were placed at residences next to the platers and at varying distances down the street. The monitors were moved periodically to look at the spatial distribution of the impact. Source testing and facility inspections identified one of the facilities as the likely source.

The first two weeks of monitoring results showed unexpectedly high levels of hexavalent chromium at a number of the monitoring sites. The high concentrations were intermittent. The concentrations ranged from 1 to 22 ng/m³ compared to the statewide average of 0.1 ng/m³. If these levels were to continue for 70 years, the potential cancer risk would be 150 in one million. The highest value was found at an air monitor behind a house adjacent to one of the

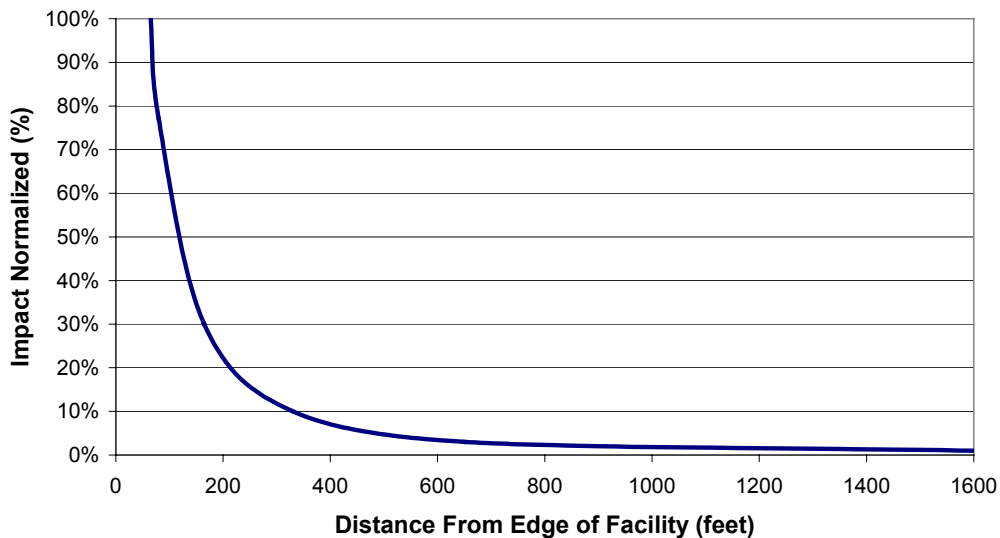
⁸ For further information on the ATCM, please refer to:
<http://www.arb.ca.gov/regact/thermspr/thermalspr.htm>

plating facilities—approximately 30 feet from the back entrance. Lower, but significant concentrations were found at an ambient air monitor 250 feet away.

The monitoring covered a period when the facility was not operating its plating tank. During this period, one of the highest concentrations was measured at an adjacent house. It appears that chromium-laden dust was responsible for high concentrations at this location since there was no plating activity at the time. Dust samples from the facility were tested and found to contain high levels of hexavalent chromium. On the day the highest concentration was measured at the house next door, a monitor 350 feet away from the plater's entrance showed very little impact. Similar proximity effects are shown in ARB modeling studies.

Figure 1-5 shows how the relative health risk varies as a function of distance from a chrome plater. This analysis is based on a medium-sized chrome plater with an annual production rate of 3 million ampere-hours. As shown in Figure 1- 5, the potential health risk drops off rapidly, with over 90 percent reduction in risk within 300 feet. This modeling was done in 2003 as part of a review of ARB's current air toxic control measure for chrome platers and is based on data from a recent ARB survey of chrome platers in California. The emission

Figure 1-5
Risk vs. Distance From Chrome Plater
(Based on plating tank emissions)



rates are only for plating operations. Because there are insufficient data available to directly quantify the impacts, the analysis does not include fugitive emissions, which the Barrio Logan analysis indicated could be significant.

Both the ARB Barrio Logan monitoring results and ARB's 2003 modeling analysis suggests that the localized emissions impact of a chrome plater diminishes significantly at 300 feet. However, in developing our recommendation, we also considered the following factors:

- some chrome platers will have higher volumes of plating activity,
- potential dust impacts were not modeled,
- we have only one monitoring study looking at the impact of distance, and,
- hexavalent chromium is one of the most potent toxic air contaminants ARB has identified.

Given these limitations in the analysis, we recommend a separation of 1,000 feet as a precautionary measure. For large chrome platers, site specific information should be obtained from the local air district.

Recommendation

- Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.

References

- *Ambient Air Monitoring for Hexavalent Chromium and Metals in Barrio Logan: May 2001 through May 2002.* ARB, Monitoring and Laboratory Division (October 14, 2003)
- *Draft Barrio Logan Report.* ARB, Planning and Technical Support Division (November 2004)
- *Proposed Amendments to the Hexavalent Chromium Control Measure for Decorative and Hard Chrome Plating and Chromic Acid Anodizing Facilities.* ARB (April 1998)
- Murchison, Linda; Suer, Carolyn; Cook, Jeff. “*Neighborhood Scale Monitoring in Barrio Logan,*” (AWMA Annual Conference Proceedings, June 2003)

Dry Cleaners Using Perchloroethylene (Perc Dry Cleaners)

Perchloroethylene (perc) is the solvent most commonly used by the dry cleaning industry to clean clothes or other materials. The ARB and other public health agencies have identified perc as a potential cancer-causing compound. Perc persists in the atmosphere long enough to contribute to both regional air pollution and localized exposures. Perc dry cleaners are the major source of perc emissions in California.

Since 1990, the statewide concentrations and health risk from exposure to perc has dropped over 70 percent. This is due to a number of regulatory requirements on perc dry cleaners and other sources, including degreasing operations, brake cleaners, and adhesives. ARB adopted an Airborne Toxic Control Measure (ATCM) for Perc Emissions from Dry Cleaning Operations in 1993. ARB has also prohibited the use of perc in aerosol adhesives and automotive brake cleaners.

Perc dry cleaners statewide are required to comply with ARB and local air district regulations to reduce emissions. However, even with these controls, some emissions continue to occur. Air quality studies indicate that there is still the potential for significant risks even near well-controlled dry cleaners. The South Coast AQMD has adopted a rule requiring that all new dry cleaners use alternatives to perc and that existing dry cleaners phase out the use of perc by December 2020. Over time, transition to non-toxic alternatives should occur. However, while perc continues to be used, a preventative approach should be taken to siting of new sensitive land uses.

Key Health Findings

Inhalation of perc may result in both cancer and non-cancer health effects. An assessment by California's Office of Environmental Health Hazard Assessment (OEHHA) concluded that perc is a potential human carcinogen and can cause non-cancer health effects. In addition to the potential cancer risk, the effects of long-term exposure include dizziness, impaired judgment and perception, and damage to the liver and kidneys. Workers have shown signs of liver toxicity following chronic exposure to perc, as well as kidney dysfunction and neurological effects. Non-cancer health effects occur with higher exposure levels than those associated with significant cancer risks. The public is more likely to be exposed to perchloroethylene at levels causing significant cancer risks than to levels causing non-cancer health effects. Non-cancer health effects, unlike cancer health effects, have a threshold or exposure level below which non-cancer health effects would not be expected. The ARB formally identified perc as a toxic air contaminant in October 1991.

One study has determined that inhalation of perc is the predominant route of exposure to infants living in apartments co-located in the same building with a business operating perc dry cleaning equipment. Results of air sampling within co-residential buildings indicate that dry cleaners can cause a wide range of exposures depending on the type and maintenance of the equipment. For example, a well-maintained state-of-the-art system may have risks in the range of 10 in one million, whereas a badly maintained machine with major leaks can have potential cancer risks of thousands in one million.

The California Air Pollution Control Officers Association (CAPCOA) is developing Industry-wide Risk Assessment Guidelines for Perchloroethylene Dry Cleaners which, when published, will provide detailed information on public health risk from exposure to emissions from this source.

Distance Related Findings

Risk created by perc dry cleaning is dependent on the amount of perc emissions, the type of dry cleaning equipment, proximity to the source, and how the emissions are released and dispersed (e.g., type of ventilation system, stack parameters, and local meteorology). Dry cleaners are often located near

residential areas, and near shopping centers, schools, day-care centers, and restaurants.

The vast majority of dry cleaners in California have one dry cleaning machine per facility. The South Coast AQMD estimates that an average well-controlled dry cleaner uses about 30 to 160 gallons of cleaning solvent per year, with an average of about 100 gallons. Based on these estimates, the South Coast AQMD estimates a potential cancer risk between 25 to 140 in one million at residential locations 75 feet or less from the dry cleaner, with an average of about 80 in one million. The estimate could be as high as 270 in one million for older machines.

CAPCOA's draft industry-wide risk assessment of perc dry cleaning operations indicates that the potential cancer risk for many dry cleaners may be in excess of potential cancer risk levels adopted by the local air districts. The draft document also indicates that, in general, the public's exposure can be reduced by at least 75 percent, by providing a separation distance of about 300 feet from the operation. This assessment is based on a single machine with perc use of about 100 gallons per year. At these distances, the potential cancer risk would be less than 10 potential cases per million for most scenarios.

The risk would be proportionately higher for large, industrial size, dry cleaners. These facilities typically have two or more machines and use 200 gallons or more per year of perc. Therefore, separation distances need to be greater for large dry cleaners. At a distance of 500 feet, the remaining risk for a large plant can be reduced by over 85 percent.

In California, a small number of dry cleaners that are co-located (sharing a common wall, floor, or ceiling) with a residence have the potential to expose the inhabitants of the residence to high levels of perc. However, while special requirements have been imposed on these existing facilities, the potential for exposure still exists. Avoiding these siting situations in the future is an important preventative measure.

Local air districts are a source of information regarding specific dry cleaning operations—particularly for large industrial operations with multiple machines. The 300 foot separation recommended below reflects the most common situation – a dry cleaner with only one machine. While we recommend 500 feet when there are two or more machines, site specific information should be obtained from the local air district for some very large industrial operations. Factors that can impact the risk include the number and type of machines, controls used, source configuration, building dimensions, terrain, and meteorological data.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines provide 500 feet. For operations with 3 or more machines, consult with the local air district.
- Do not site new sensitive land uses in the same building with perc dry cleaning operations.

References

- *Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems*, Final Staff Report. South Coast AQMD. (October 2002)
- *Air Toxic Control Measure for Emissions of Perchloroethylene from Dry Cleaning Operations*. ARB (1994)
(<http://www.arb.ca.gov/toxics/atcm/percatcm.htm>)
- “An Assessment of Tetrachloroethylene in Human Breast Milk”, Judith Schreiber, New York State Department of Health – Bureau of Toxic Substance Assessment, Journal of Exposure Analysis and Environmental Epidemiology, Vol.2, Suppl.2, pp. 15-26, 1992.
- *Draft Air Toxics “Hot Spots” Program Perchloroethylene Dry Cleaner Industry-wide Risk Assessment Guidelines*. (CAPCOA (November 2002)
- *Final Environmental Assessment for Proposed Amended Rule 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems*. South Coast AQMD. (October 18, 2002)

Gasoline Dispensing Facilities

Refueling at gasoline dispensing facilities releases benzene into the air. Benzene is a potent carcinogen and is one of the highest risk air pollutants regulated by ARB. Motor vehicles and motor vehicle-related activity account for over 90 percent of benzene emissions in California. While gasoline-dispensing facilities account for a small part of total benzene emissions, near source exposures for large facilities can be significant.

Since 1990, benzene in the air has been reduced by over 75 percent statewide, primarily due to the implementation of emissions controls on motor vehicle vapor recovery equipment at gas stations, and a reduction in benzene levels in gasoline. However, benzene levels are still significant. In urban areas, average benzene exposure is equivalent to about 50 in one million.

Gasoline dispensing facilities tend to be located in areas close to residential and shopping areas. Benzene emissions from the largest gas stations may result in near source health risk beyond the regional background and district health risk thresholds. The emergence of very high gasoline throughput at large retail or

wholesale outlets makes this a concern as these types of outlets are projected to account for an increasing market share in the next few years.

Key Health Findings

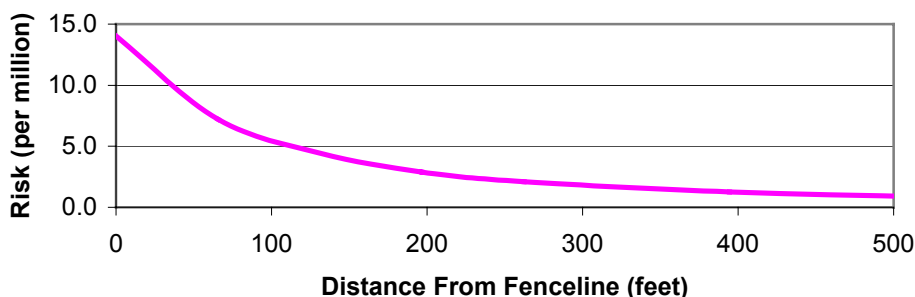
Benzene is a human carcinogen identified by ARB as a toxic air contaminant. Benzene also can cause non-cancer health effects above a certain level of exposure. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. It is unlikely that the public would be exposed to levels of benzene from gasoline dispensing facilities high enough to cause these non-cancer health effects.

Distance Related Findings

A well-maintained vapor recovery system can decrease emissions of benzene by more than 90% compared with an uncontrolled facility. Almost all facilities have emission control systems. Air quality modeling of the health risks from gasoline dispensing facilities indicate that the impact from the facilities decreases rapidly as the distance from the facility increases.

Statistics reported in the ARB's staff reports on Enhanced Vapor Recovery released in 2000 and 2002, indicated that almost 96 percent of the gasoline dispensing facilities had a throughput less than 2.4 million gallons per year. The remaining four percent, or approximately 450 facilities, had throughputs exceeding 2.4 million gallons per year. For these stations, the average gasoline throughput was 3.6 million gallons per year.

**Figure 1-6
Gasoline Dispensing Facility Health Risk
for 3,600,000 gal/yr throughput**



As shown in Figure 1-6, the risk levels for a gasoline dispensing facility with a throughput of 3.6 million gallons per year is about 10 in one million at a distance of 50 feet from the fenceline. However, as the throughput increases, the potential risk increases.

As mentioned above, air pollution levels in the immediate vicinity of large gasoline dispensing facilities may be higher than the surrounding area (although tailpipe emissions from motor vehicles dominates the health impacts). Very large gasoline dispensing facilities located at large wholesale and discount centers may dispense nine million gallons of gasoline per year or more. At nine million gallons, the potential risk could be around 25 in one million at 50 feet, dropping to about five in one million at 300 feet. Some facilities have throughputs as high as 19 million gallons.

Recommendation

- Avoid siting new sensitive land uses within 300 feet of a large gasoline dispensing facility (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

References

- *Gasoline Service Station Industry-wide Risk Assessment Guidelines*. California Air Pollution Control Officers Association (December 1997 and revised November 1, 2001)
- *Staff Report on Enhanced Vapor Recovery*. ARB (February 4, 2000)
- *The California Almanac of Emissions and Air Quality*. ARB (2004)
- *Staff Report on Enhanced Vapor Recovery Technology Review*. ARB (October 2002)

Other Facility Types that Emit Air Pollutants of Concern

In addition to source specific recommendations, Table 1-3 includes a list of other industrial sources that could pose a significant health risk to nearby sensitive individuals depending on a number of factors. These factors include the amount of pollutant emitted and its toxicity, the distance to nearby individuals, and the type of emission controls in place. Since these types of facilities are subject to air permits from local air districts, facility specific information should be obtained where there are questions about siting a sensitive land use close to an industrial facility.

Potential Sources of Odor and Dust Complaints

Odors and dust from commercial activities are the most common sources of air pollution complaints and concerns from the public. Land use planning and permitting processes should consider the potential impacts of odor and dust on surrounding land uses, and provide for adequate separation between odor and dust sources. As with other types of air pollution, a number of factors need to be considered when determining an adequate distance or mitigation to avoid odor or

Table 1-3 – Examples of Other Facility Types That Emit¹ Air Pollutants of Concern

| <u>Categories</u> | <u>Facility Type</u> | <u>Air Pollutants of Concern</u> |
|----------------------------|---|---|
| Commercial | Autobody Shops Furniture Repair Film Processing Services Distribution Centers Printing Shops Diesel Engines | Metals, Solvents Solvents ² , Methylene Chloride Solvents, Perchloroethylene Diesel Particulate Matter Solvents Diesel Particulate Matter |
| Industrial | Construction Manufacturers Metal Platers, Welders, Metal Spray (flame spray) Operations Chemical Producers Furniture Manufacturers Shipbuilding and Repair Rock Quarries and Cement Manufacturers Hazardous Waste Incinerators Power Plants Research and Development Facilities | Particulate Matter, Asbestos Solvents, Metals Hexavalent Chromium, Nickel, Metals Solvents, Metals Solvents Hexavalent chromium and other metals, Solvents Particulate Matter, Asbestos Dioxin, Solvents, Metals Benzene, Formaldehyde, Particulate Matter Solvents, Metals, etc. |
| Public | Landfills Waste Water Treatment Plants Medical Waste Incinerators Recycling, Garbage Transfer Stations Municipal Incinerators | Benzene, Vinyl Chloride, Diesel Particulate Matter Hydrogen Sulfide Dioxin, Benzene, PAH, PCBs, 1,3-Butadiene Diesel Particulate Matter Dioxin, Benzene, PAH, PCBs, 1,3-Butadiene |
| Transportation | Truck Stops | Diesel Particulate Matter |
| Agricultural Operations | Farming Operations Livestock and Dairy Operations | Diesel Particulate Matter, VOCs, NOx, PM10, CO, SOx, Pesticides Ammonia, VOCs, PM10 |

¹Not all facilities will emit pollutants of concern due to process changes or chemical substitution. Consult the local air district regarding specific facilities.

²Some solvents may emit toxic air pollutants, but not all solvents are toxic air contaminants.

dust complaints in a specific situation. Local air districts should be consulted for advice when these siting situations arise.

Table 1-4 lists some of the most common sources of odor complaints received by local air districts. Complaints about odors are the responsibility of local air districts and are covered under state law. The types of facilities that can cause odor complaints are varied and can range from small commercial facilities to large industrial facilities, and may include waste disposal and recycling operations. Odors can cause health symptoms such as nausea and headache. Facilities with odors may also be sources of toxic air pollutants (See Table 1-3). Some common sources of odors emitted by facilities are sulfur compounds, organic solvents, and the decomposition/digestion of biological materials. Because of the subjective nature of an individual's sensitivity to a particular type of odor, there is no specific rule for assigning appropriate separations from odor sources. Under the right meteorological conditions, some odors may still be offensive several miles from the source.

Sources of dust are also common sources of air pollution-related complaints. Operations that can result in dust problems are rock crushing, gravel production, stone quarrying, and mining operations. A common source of complaints is the dust and noise associated with blasting that may be part of these operations. Besides the health impacts of dust as particulate matter, thick dust also impairs visibility, aesthetic values, and can soil homes and automobiles. Local air districts typically have rules for regulating dust sources in their jurisdictions, but dust sources can still be a concern. Therefore, separation of these facilities from residential and other new sensitive land uses should be considered.

In some areas of California, asbestos occurs naturally in stone deposits. Asbestos is a potent carcinogenic substance when inhaled. Asbestos-containing dust may be a public health concern in areas where asbestos-containing rock is mined, crushed, processed, or used. Situations where asbestos-containing gravel has been used in road paving materials are also a source of asbestos exposure to the general public. Planners are advised to consult with local air pollution agencies in areas where asbestos-containing gravel or stone products are produced or used.

2. Handbook Development

ARB and local air districts share responsibility for improving statewide air quality. As a result of California's air pollution control programs, air quality has improved and health risk has been reduced statewide. However, state and federal air quality standards are still exceeded in many areas of California and the statewide health risk posed by toxic air contaminants (air toxics) remains too high. Also, some communities experience higher pollution exposures than others - making localized impacts, as well regional or statewide impacts, an important consideration. It is for this reason that this Handbook has been produced - to promote better, more informed decision-making by local land use agencies that will improve air quality and public health in their communities.

Land use policies and practices, including planning, zoning, and siting activities, can play a critical role in air quality and public health at the local level. For instance, even with the best available control technology, some projects that are sited very close to homes, schools, and other public places can result in elevated air pollution exposures. The reverse is also true – siting a new school or home too close to an existing source of air pollution can pose a public health risk. The ARB recommendations in section 1 address this issue.

This Handbook is an informational document that we hope will strengthen the relationship between air quality and land use agencies. It highlights the need for land use agencies to address the potential for new projects to result in localized health risk or contribute to cumulative impacts where air pollution sources are concentrated.

Avoiding these incompatible land uses is a key to reducing localized air pollution exposures that can result in adverse health impacts, especially to sensitive individuals.

Individual siting decisions that result in incompatible land uses are often the result of locating “sensitive” land uses next to polluting sources. These decisions can be of even greater concern when existing air pollution exposures in a community are considered. In general terms, this is often referred to as the issue of “cumulative impacts.” ARB is working with local air districts to better define these situations and to make information about existing air pollution levels (e.g., from local businesses, motor vehicles, and other areawide sources) more readily available to land use agencies.

In December 2001, the ARB adopted “Policies and Actions for Environmental Justice” (Policies). These Policies were developed in coordination with a group of stakeholders, representing local government agencies, community interest

groups, environmental justice organizations, academia, and business (Environmental Justice Stakeholders Group).

The Policies included a commitment to work with land use planners, transportation agencies, and local air districts to develop ways to identify, consider, and reduce cumulative air pollution emissions, exposure, and health risks associated with land use planning and decision-making. Developed under the auspices of the ARB's Environmental Justice Stakeholders Group, this Handbook is a first step in meeting that commitment.

ARB has produced this Handbook to help achieve several objectives:

- Provide recommendations on situations to avoid when siting new residences, schools, day care centers, playgrounds, and medical-related facilities (sensitive sites or sensitive land uses);
- Identify approaches that land use agencies can use to prevent or reduce potential air pollution impacts associated with general plan policies, new land use development, siting, and permitting decisions;
- Improve and facilitate access to air quality data and evaluation tools for use in the land use decision-making process;
- Encourage stronger collaboration between land use agencies and local air districts to reduce community exposure to source-specific and cumulative air pollution impacts; and
- Emphasize community outreach approaches that promote active public involvement in the air quality/land use decision-making process.

This Handbook builds upon California's 2003 General Plan Guidelines. These Guidelines, developed by the Governor's Office of Planning and Research (OPR), explain the land use planning process and applicable legal requirements. This Handbook also builds upon a 1997 ARB report, "The Land Use-Air Quality Linkage" ("Linkage Report").⁹ The Linkage Report was an outgrowth of the California Clean Air Act which, among other things, called upon local air districts to focus particular attention on reducing emissions from sources that indirectly cause air pollution by attracting vehicle trips. Such indirect sources include, but are not limited to, shopping centers, schools and universities, employment centers, warehousing, airport hubs, medical offices, and sports arenas. The Linkage Report summarizes data as of 1997 on the relationships between land use, transportation, and air quality, and highlights strategies that can help to reduce the use of single occupancy automobile use. Such strategies

⁹ To access this report, please refer to ARB's website or click on: <http://www.arb.ca.gov/ch/programs/link97.pdf>

complement ARB regulatory programs that continue to reduce motor vehicle emissions.

In this Handbook, we identify types of air quality-related information that we recommend land use agencies consider in the land use decision-making processes such as the development of regional, general, and community plans; zoning ordinances; environmental reviews; project siting; and permit issuance. The Handbook provides recommendations on the siting of new sensitive land uses based on current analyses. It also contains information on approaches and methodologies for evaluating new projects from an air pollution perspective.

The Handbook looks at air quality issues associated with emissions from industrial, commercial, and mobile sources of air pollution. Mobile sources continue to be the largest overall contributors to the state's air pollution problems, representing the greatest air pollution health risk to most Californians. Based on current health risk information for air toxics, the most serious pollutants on a statewide basis are diesel PM, benzene, and 1,3-butadiene, all of which are primarily emitted by motor vehicles. From a state perspective, ARB continues to pursue new strategies to further reduce motor vehicle-related emissions in order to meet air quality standards and reduce air toxics risk.

While mobile sources are the largest overall contributors to the state's air pollution problems, industrial and commercial sources can also pose a health risk, particularly to people near the source. For this reason, the issue of incompatible land uses is an important focus of this document.

Handbook Audience

Even though the primary users of the Handbook will likely be agencies responsible for air quality and land use planning, we hope the ideas and technical issues presented in this Handbook will also be useful for:

- public and community organizations and community residents;
- federal, state and regional agencies that fund, review, regulate, oversee, or otherwise influence environmental policies and programs affected by land use policies; and
- private developers.

3. Key Community Focused Issues Land Use Agencies Should Consider

Two key air quality issues that land use agencies should consider in their planning, zoning, and permitting processes are:

- 1) **Incompatible Land Uses.** Localized air pollution impacts from incompatible land use can occur when polluting sources, such as a heavily trafficked roadway, warehousing facilities, or industrial or commercial facilities, are located near a land use where sensitive individuals are found such as a school, hospital, or homes.
- 2) **Cumulative Impacts.** Cumulative air pollution impacts can occur from a concentration of multiple sources that individually comply with air pollution control requirements or fall below risk thresholds, but in the aggregate may pose a public health risk to exposed individuals. These sources can be heavy or light-industrial operations, commercial facilities such as autobody shops, large gas dispensing facilities, dry cleaners, and chrome platers, and freeways or other nearby busy transportation corridors.

Incompatible Land Uses

Land use policies and practices can worsen air pollution exposure and adversely affect public health by mixing incompatible land uses. Examples include locating new sensitive land uses, such as housing or schools, next to small metal plating facilities that use a highly toxic form of chromium, or very near large industrial facilities or freeways. Based on recent monitoring and health-based studies, we now know that air quality impacts from incompatible land uses can contribute to increased risk of illness, missed work and school, a lower quality of life, and higher costs for public health and pollution control.¹⁰

Avoiding incompatible land uses can be a challenge in the context of mixed-use industrial and residential zoning. For a variety of reasons, government agencies and housing advocates have encouraged the proximity of affordable housing to employment centers, shopping areas, and transportation corridors, partially as a means to reduce vehicle trips and their associated emissions. Generally speaking, typical distances in mixed-use communities between businesses and industries and other land uses such as homes and schools, should be adequate to avoid health risks. However, generalizations do not always hold as we addressed in section 1 of this Handbook.

In terms of siting air pollution sources, the proposed location of a project is a major factor in determining whether it will result in localized air quality impacts. Often, the problem can be avoided by providing an adequate distance or setback

¹⁰ For more information, the reader should refer to ARB's website on community health: <http://www.arb.ca.gov/ch/ch.htm>

between a source of emissions and nearby sensitive land uses. Sometimes, suggesting project design changes or mitigation measures in the project review phase can also reduce or avoid potential impacts. This underscores the importance of addressing potential incompatible land uses as early as possible in the project review process, ideally in the general plan itself.

Cumulative Air Pollution Impacts

The broad concept of cumulative air pollution impacts reflects the combination of regional air pollution levels and any localized impacts. Many factors contribute to air pollution levels experienced in any location. These include urban background air pollution, historic land use patterns, the prevalence of freeways and other transportation corridors, the concentration of industrial and commercial businesses, and local meteorology and terrain.

When considering the potential air quality impacts of polluting sources on individuals, project location and the concentration of emissions from air pollution sources need to be considered in the land use decision-making process. In section 4, the Handbook offers a series of questions that helps land use agencies determine if a project should undergo a more careful analysis. This holds true regardless of whether the project being sited is a polluting source or a sensitive land use project.

Large industrial areas are not the only land uses that may result in public health concerns in mixed-use communities. Cumulative air pollution impacts can also occur if land uses do not adequately provide setbacks or otherwise protect sensitive individuals from potential air pollution impacts associated with nearby light industrial sources. This can occur with activities such as truck idling and traffic congestion, or from indirect sources such as warehousing facilities that are located in a community or neighborhood.

In October 2004, Cal/EPA published its Environmental Justice Action Plan. In February 2005, the Cal/EPA Interagency Working Group approved a working definition of “cumulative impacts” for purposes of initially guiding the pilot projects that are being conducted pursuant to that plan. Cal/EPA is now in the process of developing a Cumulative Impacts Assessment Guidance document. Cal/EPA will revisit the working definition of “cumulative impacts” as the Agency develops that guidance. The following is the working definition:

“Cumulative impacts means exposures, public health or environmental effects from the combined emissions and discharges, in a geographic area, including environmental pollution from all sources, whether single or multi-media, routinely, accidentally, or otherwise released. Impacts will take into account sensitive populations and socio-economic factors, where applicable, and to the extent data are available.”

4. Mechanisms for Integrating Localized Air Quality Concerns Into Land Use Processes

Land use agencies should use each of their existing planning, zoning, and permitting authorities to address the potential health risk associated with new projects. Land use-specific mechanisms can go a long way toward addressing both localized and cumulative impacts from new air pollution sources that are not otherwise addressed by environmental regulations. Likewise, close collaboration and communication between land use agencies and local air districts in both the planning and project approval stages can further reduce these impacts. Local agency partnerships can also result in early identification of potential impacts from proposed activities that might otherwise escape environmental review. When this happens, pollution problems can be prevented or reduced before projects are approved, when it is less complex and expensive to mitigate.

The land use entitlement process requires a series of planning decisions. At the highest level, the General Plan sets the policies and direction for the jurisdiction, and includes a number of mandatory elements dealing with issues such as housing, circulation, and health hazards. Zoning is the primary tool for implementing land use policies. Specific or community plans created in conjunction with a specific project also perform many of the same functions as a zoning ordinance. Zoning can be modified by means of variances and conditional use permits. The latter are frequently used to insure compatibility between otherwise conflicting land uses. Finally, new development usually requires the approval of a parcel or tract map before grading and building permits can be issued. These parcel or tract maps must be consistent with the applicable General Plan, zoning and other standards.

Land use agencies can use their planning authority to separate industrial and residential land uses, or to require mitigation where separation is not feasible. By separating incompatible land uses, land use agencies can prevent or reduce both localized and cumulative air pollution impacts without denying what might otherwise be a desirable project.¹¹ For instance:

- a dry cleaner could open a storefront operation in a community with actual cleaning operations performed at a remote location away from residential areas;
- gas dispensing facilities with lower fuel throughput could be sited in mixed-use areas;
- enhanced building ventilation or filtering systems in schools or senior care centers can reduce ambient air from nearby busy arterials; or
- landscaping and regular watering can be used to reduce fugitive dust at a building construction site near a school yard.

¹¹ It should be noted that such actions should also be considered as part of the General Plan or Plan element process.

The following general and specific land use approaches can help to reduce potential adverse air pollution impacts that projects may have on public health.

General Plans

The primary purpose of planning, and the source of government authority to engage in planning, is to protect public health, safety, and welfare. In its most basic sense, a local government General Plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, forming the basis for most land use decisions. Therefore, the most effective mechanism for dealing with the central land use concept of compatibility and its relationship to cumulative air pollution impacts is the General Plan. Well before projects are proposed within a jurisdiction, the General Plan sets the stage for where projects can be sited, and their compatibility with comprehensive community goals, objectives, and policies.

In 2003, OPR revised its General Plan Guidelines, highlighting the importance of incorporating sustainable development and environmental justice policies in the planning process. The OPR General Plan Guidelines provides an effective and long-term approach to reduce cumulative air pollution impacts at the earliest planning stages. In light of these important additions to the Guidelines, land use agencies should consider updating their General Plans or Plan elements to address these revisions.

The General Plan and related Plan elements can be used to avoid incompatible land uses by incorporating air quality considerations into these documents. For instance, a General Plan safety element with an air quality component could be used to incorporate policies or objectives that are intended to protect the public from the potential for facility breakdowns that may result in a dangerous release of air toxics. Likewise, an air quality component to the transportation circulation element of the General Plan could include policies or standards to prevent or reduce local exposure to diesel exhaust from trucks and other vehicles. For instance, the transportation circulation element could encourage the construction of alternative routes away from residential areas for heavy-duty diesel trucks. By considering the relationship between air quality and transportation, the circulation element could also include air quality policies to prevent or reduce trips and travel, and thus vehicle emissions. Policies in the land use element of the General Plan could identify areas appropriate for future industrial, commercial, and residential uses. Such policies could also introduce design and distance parameters that reduce emissions, exposure, and risk from industrial and some commercial land uses (e.g., dry cleaners) that are in close proximity to residential areas or schools.

Land use agencies should also consider updating or creating an air quality element in the jurisdiction's General Plan. In the air quality element, local decision-makers could develop long-term, effective plans and policies to address

air quality issues, including cumulative impacts. The air quality element can also provide a general reference guide that informs local land use planners about regional and community level air quality, regulatory air pollution control requirements and guidelines, and references emissions and pollution source data bases and assessment and modeling tools. As is further described in Appendix C of the Handbook, new assessment tools that ARB is developing can be included into the air quality element by reference. For instance, ARB's statewide risk maps could be referenced in the air quality element as a resource that could be consulted by developers or land use agencies

Zoning

The purpose of "zoning" is to separate different land uses. Zoning ordinances establish development controls to ensure that private development takes place within a given area in a manner in which:

- All uses are compatible (e.g., an industrial plant is not permitted in a residential area);
- Common development standards are used (e.g., all homes in a given area are set back the same minimum distance from the street); and,
- Each development does not unreasonably impose a burden upon its neighbors (e.g., parking is required on site so as not to create neighborhood parking problems).

To do this, use districts called "zones" are established and standards are developed for these zones. The four basic zones are residential, commercial, industrial and institutional.

Land use agencies may wish to consider how zoning ordinances, particularly those for mixed-use areas, can be used to avoid exacerbating poor land use practices of the past or contributing to localized and cumulative air pollution impacts in the community.

Sometimes, especially in mixed-use zones, there is a potential for certain categories of existing businesses or industrial operations to result in cumulative air pollution impacts to new development projects. For example:

- An assisted living project is proposed for a mixed-use zone adjacent to an existing chrome plating facility, or several dry cleaners;
- Multiple industrial sources regulated by a local air district are located directly upwind of a new apartment complex;
- A new housing development is sited in a mixed-use zone that is downwind or adjacent to a distribution center that attracts diesel-fueled delivery trucks and TRUs; or
- A new housing development or sensitive land use is sited without adequate setbacks from an existing major transportation corridor or rail yard.

As part of the public process for making zoning changes, local land use agencies could work with community planning groups, local businesses, and community residents to determine how best to address existing incompatible land uses.

Land Use Permitting Processes

■ Questions to Consider When Reviewing New Projects

Very often, just knowing what questions to ask can yield critical information about the potential air pollution impacts of proposed projects – both from the perspective of a specific project as well as in the nature of existing air pollution sources in the same impact area. Available land use information can reveal the proximity of air pollution sources to sensitive individuals, the potential for incompatible land uses, and the location and nature of nearby air pollution sources. Air quality data, available from the ARB and local air districts, can provide information about the types and amounts of air pollution emitted in an area, regional air quality concentrations, and health risk estimates for specific sources.

General Plans and zoning maps are an excellent starting point in reviewing project proposals for their potential air pollution impacts. These documents contain information about existing or proposed land uses for a specific location as well as the surrounding area. Often, just looking at a map of the proposed location for a facility and its surrounding area will help to identify a potential adjacent incompatible land use.

The following pages are a “pull-out” list of questions to consider along with cross-references to pertinent information in the Handbook. These questions are intended to assist land use agencies in evaluating potential air quality-related concerns associated with new project proposals.

The first group of questions contains project-related queries designed to help identify the potential for localized project impacts, particularly associated with incompatible land uses. The second group of questions focuses on the issue of potential cumulative impacts by including questions about existing emissions and air quality in the community, and community feedback. Depending on the answers to these questions, a land use agency may decide a more detailed review of the proposal is warranted.

The California Department of Education has already developed a detailed process for school siting which is outlined in Appendix E. However, school districts may also find this section helpful when evaluating the most appropriate site for new schools in their area. At a minimum, using these questions may encourage school districts to engage throughout their siting process with land use agencies and local air districts. The combined expertise of these entities can be useful in devising relevant design standards and mitigation measures that can

reduce exposure to cumulative emissions, exposure, and health risk to students and school workers.

As indicated throughout the Handbook, we strongly encourage land use agencies to consult early and often with local air districts. Local air districts have the expertise, many of the analytical tools, and a working knowledge of the sources they regulate. It is also critical to fully involve the public and businesses that could be affected by the siting decision. The questions provided in the chart below do not imply any particular action should be taken by land use agencies. Rather the questions are intended to improve the assessment process and facilitate informed decision-making.

■ **Project-Related Questions**

This section includes project-related questions that, in conjunction with the questions in the next section, can be used to tailor the project evaluation. These questions are designed to help identify the potential for incompatible land uses from localized project impacts.

Questions to Consider When Reviewing New Projects

| Project-Related Questions | Cross-Reference to Relevant Handbook Sections |
|--|---|
| <p>1. Is the proposed project:</p> <ul style="list-style-type: none"> ▲ A business or commercial license renewal ▲ A new or modified commercial project ▲ A new or modified industrial project ▲ A new or modified public facility project ▲ A new or modified transportation project ▲ A housing or other development in which sensitive individuals may live or play | <p>See Appendix A for typical land use classifications and associated project categories that could emit air pollutants.</p> |
| <p>2. Does the proposed project:</p> <ul style="list-style-type: none"> ▲ Conform to the zoning designation? ▲ Require a variance to the zoning designation? ▲ Include plans to expand operations over the life of the business such that additional emissions may increase the pollution burden in the community (e.g., from additional truck operations, new industrial operations or process lines, increased hours of operation, build-out to the property line, etc.)? | <p>See Appendix F for a general explanation of land use processes.</p> <p>In addition, Section 3 contains a discussion of how land use planning, zoning, and permitting practices can result in incompatible land uses or cumulative air pollution impacts.</p> |
| <p>3. Has the local air district provided comments or information to assist in the analysis?</p> | <p>See Section 5 and Appendix C for a description of air quality-related tools that the ARB and local air districts use to provide information on potential air pollution impacts.</p> |
| <p>4. Have public meetings been scheduled with the affected community to solicit their involvement in the decision-making process for the proposed project?</p> | <p>See Section 7 for a discussion of public participation, information and outreach tools.</p> |
| <p>5. If the proposed project will be subject to local air district regulations:</p> <ul style="list-style-type: none"> ▲ Has the project received a permit from the local air district? ▲ Would it comply with applicable local air district requirements? ▲ Is the local air district contemplating new regulations that would reduce emissions from the source over time? ▲ Will potential emissions from the project | <p>See Appendix C for a description of local air district programs.</p> |

| Project-Related Questions | Cross-Reference to Relevant Handbook Sections |
|---|--|
| <p>trigger the local air district's new source review for criteria pollutants or air toxics emissions?</p> <ul style="list-style-type: none"> ▲ Is the local air district expected to ask the proposed project to perform a risk assessment? ▲ Is there sufficient new information or public concern to call for a more thorough environmental analysis of the proposed project? ▲ Are there plans to expand operations over time? ▲ Are there land-use based air quality significance thresholds or design standards that could be applied to this project in addition to applicable air district requirements? | |
| <p>6. If the proposed project will release air pollution emissions, either directly or indirectly, but is not regulated by the local air district:</p> <ul style="list-style-type: none"> ▲ Is the local air district informed of the project? ▲ Does the local air district believe that there could be potential air pollution impacts associated with this project category because of the proximity of the project to sensitive individuals? ▲ If the project is one in which individuals live or play (e.g., a home, playground, convalescent home, etc.), does the local air district believe that the project's proximity to nearby sources could pose potential air pollution impacts? ▲ Are there indirect emissions that could be associated with the project (e.g., truck traffic or idling, transport refrigeration unit operations, stationary diesel engine operations, etc.) that will be in close proximity to sensitive individuals? ▲ Will the proposed project increase or serve as a magnet for diesel traffic? ▲ Are there land-use based air quality significance thresholds or design standards that could be applied to this project in addition to applicable air district requirements? ▲ Is there sufficient new information or public concern to call for a more thorough environmental analysis of the proposed project? ▲ Should the site approval process include identification and mitigation of potential | <p>See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).</p> |

| Project-Related Questions | Cross-Reference to Relevant Handbook Sections |
|---|--|
| <p>direct or indirect emissions associated with the potential project?</p> | |
| <p>7. Does the local air district or land use agency have pertinent information on the source, such as:</p> <ul style="list-style-type: none"> ▲ Available permit and enforcement data, including for the owner or operator of the proposed source that may have other sources in the State. ▲ Proximity of the proposed project to sensitive individuals. ▲ Number of potentially exposed individuals from the proposed project. ▲ Potential for the proposed project to expose sensitive individuals to odor or other air pollution nuisances. ▲ Meteorology or the prevailing wind patterns between the proposed project and the nearest receptor, or between the proposed sensitive receptor project and sources that could pose a localized or cumulative air pollution impact. | <p>See Appendix C for a description of local air district programs.</p> <p>See Appendix B for a listing of useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts.</p> <p>Also, do not hesitate to contact your local air district regarding answers to any of these questions that might not be available at the land use agency.</p> <p>See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).</p> |
| <p>8. Based upon the project application, its location, and the nature of the source, could the proposed project:</p> <ul style="list-style-type: none"> ▲ Be a polluting source that is located in proximity to, or otherwise upwind, of a location where sensitive individuals live or play? ▲ Attract sensitive individuals and be located in proximity to or otherwise downwind, of a source or multiple sources of pollution, including polluting facilities or transportation-related sources that contribute emissions either directly or indirectly? ▲ Result in health risk to the surrounding community? | <p>See Section 3 for a discussion of what is an incompatible land use and the potential cumulative air pollution impacts.</p> <p>See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).</p> |
| <p>9. If a CEQA categorical exemption is proposed, were the following questions considered:</p> <ul style="list-style-type: none"> ▲ Is the project site environmentally sensitive as defined by the project's location? (A project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant.) ▲ Would the project and successive future projects of the same type in the approximate location potentially result in cumulative impacts? ▲ Are there "unusual circumstances" creating the possibility of significant effects? | <p>See CEQA Guidelines section 15300, and Public Resources Code, section 21084.</p> <p>See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).</p> <p>See also Section 5 and Appendix C for a description of air quality-related tools that the ARB and local air districts use to provide information on potential air pollution impacts.</p> |

■ **Questions Related to Cumulative Impact Assessment**

The following questions can be used to provide the decision-maker with a better understanding of the potential for cumulative air pollution impacts to an affected community. Answers to these questions will help to determine if new projects or activities warrant a more detailed review. It may also help to see potential environmental concerns from the perspective of the affected community. Additionally, responses can provide local decision-makers with information with which to assess the best policy options for addressing neighborhood-scale air pollution concerns.

The questions below can be used to identify whether existing tools and procedures are adequate to address land use-related air pollution issues. This process can also be used to pinpoint project characteristics that may have the greatest impact on community-level emissions, exposure, and risk. Such elements can include: the compliance record of existing sources including those owned or operated by the project proponent; the concentration of emissions from polluting sources within the approximate area of sensitive sites; transportation circulation in proximity to the proposed project; compatibility with the General Plan and General Plan elements; etc.

The local air district can provide useful assistance in the collection and evaluation of air quality-related information for some of the questions and should be consulted early in the process.

Questions Related to Cumulative Impact Assessment

| Technical Questions | Cross-Reference to Relevant Handbook Sections |
|--|--|
| 1. Is the community home to industrial facilities? | See Appendix A for typical land use classifications and associated project categories that could emit air pollutants. |
| 2. Do one or more major freeways or high-traffic volume surface streets cut through the community? | See transportation circulation element of your general plan. See also Appendix B for useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. See Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites). |
| 3. Is the area classified for mixed-use zoning? | See your general plan and zoning ordinances. |
| 4. Is there an available list of air pollution sources in the community? | Contact your local air district. |
| 5. Has a walk-through of the community been conducted to gather the following information: | See Appendix B for a listing of useful information that land use agencies |

| Technical Questions | Cross-Reference to Relevant Handbook Sections |
|---|--|
| <ul style="list-style-type: none"> ▲ Corroborate available information on land use activities in the area (e.g., businesses, housing developments, sensitive individuals, etc.)? ▲ Determine the proximity of existing and anticipated future projects to residential areas or sensitive individuals? ▲ Determine the concentration of emission sources (including anticipated future projects) to residential areas or sensitive individuals? | <p>should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. Also contact your local air district.</p> |
| <p>6. Has the local air district been contacted to obtain information on sources in the community?</p> | <p>See Section 7 for a discussion of public participation, information and outreach tools.</p> |
| <p>7. What categories of commercial establishments are currently located in the area and does the local air district have these sources on file as being regulated or permitted?</p> | <p>See Appendix A for typical land use classifications and associated project categories that could emit air pollutants. Also contact your local air district.</p> |
| <p>8. What categories of indirect sources such as distribution centers or warehouses are currently located in the area?</p> | <p>See Appendix A for typical land use classifications and associated project categories that emit air pollutants.</p> |
| <p>9. What air quality monitoring data are available?</p> | <p>Contact your local air district.</p> |
| <p>10. Have any risk assessments been performed on emission sources in the area?</p> | <p>Contact your local air district.</p> |
| <p>11. Does the land use agency have the capability of applying a GIS spatial mapping tool that can overlay zoning, sub-development information, and other neighborhood characteristics, with air pollution and transportation data?</p> | <p>See Appendix B for a listing of useful information that land use agencies should have on hand or have accessible when reviewing proposed projects for potential air pollution impacts. Also contact your local air district for tools that can be used to supplement available land use agency tools.</p> |
| <p>12. Based on available information, is it possible to determine if the affected community or neighborhood experiences elevated health risk due to a concentration of air pollution sources in close proximity, and if not, can the necessary information be obtained?</p> | <p>Contact your local air district. Also see Section 1 for recommendations on situations to avoid when siting projects where sensitive individuals would be located (sensitive sites).</p> |
| <p>13. Does the community have a history of chronic complaints about air quality?</p> | <p>See Section 7 for a discussion of public participation, information and outreach tools. Also contact your local air district.</p> |
| <p>14. Is the affected community included in the public participation process for the agency's decision?</p> | <p>See Section 7 for a discussion of public participation, information and outreach tools.</p> |
| <p>15. Have community leaders or groups been contacted about any pre-existing or chronic community air quality concerns?</p> | <p>See Section 7 for a discussion of public participation, information and outreach tools. Also contact your local air district.</p> |

■ **Mitigation Approaches**

In addition to considering the suitability of the project location, opportunities for mitigation of air pollution impacts should be considered. Sometimes, a land use agency may find that selection of a different project location to avoid a health risk is not feasible. When that happens, land use agencies should consider design improvements or other strategies that would reduce the risk. Such strategies could include performance or design standards, consultation with local air districts and other agencies on appropriate actions that these agencies should, or plan to, undertake, and consultation and outreach in the affected community. Potential mitigation measures should be feasible, cost-effective solutions within the available resources and authority of implementing agencies to enforce.¹²

■ **Conditional Use Permits and Performance Standards**

Some types of land uses are only allowed upon approval of a conditional use permit (also called a CUP or special use permit). A conditional use permit does not re-zone the land but specifies conditions under which a particular land use will be permitted. Such land uses could be those with potentially significant environmental impacts. Local zoning ordinances specify the uses for which a conditional use permit is required, the zones they may be allowed in, and public hearing procedures. The conditional use permit imposes special requirements to ensure that the use will not be detrimental to its surroundings.

In the context of land use planning, performance standards are requirements imposed on projects or project categories through conditional use permits to ensure compliance with general plan policies and local ordinances. These standards could apply to such project categories as distribution centers, very large gas dispensing facilities, autobody shops, dry cleaners, and metal platers. Land use agencies may wish to consider adding land use-based performance standards to zoning ordinances in existing mixed-use communities for certain air pollution project categories. Such standards would provide certainty and equitable treatment to all projects of a similar nature, and reserve the more resource intensive conditional or special use permits to projects that require a more detailed analysis. In developing project design or performance standards, land use agencies should consult with the local air district. Early and regular consultation can avoid duplication or inconsistency with local air district control requirements when considering the site-specific design and operation of a project.

¹² A land use agency has the authority to condition or deny a project based upon information collected and evaluated through the land use decision-making process. However, any denial would need to be based upon identifiable, generally applicable, articulated standards set forth in the local government's General Plan and zoning codes. One way of averting this is to conduct early and regular outreach to the community and the local air district so that community and environmental concerns can be addressed and accommodated into the project proposal.

Examples of land use-based air quality-specific performance standards include the following:

- Placing a process vent away from the direction of the local playground that is nearby or increasing the stack height so that emissions are dispersed to reduce the emissions impact on surrounding homes or schools.
- Setbacks between the project fence line and the population center.
- Limiting the hours of operation of a facility to avoid excess emissions exposure or foul odors to nearby individuals.
- An ordinance that requires fleet operators to use cleaner vehicles before project approval (if a new business), or when expanding the fleet (if an existing business); and
- Providing alternate routes for truck operations that discourage detours into residential neighborhoods.

Outreach to Other Agencies

When questions arise regarding the air quality impacts of projects, including potential cumulative impacts, land use agencies should consult the local air district. Land use agencies should also consider the following suggestions to avoid creating new incompatible land uses:

- Consult with the local air district to help determine if emissions from a particular project will adversely impact sensitive individuals in the area, if existing or future effective regulations or permit requirements will affect the proposed project or other sources in the vicinity of the proposed project, or if additional inspections should be required.
 - Check with ARB for new information and modeling tools that can help evaluate projects seeking to site within your jurisdiction.
 - Become familiar with ARB's Land Use-Air Quality Linkage Report to determine whether approaches and evaluation tools contained in the Report can be used to reduce transportation-related impacts on communities.
 - Contact and collaborate with other state agencies that play a role in the land use decision-making process, e.g., the State Department of Education, the California Energy Commission, and Caltrans. These agencies have information on mitigation measures and mapping tools that could be useful in addressing local problems.
- **Information Clearinghouse**
- Land use agencies can refer to the ARB statewide electronic information clearinghouse for information on what measures other jurisdictions are using to address comparable issues or sources.¹³

¹³ This information can be accessed from ARB's website by going to:
<http://www.arb.ca.gov/ch/clearinghouse.htm>

The next section addresses available air quality assessment tools that land use agencies can use to evaluate the potential for localized or cumulative impacts in their communities.

5. Available Tools to Evaluate Cumulative Air Pollution Emissions and Risk

Until recently, California has traditionally approached air pollution control from the perspective of assessing whether the pollution was regional, category-specific, or from new or existing sources. This methodology has been generally effective in reducing statewide and regional air pollution impacts and risk levels. However, such an incremental, category-by-category, source-by-source approach may not always address community health impacts from multiple sources - including mobile, industrial, and commercial facilities.

As a result of air toxics and children's health concerns over the past several years, ARB and local air districts have begun to develop new tools to evaluate and inform the public about cumulative air pollution impacts at the community level. One aspect of ARB's programs now underway is to consolidate and make accessible air toxics emissions and monitoring data by region, using modeling tools and other analytical techniques to take a preliminary look at emissions, exposure, and health risk in communities.

ARB has developed multiple tools to assist local air districts perform assessments of cumulative emissions, exposure, and risk on a neighborhood scale. These tools include:

- Regional risk maps that show trends in potential cancer risk from toxic air pollutants in southern and central California between 1990 and 2010. These maps are based on the U.S. EPA's ASPEN model. These maps provide an estimate of background levels of toxic air pollutant risk but are not detailed enough to assess individual neighborhoods or facilities.¹⁴
- The Community Health Air Pollution Information System (CHAPIS) is a user-friendly, Internet-based system for displaying information on emissions from sources of air pollution in an easy to use mapping format. CHAPIS contains information on air pollution emissions from selected large facilities and small businesses that emit criteria and toxic air pollutants. It also contains information on air pollution emissions from motor vehicles. When released in 2004, CHAPIS did not contain information on every source of air pollution or every air pollutant. However, ARB continues to work with local air districts to include all of the largest air pollution sources and those with the highest documented air pollution risk. Additional facilities will be added to CHAPIS as more data become available.¹⁵

¹⁴ For further information on these maps, please visit ARB's website at:

<http://www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm>

¹⁵ For further information on CHAPIS, please click on:

<http://www.arb.ca.gov/ch/chapis1/chapis1.htm>

- The Hot Spots Analysis and Reporting Program (HARP) is a software database package that evaluates emissions from one or more facilities to determine the overall health risk posed by the facility(-ies) on the surrounding community. Proper use of HARP ensures that the risk assessment meets the latest risk assessment guidelines published by the State Office of Environmental Health Hazard Assessment (OEHHA). HARP is designed with air quality professionals in mind and is available from the ARB.
- The Urban Emissions Model (URBEMIS) is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, office buildings, and construction projects. URBEMIS uses emission factors available from the ARB to estimate vehicle emissions associated with new land uses.

Local air districts, and others can use these tools to assess a new project, or plan revision. For example, these tools can be used to:

- Identify if there are multiple sources of air pollution in the community;
- Identify the major sources of air pollution in the area under consideration;
- Identify the background potential cancer risk from toxic air pollution in the area under consideration;
- Estimate the risk from a new facility and how it adds to the overall risk from other nearby facilities; and
- Provide information to decision-makers and key stakeholders on whether there may be significant issues related to cumulative emissions, exposure, and health risk due to a permitting or land use decision.

If an air agency wishes to perform a cumulative air pollution impact analysis using any of these tools, it should consult with the ARB and/or the local air district to obtain information or assistance on the data inputs and procedures necessary to operate the program. In addition, land use agencies could consult with local air districts to determine the availability of land use and air pollution data for entry into an electronic Geographical Information System (GIS) format. GIS is an easier mapping tool than the more sophisticated models described in Appendix C. GIS mapping makes it possible to superimpose land use with air pollution information so that the spatial relationship between air pollution sources, sensitive receptors, and air quality can be visually represented. Appendix C provides a general description of the impact assessment process and micro-scale, or community level modeling tools that are available to evaluate potential cumulative air pollution impacts. Modeling protocols will be accessible on ARB's website as they become available. The ARB will also provide land use agencies and local air districts with statewide regional modeling results and information regarding micro-scale modeling.

6. ARB Programs to Reduce Air Pollution in Communities

ARB's regulatory programs reduce air pollutant emissions through statewide strategies that improve public health in all California communities. ARB's overall program addresses motor vehicles, consumer products, air toxics, air-quality planning, research, education, enforcement, and air monitoring. Community health and environmental justice concerns are a consideration in all these programs. ARB's programs are statewide but recognize that extra efforts may be needed in some communities due to historical mixed land-use patterns, limited participation in public processes in the past, and a greater concentration of air pollution sources in some communities.

ARB's strategies are intended to result in better air quality and reduced health risk to residents throughout California. The ARB's priority is to prevent or reduce the public's exposure to air pollution, including from toxic air contaminants that pose the greatest risk, particularly to infants and children who are more vulnerable to air pollution.

In October 2003, ARB updated its statewide control strategy to reduce emissions from source categories within its regulatory authority. A primary focus of the strategy is to achieve federal and state air quality standards for ozone and particulate matter throughout California, and to reduce health risk from diesel PM. Along with local air districts, ARB will continue to address air toxics emissions from regulated sources (see Table 6-1 for a summary of ARB activities). As indicated earlier, ARB will also provide analytical tools and information to land use agencies and local air districts to help assess and mitigate cumulative air pollution impacts.

The ARB will continue to consider the adoption of or revisions to needed air toxics control measures as part of the state's ongoing air toxics assessment program.¹⁶

As part of its effort to reduce particulate matter and air toxics emissions from diesel PM, the ARB has developed a Diesel Risk Reduction Program¹⁷ that lays out several strategies in a three-pronged approach to reduce emissions and their associated risk:

- Stringent emission standards for all new diesel-fueled engines;
- Aggressive reductions from in-use engines; and
- Low sulfur fuel that will reduce PM and still provide the quality of diesel fuel needed to control diesel PM.

¹⁶ For continuing information and updates on state measures, the reader can refer to ARB's website at <http://www.arb.ca.gov/toxics/toxics.htm>.

¹⁷ For a comprehensive description of the program, please refer to ARB's website at <http://www.arb.ca.gov/diesel/dieselrrp.htm>.

Table 6-1
ARB ACTIONS TO ADDRESS
CUMULATIVE AIR POLLUTION IMPACTS IN COMMUNITIES

Information Collection

- Improve emission inventories, air monitoring data, and analysis tools that can help to identify areas with high cumulative air pollution impacts
- Conduct studies in coordination with OEHHA on the potential for cancer and non-cancer health effects from air pollutants emitted by specific source categories
- Establish web-based clearinghouse for local land use strategies

Emission Reduction Approaches (2004-2006)*

- Through a public process, consider development and/or amendment of regulations and related guidance to reduce emissions, exposure, and health risk at a statewide and local level for the following sources:
 - Diesel PM sources such as stationary diesel engines, transport refrigeration units, portable diesel engines, on-road public fleets, off-road public fleets, heavy-duty diesel truck idling, harbor craft vessels, waste haulers
 - Other air toxics sources, such as formaldehyde in composite wood products, hexavalent chromium for chrome plating and chromic acid anodizing, thermal spraying, and perchloroethylene dry cleaning
- Develop technical information for the following:*
 - Distribution centers
 - Modeling tools such as HARP and CHAPIS
- Adopt rules and pollution prevention initiatives within legal authority to reduce emissions from mobile sources and fuels, and consumer products
- Develop and maintain Air Quality Handbook as a tool for use by land use agencies and local air districts to address cumulative air pollution impacts

Other Approaches

- Establish guidelines for use of statewide incentive funding for high priority mobile source emission reduction projects

*Because ARB will continue to review the need to adopt or revise statewide measures, the information contained in this chart will be updated on an ongoing basis.

A number of ARB's diesel risk reduction strategies have been adopted. These include measures to reduce emissions from refuse haulers, urban buses, transport refrigeration units, stationary and portable diesel engines, and idling trucks and school buses. These sources are all important from a community perspective.¹⁸

¹⁸ The reader can refer to ARB's website for information on its mobile source-related programs at: <http://www.arb.ca.gov/msprog/msprog.htm>, as well as regulations adopted and under consideration as part of the Diesel Risk Reduction Program at: <http://www.arb.ca.gov/diesel/dieselrrp.htm>

The ARB will continue to evaluate the health effects of air pollutants while implementing programs with local air districts to reduce air pollution in all California communities.

Local air districts also have ambitious programs to reduce criteria pollutants and air toxics from regulated sources in their region. Many of these programs also benefit air quality in local communities as well as in the broader region. For more information on what is being done in your area to reduce cumulative air pollution impacts through air pollution control programs, you should contact your local air district.¹⁹

¹⁹ Local air district contacts can be found on the inside cover to this Handbook.

7. Ways to Enhance Meaningful Public Participation

Community involvement is an important part of the land use process. The public is entitled to the best possible information about the air they breathe and what is being done to prevent or reduce unhealthy air pollution in their communities. In particular, information on how land use decisions can affect air pollution and public health should be made accessible to all communities, including low-income and minority communities.

Effective community participation consistently relies on a two-way flow of information – from public agencies to community members about opportunities, constraints, and impacts, and from community members back to public officials about needs, priorities, and preferences. The outreach process needed to build understanding and local neighborhood involvement requires data, methodologies, and formats tailored to the needs of the specific community. More importantly, it requires the strong collaboration of local government agencies that review and approve projects and land uses to improve the physical and environmental surroundings of the local community.

Many land use agencies, especially those in major metropolitan areas, are familiar with, and have a long-established public review process. Nevertheless, public outreach can often be improved. Active public involvement requires engaging the public in ways that do not require their previous interest in or knowledge of the land use or air pollution control requirements, and a commitment to taking action where appropriate to address the concerns that are raised.

■ Direct Community Outreach

In conjunction with local air districts, land use agencies should consider designing an outreach program for community groups, other stakeholders, and local government agency staffs that address the problem of cumulative air pollution impacts, and the public and government role in reducing them. Such a program could consider analytical tools that assist in the preparation and presentation of information in a way that supports sensible decision-making and public involvement. Table 7-1 contains some general outreach approaches that might be considered.

**Table 7-1
Public Participation Approaches**

- Staff and community leadership awareness training on environmental justice programs and community-based issues
- Surveys to identify the website information needs of interested community-based organizations and other stakeholders
- Information materials on local land use and air district authorities
- Community-based councils to facilitate and invite resident participation in the planning process
- Neighborhood CEQA scoping sessions that allows for community input prior to technical analysis
- Public information materials on siting issues are under review including materials written for the affected community, and in different media that widens accessibility
- Public meetings
- Identify other opportunities to include community-based organizations in the process

To improve outreach, local land use agencies should consider the following activities:

- Hold meetings in communities affected by agency programs, policies, and projects at times and in places that encourage public participation, such as evenings and weekends at centrally located community meeting rooms, libraries, and schools.
- Assess the need for and provide translation services at public meetings.
- Hold community meetings to update residents on the results of any special air monitoring programs conducted in their neighborhood.
- Hold community meetings to discuss and evaluate the various options to address cumulative impacts in their community.
- In coordination with local air districts, make staff available to attend meetings of community organizations and neighborhood groups to listen to and, where appropriate, act upon community concerns.
- Establish a specific contact person for environmental justice issues.
- Increase student and community awareness of local government land use activities and policies through outreach opportunities.
- Make air quality and land use information available to communities in an easily understood and useful format, including fact sheets, mailings, brochures, public service announcements, and web pages, in English and other languages.
- On the local government web-site, dedicate a page or section to what the land use program is doing regarding environmental justice and cumulative environmental impacts, and, as applicable, activities conducted with local air districts such as neighborhood air monitoring studies, pollution prevention, air pollution sources in neighborhoods, and risk reduction.

- Allow, encourage, and promote community access to land use activities, including public meetings, General Plan or Community Plan updates, zoning changes, special studies, CEQA reviews, variances, etc.
 - Distribute information in multiple languages, as needed, on how to contact the land use agency or local air district to obtain information and assistance regarding environmental justice programs, including how to participate in public processes.
 - Create and distribute a simple, easy-to-read, and understandable public participation handbook, which may be based on the “Public Participation Guidebook” developed by ARB.
- **Other Opportunities for Meaningful Public Outreach**
- Community-Based Planning Committees

Neighborhood-based or community planning advisory councils could be established to invite and facilitate direct resident participation into the planning process. With the right training and technical assistance, such councils can provide valuable input and a forum for the review of proposed amendments to plans, zone changes, land use permits, and suggestions as to how best to prevent or reduce cumulative air pollution impacts in their community.

- Regional Partnerships

Consider creating regional coalitions of key growth-related organizations from both the private and public sectors, with corporations, communities, other jurisdictions, and government agencies. Such partnerships could facilitate agreement on common goals and win-win solutions tailored specifically for the region. With this kind of dialogue, shared vision, and collaboration, barriers can be overcome and locally acceptable sustainable solutions implemented. Over the long term, such strategies will help to bring about clean air in communities as well as regionally.

**LAND USE CLASSIFICATIONS AND ASSOCIATED FACILITY CATEGORIES
THAT COULD EMIT AIR POLLUTANTS**

| (1) Land Use Classifications – by Activity ⁱ | (2) Facility or Project Examples | (3) Key Pollutants ^{ii,iii} | (4) Air Pollution Permits ^{iv} |
|--|---|---|---|
| COMMERCIAL/ LIGHT INDUSTRIAL: SHOPPING, BUSINESS, AND COMMERCIAL | | | |
| ▲ Primarily retail shops and stores, office, commercial activities, and light industrial or small business | Dry cleaners; drive-through restaurants; gas dispensing facilities; auto body shops; metal plating shops; photographic processing shops; textiles; apparel and furniture upholstery; leather and leather products; appliance repair shops; mechanical assembly cleaning; printing shops | VOCs, air toxics, including diesel PM, NOx, CO, SOx | Limited; Rules for applicable equipment |
| ▲ Goods storage or handling activities, characterized by loading and unloading goods at warehouses, large storage structures, movement of goods, shipping, and trucking. | Warehousing; freight-forwarding centers; drop-off and loading areas; distribution centers | VOCs, air toxics, including diesel PM, NOx, CO, SOx | No ^v |
| LIGHT INDUSTRIAL: RESEARCH AND DEVELOPMENT | | | |
| ▲ Medical waste at research hospitals and labs | Incineration; surgical and medical instrument manufacturers, pharmaceutical manufacturing, biotech research facilities | Air toxics, NOx, CO, SOx | Yes |
| ▲ Electronics, electrical apparatus, components, and accessories | Computer manufacturer; integrated circuit board manufacturer; semiconductor production | Air toxics, VOCs | Yes |
| ▲ College or university lab or research center | Medical waste incinerators; lab chemicals handling, storage and disposal | Air toxics, NOx, CO, SOx, PM10 | Yes |
| ▲ Research and development labs | Satellite manufacturer; fiber-optics manufacturer; defense contractors; space research and technology; new vehicle and fuel testing labs | Air toxics, VOCs | Yes |
| ▲ Commercial testing labs | Consumer products; chemical handling, storage and disposal | Air toxics, VOCs | Yes |

APPENDIX A

| (1) Land Use Classifications – by Activity ⁱ | (2) Facility or Project Examples | (3) Key Pollutants ^{ii,iii} | (4) Air Pollution Permits ^{iv} |
|--|---|--|---|
| INDUSTRIAL: NON-ENERGY-RELATED | | | |
| ▲ Assembly plants, manufacturing facilities, industrial machinery | Adhesives; chemical; textiles; apparel and furniture upholstery; clay, glass, and stone products production; asphalt materials; cement manufacturers, wood products; paperboard containers and boxes; metal plating; metal and canned food product fabrication; auto manufacturing; food processing; printing and publishing; drug, vitamins, and pharmaceuticals; dyes; paints; pesticides; photographic chemicals; polish and wax; consumer products; metal and mineral smelters and foundries; fiberboard; floor tile and cover; wood and metal furniture and fixtures; leather and leather products; general industrial and metalworking machinery; musical instruments; office supplies; rubber products and plastics production; saw mills; solvent recycling; shingle and siding; surface coatings | VOCs, air toxics, including diesel PM, NOx, PM, CO, SOx | Yes |
| INDUSTRIAL: ENERGY AND UTILITIES | | | |
| ▲ Water and sewer operations | Pumping stations; air vents; treatment | VOCs, air toxics, NOx, CO, SOx, PM10 | Yes |
| ▲ Power generation and distribution | Power plant boilers and heaters; portable diesel engines; gas turbine engines | NOx, diesel PM, NOx, CO, SOx, PM10, VOCs | Yes |
| ▲ Refinery operations | Refinery boilers and heaters; coke cracking units; valves and flanges; flares | VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10 | Yes |
| ▲ Oil and gas extraction | Oil recovery systems; uncovered wells | NOx, diesel PM, VOCs, CO, SOx, PM10 | Yes |
| ▲ Gasoline storage, transmission, and marketing | Above and below ground storage tanks; floating roof tanks; tank farms; pipelines | VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10 | Yes |
| ▲ Solid and hazardous waste treatment, storage, and disposal activities. | Landfills; methane digester systems; process recycling facility for concrete and asphalt materials | VOCs, air toxics, NOx, CO, SOx, PM10 | Yes |
| CONSTRUCTION (NON-TRANSPORTATION) | | | |
| | Building construction; demolition sites | PM (re-entrained road dust), asbestos, diesel PM, NOx, CO, SOx, PM10, VOCs | Limited; state and federal off-road equipment standards |

APPENDIX A

| (1) Land Use Classifications – by Activity ⁱ | (2) Facility or Project Examples | (3) Key Pollutants ^{ii,iii} | (4) Air Pollution Permits ^{iv} |
|--|---|--|--|
| DEFENSE | | | |
| | Ordnance and explosives demolition; range and testing activities; chemical production; degreasing; surface coatings; vehicle refueling; vehicle and engine operations and maintenance | VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10 | Limited; prescribed burning; equipment and solvent rules |
| TRANSPORTATION | | | |
| ▲ Vehicular movement | Residential area circulation systems; parking and idling at parking structures; drive-through establishments; car washes; special events; schools; shopping malls, etc. | VOCs, NOx, PM (re-entrained road dust) air toxics e.g., benzene, diesel PM, formaldehyde, acetaldehyde, 1,3 butadiene, CO, SOx, PM10 | No |
| ▲ Road construction and surfacing | Street paving and repair; new highway construction and expansion | VOCs, air toxics, including diesel PM, NOx, CO, SOx, PM10 | No |
| ▲ Trains | Railroads; switch yards; maintenance yards | VOCs, NOx, CO, SOx, PM10, air toxics, including diesel PM | Limited; Applicable state and federal MV standards, and possible equipment rules |
| ▲ Marine and port activities | Recreational sailing; commercial marine operations; hotelling operations; loading and un-loading; servicing; shipping operations; port or marina expansion; truck idling | | |
| ▲ Aircraft | Takeoff, landing, and taxiing; aircraft maintenance; ground support activities | | |
| ▲ Mass transit and school buses | Bus repair and maintenance | | |
| NATURAL RESOURCES | | | |
| ▲ Farming operations | Agricultural burning; diesel operated engines and heaters; small food processors; pesticide application; agricultural off-road equipment | Diesel PM, VOCs, NOx, PM10, CO, SOx, pesticides | Limited ^{vi} ; Agricultural burning requirements, applicable state and federal mobile source standards; pesticide rules |
| ▲ Livestock and dairy operations | Dairies and feed lots | Ammonia, VOCs, PM10 | Yes ^{vii} |
| ▲ Logging | Off-road equipment e.g., diesel fueled chippers, brush hackers, etc. | Diesel PM, NOx, CO, SOx, PM10, VOCs | Limited; Applicable state/federal mobile source standards |
| ▲ Mining operations | Quarrying or stone cutting; mining; drilling or dredging | PM10, CO, SOx, VOCs, NOx, and asbestos in some geographical areas | Applicable equipment rules and dust controls |

APPENDIX A

| (1) Land Use Classifications – by Activity ⁱ | (2) Facility or Project Examples | (3) Key Pollutants ^{ii,iii} | (4) Air Pollution Permits ^{iv} |
|--|--|---|---|
| RESIDENTIAL | | | |
| Housing | Housing developments; retirement developments; affordable housing | Fireplace emissions (PM10, NOx, VOCs, CO, air toxics); Water heater combustion (NOx, VOCs, CO) | No ^{vii} |
| ACADEMIC AND INSTITUTIONAL | | | |
| ▲ Schools, including school-related recreational activities | Schools; school yards; vocational training labs/classrooms such as auto repair/painting and aviation mechanics | Air toxics | Yes/No ^{viii} |
| ▲ Medical waste | Incineration | Air toxics, NOx, CO, PM10 | Yes |
| ▲ Clinics, hospitals, convalescent homes | | Air toxics | Yes |

ⁱ These classifications were adapted from the American Planning Association's "Land Based Classification Standards." The Standards provide a consistent model for classifying land uses based on their characteristics. The model classifies land uses by refining traditional categories into multiple dimensions, such as activities, functions, building types, site development character, and ownership constraints. Each dimension has its own set of categories and subcategories. These multiple dimensions allow users to have precise control over land-use classifications. For more information, the reader should refer to the Association's website at <http://www.planning.org/LBCS/GeneralInfo/>.

ⁱⁱ This column includes key criteria pollutants and air toxic contaminants that are most typically associated with the identified source categories.

Additional information on specific air toxics that are attributed to facility categories can be found in ARB's Emission Inventory Criteria and Guidelines Report for the Air Toxics Hot Spots Program (May 15, 1997). This information can be viewed at ARB's web site at <http://www.arb.ca.gov/ab2588/final96/guide96.pdf>.

Criteria air pollutants are those air pollutants for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Criteria pollutants include ozone (formed by the reaction of volatile organic compounds and nitrogen oxides in the presence of sunlight), particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead.

Volatile organic compounds (VOCs) combine with nitrogen oxides to form ozone, as well as particulate matter. VOC emissions result primarily from incomplete fuel combustion and the evaporation of chemical solvents and fuels. On-road mobile sources are the largest contributors to statewide VOC emissions. Stationary sources of VOC emissions include processes that use solvents (such as dry-cleaning, degreasing, and coating operations) and petroleum-related processes (such as petroleum refining, gasoline marketing and dispensing, and oil and gas extraction). Areawide VOC sources include consumer products, pesticides, aerosols and paints, asphalt paving and roofing, and other evaporative emissions.

Nitrogen oxides (NOx) are a group of gaseous compounds of nitrogen and oxygen, many of which contribute to the formation of ozone and particulate matter. Most NOx emissions are produced by the combustion of fuels. Mobile sources make up about 80 percent of the total statewide NOx emissions. Mobile sources include on-road vehicles and trucks, aircraft, trains, ships, recreational boats, industrial and construction equipment, farm

equipment, off-road recreational vehicles, and other equipment. Stationary sources of NOx include both internal and external combustion processes in industries such as manufacturing, food processing, electric utilities, and petroleum refining. Areawide source, which include residential fuel combustion, waste burning, and fires, contribute only a small portion of the total statewide NOx emissions, but depending on the community, may contribute to a cumulative air pollution impact.

Particulate matter (PM) refers to particles small enough to be breathed into the lungs (under 10 microns in size). It is not a single substance, but a mixture of a number of highly diverse types of particles and liquid droplets. It can be formed directly, primarily as dust from vehicle travel on paved and unpaved roads, agricultural operations, construction and demolition.

Carbon monoxide (CO) is a colorless and odorless gas that is directly emitted as a by-product of combustion. The highest concentrations are generally associated with cold stagnant weather conditions that occur during winter. CO problems tend to be localized.

An Air Toxic Contaminant (air toxic) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. Similar to criteria pollutants, air toxics are emitted from stationary, areawide, and mobile sources. They contribute to elevated regional and localized risks near industrial and commercial facilities and busy roadways. The ten compounds that pose the greatest statewide risk are: acetaldehyde; benzene; 1,3-butadiene; carbon tetrachloride; diesel particulate matter (diesel PM); formaldehyde; hexavalent chromium; methylene chloride; para-dichlorobenzene; and perchloroethylene. The risk from diesel PM is by far the largest, representing about 70 percent of the known statewide cancer risk from outdoor air toxics. The exhaust from diesel-fueled engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. Diesel PM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute about 26 percent of statewide diesel PM emissions, with an additional 72 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and other equipment. Stationary engines in shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations contribute about two percent of statewide emissions. However, when this number is disaggregated to a sub-regional scale such as neighborhoods, the risk factor can be far greater.

ⁱⁱⁱ The level of pollution emitted is a major determinant of the significance of the impact.

^{iv} Indicates whether facility activities listed in column 4 are generally subject to local air district permits to operate. This does not include regulated products such as solvents and degreasers that may be used by sources that may not require an operating permit per se, e.g., a gas station or dry cleaner.

^v Generally speaking, warehousing or distribution centers are not subject to local air district permits. However, depending on the district, motor vehicle fleet rules may apply to trucks or off-road vehicles operated and maintained by the facility operator. Additionally, emergency generators or internal combustion engines operated on the site may require an operating permit.

^{vi} Authorized by recent legislation SB700.

^{vii} Local air districts do not require permits for woodburning fireplaces inside private homes. However, some local air districts and land use agencies do have rules or ordinances that require new housing developments or home re-sales to install U.S. EPA –certified stoves. Some local air districts also ban residential woodburning during weather inversions that concentrate smoke in residential areas. Likewise, home water heaters are not subject to permits; however, new heaters could be subject to emission limits that are imposed by federal or local agency regulations.

^{viii} Technical training schools that conduct activities normally permitted by a local air district could be subject to an air permit.

**LAND USE-BASED REFERENCE TOOLS TO EVALUATE
NEW PROJECTS FOR POTENTIAL AIR POLLUTION IMPACTS**

Land use agencies generally have a variety of tools and approaches at hand, or accessible from local air districts that can be useful in performing an analysis of potential air pollution impacts associated with new projects. These tools and approaches include:

- Base map of the city or county planning area and terrain elevations.
- General Plan designations of land use (existing and proposed).
- Zoning maps.
- Land use maps that identify existing land uses, including the location of facilities that are permitted or otherwise regulated by the local air district. Land use agencies should consult with their local air district for information on regulated facilities.
- Demographic data, e.g., population location and density, distribution of population by income, distribution of population by ethnicity, and distribution of population by age. The use of population data is a normal part of the planning process. However, from an air quality perspective, socioeconomic data is useful to identify potential community health and environmental justice issues.
- Emissions, monitoring, and risk-based maps created by the ARB or local air districts that show air pollution-related health risk by community across the state.
- Location of public facilities that enhance community quality of life, including parks, community centers, and open space.
- Location of industrial and commercial facilities and other land uses that use hazardous materials, or emit air pollutants. These include chemical storage facilities, hazardous waste disposal sites, dry cleaners, large gas dispensing facilities, auto body shops, and metal plating and finishing shops.
- Location of sources or facility types that result in diesel on-road and off-road emissions, e.g., stationary diesel power generators, forklifts, cranes, construction equipment, on-road vehicle idling, and operation of transportation refrigeration units. Distribution centers, marine terminals and ports, rail yards, large industrial facilities, and facilities that handle bulk goods are all examples of complex facilities where these types of emission sources are frequently concentrated.¹ Very large facilities, such as ports, marine terminals, and airports, could be analyzed regardless of proximity to a receptor if they are within the modeling area.
- Location and zoning designations for existing and proposed schools, buildings, or outdoor areas where sensitive individuals may live or play.
- Location and density of existing and proposed residential development.
- Zoning requirements, property setbacks, traffic flow requirements, and idling restrictions for trucks, trains, yard hostlers², construction equipment, or school buses.
- Traffic counts (including diesel truck traffic counts), within a community to validate or augment existing regional motor vehicle trip and speed data.

¹ The ARB is currently evaluating the types of facilities that may act as complex point sources and developing methods to identify them.

² Yard hostler means a tractor less than 300 horsepower that is used to transfer semi-truck or tractor-trailer containers in and around storage, transfer, or distribution yards or areas and is often equipped with a hydraulic lifting fifth wheel for connection to trailer containers.

**ARB AND LOCAL AIR DISTRICT INFORMATION AND TOOLS
CONCERNING CUMULATIVE AIR POLLUTION IMPACTS**

It is the ARB's policy to support research and data collection activities toward the goal of reducing cumulative air pollution impacts. These efforts include updating and improving the air toxics emissions inventory, performing special air monitoring studies in specific communities, and conducting a more complete assessment of non-cancer health effects associated with air toxics and criteria pollutants.¹ This information is important because it helps us better understand links between air pollution and the health of sensitive individuals -- children, the elderly, and those with pre-existing serious health problems affected by air quality.

ARB is working with CAPCOA and OEHHA to improve air pollutant data and evaluation tools to determine when and where cumulative air pollution impacts may be a problem. The following provides additional information on this effort.

How are emissions assessed?

Detailed information about the sources of air pollution in an area is collected and maintained by local air districts and the ARB in what is called an emission inventory. Emission inventories contain information about the nature of the business, the location, type and amount of air pollution emitted, the air pollution-producing processes, the type of air pollution control equipment, operating hours, and seasonal variations in activity. Local districts collect emission inventory data for most stationary source categories.

Local air districts collect air pollution emission information directly from facilities and businesses that are required to obtain an air pollution operating permit. Local air districts use this information to compile an emission inventory for areas within their jurisdiction. The ARB compiles a statewide emission inventory based on the information collected by the ARB and local air districts. Local air districts provide most of the stationary source emission data, and ARB provides mobile source emissions as well as some areawide emission sources such as consumer products and paints. ARB is also developing map-based tools that will display information on air pollution sources.

Criteria pollutant data have been collected since the early 1970's, and toxic pollutant inventories began to be developed in the mid-1980's.

¹ A criteria pollutant is any air pollutant for which EPA has established a National Ambient Air Quality Standard or for which California has established a State Ambient Air Quality Standard, including: carbon monoxide, lead, nitrogen oxides, ozone, particulates and sulfur oxides. Criteria pollutants are measured in each of California's air basins to determine whether the area meets or does not meet specific federal or state air quality standards. Air toxics or air toxic contaminants are listed pollutants recognized by California or EPA as posing a potential risk to health.

How is the toxic emission inventory developed?

Emissions data for toxic air pollutants is a high priority for communities because of concerns about potential health effects. Most of ARB's air toxics data is collected through the toxic "Hot Spots" program. Local air districts collect emissions data from industrial and commercial facilities. Facilities that exceed health-based thresholds are required to report their air toxics emissions as part of the toxic "Hot Spots" program and update their emissions data every four years. Facilities are required to report their air toxics emissions data if there is an increase that would trigger the reporting threshold of the hotspots program. Air toxics emissions from motor vehicles and consumer products are estimated by the ARB. These estimates are generally regional in nature, reflecting traffic and population.

The ARB also maintains chemical speciation profiles that can be used to estimate toxics emissions when no toxic emissions data is available.

What additional toxic emissions information is needed?

In order to assess cumulative air pollution impacts, updated information from individual facilities is needed. Even for sources where emissions data are available, additional information such as the location of emissions release points is often needed to better model cumulative impacts. In terms of motor vehicles, emissions data are currently based on traffic models that only contain major roads and freeways. Local traffic data are needed so that traffic emissions can be more accurately assigned to specific streets and roads. Local information is also needed for off-road emission sources, such as ships, trains, and construction equipment. In addition, hourly maximum emissions data are needed for assessing acute air pollution impacts.

What work is underway?

ARB is working with CAPCOA to improve toxic emissions data, developing a community health air pollution information system to improve access to emission information, conducting neighborhood assessment studies to better understand toxic emission sources, and conducting surveys of sources of toxic pollutants.

How is air pollution monitored?

While emissions data identify how much air pollution is going into the air, the state's air quality monitoring network measures air pollutant levels in outdoor air. The statewide air monitoring network is primarily designed to measure regional exposure to air pollutants, and consists of more than 250 air monitoring sites.

The air toxics monitoring network consists of approximately 20 permanent sites. These sites are supplemented by special monitoring studies conducted by ARB and local air districts. These sites measure approximately sixty toxic air pollutants. Diesel PM, which is the major driver of urban air toxic risk, is not monitored directly. Ten of the

60 toxic pollutants, not including diesel, account for most of the remaining potential cancer risk in California urban areas.

What additional monitoring has been done?

Recently, additional monitoring has been done to look at air quality at the community level. ARB's community monitoring was conducted in six communities located throughout the state. Most sites were in low-income, minority communities located near major sources of air pollution, such as refineries or freeways. The monitoring took place for a year or more in each community, and included measurements of both criteria and toxic pollutants.

What is being learned from community monitoring?

In some cases, the ARB or local air districts have performed air quality monitoring or modeling studies covering a particular region of the state. When available, these studies can give information about regional air pollution exposures.

The preliminary results of ARB's community monitoring are providing insights into air pollution at the community level. Urban background levels are a major contributor to the overall risk from air toxics in urban areas, and this urban background tends to mask the differences between communities. When localized elevated air pollutant levels were measured, they were usually associated with local ground-level sources of toxic pollutants. The most common source of this type was busy streets and freeways. The impact these ground-level sources had on local air quality decreased rapidly with distance from the source. Pollutant levels usually returned to urban background levels within a few hundred meters of the source.

These results indicate that tools to assess cumulative impacts must be able to account for both localized, near-source impacts, as well as regional background air pollution. The tools that ARB is developing for this purpose are air quality models.

How can air quality modeling be used?

While air monitoring can directly measure cumulative exposure to air pollution, it is limited because all locations cannot be monitored. To address this, air quality modeling provides the capability to estimate exposure when air monitoring is not feasible. Air quality modeling can be refined to assess local exposure, identify locations of potential hot spots, and identify the relative contribution of emission sources to exposure at specific locations. The ARB has used this type of information to develop regional cumulative risk maps that estimate the cumulative cancer air pollution risk for most of California. While these maps only show one air pollution-related health risk, it does provide a useful starting point.

What is needed for community modeling?

Air quality models have been developed to assess near-source impacts, but they have very exacting data requirements. These near-source models estimate the impact of local sources, but do not routinely include the contribution from regional air pollution background. To estimate cumulative air pollution exposure at a neighborhood scale, a modeling approach needs to combine features of both micro-scale and regional models.

In addition, improved methods are needed to assess near-source impacts under light and variable wind conditions, when high local concentrations are more likely to occur. A method for modeling long-term exposure to air pollutants near freeways and other high traffic areas is also needed.

What modeling work has ARB developed?

A key component of ARB's Community Health Program is the Neighborhood Assessment Program (NAP). As described later in this section, the NAP studies are being conducted to better understand pollution impacts at the community level. Through two such studies conducted in Barrio Logan (San Diego) and Wilmington (Los Angeles), ARB is refining community-level modeling methodologies. Regional air toxics modeling is also being performed to better understand regional air pollution background levels.

In a parallel effort, ARB is developing modeling protocols for estimating cumulative emissions, exposure, and risk from air pollution. The protocols will cover modeling approaches and uncertainties, procedures for running the models, the development of statewide risk maps, and methods for estimating health risks. The protocols are subject to an extensive peer review process prior to release.

How are air pollution impacts on community health assessed?

On a statewide basis, ARB's toxic air contaminant program identifies and reduces public exposure to air toxics. The focus of the program has been on reducing potential cancer risk, because monitoring results show potential urban cancer risk levels are too high. ARB has also looked for potential non-cancer risks based on health reference levels provided by OEHHA. On a regional basis, the pollutants measured in ARB's toxic monitoring network are generally below the OEHHA non-cancer reference exposure levels.

As part of its community health program, the ARB is looking at potential cancer and non-cancer risk. This could include chronic or acute health effects. If the assessment work shows elevated exposures on a localized basis, ARB will work with OEHHA to assess the health impacts.

What tools has ARB developed to assess cumulative air pollution impacts?

ARB has developed the following tools and reports to assist land use agencies and local air districts assess and reduce cumulative emissions, exposure, and risk on a neighborhood scale.

Statewide Risk Maps

ARB has produced regional risk maps that show the statewide trends for Southern and Central California in estimated potential cancer risk from air toxics between 1990 and 2010.² These maps will supplement U.S. EPA's ASPEN model and are available on the ARB's Internet site. These maps are best used to obtain an estimate of the regional background air pollution health risk and are not detailed enough to estimate the exact risk at a specific location.

ARB also has maps that focus in more detail on smaller areas that fall within the Southern and Central California regions for these same modeled years. The finest visual resolution available in the maps on this web site is two by two kilometers. These maps are not detailed enough to assess individual neighborhoods or facilities.

Community Health Air Pollution Information System (CHAPIS)

CHAPIS is an Internet-based procedure for displaying information on emissions from sources of air pollution in an easy to use mapping format. CHAPIS uses Geographical Information System (GIS) software to deliver interactive maps over the Internet. CHAPIS relies on emission estimates reported to the ARB's emission inventory database - California Emissions Inventory Development and Reporting System, or CEIDARS.

Through CHAPIS, air district staff can quickly and easily identify pollutant sources and emissions within a specified area. CHAPIS contains information on air pollution emissions from selected large facilities and small businesses that emit criteria and toxic air pollutants. It also contains information on air pollution emissions from motor vehicle and areawide emissions. CHAPIS does not contain information on every source of air pollution or every air pollutant. It is a major long-term objective of CHAPIS to include all of the largest air pollution sources and those with the highest documented air pollution risk. CHAPIS will be updated on a periodic basis and additional facilities will be added to CHAPIS as more data becomes available.

CHAPIS is being developed in stages to assure data quality. The initial release of CHAPIS will include facilities emitting 10 or more tons per year of nitrogen oxides, sulfur dioxide, carbon monoxide, PM10, or reactive organic gases; air toxics from refineries and power plants of 50 megawatts or more; and facilities that conducted health risk

²ARB maintains state trends and local potential cancer risk maps that show statewide trends in potential inhalable cancer risk from air toxics between 1990 and 2010. This information can be viewed at ARB's web site at <http://www.arb.ca.gov/toxics/cti/hlthrisk/hlthrisk.htm>)

assessments under the California Air Toxics “Hot Spots” Information and Assessment Program.³

CHAPIS can be used to identify the emission contributions from mobile, area, and point sources on that community.

“Hot Spots” Analysis and Reporting Program (HARP)

HARP⁴ is a software package available from the ARB and is designed with air quality professionals in mind. It models emissions and release data from one or more facilities to estimate the potential health risk posed by the selected facilities on the neighboring community. HARP uses the latest risk assessment guidelines published by OEHHA.

With HARP, a user can perform the following tasks:

- Create and manage facility databases;
- Perform air dispersion modeling;
- Conduct health risk analyses;
- Output data reports; and
- Output results to GIS mapping software.

HARP can model downwind concentrations of air toxics based on the calculated emissions dispersion at a single facility. HARP also has the capability of assessing the risk from multiple facilities, and for multiple locations of concern near those facilities. While HARP has the capability to assess multiple source impacts, there had been limited application of the multiple facility assessment function in the field at the time of HARP’s debut in 2003. HARP can also evaluate multi-pathway, non-inhalation health risk resulting from air pollution exposure, including skin and soil exposure, and ingestion of meat and vegetables contaminated with air toxics, and other toxics that have accumulated in a mother’s breast milk.

Neighborhood Assessment Program (NAP)

The NAP⁵ has been a key component of ARB’s Community Health Program. It includes the development of tools that can be used to perform assessments of cumulative air pollution impacts on a neighborhood scale. The NAP studies have been done to better understand how air pollution affects individuals at the neighborhood level. Thus far, ARB has conducted neighborhood scale assessments in Barrio Logan and Wilmington.

As part of these studies, ARB is collecting data and developing a modeling protocol that can be used to conduct cumulative air pollution impact assessments. Initially these

³ California Health & Safety Code section 44300, et seq.

⁴ More detailed information can be found on ARB’s website at:

<http://www.arb.ca.gov/toxics/harp/harp.htm>

⁵ For more information on the Program, please refer to: <http://www.arb.ca.gov/ch/programs/nap/nap.htm>

assessments will focus on cumulative inhalation cancer health risk and chronic non-cancer impacts. The major challenge is developing modeling methods that can combine both regional and localized air pollution impacts, and identifying the critical data necessary to support these models. The objective is to develop methods and tools from these studies that can ultimately be applied to other areas of the state. In addition, the ARB plans to use these methods to replace the ASPEN regional risk maps currently posted on the ARB Internet site.

Urban Emissions Model (URBEMIS)

URBEMIS⁶ is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, office buildings, and construction projects. URBEMIS uses emission factors available from the ARB to estimate vehicle emissions associated with new land uses. URBEMIS estimates sulfur dioxide emissions from motor vehicles in addition to reactive organic gases, nitrogen oxides, carbon monoxide, and PM10.

Land-Use Air Quality Linkage Report⁷

This report summarizes data currently available on the relationships between land use, transportation and air quality. It also highlights strategies that can help to reduce the use of the private automobile. It also briefly summarizes two ARB-funded research projects. The first project analyzes the travel patterns of residents living in five higher density, mixed use neighborhoods in California, and compares them to travel in more auto-oriented areas. The second study correlates the relationship between travel behavior and community characteristics, such as density, mixed land uses, transit service, and accessibility for pedestrians.

⁶ For more information on this model, please refer to ARB's website at <http://www.arb.ca.gov/html/soft.htm>.

⁷To access this report, please refer to ARB's website or click on: <http://www.arb.ca.gov/ch/programs/link97.pdf>

LAND USE AND AIR QUALITY AGENCY ROLES IN THE LAND USE PROCESS

A wide variety of federal, state, and local government agencies are responsible for regulatory, planning, and siting decisions that can have an impact on air pollution. They include local land use agencies, regional councils of government, school districts, local air districts, ARB, the California Department of Transportation (Caltrans), and the Governor's Office of Planning and Research (OPR) to name a few. This Section will focus on the roles and responsibilities of local and state agencies. The role of school districts will be discussed in Appendix E.

Local Land Use Agencies

Under the State Constitution, land use agencies have the primary authority to plan and control land use.¹ Each of California's incorporated cities and counties are required to adopt a comprehensive, long-term General Plan.²

The General Plan's long-term goals are implemented through zoning ordinances. These are local laws adopted by counties and cities that describe for specific areas the kinds of development that will be allowed within their boundaries.

Land use agencies are also the lead for doing environmental assessments under CEQA for new projects that may pose a significant environmental impact, or for new or revised General Plans.

Local Agency Formation Commissions (LAFCOs)

Operating in each of California's 58 counties, LAFCOs are composed of local elected officials and public members who are responsible for coordinating changes in local governmental boundaries, conducting special studies that review ways to reorganize, simplify, and streamline governmental structures, and preparing a sphere of influence for each city and special district within each county. Each Commission's efforts are directed toward seeing that local government services are provided efficiently and economically while agricultural and open-space lands are protected. LAFCO decisions strive to balance the competing needs in California for efficient services, affordable housing, economic opportunity, and conservation of natural resources.

¹ The legal basis for planning and land use regulation is the "police power" of the city or county to protect the public's health, safety and welfare. The California Constitution gives cities and counties the power to make and enforce all local police, sanitary and other ordinances and regulations not in conflict with general laws. State law reference: California Constitution, Article XI §7.

²OPR General Plan Guidelines, 2003:

http://www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

Councils of Government (COG)

COGs are organizations composed of local counties and cities that serve as a focus for the development of sound regional planning, including plans for transportation, growth management, hazardous waste management, and air quality. They can also function as the metropolitan planning organization for coordinating the region's transportation programs. COGs also prepare regional housing need allocations for updates of General Plan housing elements.

Local Air Districts

Under state law, air pollution control districts or air quality management districts (local air districts) are the local government agencies responsible for improving air quality and are generally the first point of contact for resolving local air pollution issues or complaints. There are 35 local air districts in California³ that have authority and primary responsibility for regional clean air planning. Local air districts regulate stationary sources of air pollutants within their jurisdiction including but not limited to industrial and commercial facilities, power plants, construction activities, outdoor burning, and other non-mobile sources of air pollution. Some local air districts also regulate public and private motor vehicle fleet operators such as public bus systems, private shuttle and taxi services, and commercial truck depots.

■ Regional Clean Air Plans

Local air districts are responsible for the development and adoption of clean air plans that protect the public from the harmful effects of air pollution. These plans incorporate strategies that are necessary to attain ambient air quality standards. Also included in these regional air plans are ARB and local district measures to reduce statewide emissions from mobile sources, consumer products, and industrial sources.

■ Facility-Specific Considerations

Permitting. In addition to the planning function, local air districts adopt and enforce regulations, issue permits, and evaluate the potential environmental impacts of projects.

Pollution is regulated through permits and technology-based rules that limit emissions from operating units within a facility or set standards that vehicle fleet operators must meet. Permits to construct and permits to operate contain very specific requirements and conditions that tell each regulated source what it must do to limit its air pollution in compliance with local air district rules, regulations, and state law. Prior to receiving a permit, new facilities must go through a New Source Review (NSR) process that establishes air pollution control requirements for the facility. Permit conditions are typically contained in the permit to operate and specify requirements that businesses must follow; these may include limits on the amount of pollution that can be emitted, the

³ Contact information for local air districts in California is listed in the front of this Handbook.

type of pollution control equipment that must be installed and maintained, and various record-keeping requirements.

Local air districts also notify the public about new permit applications for major new facilities, or major modifications to existing facilities that seek to locate within 1,000 feet of a school.

Local air districts can also regulate other types of sources to reduce emissions. These include regulations to reduce emissions from the following sources:

- hazardous materials in products used by industry such as paints, solvents, and degreasers;
- agricultural and residential burning;
- leaking gasoline nozzles at service stations;
- public fleet vehicles such as sanitation trucks and school buses; and
- fugitive or uncontrolled dust at construction sites.

However, while emissions from industrial and commercial sources are typically subject to the permit authority of the local air district, sensitive sites such as a day care center, convalescent home, or playground are not ordinarily subject to an air permit. Local air district permits address the air pollutant emissions of a project but not its location.

Under the state's air toxics program, local air districts regulate air toxic emissions by adopting ARB air toxic control measures, or more stringent district-specific requirements, and by requiring individual facilities to perform a health risk assessment if emissions at the source exceed district-specific health risk thresholds^{4, 5} (See the section on ARB programs for a more detailed summary of this program).

One approach by which local air districts regulate air toxics emissions is through the "Hot Spots" program.⁶ The risk assessments submitted by the facilities under this

⁴ Cal/EPA's Office of Environmental Health Hazard Assessment has published "A Guide to Health Risk Assessment" for lay people involved in environmental health issues, including policymakers, businesspeople, members of community groups, and others with an interest in the potential health effects of toxic chemicals. To access this information, please refer to <http://www.oehha.ca.gov/pdf/HRsguide2001.pdf>

⁵ Section 44306 of the California Health & Safety Code defines a health risk assessment as a detailed comprehensive analysis that a polluting facility uses to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations, and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure.

⁶ AB-2588 (the Air Toxics "Hot Spots" Information and Assessment Act) requires local air districts to prioritize facilities by high, intermediate, and low priority categories to determine which must perform a health risk assessment. Each district is responsible for establishing the prioritization score threshold at which facilities are required to prepare a health risk assessment. In establishing priorities for each facility, local air districts must consider the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, and any other factors that the district determines may indicate that the facility may pose a significant risk. All facilities within the highest category must prepare a health risk assessment. In addition, each district may require facilities in the intermediate and low priority categories to also submit a health risk assessment.

**Table D-1
Local Sources of Air Pollution, Responsible Agencies,
and Associated Regulatory Programs**

| Source | Examples | Primary Agency | Applicable Regulations |
|--------------------|---|--------------------------|--|
| Large Stationary | Refineries, power plants, chemical facilities, certain manufacturing plants | Local air districts | Operating permit rules Air Toxics "Hot Spots" Law (AB 2588) Local district rules Air Toxic Control Measures (ATCMs)* New Source Review rules Title V permit rules |
| Small Stationary | Dry cleaners, auto body shops, welders, chrome plating facilities, service stations, certain manufacturing plants | Local air districts | Operating permit conditions, Air Toxics "Hot Spots" Law (AB 2588) Local district rules ATCMs* New Source Review rules |
| Mobile (non-fleet) | Cars, trucks, buses | ARB | Emission standards Cleaner-burning fuels (e.g., unleaded gasoline, low-sulfur diesel) Inspection and repair programs (e.g., Smog Check) |
| Mobile Equipment | Construction equipment | ARB, U.S. EPA | ARB rules U.S. EPA rules |
| Mobile (fleet) | Truck depots, school buses, taxi services | Local air districts, ARB | Local air district rules ARB urban bus fleet rule |
| Areawide | Paints and consumer products such as hair spray and spray paint | Local air district, ARB | ARB rules Local air district rules |

*ARB adopts ATCMs, but local air districts have the responsibility to implement and enforce these measures or more stringent ones.

program are reviewed by OEHHA and approved by the local air district. Risk assessments are available by contacting the local air district.

Enforcement. Local air districts also take enforcement action to ensure compliance with air quality requirements. They enforce air toxic control measures, agricultural and residential burning programs, gasoline vapor control regulations, laws that prohibit air pollution nuisances, visible emission limits, and many other requirements designed to

clean the air. Local districts use a variety of enforcement tools to ensure compliance. These include notices of violation, monetary penalties, and abatement orders. Under some circumstances, a permit may be revoked.

■ Environmental Review

As required by the California Environmental Quality Act (CEQA), local air districts also review and comment on proposed land use plans and development projects that can have a significant effect on the environment or public health.⁷

California Air Resources Board

The ARB is the air pollution control agency at the state level that is responsible for the preparation of air plans required by state and federal law. In this regard, it coordinates the activities of all local air districts to ensure all statutory requirements are met and to reduce air pollution emissions for sources under its jurisdiction.

Motor vehicles are the single largest emissions source category under ARB's jurisdiction as well as the largest overall emissions source statewide. ARB also regulates emissions from other mobile equipment and engines as well as emissions from consumer products such as hair sprays, perfumes, cleaners, and aerosol paints.

Air Toxics Program

Under state law, the ARB has a critical role to play in the identification, prioritization, and control of air toxic emissions. The ARB statewide comprehensive air toxics program was established in the early 1980's. The Toxic Air Contaminant Identification and Control Act of 1983 (AB 1807, Tanner 1983) created California's program to reduce exposure to air toxics.⁸ The Air Toxics "Hot Spots" Information and Assessment Act (Hot Spots program) supplements the AB 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, the ARB is required to use certain criteria to prioritize the identification and control of air toxics. In selecting substances for review, the ARB must consider criteria relating to emissions, exposure, and health risk, as well as persistence in the atmosphere, and ambient concentrations in the community. AB 1807 also requires the ARB to use available information gathered from the Hot Spots program when prioritizing compounds.

The ARB identifies pollutants as toxic air contaminants and adopts statewide air toxic control measures (ATCMs). Once ARB adopts an ATCM, local air districts must

⁷ Section 4 of this Handbook contains more information on the CEQA process.

⁸ For a general background on California's air toxics program, the reader should refer to ARB's website at <http://www.arb.ca.gov/toxics/tac/appendxb.htm>.

implement the measure, or adopt and implement district-specific measures that are at least as stringent as the state standard. Taken in the aggregate, these ARB programs will continue to further reduce emissions, exposure, and health risk statewide.

With regard to the land use decision-making process, ARB, in conjunction with local air districts, plays an advisory role by providing technical information on land use-related air issues.

Other Agencies

Governor's Office of Planning and Research (OPR)

In addition to serving as the Governor's advisor on land use planning, research, and liaison with local government, OPR develops and implements the state's policy on land use planning and coordinates the state's environmental justice programs. OPR updated its General Plan Guidelines in 2003 to highlight the importance of sustainable development and environmental justice policies in the planning process. OPR also advises project proponents and government agencies on CEQA provisions and operates the State Clearinghouse for environmental and federal grant documents.

California Department of Housing and Community Development

The Department of Housing and Community Development (HCD) administers a variety of state laws, programs and policies to preserve and expand housing opportunities, including the development of affordable housing. All local jurisdictions must update their housing elements according to a staggered statutory schedule, and are subject to certification by HCD. In their housing elements, cities and counties are required to include a land inventory which identifies and zones sites for future residential development to accommodate a mix of housing types, and to remove barriers to the development of housing.

An objective of state housing element law is to increase the overall supply and affordability of housing. Other fundamental goals include conserving existing affordable housing, improving the condition of the existing housing stock, removing regulatory barriers to housing production, expanding equal housing opportunities, and addressing the special housing needs of the state's most vulnerable residents (frail elderly, disabled, large families with children, farmworkers, and the homeless).

Transportation Agencies

Transportation agencies can also influence mobile source-related emissions in the land use decision-making process. Local transportation agencies work with land use agencies to develop a transportation (circulation) element for the General Plan. These local government agencies then work with other transportation-related agencies, such as the Congestion Management Agency (CMA), Metropolitan Planning Organization

(MPO), Regional Transportation Planning Agency (RTPA), and Caltrans to develop long and short range transportation plans and projects.

Caltrans is the agency responsible for setting state transportation goals and for state transportation planning, design, construction, operations and maintenance activities. Caltrans is also responsible for delivering California's multibillion-dollar state Transportation Improvement Program, a list of transportation projects that are approved for funding by the California Transportation Commission in a 4-year cycle.

When safety hazards or traffic circulation problems are identified in the existing road system, or when land use changes are proposed such as a new residential subdivision, shopping mall or manufacturing center, Caltrans and/or the local transportation agency ensure the projects meet applicable state, regional, and local goals and objectives.

Caltrans also evaluates transportation-related projects for regional air quality impacts, from the perspective of travel-related emissions as well as road congestion and increases in road capacity (new lanes).

California Energy Commission (CEC)

The CEC is the state's CEQA lead agency for permitting large thermal power plants (50 megawatts or greater). The CEC works closely with local air districts and other federal, state and local agencies to ensure compliance with applicable laws, ordinances, regulations and standards in the permitting, construction, operation and closure of such plants. The CEC uses an open and public review process that provides communities with outreach and multiple opportunities to participate and be heard. In addition to its comprehensive environmental impact and engineering design assessment process, the CEC also conducts an environmental justice evaluation. This evaluation involves an initial demographic screening to determine if a qualifying minority or low-income population exists in the vicinity of the proposed project. If such a population is present, staff considers possible environmental justice impacts including from associated project emissions in its technical assessments.⁹

Department of Pesticides Regulation (DPR)

Pesticides are industrial chemicals produced specifically for their toxicity to a target pest. They must be released into the environment to do their job. Therefore, regulation of pesticides focuses on using toxicity and other information to ensure that when pesticides are used according to their label directions, potential for harm to people and the environment is minimized. DPR imposes strict controls on use, beginning before pesticide products can be sold in California, with an extensive scientific program to ensure they can be used safely. DPR and county enforcement staff tracks the use of pesticides to ensure that pesticides are used properly. DPR collects periodic

⁹ See California Energy Commission, "Environmental Performance Report," July 2001 at http://www.energy.ca.gov/reports/2001-11-20_700-01-001.PDF

measurements of any remaining amounts of pesticides in water, air, and on fresh produce. If unsafe levels are found, DPR requires changes in how pesticides are used, to reduce the possibility of harm. If this cannot be done - that is, if a pesticide cannot be used safely - use of the pesticide will be banned in California.¹⁰

Federal Agencies

Federal agencies have permit authority over activities on federal lands and certain resources, which have been the subject of congressional legislation, such as air, water quality, wildlife, and navigable waters. The U.S. Environmental Protection Agency generally oversees implementation of the federal Clean Air Act, and has broad authority for regulating certain activities such as mobile sources, air toxics sources, the disposal of toxic wastes, and the use of pesticides. The responsibility for implementing some federal regulatory programs such as those for air and water quality and toxics is delegated by management to specific state and local agencies. Although federal agencies are not subject to CEQA they must follow their own environmental process established under the National Environmental Policy Act (NEPA).

¹⁰ For more information, the reader is encouraged to visit the Department of Pesticide Regulation web site at www.cdpr.ca.gov/docs/empm/pubs/tacmenu.htm.

SPECIAL PROCESSES THAT APPLY TO SCHOOL SITING

The [California Education Code](#) and the [California Public Resources Code](#) place primary authority for siting public schools with the local school district, which is the 'lead agency' for purposes of CEQA. The California Education Code requires public school districts to notify the local planning agency about siting a new public school or expanding an existing school. The planning agency then reports back to the school district regarding a project's conformity with the adopted General Plan. However, school districts can overrule local zoning and land use designations for schools if they follow specified procedures. In addition, all school districts must evaluate new school sites using site selection standards established in Section 14010 of Title 5 of the California Code of Regulations. Districts seeking state funding for school site acquisition must also obtain site approval from the California Department of Education.

Before making a final decision on a school site acquisition, a school district must comply with CEQA and evaluate the proposed site acquisition/new school project for air emissions and health risks by preparing and certifying an environmental impact report or negative declaration. Both the California Education Code section 17213 and the California Public Resources Code section 21151.8 require school districts to consult with administering agencies and local air districts when preparing the environmental assessment. Such consultation is required to identify both permitted and non-permitted "facilities" that might significantly affect health at the new site. These facilities include, but are not limited to, freeways and other busy traffic corridors, large agricultural operations, and rail yards that are within one-quarter mile of the proposed school site, and that might emit hazardous air emissions, or handle hazardous or acutely hazardous materials, substances, or waste.

As part of the CEQA process and before approving a school site, the school district must make a finding that either it found none of the facilities or significant air pollution sources, or alternatively, if the school district finds that there are such facilities or sources, it must determine either that they pose no significant health risks, or that corrective actions by another governmental entity would be taken so that there would be no actual or potential endangerment to students or school workers.

In addition, if the proposed school site boundary is within 500 feet of the edge of the closest traffic lane of a freeway or traffic corridor that has specified minimum average daily traffic counts, the school district is required to determine through specified risk assessment and air dispersion modeling that neither short-term nor long term exposure poses significant health risks to pupils.

State law changes effective January 1, 2004 (SB352, Escutia 2003, amending Education Code section 17213 and Public Resources Code section 21151.8) also provides for cases in which the school district cannot make either of those two findings and cannot find a suitable alternative site. When this occurs, the school district must adopt a statement of over-riding considerations, as part of an environmental impact

report, that the project should be approved based on the ultimate balancing of the merits.

Some school districts use a standardized assessment process to determine the environmental impacts of a proposed school site. In the assessment process, school districts can use maps and other available information to evaluate risk, including a local air district's database of permitted source emissions. School districts can also perform field surveys and record searches to identify and calculate emissions from non-permitted sources within one-quarter mile radius of a proposed site. Traffic count data and vehicular emissions data can also be obtained from Caltrans for major roadways and freeways in proximity to the proposed site to model potential emissions impacts to students and school employees. This information is available from the local COG, Caltrans, or local cities and counties for non-state maintained roads.

GENERAL PROCESSES USED BY LAND USE AGENCIES TO ADDRESS AIR POLLUTION IMPACTS

There are several separate but related processes for addressing the air pollution impacts of land use projects. One takes place as part of the planning and zoning function. This consists of preparing and implementing goals and policies contained in county or city General Plans, community or area plans, and specific plans governing land uses such as residential, educational, commercial, industrial, and recreational activities. It also includes recommending locations for thoroughfares, parks and other public improvements.

Land use agencies also have a permitting function that includes performing environmental reviews and mitigation when projects may pose a significant environmental impact. They conduct inspections for zoning permits issued, enforce the zoning regulations and issue violations as necessary, issue zoning certificates of compliance, and check compliance when approving certificates of occupancy.

Planning

■ **General Plan¹**

The General Plan is a local government “blueprint” of existing and future anticipated land uses for long-term future development. It is composed of the goals, policies, and general elements upon which land use decisions are based. Because the General Plan is the foundation for all local planning and development, it is an important tool for implementing policies and programs beneficial to air quality. Local governments may choose to adopt a separate air quality element into their General Plan or to integrate air quality-beneficial objectives, policies, and strategies in other elements of the Plan, such as the land use, circulation, conservation, and community design elements.

More information on General Plan elements is contained in Appendix D.

■ **Community Plans**

Community or area plans are terms for plans that focus on a particular region or community within the overall general plan area. It refines the policies of the general plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning.

¹ In October 2003, OPR revised its General Plan Guidelines. An entire chapter is now devoted to a discussion of how sustainable development and environmental justice goals can be incorporated into the land use planning process. For further information, the reader is encouraged to obtain a copy of OPR’s General Plan Guidelines, or refer to their website at:
http://www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

■ **Specific Plan**

A specific plan is a hybrid that can combine policies with development regulations or zoning requirements. It is often used to address the development requirements for a single project such as urban infill or a planned community. As a result, its emphasis is on concrete standards and development criteria.

■ **Zoning**

Zoning is the public regulation of the use of land. It involves the adoption of ordinances that divide a community into various districts or zones. For instance, zoning ordinances designate what projects and activities can be sited in particular locations. Each zone designates allowable uses of land within that zone, such as residential, commercial, or industrial. Zoning ordinances can address building development standards, e.g., minimum lot size, maximum building height, minimum building setback, parking, signage, density, and other allowable uses.

Land Use Permitting

In addition to the planning and zoning function, land use agencies issue building and business permits, and evaluate the potential environmental impacts of projects. To be approved, projects must be located in a designated zone and comply with applicable ordinances and zoning requirements.

Even if a project is sited properly in a designated zone, a land use agency may require a new source to mitigate potential localized environmental impacts to the surrounding community below what would be required by the local air district. In this case, the land use agency could condition the permit by limiting or prescribing allowable uses including operating hour restrictions, building standards and codes, property setbacks between the business property and the street or other structures, vehicle idling restrictions, or traffic diversion.

Land use agencies also evaluate the environmental impacts of proposed land use projects or activities. If a project or activity falls under CEQA, the land use agency requires an environmental review before issuing a permit to determine if there is the potential for a significant impact, and if so, to mitigate the impact or possibly deny the project.

■ **Land Use Permitting Process**

In California, the authority to regulate land use is delegated to city and county governments. The local land use planning agency is the local government administrative body that typically provides information and coordinates the review of development project applications. Conditional Use Permits (CUP) typically fall within a land use agency's discretionary authority and therefore are subject to CEQA. CUPs are

intended to provide an opportunity to review the location, design, and manner of development of land uses prior to project approval. A traditional purpose of the CUP is to enable a municipality to control certain uses that could have detrimental environmental effects on the community.

The process for permitting new discretionary projects is quite elaborate, but can be broken down into five fundamental components:

- Project application
- Environmental assessment
- Consultation
- Public comment
- Public hearing and decision

Project Application

The permit process begins when the land use agency receives a project application, with a detailed project description, and support documentation. During this phase, the agency reviews the submitted application for completeness. When the agency deems the application to be complete, the permit process moves into the environmental review phase.

Environmental Assessment

If the project is discretionary and the application is accepted as complete, the project proposal or activity must undergo an environmental clearance process under CEQA and the CEQA Guidelines adopted by the California Resources Agency.² The purpose of the CEQA process is to inform decision-makers and the public of the potential significant environmental impacts of a project or activity, to identify measures to minimize or eliminate those impacts to the point they are no longer significant, and to discuss alternatives that will accomplish the project goals and objectives in a less environmentally harmful manner.

What is a “Lead Agency”?

A lead agency is the public agency that has the principal responsibility for carrying out or approving a project that is subject to CEQA. In general, the land use agency is the preferred public agency serving as lead agency because it has jurisdiction over general land uses. The lead agency is responsible for determining the appropriate environmental document, as well as its preparation.

What is a “Responsible Agency”?

A responsible agency is a public agency with discretionary approval authority over a portion of a CEQA project (e.g., projects requiring a permit). As a responsible agency, the agency is available to the lead agency and project proponent for early consultation on a project to apprise them of applicable rules and regulations, potential adverse impacts, alternatives, and mitigation measures, and provide guidance as needed on applicable methodologies or other related issues.

What is a “Commenting Agency”?

A commenting agency is any public agency that comments on a CEQA document, but is neither a lead agency nor a responsible agency. For example, a local air district, as the agency with the responsibility for comprehensive air pollution control, could review and comment on an air quality analysis in a CEQA document for a proposed distribution center, even though the project was not subject to a permit or other pollution control requirements.

² Projects and activities that may have a significant adverse impact on the environment are evaluated under CEQA Guidelines set forth in title 14 of the California Code of Regulations, sections 15000 et seq.

To assist the lead agency in determining whether the project or activity may have a significant effect that would require the preparation of an EIR, the land use agency may consider criteria, or thresholds of significance, to assess the potential impacts of the project, including its air quality impacts. The land use agency must consider any credible evidence in addition to the thresholds, however, in determining whether the project or activity may have a significant effect that would trigger the preparation of an EIR.

The screening criteria to determine significance is based on a variety of factors, including local, state, and federal regulations, administrative practices of other public agencies, and commonly accepted professional standards. However, the final determination of significance for individual projects is the responsibility of the lead agency. In the case of land use projects, the lead agency would be the City Council or County Board of Supervisors.

A new land use plan or project can also trigger an environmental assessment under CEQA if, among other things, it will expose sensitive sites such as schools, day care centers, hospitals, retirement homes, convalescence facilities, and residences to substantial pollutant concentrations.³

CEQA only applies to “discretionary projects.” Discretionary means the public agency must exercise judgment and deliberation when deciding to approve or disapprove a particular project or activity, and may append specific conditions to its approval. Examples of discretionary projects include the issuance of a CUP, re-zoning a property, or widening of a public road. Projects that are not subject to the exercise of agency discretion, and can therefore be approved administratively through the application of set standards are referred to as ministerial projects. CEQA does not apply to ministerial projects.⁴ Examples of typical ministerial projects include the issuance of most building permits or a business license.

Once a potential environmental impact associated with a project is identified through an environmental assessment, mitigation must be considered. A land use agency should incorporate mitigation measures that are suggested by the local air district as part of the project review process.

Consultation

Application materials are provided to various departments and agencies that may have an interest in the project (e.g., air pollution, building, police, fire, water agency, Fish and Game, etc.) for consultation and input.

³ Readers interested in learning more about CEQA should contact OPR or visit their website at <http://www.opr.ca.gov/>.

⁴ See California Public Resources Code section 21080(b)(1).

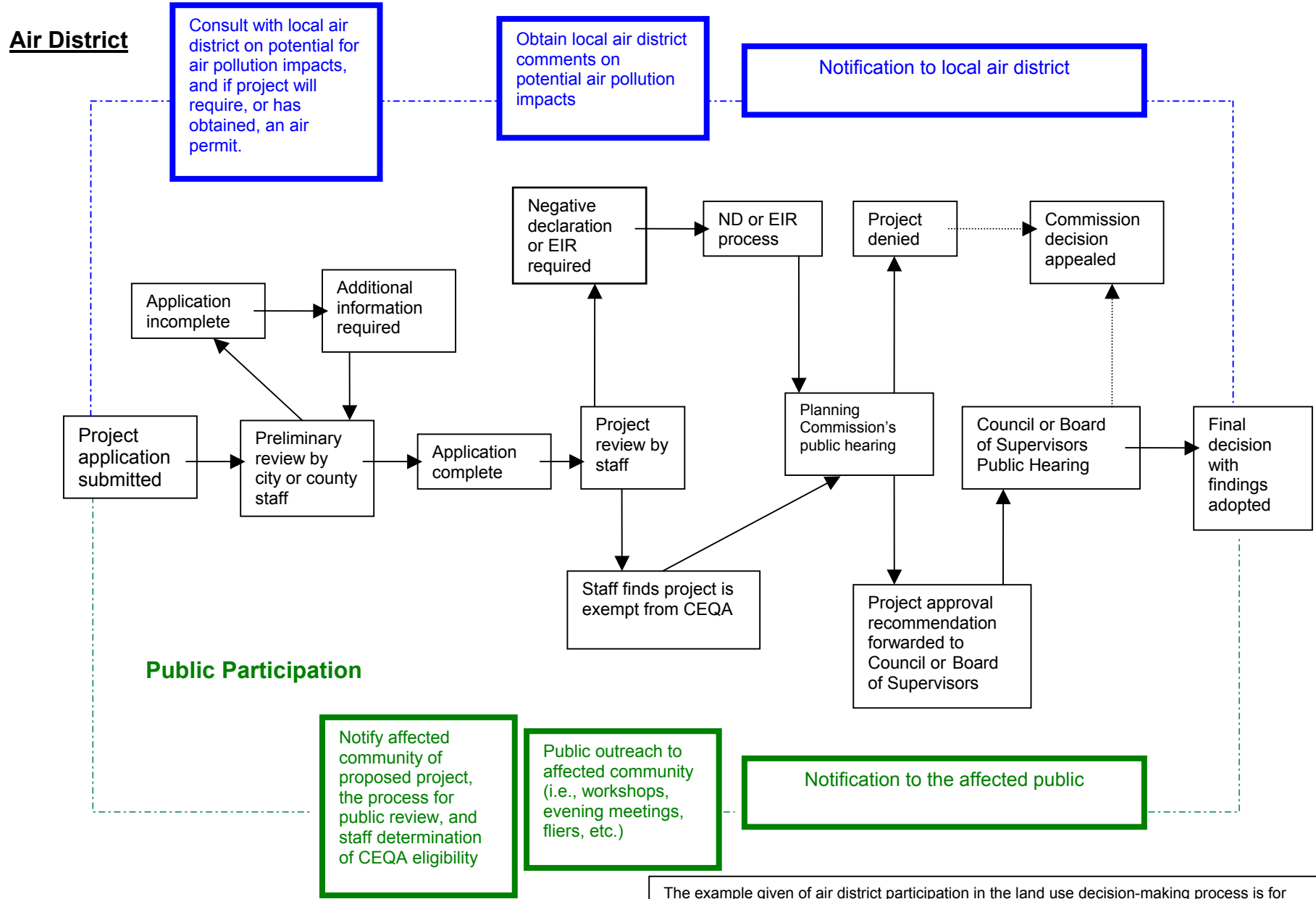
Public Comment

Following the environmental review process, the Planning Commission reviews application along with the staff's report on the project assessment and a public comment period is set and input is solicited.

Public Hearing and Decision

Permit rules vary depending on the particular permit authority in question, but the process generally involves comparing the proposed project with the land use agency standards or policies. The procedure usually leads to a public hearing, which is followed by a written decision by the agency or its designated officer. Typically, a project is approved, denied, or approved subject to specified conditions.

USE PERMIT (DISCRETIONARY ACTION) REVIEW PROCESS*



The example given of air district participation in the land use decision-making process is for illustrative purposes only. In reality, the land use siting process involves the ongoing participation of multiple affected agencies and stakeholders throughout the process.

GLOSSARY OF KEY AIR POLLUTION TERMS

Air Pollution Control Board or Air Quality Management Board: Serves as the governing board for local air districts. It consists of appointed or elected members from the public or private sector. It conducts public hearings to adopt local air pollution regulations.

Air Pollution Control Districts or Air Quality Management Districts (local air district): A county or regional agency with authority to regulate stationary and area sources of air pollution within a given county or region. Governed by a district air pollution control board.

Air Pollution Control Officer (APCO): Head of a local air pollution control or air quality management district.

Air Toxic Control Measures (ATCM): A control measure adopted by the ARB (Health and Safety Code section 39666 et seq.), which reduces emissions of toxic air contaminants.

Ambient Air Quality Standards: An air quality standard defines the maximum amount of a pollutant that can be present in the outdoor air during a specific time period without harming the public's health. Only U.S. EPA and the ARB may establish air quality standards. No other state has this authority. Air quality standards are a measure of clean air. More specifically, an air quality standard establishes the concentration at which a pollutant is known to cause adverse health effects to sensitive groups within the population, such as children and the elderly. Federal standards are referred to as National Ambient Air Quality Standards (NAAQS); state standards are referred to as California ambient air quality standards (CAAQS).

Area-wide Sources: Sources of air pollution that individually emit small amounts of pollution, but together add up to significant quantities of pollution. Examples include consumer products, fireplaces, road dust, and farming operations.

Attainment vs. Nonattainment Area: An attainment area is a geographic area that meets the National Ambient Air Quality Standards for the criteria pollutants and a non-attainment area is a geographic area that doesn't meet the NAAQS for criteria pollutants.

Attainment Plan: Attainment plans lay out measures and strategies to attain one or more air quality standards by a specified date.

California Clean Air Act (CCAA): A California law passed in 1988, which provides the basis for air quality planning and regulation independent of federal regulations. A major element of the Act is the requirement that local air districts in violation of the CAAQS

must prepare attainment plans which identify air quality problems, causes, trends, and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date.

California Environmental Quality Act (CEQA): A California law that sets forth a process for public agencies to make informed decisions on discretionary project approvals. The process helps decision-makers determine whether any potential, significant, adverse environmental impacts are associated with a proposed project and to identify alternatives and mitigation measures that will eliminate or reduce such adverse impacts.¹

California Health and Safety Code: A compilation of California laws, including state air pollution laws, enacted by the Legislature to protect the health and safety of people in California. Government agencies adopt regulations to implement specific provisions of the California Health and Safety Code.

Clean Air Act (CAA): The federal Clean Air Act was adopted by the United States Congress and sets forth standards, procedures, and requirements to be implemented by the U.S. Environmental Protection Agency (U.S. EPA) to protect air quality in the United States.

Councils of Government (COGs): There are 25 COGs in California made up of city and county elected officials. COGs are regional agencies concerned primarily with transportation planning and housing; they do not directly regulate land use.

Criteria Air Pollutant: An air pollutant for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set. Examples include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and PM10 and PM2.5. The term "criteria air pollutants" derives from the requirement that the U.S. EPA and ARB must describe the characteristics and potential health and welfare effects of these pollutants. The U.S. EPA and ARB periodically review new scientific data and may propose revisions to the standards as a result.

District Hearing Board: Hears local air district permit appeals and issues variances and abatement orders. The local air district board appoints the members of the hearing board.

Emission Inventory: An estimate of the amount of pollutants emitted into the atmosphere from mobile, stationary, area-wide, and natural source categories over a specific period of time such as a day or a year.

Environmental Impact Report (EIR): The public document used by a governmental agency to analyze the significant environmental effects of a proposed project, to identify

¹ To track the submittal of CEQA documents to the State Clearinghouse within the Office of Planning and Research, the reader can refer to CEQAnet at <http://www.ceqanet.ca.gov>.

alternatives, and to disclose possible ways to reduce or avoid the possible negative environmental impacts.

Environmental Justice: California law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (California Government Code sec.65040.12(c)).

General Plans: A statement of policies developed by local governments, including text and diagrams setting forth objectives, principles, standards, and plan proposals for the future physical development of the city or county.

Hazardous Air Pollutants (HAPs): An air pollutant listed under section 112 (b) of the federal Clean Air Act as particularly hazardous to health. U.S. EPA identifies emission sources of hazardous air pollutants, and emission standards are set accordingly. In California, HAPs are referred to as toxic air contaminants.

Land Use Agency: Local government agency that performs functions associated with the review, approval, and enforcement of general plans and plan elements, zoning, and land use permitting. For purposes of this Handbook, a land use agency is typically a local planning department.

Mobile Source: Sources of air pollution such as automobiles, motorcycles, trucks, off-road vehicles, boats, and airplanes.

National Ambient Air Quality Standard (NAAQS): A limit on the level of an outdoor air pollutant established by the US EPA pursuant to the Clean Air Act. There are two types of NAAQS. Primary standards set limits to protect public health and secondary standards set limits to protect public welfare.

Negative Declaration (ND): When the lead agency (the agency responsible for preparing the EIR or ND) under CEQA, finds that there is no substantial evidence that a project may have a significant environmental effect, the agency will prepare a "negative declaration" instead of an EIR.

New Source Review (NSR): A federal Clean Air Act requirement that state implementation plans must include a permit review process, which applies to the construction and operation of new or modified stationary sources in nonattainment areas. Two major elements of NSR to reduce emissions are best available control technology requirements and emission offsets.

Office of Planning and Research (OPR): OPR is part of the Governor's office. OPR has a variety of functions related to local land-use planning and environmental programs. It provides General Plan Guidelines for city and county planners, and coordinates the state clearinghouse for Environmental Impact Reports.

Ordinance: A law adopted by a City Council or County Board of Supervisors. Ordinances usually amend, repeal or supplement the municipal code; provide zoning specifications; or appropriate money for specific purposes.

Overriding Considerations: A ruling made by the lead agency in the CEQA process when the lead agency finds the importance of the project to the community outweighs potential adverse environmental impacts.

Public Comment: An opportunity for the general public to comment on regulations and other proposals made by government agencies. You can submit written or oral comments at the public meeting or send your written comments to the agency.

Public Hearing: A public hearing is an opportunity to testify on a proposed action by a governing board at a public meeting. The public and the media are welcome to attend the hearing and listen to, or participate in, the proceedings.

Public Notice: A public notice identifies the person, business, or local government seeking approval of a specific course of action (such as a regulation). It describes the activity for which approval is being sought, and describes the location where the proposed activity or public meeting will take place.

Public Nuisance: A public nuisance, for the purposes of air pollution regulations, is defined as a discharge from any source whatsoever of such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. (Health and Safety Code section 41700).

Property Setback: In zoning parlance, a setback is the minimum amount of space required between a lot line and a building line.

Risk: For cancer health effects, risk is expressed as an estimate of the increased chances of getting cancer due to facility emissions over a 70-year lifetime. This increase in risk is expressed as chances in a million (e.g., 10 chances in a million).

Sensitive Individuals: Refers to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality).

Sensitive Sites or Sensitive Land Uses: Land uses where sensitive individuals are most likely to spend time, including schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities.

Setback: An area of land separating one parcel of land from another that acts to soften or mitigate the effects of one land use on the other.

State Implementation Plan (SIP): A plan prepared by state and local agencies and submitted to U.S. EPA describing how each area will attain and maintain national ambient air quality standards. SIPs include the technical information about emission inventories, air quality monitoring, control measures and strategies, and enforcement mechanisms. A SIP is composed of local air quality management plans and state air quality regulations.

Stationary Sources: Non-mobile sources such as power plants, refineries, and manufacturing facilities.

Toxic Air Contaminant (TAC): An air pollutant, identified in regulation by the ARB, which may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. TACs are considered under a different regulatory process (California Health and Safety Code section 39650 et seq.) than pollutants subject to State Ambient Air Quality Standards. Health effects associated with TACs may occur at extremely low levels. It is often difficult to identify safe levels of exposure, which produce no adverse health effects.

Urban Background: The term is used in this Handbook to represent the ubiquitous, elevated, regional air pollution levels observed in large urban areas in California.

Zoning ordinances: City councils and county boards of supervisors adopts zoning ordinances that set forth land use classifications, divides the county or city into land use zones as delineated on the official zoning, maps, and set enforceable standards for future develop

TOWN OF PARADISE

1994 GENERAL PLAN

VOLUME II ENVIRONMENTAL IMPACT REPORT

SCH NO. 91043055

ADDENDUMS I & II



AS AMENDED THROUGH SEPTEMBER, 1998

TOWN OF PARADISE
COMMUNITY DEVELOPMENT DEPARTMENT



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1.0 INTRODUCTION

The intent of this environmental document is to provide an addendum to the previously prepared draft *Environmental Impact Report* (EIR) for the *Paradise General Plan*. The draft EIR was originally released in May of 1992, circulated through the state clearinghouse, and made available for public comment through an extended review period.

Subsequent to the closure of the public review and comment period, and prior to the conduct of public hearings, the *Paradise General Plan Revision Steering Committee* directed staff to make changes to the draft policy document. These comprehensive changes, were geared towards restructuring the approach of the plan into a *growth management plan*, and reducing potential build out and population projections by modifying the draft *General Plan* land use designation map.

The purpose of this draft EIR addendum is to provide an analysis of the potential environmental impacts resulting from the changes and revisions to the draft *General Plan*. Because the plan has been revised to reduce potential residential build out and population growth over the fifteen-year planning period, it is not anticipated that new and significant adverse environmental impacts will result from plan implementation.

Pursuant to Section 15164 of the California Environmental Quality Act guidelines, this addendum is being prepared, rather than a subsequent or supplemental EIR for the following reasons:

1. The changes in the project (draft *General Plan*) will not require revisions of the previous draft EIR due to the involvement of new significant environmental impacts not considered in the previous draft EIR.
2. No substantial changes in the circumstances under which the project is being undertaken, such as substantial deterioration in air quality, have occurred since the production of the draft EIR.
3. No new important information that will cause new significant environmental impacts has become available since the production of the draft EIR.
4. The revisions and changes to the project (draft *General Plan*) will not cause previously insignificant environmental impacts to become significant.
5. No mitigation measures or project alternatives not previously considered in the draft EIR have been identified that would lessen one or more significant effects upon the environment.



This EIR addendum accompanies Volume II, *draft Environmental Impact Report*, Volume I revised *Policy Document*, Volume III, *Environmental Setting Document* and the associated land use designation map, circulation diagram and environmental constraints diagrams.

Together, these documents (*Volumes I, II and III*), maps and diagrams constitute the draft *Paradise General Plan*.



2.0 DESCRIPTION OF CHANGES AND REVISIONS TO THE DRAFT POLICY DOCUMENT (VOLUME I)

The primary changes and revisions to the draft *General Plan* involve restructuring it into a *growth management plan*. This was accomplished in a number of ways. First, by incorporating a land use planning tool termed "constraints analysis" to influence land use designations, dictate the assignment of future zoning classifications, and guide the future design and review of development proposals. The plan now calls for lower density and less land use intensity on lands containing both infrastructural and environmental constraints. Land use designations and build out projections have been influenced by these types of constraints, and the plan requires residential densities and land use intensities to be based upon the degree of constraints affecting properties.

Second, the smallest minimum parcel size for new lots created for single-family residential development (divisions of land) is now predominantly one-half net acre, rather than up to three to five parcels per gross acre as suggested in the earlier draft plan. The "T-R" (Town-Residential) land use designation would potentially allow up to three dwelling units/parcels per net acre. However, it is estimated that this change would only result in approximately thirty-nine additional units/parcels within the primary study area. This will serve to reduce potential build out, and potentially limit ultimate population growth over the fifteen-year planning period.

Third, specific police and fire response times thresholds have been established and highlighted in the plan. If the town Police Department or Fire Department cannot respond to an emergency at a proposed development site within the time thresholds established by the plan, the development cannot be approved.

Fourth, specific traffic service levels have been established in the circulation element of the plan. If the level of service at intersections or along roadways will erode below the threshold level established by the plan as a result of a proposed project, then it cannot be approved.

Finally, the plan suggests an overriding policy of requiring development to be designed to accommodate constraints, rather than altering the environment to accommodate the development project.

Other major changes to the draft *General Plan* include the following:

- A change in the land use designation of properties in the southern portion of town from "S-R" (Suburban-Residential) to "A-R" (Agricultural-Residential).
- Changes in the housing element to more strongly promote rehabilitation of existing dwelling units rather than the construction of new units, and to provide a more personalized approach to the future planning for housing in Paradise. Also, to assure its consistency with the growth management thrust of the plan.
- Putting more "teeth" into the open space/conservation element. Placing more of an emphasis on open space acquisition, promoting a strong relationship with the Paradise Recreation and Park District, and promoting agricultural land preservation.



- **Modifying the circulation element to reflect the growth management thrust of the plan. Revising circulation system classifications to reflect a more rural character.**
- **Modify (soften) language regarding the community collection sewer system, and add language regarding the Paradise onsite wastewater management zone (district).**

**TABLE 2-1
GENERAL PLAN BUILD OUT - ACREAGE, DWELLING UNITS AND
POPULATION (PRIMARY AREA)**

| Land Use Designation | Existing Acreage by Land Use ¹ | Existing Units/Sq. Ft. ² | Potential New Acreage ³ | Potential New Units/Sq. Ft. ⁴ | Build out Units/Sq. Ft. ⁵ | Total Persons ⁶ | Total Planned Acreage ⁷ |
|--------------------------|---|-------------------------------------|------------------------------------|--|--------------------------------------|--------------------------------------|------------------------------------|
| Agricultural-Residential | - | - | 2,587 | 517 u | 517 u | 1,205 | 2,587 |
| Rural-Residential | - | - | 454 | 908 u | 908 u | 1,911 | 5,015 |
| Town-Residential | 5,348 | 10,883 u | 78 | 156 u | 11,039 u | 25,721 | 2,283 |
| Multi-Family Residential | 146 | 796 u | 92 | 390 u | 1,186 u | 2,277 | 465 |
| Neighborhood-Commercial | - | - | 6 | 38,670 sf | 38,670 sf | - | 26 |
| Central-Commercial | - | - | 4 | 87,120 sf | 87,120 sf | - | 128 |
| Town-Commercial | 318 | 1,558,124 sf | 39 | 451,380 sf | 2,009,504 sf | - | 433 |
| Business-Park | - | - | - | - | - | - | - |
| Light-Industrial | 30 | 310,500 sf | 141 | 1,006,236 sf | 1,316,736 sf | - | 212 |
| Community-Service | 56 | 195,000 sf | 71 | 87,120 sf | 282,120 sf | - | 166 |
| Public-Institutional | 414 | 666,405 sf | - | - | 666,405 sf | - | 175 |
| Recreational | 147 | - | 0.5 | - | - | - | 210 |
| Open-Space/Agricultural | 145 | - | - | - | - | - | 145 |
| Timber-Production | - | - | - | - | - | - | - |
| Totals | | | | | | 31,114 29,752⁸ | 11,845 |

¹ Based on existing land use survey.

² Based on Housing Condition Surveys, March 1991 and February 1990, and documentation for the development of the Paradise Area Transportation Model Planning prepared for the Butte County Council of Governments, October 1990; Mobile homes are included with single-family units.

³ Based on land use designation and vacant land gross acreage (it is estimated that these figures could be reduced up to ten percent when figuring net rather than gross acreage).

⁴ Based on population density and building intensity ratios contained in Table 2-1. Residential densities are figured on the averaged allowable density; A-R density is figured on one unit per five acres. Commercial, Business Park and Industrial calculations allow for property constraints.

⁵ Based on existing plus potential new, allowing for property constraints, and where data on existing square footage is available.

⁶ Based on average household size of 2.33 for single-family dwellings and 1.92 for multiple-family dwellings.

⁷ Based on total net acres allocated to each land use designation under *General Plan*.

⁸ Based on total gross acres allocated to each land use category under *General Plan* (it is estimated that these figures could be reduced up to ten percent when figuring net rather than gross acreage).

**TABLE 2-1
GENERAL PLAN BUILD OUT - ACREAGE, DWELLING UNITS AND
POPULATION (SECONDARY AREA)**

| Land Use Designation | Acreage ¹ | Potential New Units/Sq. Ft. ² | Existing Units/Sq. Ft. ³ | Build out Units/Sq. Ft. ⁴ | Total Persons ⁵ |
|--------------------------|----------------------|--|-------------------------------------|--------------------------------------|----------------------------|
| Agricultural-Residential | 3,678 | 736 u | - | 736 u | 1,715 |
| Rural-Residential | 2,300 | 1,000 u | 4,906 u | 5,096 u | 11,874 |
| Town-Residential | - | - | - | - | - |
| Multi-Family-Residential | - | 147 u | 12 u | 159 u | 305 |
| Neighborhood-Commercial | 1 | - | 10,890 sf | 10,890 sf | - |
| Central-Commercial | - | - | - | - | - |
| Town-Commercial | 330 | - | 99,350 sf | 99,350 sf | - |
| Business-Park | 280 | 896,819 sf | - | 896,819 sf | - |
| Light-Industrial | - | - | 10,000 sf | 10,000 sf | - |
| Community-Service | 63 | 108,900 sf | - | 108,900 sf | - |
| Public-Institutional | 1,398 | - | 121,737 sf | 121,737 sf | - |
| Recreational | 262 | - | - | - | - |
| Open-Space/Agriculture | 8,811 | - | - | - | - |
| Timber-Production | 588 | - | - | - | - |
| Totals | 17,711 | | | | 13,894 |

¹ Based on total net acres allocated to each land use designation under *General Plan*.

² Based on population density and building intensity ratios contained in Table 2-1. Residential densities are figured on the averaged allowable density; A-R density is figured on one unit per five acres. Commercial, Business Park and Industrial calculations allow for property constraints.

³ Based on Housing Condition Surveys, March 1991 and February 1990, and documentation for the development of the Paradise Area Transportation Model Planning prepared for the Butte County Council of Governments, October 1990; Mobile homes are included with single-family units.

⁴ Based on existing plus potential new, allowing for property constraints, and where data on existing square footage is available.

⁵ Based on average household size of 2.33 for single-family dwellings and 1.92 for multiple-family dwellings.

IMPORTANT NOTE: It is estimated that the numbers in the above table could be reduced up to ten percent when figuring net rather than gross acreage. Accordingly, the projected population (total persons) at build out of net acreage would be approximately 12,505.

**TABLE 2-1
GENERAL PLAN BUILD OUT
ACREAGE, DWELLING UNITS AND POPULATION
FULL BUILD OUT
(PRIMARY AND SECONDARY AREAS)**

| Land Use Designation | Total Acres | Total Units | Total Persons | Total Sq. Ft. |
|-----------------------------------|---------------|---------------|---------------|---------------|
| Agricultural-Residential | 6,265 | 1,253 | 2,919 | - |
| Rural-Residential | 7,315 | 6,004 | 13,989 | - |
| Town-Residential | 2,283 | 11,039 | 25,721 | - |
| Multi-Family-Residential | 465 | 1,345 | 2,582 | - |
| Neighborhood-Commercial | 27 | - | - | 49,560 |
| Central-Commercial | 128 | - | - | 87,120 |
| Town-Commercial | 763 | - | - | 2,108,854 |
| Business-Park | 197 | - | - | 556,653 |
| Light-Industrial | 212 | - | - | 1,326,736 |
| Community-Service | 229 | - | - | 391,020 |
| Public-Institutional | 1,573 | - | - | 788,142 |
| Recreational | 472 | - | - | - |
| Open-Space/Agricultural | 8,956 | - | - | - |
| Timber-Production | 588 | - | - | - |
| Totals using gross acreage | 29,473 | 19,641 | 45,211 | |
| Totals using net acreage | 29,526 | 18,659 | 45,257 | |



3.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 INTRODUCTION

The draft *Environmental Impact Report* (DEIR) for the Paradise *General Plan* primarily uses the goals, objectives, policies and implementation measures as mitigations to avoid potential impacts or to reduce them to a level of insignificance. The DEIR also recommends additional mitigation measures for impacts other than goal, objective and policy statements related to a number of topics. This addendum uses the same format and approach as the draft *Environmental Impact Report*. The topical setting is described, the potential impacts discussed, and the suggested policies/mitigations measures are listed. The text describes the revision, deletion, addition, and renumbering of goals, objectives, policies, and implementation measures used to assure that the potential impacts resulting from plan implementation will be insignificant.

3.2 TOPOGRAPHY

Setting

The discussion of the topographic setting contained in Section 3.1 of Volume III, *Environmental Setting Document*, is still accurate, and is unchanged as a result of the revised draft *General Plan*.

Impacts

Identified Impact Nos. 3.2.1-1 and 3.2.1-2 on pages 4-2 and 4-5 of the EIR are still valid, yet their potential is reduced because the build out projections townwide have been reduced, and therefore the potential for excessive cuts and fills on steep slopes, and for the modification of ridgelines is lessened.

Policy/Mitigation

The policy statements contained in the original draft *General Plan* that act to mitigate potential topographic impacts such as excessive cuts and fills and modification of ridge lines, all remain in the revised draft *General Plan*, except for LUP-2 and OCEP-27.



- LUP-2 has been revised to read:

The environmental and infrastructure constraints analysis system should to determine future zoning classifications, land use densities, and to evaluate future development projects.

- OCEP-27 has been revised to read:

Protective land use designations and zoning classifications should established for sensitive lands such as areas of resource production, steep canyons, and stream corridors, and areas or significant natural resource value.

- In addition, identified policy OCEP-17 has been renumbered to OCEP-21.

Conclusions

Even though the potential impacts to topography resulting from future build out and construction activities has been reduced in the revised draft *General Plan*, the policy statements/mitigation measures are still in place to assure that any resultant effects on the topographic setting of the town will be less than significant.

3.3 GEOLOGY/SEISMICITY

Setting

The discussion of the geologic/seismicity setting contained in Section 3.2 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.

Impacts

Identified Impact Nos. 3.3-1, 3.3-2 and 3.3-3 listed on 4-7 and 4-8 of the EIR are still valid under the revised draft *General Plan*, because as the town grows and develops, people will still be exposed to potential hazards associated with earthquakes, landslides, volcanic eruption and dam inundation. However, because the projected build out and ultimate population over the fifteen-year planning period has been lessened, the potential impacts have likewise been lessened.



Policy/Mitigation

The policy statements contained in the draft *General Plan* that are intended to mitigate potential geologic and seismic impacts/hazards to a level of insignificance still remain in the revised draft *General Plan*. However, SI-6 and SI-7 have been combined and renumbered to SI-5, and SI-8 has been renumbered to SI-6.

Conclusions

Even though the projected build out and future population growth have been reduced in the revised draft *General Plan*, the potential geologic/seismic hazards will still exist. The goals, objective, policies and implementation measures intended to mitigate these potential impacts have been retained to assure that the potential effects will be less than significant.

3.4 SOILS

Setting

The discussion provided in Section 3.4 of Volume III, *Environmental Setting Document*, is still accurate, and is unchanged as a result of the revised draft *General Plan*.

Impacts

Identified Impact Nos. 3.4-1 and 3.4-2 on pages 4-11 and 4-14 of the draft EIR are still valid, yet their potential has been reduced because the build out potential and population projections have been reduced.

Policy/Mitigation

The policy statements contained in the original draft *General Plan* that are intended to mitigate potential impacts to soils, such as conversion of agricultural and timber lands to urban uses, and disturbance/erosion of soils all remain in the revised draft *General Plan*, yet have been renumbered.



- In addition, LUP-84 has been renumbered to LUP-70 and modified to read:

Encourage Butte County to maintain the urban reserve policy for the area south of town limits and work with Butte County officials to develop appropriate policies for the growth and development of the area north of Paradise.

Conclusions

Even though the potential impacts to soils resulting from future build out have been reduced in the revised draft *General Plan*, the policy statements/mitigation measures are still in place to assure that the effects on soils in the town resulting from plan implementation will be less than significant.

3.5 AIR QUALITY

Setting

The description of air quality in the Paradise planning area contained in Sections 4.2 and 16.4 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.

Impacts

Identified Impact Nos. 3.5-1, 3.5-2 and 3.5-3 listed on pages 4-16 and 4-19 of the draft EIR are still valid under the revised draft *General Plan*. These identified impacts include a potential cumulative degradation of regional air quality resulting from build out and increased automobile usage, generation of air pollution resulting from construction activities, and a potential increase in source emissions resulting from increased industrial and business developments. However, the potential for these impacts is lessened in the revised draft *General Plan*, because build out projections and population estimates have been reduced.

Policy/Mitigation

The policy statements contained in the draft *General Plan* that are intended to lessen the potential air quality impacts resulting from plan implementation still remain in the revised draft *General Plan*, yet have been renumbered. In addition, some of the policy statement have been modified.



- OCEI-15 has been renumbered to OCEI-25, and modified to read:

Eliminate leaf burning after establishing a program for disposing of yard debris in an environmentally sensitive manner.
- In addition, original CP-15, CP-12, OCEI-14 and OCEI-31 have been deleted because they were either redundant or infeasible.

Section 3.5 in the draft EIR also includes an important mitigation measure (No. 3.5-1 on page 4-20) beyond the draft *General Plan* policy statements. It calls for the Butte County Air Pollution Control District to install and maintain an air monitoring station in the Town of Paradise. Comments received from the Butte County APCD on the draft EIR were not adverse to this suggested mitigation measure.

Conclusions

Even though the build out projections and population estimates have been reduced in the revised draft *General Plan*, significant cumulative impacts to the local and regional air quality will result from implementation. This is due to the fact that all of Butte County is currently not in compliance with state air quality standards. Any increase in ozone or PM-10 resulting from mobile source emission will add to the cumulative degradation of air quality. However, the reduction in build out and projected future population represents less of a contribution to the cumulative impacts than proposed in the original draft *General Plan*, and analyzed in the draft EIR.

The mitigation measure calling for the Butte County APCD to install and maintain an air monitoring station in the town is still appropriate because of the areawide status as a nonattainment area for ozone.

3.6 HYDROLOGY

Setting

The discussion of the hydrologic setting, water quality, and town and district responsibilities contained in Section 5.0 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.



Impacts

The potential impacts to the town hydrologic setting resulting from *General Plan* implementation identified in the draft EIR include, on and offsite flooding, degradation of surface water quality and contamination of the watershed, degradation of groundwater quality, and the potential to encounter unsafe drinking water. All of these identified potential impacts are valid under the revised draft *General Plan*, because opportunities for land use development and construction activities will continue to be available during the fifteen-year planning period. However, because the build out projections and resulting population estimates have been reduced, the potential for these impacts to occur and be significant is reduced.

Policy/Mitigation

The policy statements contained in the draft *General Plan* that are intended to lessen potential impacts to the local hydrologic setting and water quality are for the most part retained in the revised draft *General Plan*. However, the following have been deleted because they are either redundant, infeasible, or they no longer are applicable: SP-10, OCEP-38, LUP-16, LUI-7, OCEI-40.

- In addition LUP-15 has been renumbered to LUP-19, and modified to read:

Land Use densities should primarily be based upon the degree of infrastructural and environmental constraints affecting properties in the town.
- LUP-57 has been renumbered to LUP-47, and modified to read:

Residential densities shall be consistent with the standards for onsite wastewater disposal, and other infrastructural constraints, and should provide for minimum lot sizes of one-third acre in new developments.

Mitigation Measure No. 3.6-1 on page 4-29 of the draft EIR calls for compliance with federal storm water collection and disposal standards. This mitigation measure is still valid and is retained.

Conclusions

Even though the project build out and population estimates have been reduced in the revised draft *General Plan*, potential hydrologic impacts still exist. The policies and mitigation measures intended to lessen potential impacts to a level of insignificance have been retained, modified, and/or deleted based upon their applicability given the revisions to the draft *General Plan*.



3.7 VEGETATION AND WILDLIFE

Setting

The description of vegetation and wildlife in the planning area found in Section 6.0 of Volume III, *Environmental Setting Document*, is still valid and unchanged as a result of the revised draft *General Plan*.

Impacts

The potential impacts to wildlife and vegetation resulting from build out under the draft *General Plan* include potential loss of vernal pools and wetlands (secondary study area), potential impacts to wildlife resources, and potential loss of sensitive plant populations. All of these potential impacts are valid, yet reduced under the revised draft *General Plan*, because build out and population growth have been reduced.

Policy/Mitigation

The policy statements contained in the draft *General Plan* intended to lessen potential impacts to vegetation and wildlife resources have for the most part been retained in the revised draft *General Plan*. However, all have been renumbered and the following have been modified or deleted:

- OCEP-27 has been modified to read:

Protective land use designations and zoning classifications should be established for sensitive lands such as areas for resource protection, steep canyons, and stream corridors, and areas of significant natural resource value.
- OCEP-3 has been deleted because it could produce other significant environmental impacts.
- OCEP-6 has been deleted because it is financially infeasible.
- OCEP-7 has been deleted because it is redundant.

In addition, the draft EIR recommends a number of mitigation measures separate from the *General Plan* policies that are intended to reduce potential impacts to a level of insignificance. These include Mitigation Measure Nos. 3.7-1, 3.7-2, 3.7-3 and 3.7-4. These suggested mitigation measures are still valid and recommended for adoption.



Conclusions

Even though the projected build out and population estimates have been reduced in the revised draft *General Plan*, the potential impacts to wildlife and vegetation will still exist, but to a lesser degree. Regardless, the majority of policy statements and mitigation measures designed to lessen these impacts have been retained in the revised draft *General Plan*.

Impacts upon wildlife resources is no longer considered a significant unavoidable cumulative impact because residential densities in the southern portion of town have been drastically reduced, the revised draft *General Plan* emphasizes growth management based upon environmental and infrastructural constraints, the existence of the town tree ordinance, and the lack of vernal pools or wetlands within the primary planning area.

3.8 NOISE

Setting

The discussion of the Paradise noise environment contained in Section 7.0 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.

Impacts

The identified potential noise impacts resulting from *General Plan* implementation listed on pages 4-40, 4-41 and 4-43 of the original draft EIR are still valid under the revised draft *General Plan* because as the town grows and develops, roadway noise will increase, the Skypark Airport may expand, and new noise sources may be introduced into the community. However, because build out projections and population estimates have been reduced, it is anticipated that potential noise impacts will likewise be reduced over the fifteen-year planning period.

Policy/Mitigation

The policy statements contained in the original draft *General Plan* that are intended to lessen potential noise impacts still remain in the revised draft *General Plan*, with the exception of NP-10, which has been deleted because it is redundant with other policy statements.



Conclusions

Even though the projected build out and population estimates have been reduced in the revised draft *General Plan*, the policy statements and mitigation measures intended to lessen potential noise impacts have been retained.

3.9 LIGHT AND GLARE

Setting

The description of light and glare in the Paradise community contained in Section 8.0 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.

Impacts

The identified impacts listed on page 4-45 of the draft EIR are still valid under the revised draft *General Plan*. The potential for light and glare resulting from development in previously undeveloped areas will be reduced because development opportunities, in terms of potential build out have been reduced. However, some degree of potential new sources of light and glare still remain.

Policy/Mitigation

The policy statements contained on page 4-46 of the draft EIR (CI-20 and OCEP-60) have been deleted in the revised draft *General Plan*, because they were either infeasible or the intent is accomplished by other means, such as existing town adopted ordinances.

Conclusions

Even though the build out projections and population estimates have been reduced in the revised draft *General Plan*, the potential light and glare impacts resulting from *General Plan* implementation still remain to some degree. However, it is anticipated that the existing zoning, subdivision, building, and other town ordinances and codes will successfully regulate construction to eliminate potential light and glare impacts. Therefore, no policy statements or separate mitigation measures are necessary in the revised draft *General Plan*.



3.10 LAND USE AND POPULATION

Setting

The description of land use and population in the Paradise planning area contained in Sections 9.0 and 11.0 of Volume III, *Environmental Setting Document*, are still accurate and valid under the revised draft *General Plan*. The land use designation map has been revised to reduce potential build out and ultimate population growth. Table 3.3-1 in the draft EIR (2-2 in Volume I, *draft Policy Document*), has also been revised to clearly show the new build out and population estimates resulting from the revised draft *General Plan*.

Impacts

The potential impacts to land use and population resulting from implementation of the revised draft *General Plan* listed on pages 4-49, 4-50 and 4-51 of the draft EIR are still valid. However, the potential has been decreased because of a reduction in the build out projects and population estimates in the revised draft *General Plan*.

Policy/Mitigation

Even though build out projections and population estimates have been reduced, most of the policy statements contained in the original draft *General Plan* intended to lessen impacts associated with land use and population have been retained in the revised version. However, all have been renumbered, and the following have been either modified, or deleted:

- LUG-2 has been modified to read:
Accommodate a rate of growth consistent with the physical and infrastructural limitations in Paradise.
- LUG-17 has been deleted because of redundancy.
- LUP-55 has been renumbered to LUP-45 and modified to read:
New higher density land use development should only be permitted in areas compatible with surrounding land uses, infrastructure capabilities, and established service levels.
- LUP-92 has been deleted because the sewer project is no longer active.
- SP-14 has been deleted because of redundancy.



- OCEG-1 has been deleted because of redundancy.
- OCEG-2 has been deleted because of redundancy.
- OCEG-6 has been revised to read:

Preserve and protect naturally sensitive areas, and significant natural features in Paradise, such as trees, views, stream courses, wildlife habitat and clean air.
- LUP-87 has been deleted because of redundancy.
- LUP-88 has been deleted because its intent is covered by existing town ordinances.

Conclusions

Even though the build out projections and population estimates have been reduced in the revised draft *General Plan*, the policy statements/mitigation measures have for the most part been retained. Many have been renumbered to reflect editing for redundancy and/or the combining of goals and policies. Some have been modified to better reflect the growth management thrust of the plan.

3.11 HOUSING

Setting

The description of housing in Paradise contained in Section 12.0 of Volume III, *Environmental Setting Document*, has been expanded to provide additional background information. The original discussion is still valid, yet enhanced by the new language.

Impacts

The potential impacts to the town and its housing stock resulting from the implementation of the housing element have been lessened because the build out projections and population estimates have been reduced. However, the identified potential impacts are still valid to some degree.



Policy/Mitigations

The policy statements contained in the draft *General Plan* have been renumbered and the following have been either deleted or modified to reflect the revisions to the housing element:

- HG-1 has been renumbered to HG-3 and modified as follows:

Develop objectives that will lead to the provision of affordable housing as required by the California Department of Housing and Community Development and the Butte County Association of Governments.
- HG-5 has been renumbered to HG-2 and modified as follows:

Achieve an adequate supply of safe, decent housing for all the citizens of Paradise.
- HG-6 has been renumbered to HG-1 and modified as follows:

Encourage the production of all housing types, from affordable to exclusive, consistent with the overall goals, objectives and policies of the Paradise *General Plan*.
- HO-3 has been deleted and its intent incorporated into other objectives.
- HP-12 has been deleted.
- HP-15 has been renumbered to HP-1 and modified as follows:

The town shall encourage a full range of housing types, including both lower and higher density housing, as physical and infrastructure constraints permit.

Conclusions

The housing element in the revised draft *General Plan* has been geared towards rehabilitation of existing units rather than the creation of new units. Even with the reduced build out projections and population estimates, many of the policy statements/mitigations have been retained, or modified to reflect the revised approach to housing. It is anticipated that the policy statements contained in the revised policy document will assure that impacts related to the provision of housing will be lessened to a level of insignificance.



3.12 HEALTH HAZARDS AND SAFETY

Setting

The description of the existing conditions related to health and safety hazards contained in Section 10.0 of Volume III, *Environmental Setting Document*, is still accurate and unchanged as a result of the revised draft *General Plan*.

Impacts

The identified health and safety impacts contained on pages 4-56 and 4-57 of the draft EIR are still valid under the revised draft *General Plan*. These potential impacts include exposure to nuisance and disease vectoring mosquitos and ticks, and increased traffic congestion leading to potential degradation of evacuation routes. However, the reduced build out projections and population estimates will reduce these impacts accordingly.

Policy/Mitigations

The policy statements/mitigation measures contained in the draft *General Plan* that are intended to lessen potential impacts related to health and safety hazards still remain in the revised draft *General Plan*. However, policy CP-8 has been renumbered to CP-6.

Conclusions

While the potential impacts related to health and safety hazards has been reduced as a result of the revised draft *General Plan*, the policy statements and mitigation measures remain unchanged. This will assure that potential impacts are lessened to a level of insignificance.

3.13 TRANSPORTATION AND CIRCULATION

Setting

The description of the transportation and circulation setting in Paradise contained in Section 13.0 of Volume III, *Environmental Setting Document*, and the traffic data tables (Appendix "F") in the same document are still accurate



and unchanged as a result of the revised draft *General Plan*. The circulation diagram has been modified to better reflect the growth management thrust of the revised *General Plan*.

Impacts

The identified transportation and circulation impacts listed on pages 4-59 and 4-65 of the draft EIR are still valid under the revised draft *General Plan*. These potential impacts include cumulative increases in traffic, increases in congestion on many local streets, and specific cumulative impacts to Pearson Road, because of a lack of east-west connector streets in the southern portion of town. Based upon the reduction of estimated population and reduced build out projections over the fifteen-year planning period contained in the revised draft *General Plan*, these impacts will likewise be reduced. In addition, the proposed business park land use designation for lands along lower Neal Road has been deleted to eliminate the potential adverse traffic/circulation impacts that could require road widening.

Policy/Mitigation

The policy statements/mitigation measures contained in the draft *General Plan* that are intended to lessen potential transportation and circulation impacts still remain in the revised draft *General Plan*. However, because of the reduction in build out projections and population estimates, the calculated average daily traffic volumes have been reduced, yet CP-1 has been retained to strive for a planning area level of service (LOS) "D" or better. The "D" level of service (LOS) would potentially be reached upon build out along the central portion of the Skyway within the town.

In addition, suggested Mitigation Measure No. 3.13-1 on page 4-66 of the draft EIR has been modified to eliminate Roe Road as a possible east-west roadway connection during the fifteen-year planning period. With reduced build out and ultimate population in the revised draft policy document, the need for east-west roadway connections is potentially lessened.

The "S-R" (Suburban-Residential) land use designation identified in Section 3.13 of the draft EIR has been modified to "R-R" (Rural-Residential). In addition Tables 3-13-3, 3.13-5 and 3.13-6 have been revised to be consistent with the growth management thrust of the draft *General Plan*.

Conclusions

The reduction in potential build out and estimated future population in the revised draft *General Plan* will lessen potential impacts related to transportation and circulation. Some of the policy statement(s) and mitigation measures have been revised, yet will still assure that alternatives for resolving any significant adverse impacts related to traffic can be successfully mitigated.

**TABLE 3.13-3
LAND USE INCREASES
AND AVERAGE DAILY TRIP GENERATION**

| Land Use | Dwelling Units | 1,000 Square Feet | Average Daily Trips | Average Daily Trips |
|--------------------------------|----------------|-------------------|---------------------|---------------------|
| A-R (Agricultural-Residential) | 1,253 | | 7,142 | |
| R-R (Rural-Residential) | 1,908 | | 10,876 | |
| T-R (Town-Residential) | 156 | | 1,185 | |
| M-R (Multi-Family Residential) | 537 | | 2,954 | |
| N-C (Neighborhood-Commercial) | | 38.670 | | 1,307 |
| C-C (Central-Commercial) | | 87.120 | | 3,485 |
| T-C (Town-Commercial) | | 451.380 | | 18,298 |
| B-P (Business-Park) | | 572.100 | | 25,401 |
| L-I (Light-Industrial) | | 1006.240 | | 562 |
| C-S (Community-Service) | | 196.020 | | 2,941 |
| Totals | 3,854 | 2,675,924 | 22,157 | 51,994 |

Source: Dowling Associates, 1992.

TABLE 3.13-5
DETAIL OF AVERAGE DAILY TRIP GENERATION

| Traffic Zone | Land Use | Dwelling Units | 1,000 Square Feet | Daily Trip Rate | Daily Two-way Trips |
|--------------|----------|----------------|-------------------|-----------------|---------------------|
| 1 | T-R | 10 | | 7.66 | 76.6 |
| 1 | R-R | 10 | | 7.66 | 76.6 |
| 1 | T-C | | 60.100 | 40.00 | 2404 |
| 2 | R-R | 15 | | 7.66 | 114 |
| 3 | T-R | 10 | | 7.66 | 76.6 |
| 3 | R-R | 15 | | 7.66 | 115 |
| 4 | R-R | 20 | | 7.66 | 154 |
| 5 | C-S | | 65.340 | 15.00 | 980 |
| 5 | R-R | 20 | | 7.66 | 154 |
| 6 | A-R | 10 | | 7.66 | 76.6 |
| 6 | R-R | 56 | | 7.66 | 535 |
| 7 | | | | 15.00 | 0 |
| 8 | | | | 15.00 | 0 |
| 9 | | | | 15.00 | 0 |
| 10 | A-R | 9 | | 7.66 | 68 |
| 10 | R-R | 57 | | 7.66 | 436 |
| 11 | A-R | 6 | | 7.66 | 46 |
| 11 | R-R | 21 | | 7.66 | 160 |
| 11 | T-C | | 10.780 | 40.00 | 431 |
| 11 | N-C | | 11.000 | 40.00 | 440 |
| 12 | R-R | 6 | | 7.66 | 46 |
| 12 | T-C | | 10.890 | 40.00 | 436 |
| 13 | R-R | 21 | | 7.66 | 160 |
| 14 | A-R | 28 | | 7.66 | 214 |
| 14 | R-R | 25 | | 7.66 | 192 |
| 15 | R-R | 3 | | 7.66 | 22 |
| 16 | A-R | 35 | | 7.66 | 268 |
| 16 | R-R | 80 | | 7.66 | 612 |

| Traffic Zone | Land Use | Dwelling Units | 1,000 Square Feet | Daily Trip Rate | Daily Two-way Trips |
|--------------|----------|----------------|-------------------|-----------------|---------------------|
| 17 | T-R | 12 | | 7.66 | 91.92 |
| 18 | R-R | 10 | | 7.66 | 76.6 |
| 19 | R-R | 10 | | 7.66 | 76.6 |
| 20 | T-C | | 10.890 | 40.00 | 436 |
| 21 | T-C | | 10.890 | 40.00 | 436 |
| 22 | M-F | 12 | | 5.50 | 66 |
| 22 | R-R | 47 | | 7.66 | 360 |
| 23 | T-R | 16 | | 7.66 | 123 |
| 23 | M-F | 11 | | 5.50 | 60.5 |
| 23 | R-R | 30 | | 7.66 | 230 |
| 24 | R-R | 6 | | 7.66 | 46 |
| 25 | | | | 15.00 | 0 |
| 26 | | | | 15.00 | 0 |
| 27 | | | | 15.00 | 0 |
| 28 | M-F | 8 | | 5.50 | 44 |
| 29 | T-R | 17 | | 7.66 | 130 |
| 30 | | | | 15.00 | 0 |
| 31 | T-C | | 36.480 | 40.00 | 1459 |
| 32 | T-C | | 17.970 | 40.00 | 719 |
| 32 | T-R | 8 | | 7.66 | 62 |
| 33 | R-R | 30 | | 7.66 | 230 |
| 33 | T-C | | 38.115 | 40.00 | 1525 |
| 34 | R-R | 20 | | 7.66 | 153 |
| 35 | C-C | | 87.120 | 40.00 | 3485 |
| 35 | T-C | | 10.890 | 40.00 | 436 |
| 36 | M-F | 75 | | 5.50 | 412.5 |
| 37 | T-C | | 21.780 | 40.00 | 871 |
| 38 | R-R | 50 | | 7.66 | 384 |
| 39 | R-R | 30 | | 7.66 | 230 |
| 39 | T-R | 20 | | 7.66 | 153 |
| 40 | A-R | 10 | | 7.66 | 76.6 |

| Traffic Zone | Land Use | Dwelling Units | 1,000 Square Feet | Daily Trip Rate | Daily Two-way Trips |
|--------------|----------|----------------|-------------------|-----------------|---------------------|
| 40 | N-C | | 10.890 | 120.00 | 1307 |
| 40 | R-R | 30 | | 7.66 | 230 |
| 40 | T-R | 10 | | 7.66 | 76.6 |
| 41 | A-R | 3 | | 7.66 | 22 |
| 41 | R-R | 40 | | 7.66 | 306 |
| 41 | T-R | 14 | | 7.66 | 107 |
| 42 | A-R | 3 | | 7.66 | 22 |
| 42 | R-R | 54 | | 7.66 | 414 |
| 42 | T-C | | 21.780 | 40.00 | 871 |
| 43 | A-R | 3 | | 7.66 | 22 |
| 43 | R-R | 54 | | 7.66 | 414 |
| 44 | A-R | 2 | | 7.66 | 16 |
| 44 | R-R | 54 | | 7.66 | 414 |
| 46 | R-R | 50 | | 7.66 | 384 |
| 47 | C-S | | 21.780 | 15.00 | 327 |
| 48 | | | | 15.00 | 0 |
| 49 | R-R | 14 | | 7.66 | 108 |
| 50 | A-R | 10 | | 7.66 | 76.6 |
| 50 | M-F | 200 | | 5.50 | 1100 |
| 51 | R-R | 165 | | 7.66 | 1602 |
| 51 | M-F | 21 | | 5.50 | 115.5 |
| 51 | T-C | | 21.780 | 40.00 | 871 |
| 52 | L-I | | 729.630 | 6.97 | 5086 |
| 53 | A-R | 59 | | 7.66 | 452 |
| 53 | L-I | | 196.020 | 6.97 | 1366 |
| 54 | A-R | 50 | | 7.66 | 383 |
| 54 | R-R | 47 | | 7.66 | 360 |
| 55 | A-R | 50 | | 7.66 | 383 |
| 55 | R-R | 50 | | 7.66 | 383 |
| 56 | M-F | 30 | | 5.50 | 165 |
| 56 | R-R | 20 | | 7.66 | 154 |

| Traffic Zone | Land Use | Dwelling Units | 1,000 Square Feet | Daily Trip Rate | Daily Two-way Trips |
|--------------|----------|----------------|-------------------|-----------------|---------------------|
| 57 | A-R | 60 | | 7.66 | 460 |
| 57 | R-R | 75 | | 7.66 | 575 |
| 58 | R-R | 42 | | 7.66 | 322 |
| 58 | T-C | | 10.890 | 40.00 | 436 |
| 59 | A-R | 61 | | 7.66 | 467 |
| 59 | M-F | 15 | | 5.50 | 82.5 |
| 59 | R-R | 30 | | 7.66 | 230 |
| 59 | T-C | | 10.890 | 40.00 | 436 |
| 60 | | | | 15.00 | 0 |
| 61 | R-R | 40 | | 7.66 | 306 |
| 62 | A-R | 56 | | 7.66 | 429 |
| 62 | T-R | 3 | | 7.66 | 22 |
| 63 | T-C | | 21.780 | 40.00 | 871 |
| 64 | T-C | | 10.890 | 40.00 | 436 |
| 65 | R-R | 93 | | 7.66 | 712 |
| 65 | T-R | 20 | | 7.66 | 153 |
| 66 | A-R | 120 | | 7.66 | 919 |
| 66 | R-R | 65 | | 7.66 | 498 |
| 67 | | | | 15.00 | 0 |
| 68 | | | | 15.00 | 0 |
| 69 | T-C | | 43.560 | 40.00 | 1742 |
| 70 | M-F | 23 | | 5.50 | 126.5 |
| 70 | T-C | | 38.115 | 40.00 | 1525 |
| 70 | T-R | 3 | | 7.66 | 22 |
| 71 | R-R | 5 | | 7.66 | 38 |
| 72 | A-R | | | 7.66 | 0 |
| 72 | T-C | | 10.890 | 40.00 | 436 |
| 72 | T-R | 24 | | 7.66 | 184 |
| 73 | L-I | | 80.586 | 6.97 | 562 |
| 74 | B-P | | 300.200 | 14.37 | 4314 |
| 74 | C-S | | 108.900 | 15.00 | 1634 |

| Traffic Zone | Land Use | Dwelling Units | 1,000 Square Feet | Daily Trip Rate | Daily Two-way Trips |
|--------------|----------|----------------|-------------------|-----------------|---------------------|
| 75 | R-R | | | 7.66 | 0 |
| 76 | A-R | 58 | | 7.66 | 444 |
| 77 | A-R | 8 | | 7.66 | 62 |
| 77 | R-R | 258 | | 7.66 | 1976 |
| 78 | A-R | | | 7.66 | 0 |
| 78 | R-R | | | 7.66 | 0 |
| 78 | M-F | | | 5.50 | 0 |
| 79 | A-R | 558 | | 3.76 | 2098 |
| 79 | A-R | 390 | | 3.76 | 1466 |
| 80 | M-F | 100 | | 5.50 | 550 |
| 80 | R-R | 20 | | 7.66 | 153.20 |

Source: Dowling Associates, 1992.

**TABLE 3.13-6
PROJECTED TRAFFIC VOLUMES, LANE REQUIREMENTS
CLASSIFICATION AND LEVELS OF SERVICE**

| Roadway Segment | Existing Two-Way Volume | Projected Two-Way Volume | Proposed Lanes (#) | Divided/Undivided | Proposed Classification | LOS D Threshold | LOS |
|----------------------|-------------------------|--------------------------|--------------------|-------------------|-------------------------|-----------------|-------|
| Skyway | | | | | | | |
| South of Neal | 20,370 | 23,726 | 4 | D | Arterial | 27,000 | C |
| Neal to Pearson | 26,880 | 40,301 | 4/6 | D | Arterial | 27,000/40,000 | F/D-E |
| Pearson to Elliott | 22,372 | 32,651 | 4/6 | D | Arterial | 27,000/40,000 | F/C |
| Elliott to Oliver | 24,258 | 34,578 | 4/6 | D | Arterial | 27,000/40,000 | F/C-D |
| Oliver to Maxwell | 22,218 | 31,786 | 4/6 | D | Arterial | 27,000/40,000 | F/C |
| Maxwell to Bille | 21,490 | 29,830 | 4/6 | D | Arterial | 27,000/40,000 | F/C |
| Bille to Wagstaff | 15,554 | 22,890 | 4 | D | Arterial | 27,000 | C |
| Wagstaff to Clark | 11,298 | 16,937 | 4 | U | Arterial | 21,000 | C |
| Clark to Pentz | 15,316 | 20,088 | 4 | U | Arterial | 21,000 | D |
| North of Pentz | 15,008 | 20,557 | 4 | D | Arterial | 27,000 | C |
| Clark Road | | | | | | | |
| South of Pearson | 8,010 | 18,074 | 4 | U | Arterial | 21,000 | C |
| Pearson to Elliott | 14,570 | 22,076 | 4 | D | Arterial | 27,000 | C |
| Elliott to Bille | 16,930 | 24,153 | 4 | D | Arterial | 27,000 | C |
| Bille to Wagstaff | 16,980 | 21,504 | 4 | D | Arterial | 27,000 | C |
| Wagstaff to Skyway | 9,180 | 11,978 | 2 | D | Arterial | 13,000 | C |
| Pentz Road | | | | | | | |
| South of Pearson | 4,630 | 7,780 | 2 | U | Collector | 8,000 | C |
| Pearson to Bille | 3,590 | 8,765 | 2 | D | Collector | 9,000 | C |
| Bille to Skyway | 4,910 | 6,270 | 2 | U | Collector | 8,000 | C |
| Neal Road | | | | | | | |
| South of Skyway | 3,934 | 5,302 | 2 | U | Collector | 16,000 | C |
| Pearson Road | | | | | | | |
| Skyway to Clark | 10,850 | 19,187 | 4 | U | Arterial | 21,000 | C |
| Clark to Edgewood | 6,310 | 12,690 | 2 | U | Arterial | 13,000 | D |
| Edgewood to Pentz | 4,340 | 8,826 | 2 | U | Arterial | 10,500 | C |
| Elliott Road | | | | | | | |
| Skyway to Clark | 11,396 | 14,942 | 4 | U | Arterial | 21,000 | D |
| Clark to Sawmill | 7,500 | 8,027 | 2 | U | Collector | 8,000 | D |
| Sawmill to Pentz | N/A | 3,347 | 2 | U | Collector | 8,000 | C |
| Bille Road | | | | | | | |
| Skyway to Clark | 8,246 | 12,012 | 2 | U | Arterial | 13,000 | D |
| Clark to Sawmill | 5,390 | 8,675 | 2 | D | Collector | 9,000 | D |
| Sawmill to Pentz | 3,720 | 6,567 | 2 | U | Collector | 8,000 | C |
| Wagstaff Road | | | | | | | |
| Skyway to Clark | 6,146 | 8,595 | 2 | U | Arterial | 10,500 | C |
| Clark to Pentz | 5,490 | 7,369 | 2 | U | Collector | 9,000 | C |
| Sawmill Road | | | | | | | |
| Pearson to Bille | 2,420 | 2,670 | 2 | U | Collector | 8,000 | C |
| South of Pearson | 830 | 1,178 | 2 | U | Collector | 8,000 | C |

| Roadway Segment | Existing Two-Way Volume | Projected Two-Way Volume | Proposed Lanes (#) | Divided/ Undivided | Proposed Classification | LOS D Threshold | LOS |
|--|-------------------------|--------------------------|--------------------|--------------------|-------------------------|-----------------|-----|
| Rocky Lane Wagstaff to Skyway | 924 | 924 | 2 | U | Collector | 8,000 | C |
| Maxwell Drive Elliott to Skyway | 2,996 | 3,249 | 2 | U | Collector | 8,000 | C |
| Central Park Drive Maxwell to Clark | 2,160 | 2,601 | 2 | U | Collector | 8,000 | C |
| Nunneley Road Pearson to Sawmill | 2,730 | 3,123 | 2 | U | Collector | 8,000 | C |
| Buschmann Road Foster to Clark | 2,560 | 2,631 | 2 | U | Collector | 8,000 | C |
| Roe Road Neal to Foster | 500 | 1,000 | 2 | U | Collector | 8,000 | C |
| South Libby Road South of Pearson | 500 | 1,000 | 2 | U | Collector | 8,000 | C |
| Edgewood Lane South of Pearson | 500 | 1,000 | 2 | U | Collector | 8,000 | C |

Source: Dowling Associates standard traffic model - figures are projected for the year 2008.



3.14 PUBLIC FACILITIES AND SERVICE

Setting

The descriptions of Paradise law enforcement, fire protection, solid waste, schools, and park and recreation facilities contained in Chapter 14 of Volume III, *Environmental Setting Document*, are still accurate and valid under the revised draft *General Plan*. The discussion of wastewater found in Section 14.9 of that document has been revised to reflect the changes in the revised plan.

Impacts

The identified potential impacts to public services resulting from implementation of the draft *General Plan* are all still valid under the revised draft *General Plan* except for Impact No. 3-14.10. This impact relates to the potential effects of constructing a formal community collection sewer system, which was a strong assumption in the original plan. The revised draft *General Plan* states that discussions concerning some form of community sewer system may occur within the fifteen-year life of the plan, but it no longer is an objective calling for construction to be completed with three to four years after plan adoption. It is therefore concluded that the potential for impacts resulting from the construction activities are significantly reduced.

In addition, it is assumed that because the build out projections and population estimates have been reduced, potential impacts resulting from plan implementation will likewise be reduced.

Policy/Mitigation

Most of the policy statements/mitigations measures listed to offset the potential impacts related to public services have been retained in the revised draft *General Plan*. All have been renumbered, and the following have been deleted because of redundancy and/or they are no longer needed to provide mitigation: LUP-19, LUP-20, LUI-14, OCEP-20, OCEP-34, OCEP-41.

- In addition, LUP-25 has been revised to read:

The town should designate general locations for new schools, fire stations, and parks/open space, in the planning area, and shall reflect the general location of these future facilities on the land use diagram. The actual location of fire stations shall be in conformance with the criteria established in the safety element. The actual location of new parkland shall be in conformance with the criteria established in the open space/conservation/energy element.

- SI-6 has been renumbered SI-5, and has been combined with original SI-7.



- LUP-11 has been renumbered to LUP-14, and revised to read:

Growth and land use development should be linked to the availability of public services and facilities, and to the degree of overall infrastructural and environmental constraints affecting property in the Town of Paradise.

Conclusions

Even though the projected build out and population estimates have been reduced as a result of the revised draft *General Plan*, the policy statements and mitigation measures have basically been retained. Some have been either modified or deleted depending upon their applicability given the thrust of the revised draft *General Plan*.

Increased water consumption is no longer considered a significant unavoidable cumulative impact because of the dramatic reduction in potential build out and total population estimates in the planning area. In addition, the revised draft *General Plan* emphasizes growth management based upon environmental and infrastructural constraints analysis. If domestic water service or water for fire protection cannot be assured, a development proposal cannot be approved by the town.

3.15 SCENIC AND CULTURAL RESOURCES

Setting

The description of the town history, and scenic and cultural resources within the planning area contained in Sections 3.1 and 3.15 of Volume III, *Environmental Setting Document*, are still valid and accurate under the revised draft *General Plan*.

Impacts

The two identified impacts relating to scenic and cultural resources involve the potential disturbance of archaeological sites and scenic resources resulting from implementation of the plan and future build out. These impacts still have the potential to occur, yet their likelihood are lessened because of the reductions in build out potential and population estimates.



Policy/Mitigation

Most of the policy statements/mitigation measures contained in the draft *General Plan* intended to lessen potential impacts upon cultural resources have been retained in the revised draft *General Plan*. However, all have been renumbered, and some have been deleted because they were either redundant, infeasible, or no longer necessary. The following policy statements have been deleted: LUP-79, LUP-66, OCEP-44, OCEP-66, OCEI-26, OCEI-28.

Conclusions

The reduction in build out projections and population estimates reduces the potential for the impacts to occur. The remaining policy statements and mitigations measures provide reasonable and appropriate assurances that all potential impacts to cultural resources will be lessened to a level of insignificance.

4.0 SUMMARY OF POTENTIAL IMPACTS

The draft EIR concludes that implementation of the original draft *General Plan* would result in the following three significant unavoidable cumulative impacts:

1. Degradation of air quality
2. Increased water consumption
3. Degradation of wildlife resources

Air Quality

While the degradation of air quality must still be considered an unavoidable cumulative impact, its severity has been significantly reduced by the reduction in potential build out units and total population estimates established in the revised draft *General Plan*.

Water Consumption

Water consumption will increase as a result of the revised draft *General Plan*. Obviously, the demand for domestic water service and water for fire protection will not be as great with the implementation of the revised plan, because



build out projections and population estimates have been reduced. In addition, the revised draft *General Plan* emphasizes a growth management strategy based upon the analysis of environmental and infrastructural constraints. If domestic water service or water for fire protection cannot be delivered to a proposed development in the future, the development cannot be permitted under the policies of the revised draft *General Plan*.

Wildlife

As a result of the revised draft *General Plan*, the degradation of wildlife resources has been reduced to a level of insignificance. This is due to the dramatic reduction of potential residential densities in the southern portion of town, the existence of the town tree ordinance, reduced densities and intensities in the southerly secondary planning area, and the lack of wetlands and/or vernal pool areas within the primary study area. In addition, the revised draft *General Plan* emphasizes a growth management strategy based upon environmental and infrastructural constraints.

5.0 GENERAL PLAN ALTERNATIVES

The discussion of *General Plan* (project) alternatives found in Chapter four of the draft EIR is still valid and important. However, the revised draft *General Plan* constitutes a sixth alternative for consideration. Alternatives one through four were created by the four citizen subcommittees, and the fifth, which is described as the environmentally superior alternative was a hybrid of the first four. The General Plan Revision Steering Committee had melded many of the components of the four citizen subcommittee alternatives into a "preferred alternative, which become the draft *General Plan*.

The revised draft *General Plan* as described in the second section of this EIR addendum, is considered a more environmentally superior alternative than the previous "preferred alternative" (original draft *General Plan*) for the following reasons:

1. Build out projections in both the primary and secondary planning areas have been significantly reduced.
2. Population estimates within the planning area have been significantly reduced.
3. The safeguards, standards, and mitigation measures contained in the original draft *General Plan* intended to prevent incompatible and significantly increased growth in the secondary and tertiary planning areas have been retained in the revised draft *General Plan*.



6.0 MANDATORY CEQA SECTIONS

Sections 5.1 through 5.5 of the draft EIR are still accurate and valid as a result of the revised draft *General Plan*. The identification of air quality and water consumption as significant cumulative impacts still exist, yet are reduced because build out projections and population estimates have been significantly reduced.



**7.0 ADDENDUM TO THE FINAL ENVIRONMENTAL IMPACT REPORT
AS IT RELATES TO THE PROPOSED 1994 PARADISE GENERAL
PLAN AMENDMENT TO THE TEXT OF THE HOUSING ELEMENT
(GA-98-001)**

TOWN OF PARADISE

**ADDENDUM TO THE "FINAL ENVIRONMENTAL IMPACT REPORT"
FOR THE 1994 PARADISE GENERAL PLAN AS IT RELATES
TO THE PROPOSED 1994 PARADISE GENERAL
PLAN AMENDMENT TO THE TEXT OF THE
HOUSING ELEMENT (GA-98-001)**

PREPARED JUNE 12, 1998
TOWN OF PARADISE
COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

The proposed amendment to the 1994 Paradise General Plan entails a proposal to establish minor text changes of the housing element in response to comments received from the State Department of Housing and Community Development and in order to make the Paradise Housing Element in compliance with current State housing element law.

This addendum has been prepared pursuant to Section 15164 of the California Environmental Quality Act. As set forth in Section 15164, the Addendum does not require circulation for public review. In compliance with Section 15162 of the California Environmental Quality Act the following findings are made for the Addendum:

- **No substantial changes are proposed in the project which would require major revisions of the EIR.**

DISCUSSION: The Town of Paradise is proposing the establishment of text amendments to the housing element of the 1994 Paradise General Plan in response to comments received from the State Department of Housing and Community Development. The amendment entails text changes to the housing element that expand or add discussion of the following topics: 1) analysis of governmental constraints upon housing, 2) identification and analysis of lands suitable for residential development as related to zoning and available public facilities and services, and 3) an analysis of existing assisted housing developments that are eligible to change from low-income housing uses, etc. The topics discussed within the proposed housing element text amendments do not involve any new significant environmental effects nor any increase in the severity of previously identified significant effects of the 1994 Paradise General Plan EIR.

- **No substantial changes occurred with respect to the circumstances under which the project is undertaken which will require major revision of the previous EIR due to the effects or a substantial increase in the severity of previously identified significant effects.**

DISCUSSION: As indicated above, no new impacts are associated with the changes to the text of the housing element.

- **New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time that the previous 1994 Paradise General Plan EIR was certified as complete.**

DISCUSSION: No new information which would result in a significant impact not identified in the 1994 Paradise General Plan EIR has surfaced as a result of this proposed Town of Paradise action (GA-98-001).

It is concluded that the text changes of the housing element to be established by this proposed amendment to the 1994 Paradise General Plan does not require the preparation of a subsequent EIR due to the reasons stated above, and that the use of an Addendum is consistent with the provisions of the California Environmental Quality Act.

NOTE: On July 7, 1998 the Town Council of the Town of Paradise adopted this amendment document.



CAMP FIRE ALTERNATIVE FIRE DEBRIS REMOVAL PROGRAM

COMPLETION OF PROPERTY CLEANUP

ADDRESS: 6227 MELODY LN, PARADISE, CA 95969

APN: 050-200-158

CASE #: EHDR19-13180

Butte County Department of Public Health, Environmental Health Division has reviewed the Alternative Fire Debris Removal Program Cleanup Completion Certification for your property and has determined that fire related ash and debris were removed consistent with your approved work plan. In addition, based on collected soil samples taken following debris removal, the property has met the cleanup standards, which either meets health screening criteria, or in the alternative, is consistent with native background conditions for the area in which your structure was located.

You may now initiate rebuilding efforts on your property. The appropriate town or county building department will be notified of this clearance so they may issue building permits.

To protect your property and the environment, erosion control Best Management Practices (BMPs) should remain or be in place on your property upon completion of debris removal. BMPs are protective measures that stabilize disturbed areas to minimize erosion, prevent site runoff pollution, and protect our water resources. In accordance with state and local laws and regulations, please ensure you replace and/or improve these erosion control measures to prevent water quality pollution over the rainy season.

Environmental Health Representative:

Name: Raymond Ruminski

Signature: Raymond Ruminski Date: 04-30-2019



CAMP FIRE ALTERNATIVE FIRE DEBRIS REMOVAL PROGRAM

COMPLETION OF PROPERTY CLEANUP

ADDRESS: 6249 PINECREST DR, PARADISE, CA 95969

APN: 050-200-010

CASE #: EHDR19-02122

Butte County Department of Public Health, Environmental Health Division has reviewed the Alternative Fire Debris Removal Program Cleanup Completion Certification for your property and has determined that fire related ash and debris were removed consistent with your approved work plan. In addition, based on collected soil samples taken following debris removal, the property has met the cleanup standards, which either meets health screening criteria, or in the alternative, is consistent with native background conditions for the area in which your structure was located.

You may now initiate rebuilding efforts on your property. The appropriate town or county building department will be notified of this clearance so they may issue building permits.

To protect your property and the environment, erosion control Best Management Practices (BMPs) should remain or be in place on your property upon completion of debris removal. BMPs are protective measures that stabilize disturbed areas to minimize erosion, prevent site runoff pollution, and protect our water resources. In accordance with state and local laws and regulations, please ensure you replace and/or improve these erosion control measures to prevent water quality pollution over the rainy season.

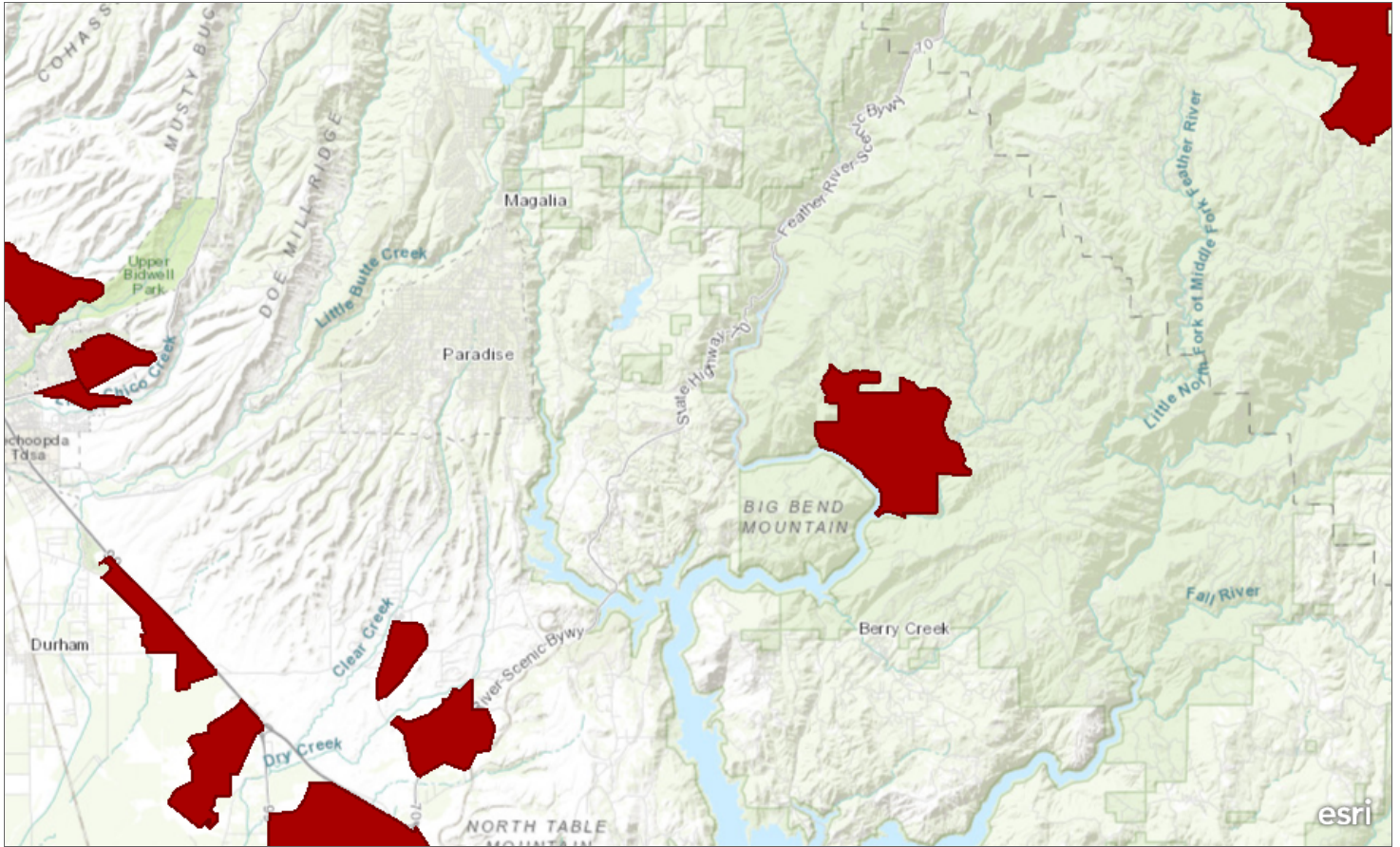
Environmental Health Representative:

Name: Christine Brown

Signature: Christine Brown

Date: 11/27/19

Critical Habitat for Threatened & Endangered Species [USFWS]



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Butte County, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

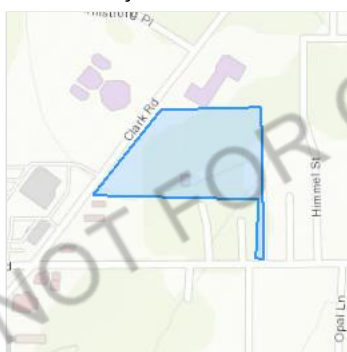
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Butte County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

| NAME | STATUS |
|---|---------------------|
| California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266 | Proposed Threatened |

Amphibians

| NAME | STATUS |
|--|---------------------|
| California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891 | Threatened |
| Foothill Yellow-legged Frog <i>Rana boylei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133 | Proposed Threatened |

Insects

| NAME | STATUS |
|---|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743 | Candidate |

Crustaceans

| NAME | STATUS |
|--|------------|
| Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8246 | Endangered |

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Jan 1 to Aug 31 |

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

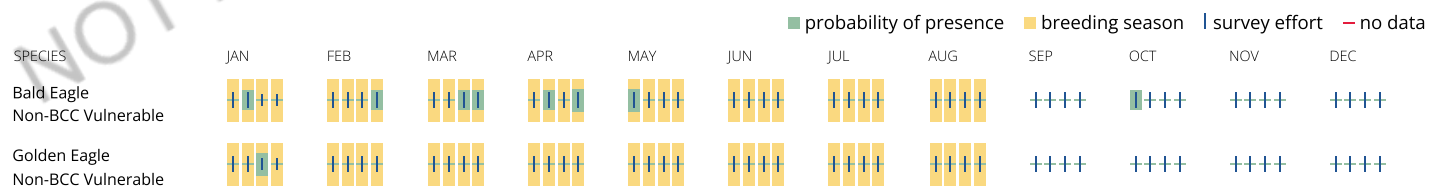
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 1 to Aug 31 |
| Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Mar 21 to Jul 25 |
| California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Jan 1 to Jul 31 |
| Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Jun 1 to Aug 31 |
| Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084 | Breeds May 20 to Jul 31 |
| Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680 | Breeds Jan 1 to Aug 31 |
| Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464 | Breeds Mar 20 to Sep 20 |
| Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410 | Breeds Apr 1 to Jul 20 |

Oak Titmouse *Baeolophus inornatus*

Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9656>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/3914>

Western Grebe *Aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/6743>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

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2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
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Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

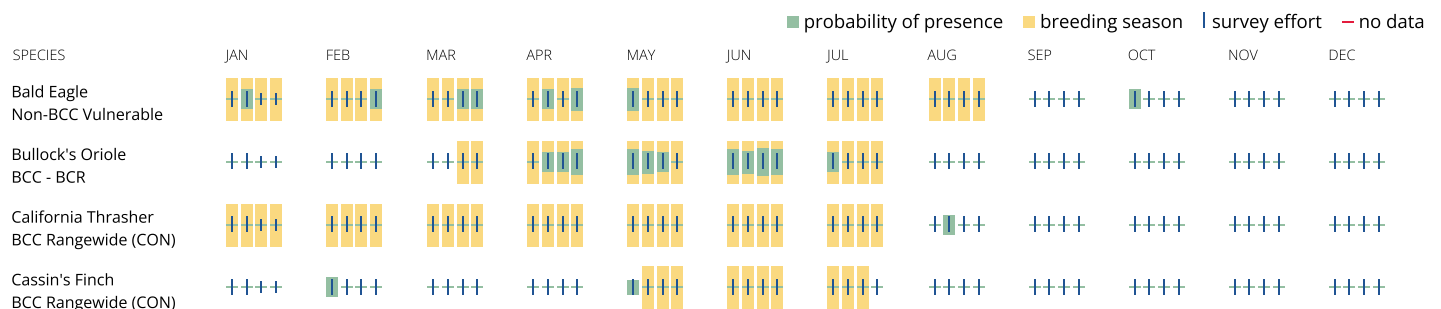
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No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



| | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| Clark's Grebe BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Common Yellowthroat BCC - BCR | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Golden Eagle Non-BCC Vulnerable | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Lawrence's Goldfinch BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Nuttall's Woodpecker BCC - BCR | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Oak Titmouse BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Olive-sided Flycatcher BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| Western Grebe BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |
| SPECIES | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| Wrentit BCC Rangewide (CON) | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ | ++++ |

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Query Summary:

Quad IS (Paradise East (3912175) OR Paradise West (3912176) OR Pulga (3912174) OR Cohasset (3912186) OR Stirling City (3912185) OR Kimshew Point (3912184) OR Berry Creek (3912164) OR Cherokee (3912165) OR Hamlin Canyon (3912166))
 AND Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) OR State Listing Status IS (Endangered OR Threatened OR Candidate Endangered OR Candidate Threatened)

Print Close

CNDDDB Element Query Results

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|-------------------------------------|---|-----------------|--------------|------------|---------------|---------------------|----------------------|-------------|------------|--------------------|---|--|
| Agelaius tricolor | tricolored blackbird | Birds | ABPBXB0020 | 955 | 1 | None | Threatened | G1G2 | S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern | Freshwater marsh, Marsh & swamp, Swamp, Wetland |
| Bombus crotchii | Crotch bumble bee | Insects | IIHYM24480 | 437 | 1 | None | Candidate Endangered | G2 | S2 | null | IUCN_EN-Endangered | null |
| Bombus occidentalis | western bumble bee | Insects | IIHYM24252 | 306 | 1 | None | Candidate Endangered | G3 | S1 | null | IUCN_VU-Vulnerable, USFS_S-Sensitive | null |
| Desmocerus californicus dimorphus | valley elderberry longhorn beetle | Insects | IICOL48011 | 271 | 1 | Threatened | None | G3T3 | S3 | null | null | Riparian scrub |
| Euphorbia hooveri | Hoover's spurge | Dicots | PDEUP0D150 | 29 | 1 | Threatened | None | G1 | S1 | 1B.2 | null | Vernal pool, Wetland |
| Haliaeetus leucocephalus | bald eagle | Birds | ABNKC10010 | 332 | 2 | Delisted | Endangered | G5 | S3 | null | BLM_S-Sensitive, CDFW_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern, USFS_S-Sensitive | Lower montane coniferous forest, Oldgrowth |
| Laterallus jamaicensis coturniculus | California black rail | Birds | ABNME03041 | 303 | 3 | None | Threatened | G3T1 | S2 | null | BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered | Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland |
| Lepidurus packardi | vernal pool tadpole shrimp | Crustaceans | ICBRA10010 | 330 | 2 | Endangered | None | G3 | S3 | null | IUCN_EN-Endangered | Valley & foothill grassland, Vernal pool, Wetland |
| Oncorhynchus mykiss irideus pop. 11 | steelhead - Central Valley DPS | Fish | AFCHA0209K | 31 | 2 | Threatened | None | G5T2Q | S2 | null | AFS_TH-Threatened | Aquatic, Sacramento/San Joaquin flowing waters |
| Oncorhynchus tshawytscha pop. 11 | chinook salmon - Central Valley spring-run ESU | Fish | AFCHA0205L | 13 | 2 | Threatened | Threatened | G5T2Q | S2 | null | AFS_TH-Threatened | Aquatic, Sacramento/San Joaquin flowing waters |
| Rana boylei pop. 2 | foothill yellow-legged frog - Feather River DPS | Amphibians | AAABH01052 | 117 | 56 | Proposed Threatened | Threatened | G3T2 | S2 | null | BLM_S-Sensitive, USFS_S-Sensitive | Aquatic, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters |

| | | | | | | | | | | | | |
|------------------|----------------------------|------------|------------|------|---|------------|----------------------|------|------|------|--|--|
| Rana cascadae | Cascades frog | Amphibians | AAABH01060 | 464 | 1 | None | Candidate Endangered | G3 | S3 | null | CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFS_S-Sensitive | Aquatic, Lower montane coniferous forest |
| Rana draytonii | California red-legged frog | Amphibians | AAABH01022 | 1686 | 2 | Threatened | None | G2G3 | S2S3 | null | CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable | Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland |
| Tuctoria greenei | Greene's tuctoria | Monocots | PMPOA6N010 | 50 | 1 | Endangered | Rare | G1 | S1 | 1B.1 | null | Vernal pool, Wetland |



Image Details

California Spotted Owl

 FWS Focus

Overview

The California spotted owl is a medium-sized brown owl with white spots on its head and chest and a barred tail. It has dark brown eyes surrounded by large facial disks.

The California spotted owl is a subspecies of spotted owl that occurs throughout the Sierra Nevada mountain range in California and Nevada; in southern and coastal California in the Coastal, Transverse, and Peninsular mountain ranges; and in Sierra San Pedro Martir in Baja California Norte, Mexico. California spotted owls are mostly found on lands managed by the U.S. Forest Service and National Park Service.

Scientific Name

Strix occidentalis occidentalis

Common Name

California spotted Owl

FWS Category

Birds

Kingdom

Animalia

Location in Taxonomic Tree ()

Species


↳ *Strix occidentalis*

Subspecies

↳ *Strix occidentalis occidentalis*

Identification Numbers

TSN:  ()

177927 

Characteristics

HABITAT



Habitat

The California spotted owl is a subspecies of spotted owl that occurs throughout the Sierra Nevada mountain range in California and Nevada; in southern and coastal California in the Coastal, Transverse, and Peninsular mountain ranges; and in Sierra San Pedro Martir in Baja California Norte, Mexico. California spotted owls are mostly found on lands managed by the U.S. Forest Service and National Park Service.

California spotted owls generally inhabit older forests that contain structural characteristics necessary for nesting, roosting, and foraging. In the Sierra Nevada range, a majority of California spotted owls occur within mid-elevation ponderosa pine, mixed conifer, white fir, and mixed-evergreen forest types, with fewer owls occurring in the

lower elevation oak woodlands of the western foothills. On the central coast of California and in southern California, the owls are found in riparian /hardwood forests and woodlands, live oak/big cone fir forests, and redwood/California laurel forests. Nests are typically found in areas of high canopy cover, a high number of large trees, and downed trees.

Forest

A dense growth of trees and underbrush covering a large tract.

Mountain

A landmass that projects conspicuously above its surroundings and is higher than a hill.

PHYSICAL CHARACTERISTICS



FOOD



LIFE CYCLE



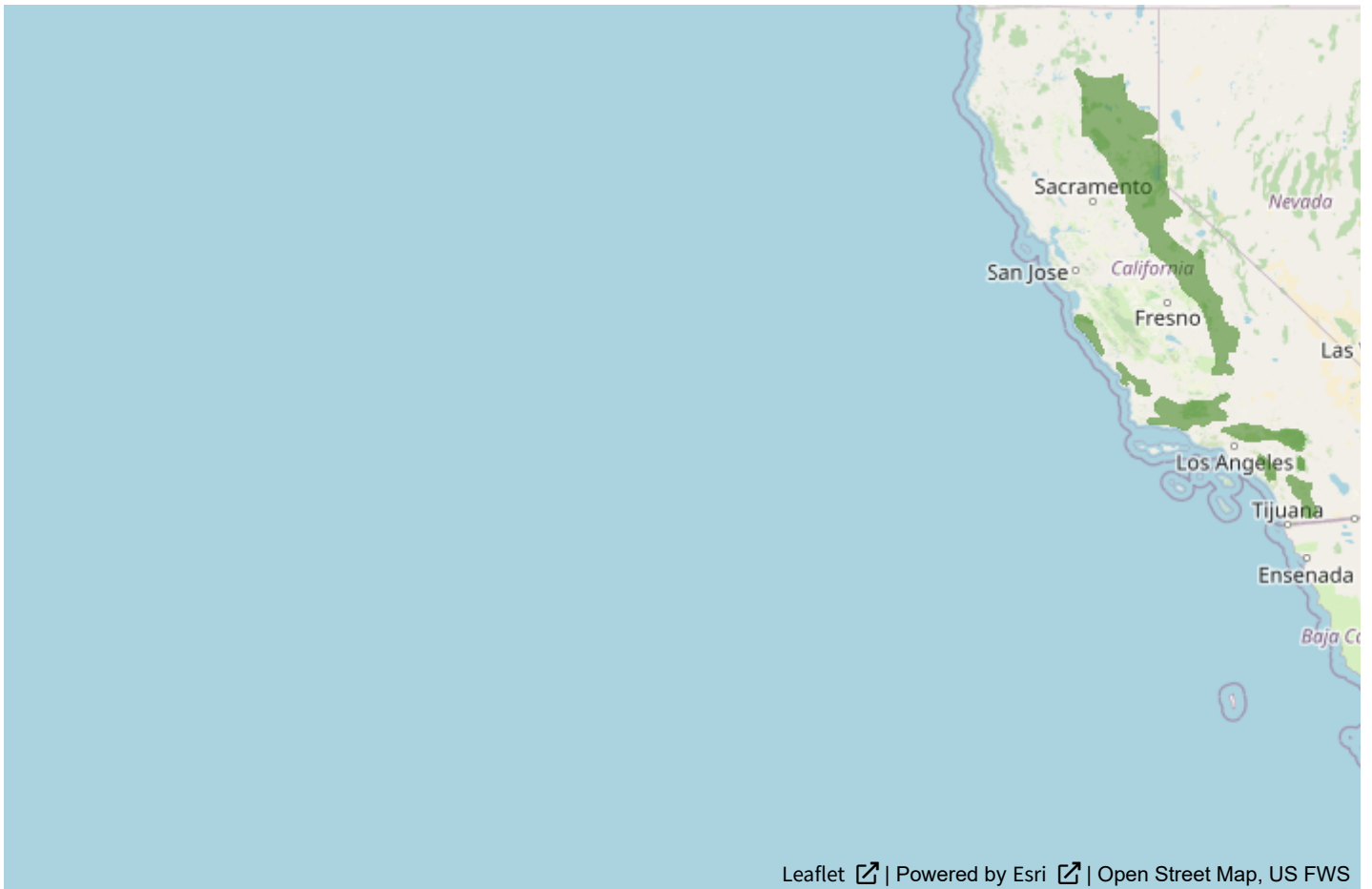
SIMILAR SPECIES



Geography

LAUNCH INTERACTIVE MAP





Leaflet | Powered by Esri | Open Street Map, US FWS


Timeline

Explore the information available for this taxon's timeline. You can select an event on the timeline to view more information, or cycle through the content available in the carousel below.

17 ITEMS



Feb 23, 2023

 Listing (Endangered)



California Spotted Owl; Endangered Status for the Coastal Southern California Distinct Population Seg...

Publication type: Proposed

Population:

[VIEW FEDERAL REGISTER DOCUMENT](#)

ITEM 17

Key:

Event Regulatory Status Change

Refine Your Search


Content Type

- 4d
- Document
- Image
- Listing
- NEPA - EA
- NEPA - EIS
- Notice
- Permit
- Press Release
- Species Status Assessment Reports
- Story

Filter By Publish Date

 Start Date



 End Date



Information & Media

Below is a list of additional information and media on this taxon. You can further refine your results, or enter a search term below.

Enter Search Term



Sort by



Items 1-10 of 40

Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition To List the California Spotted Owl (*Strix occidentalis occidentalis*):petitioned action is not warranted.

Listing

Feb 14, 2003

12m petition finding

Notice of Availability of a Draft Environmental Impact Statement/Environmental Impact Report and Receipt of an Application for an Incidental Take Permit for the Western Riverside County Multiple Species Habitat Conservation Plan

Permit

Nov 15, 2002

Application Received

Endangered and Threatened Wildlife and Plants; Reopening of Comment Period on Proposed Critical Habitat for the Mexican Spotted Owl; Availability of Draft Economic Analysis and Draft Environmental Assessment

Notice

Oct 20, 2000

Comment Period Reopening

Spotted Owl

"A Spotted Owl flies down to catch a mouse." by Mount Rainier National Park from Ashford, WA, United States is licensed under Creative Commons Attribution 2.0 Generic:

[https://commons.wikimedia.org/wiki/File:Female_Spotted_Owl_\(14412489519\).jpg](https://commons.wikimedia.org/wiki/File:Female_Spotted_Owl_(14412489519).jpg)

Image

Jul 1, 2014

Final

Preparation of an Environmental Impact Statement for the North County Multiple Species Conservation Program, San Diego, CA

NEPA - EIS

Mar 14, 2005

Draft

Preparation of an Environmental Impact Statement for Issuance of an Incidental Take Permit Associated with a Habitat Conservation Plan for Western Placer County, CA

NEPA - EIS

Mar 7, 2005

Draft

Species Status Assessment Report for the California Spotted Owl (*Strix occidentalis occidentalis*)

Species Status Assessment Reports

Jun 30, 2019

Version 1.0

Endangered and Threatened Wildlife and Plants; 90-Day Findings on 25 Petitions

Listing

Sep 18, 2015

90 day petition finding



Comparison of spotted owl subspecies

There are three subspecies of spotted owl (*Strix occidentalis*) that live in the western United States – the northern spotted owl, the California spotted owl and the Mexican spotted owl, pictured here from left to right. (Northern spotted owl, Credit: John and Karen Hollingsworth/USFWS; California...

Image

Feb 28, 2023

John and Karen Hollingsworth (NSO); Rick Kuyper (CSO); and Shaula Hedwall (MSO)



What is a healthy forest? Infographic

Image

Oct 5, 2022

Cal Robinson



Image Details

Conservancy Fairy Shrimp



Overview

The Conservancy fairy shrimp is a small, freshwater crustacean named for The Nature Conservancy, an organization that has protected several vernal pool ecosystems in California that support the species. Conservancy fairy shrimp are restricted to vernal pools found in California's Central Valley from Tehama County in the north to Merced County in the south. However, there is one outlying population in Ventura County's Interior Coast Ranges. The Conservancy fairy shrimp was listed as endangered September 19, 1994.

Threats facing the species include:

- Habitat loss, fragmentation and degradation from development and agriculture
- Poor grazing practices
- Non-native plants and grasses
- Climate change and drought
- Pesticides

Scientific Name

Branchinecta conservatio

Common Name

conservancy fairy shrimp

FWS Category

Crustaceans

Kingdom

Animalia

Location in Taxonomic Tree ()

Genus


↳ *Branchinecta*

Species

↳ *Branchinecta conservatio*

Identification Numbers

TSN:  ()

624021 

Characteristics

SIMILAR SPECIES



HABITAT



Habitat

Conservancy fairy shrimp are extremely rare and only found in California's Central Valley. They mostly live in relatively large, turbid freshwater vernal pools called playa pools. Currently, the U.S. Fish and Wildlife Service is aware of 10 populations of Conservancy

fairy shrimp:

Vina Plains, Butte and Tehama counties
Sacramento National Wildlife Refuge, Glenn County
Mariner Ranch, Placer County
Yolo Bypass Wildlife Area, Yolo County
Jepson Prairie, Solano County
Mapes Ranch, Stanislaus County
University of California, Merced, Merced County
Grasslands Ecological Area, Merced County
Sandy Mush Road, Merced County
Los Padres National Forest, Ventura County

Conservancy fairy shrimp have been found at elevations ranging from 16 to 5,577 feet (5 to 1,700 meters) above sea level. The species has been found at sites that are low in alkalinity that range from 16 to 47 parts per million.

Grassland

Land on which the natural dominant plant forms are grasses and forbs.

Rural

Environments influenced by humans in a less substantial way than cities. This can include agriculture, silvaculture, aquaculture, etc.

Wetland

Areas such as marshes or swamps that are covered often intermittently with shallow water or have soil saturated with moisture.

FOOD



PHYSICAL CHARACTERISTICS

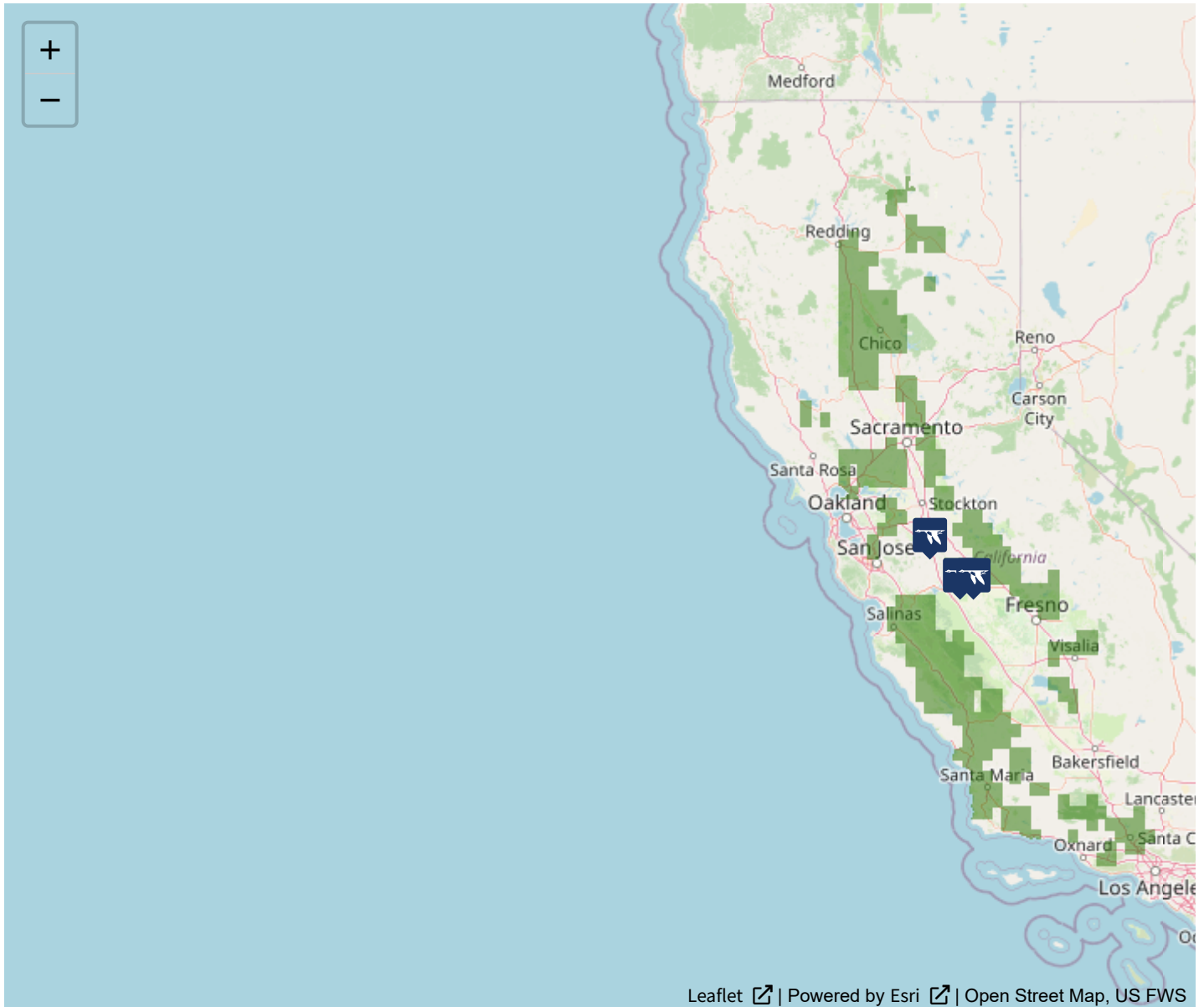


LIFE CYCLE



Geography

LAUNCH INTERACTIVE MAP




Timeline

Explore the information available for this taxon's timeline. You can select an event on the timeline to view more information, or cycle through the content available in the carousel below.

17 ITEMS



May 20, 2021

 Five Year Review (Information Solicitation)

Initiation of 5-Year Status Reviews of 76 Species in California and Nevada; request for information

Publication type: Notice

Population:

[VIEW FEDERAL REGISTER DOCUMENT](#)

ITEM 17

Key:

 Event

 Regulatory Status Change

Refine Your Search

Content Type

Biological Opinion


Conservation Plan

- Critical Habitat
- Five Year Review
- Image
- Listing
- NEPA - EIS
- Notice
- Recovery Plan
- Staff Profile

Filter By Publish Date

 Start Date



 End Date



Information & Media

Below is a list of additional information and media on this taxon. You can further refine your results, or enter a search term below.

Enter Search Term



Sort by



Items 1-10 of 46

Final rule; administrative revisions - Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants

Critical Habitat

Feb 10, 2006

Final

Initiation of 5-Year Reviews of Species in California, Nevada, and the Klamath Basin of Oregon

Five Year Review

May 25, 2011

Notice

Critical Habitat Designation for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; proposed rule; notice of availability of draft economic analysis; extension of comment period.

Notice

Nov 21, 2002

Comment Period Reopening

Fish and Wildlife Service, Interior:Draft Environmental Impact Report/Environmental Impact Statement and Habitat Conservation Plan for the Natomas Basin, Sacramento County, CA; Extension of comment period and notice of availability.

NEPA - EIS

Nov 4, 2002

Draft

HCP, Set of Findings

Conservation Plan

HCP, The HCP

Conservation Plan

HCP, The HCP
Conservation Plan

HCP, NEPA - ROD
Conservation Plan

HCP, Set of Findings
Conservation Plan

Endangered and Threatened Wildlife and Plants; Critical Habitat Designation for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon

Notice

Oct 10, 2002

Public Hearing



6480 clark road



2 sites found

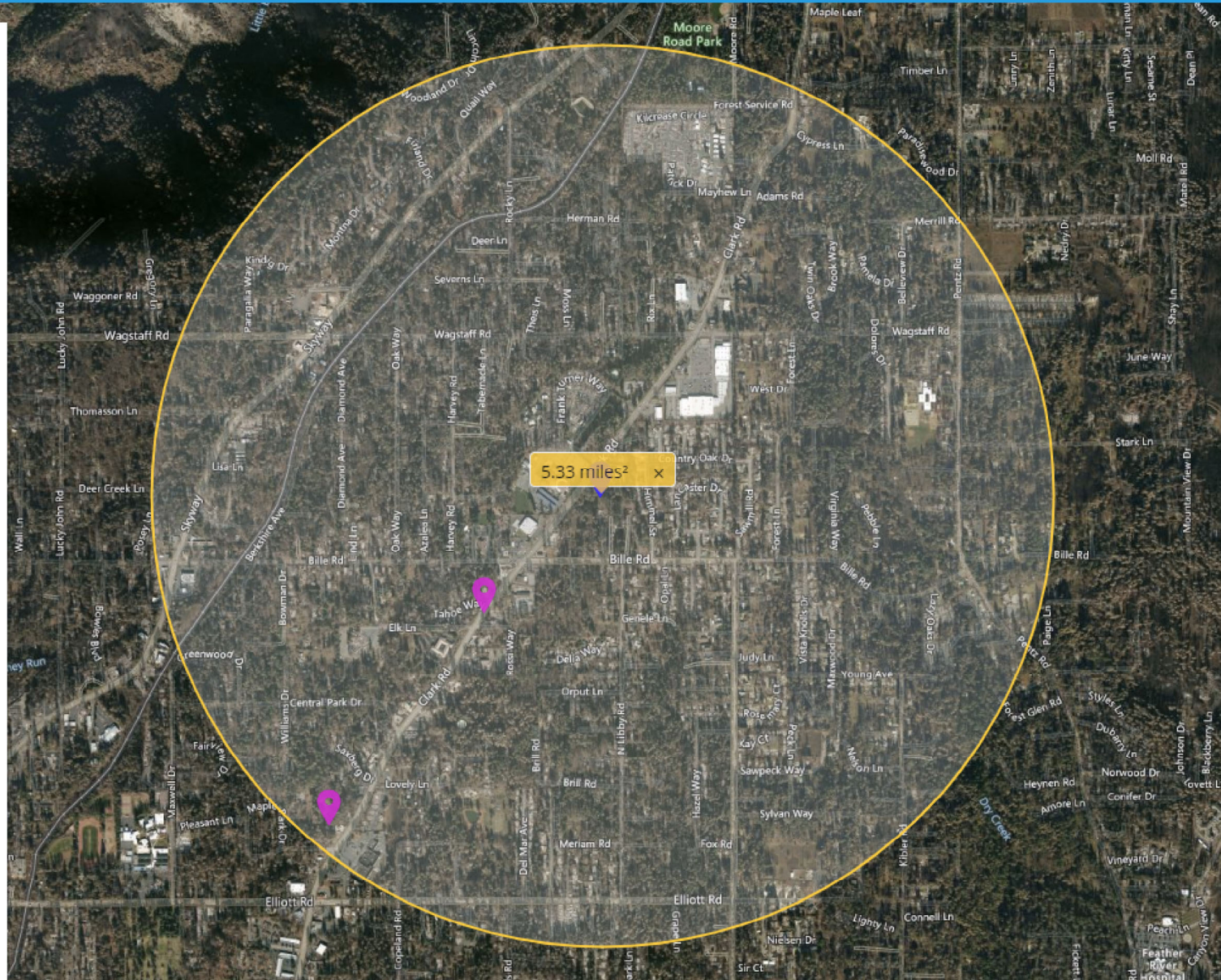
Aboveground Petroleum Storage

Did you mean: 6480 Clark Rd, Paradise, CA 95969

JIFFY LUBE #3359
6081 CLARK RD
PARADISE CA 95969



Paradise Irrigation Corp. Yard
6344 CLARK RD
PARADISE CA 95969





Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?

Yes: No:

Is the container under pressure?

Yes: No:

Does the container hold a cryogenic liquified gas?

Yes: No:

Is the container diked?

Yes: No:

What is the volume (gal) of the container?

599

What is the Diked Area Length (ft)?

What is the Diked Area Width (ft)?

Calculate Acceptable Separation Distance

Diked Area (sqft)

ASD for Blast Over Pressure (ASDBOP)

184.89

ASD for Thermal Radiation for People (ASDPPU)

223.40

ASD for Thermal Radiation for Buildings (ASDBPU)

39.67

ASD for Thermal Radiation for People (ASDPNPD)

ASD for Thermal Radiation for Buildings (ASDBNPD)



Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Related Information

- [ASD User Guide](#)
- [ASD Flow Chart](#)

Acceptable Separation Distance Assessment Tool

Is the container above ground? Yes: No:

Is the container under pressure? Yes: No:

Does the container hold a cryogenic liquified gas? Yes: No:

Is the container diked? Yes: No:

What is the volume (gal) of the container?

What is the Diked Area Length (ft)?

What is the Diked Area Width (ft)?

[Calculate Acceptable Separation Distance](#)

Diked Area (sqft)

ASD for Blast Over Pressure (ASDBOP)

ASD for Thermal Radiation for People (ASDPPU)

ASD for Thermal Radiation for Buildings (ASDBPU)

ASD for Thermal Radiation for People (ASDPNPD)

ASD for Thermal Radiation for Buildings (ASDBNPD)



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Does the container hold a cryogenic liquified gas? Yes: No:

Is the container diked? Yes: No:

What is the volume (gal) of the container?

What is the Diked Area Length (ft)?

What is the Diked Area Width (ft)?

[Calculate Acceptable Separation Distance](#)

Diked Area (sqft)

ASD for Blast Over Pressure (ASDBOP)

ASD for Thermal Radiation for People (ASDPPU)

ASD for Thermal Radiation for Buildings (ASDBPU)

ASD for Thermal Radiation for People (ASDPNPD)

ASD for Thermal Radiation for Buildings (ASDBNPD)



| | |
|---|---|
| Is the container under pressure? | Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> |
| Does the container hold a cryogenic liquified gas? | Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/> |
| Is the container diked? | Yes: <input type="checkbox"/> No: <input type="checkbox"/> |
| What is the volume (gal) of the container? | <input type="text" value="8999"/> |
| What is the Diked Area Length (ft)? | <input type="text"/> |
| What is the Diked Area Width (ft)? | <input type="text"/> |
| <input type="button" value="Calculate Acceptable Separation Distance"/> | |
| Diked Area (sqft) | <input type="text"/> |
| ASD for Blast Over Pressure (ASDBOP) | <input type="text" value="452.85"/> |
| ASD for Thermal Radiation for People (ASDPPU) | <input type="text" value="690.74"/> |
| ASD for Thermal Radiation for Buildings (ASDBPU) | <input type="text" value="138.84"/> |
| ASD for Thermal Radiation for People (ASDPNPD) | <input type="text"/> |
| ASD for Thermal Radiation for Buildings (ASDBNPD) | <input type="text"/> |

For mitigation options, please click on the following link: [Mitigation Options](#)



Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground? Yes: No:

Is the container under pressure? Yes: No:

Does the container hold a cryogenic liquified gas? Yes: No:

Is the container diked? Yes: No:

What is the volume (gal) of the container?

119999

What is the Diked Area Length (ft)?

What is the Diked Area Width (ft)?

Calculate Acceptable Separation Distance

Diked Area (sqft)

ASD for Blast Over Pressure (ASDBOP)

1066.29

ASD for Thermal Radiation for People (ASDPPU)

2032.29

ASD for Thermal Radiation for Buildings (ASDBPU)

459.84

ASD for Thermal Radiation for People (ASDPNPD)

ASD for Thermal Radiation for Buildings (ASDBNPD)

California Important Farmland Finder

Ca. Dept of Conservation



Show search results for 6480 C...

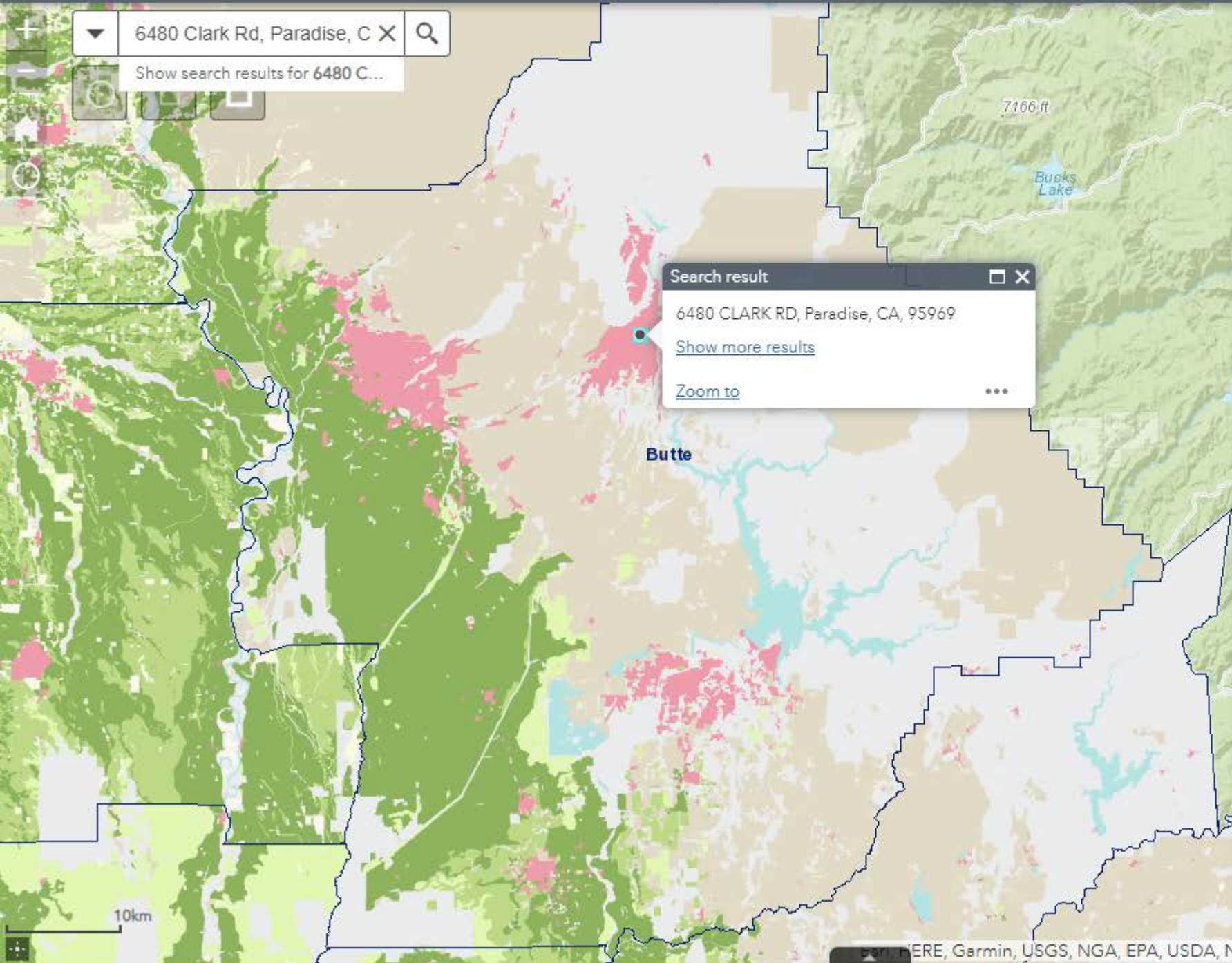


Search result

6480 CLARK RD, Paradise, CA, 95969

[Show more results](#)

[Zoom to](#)



Legend

County Boundaries

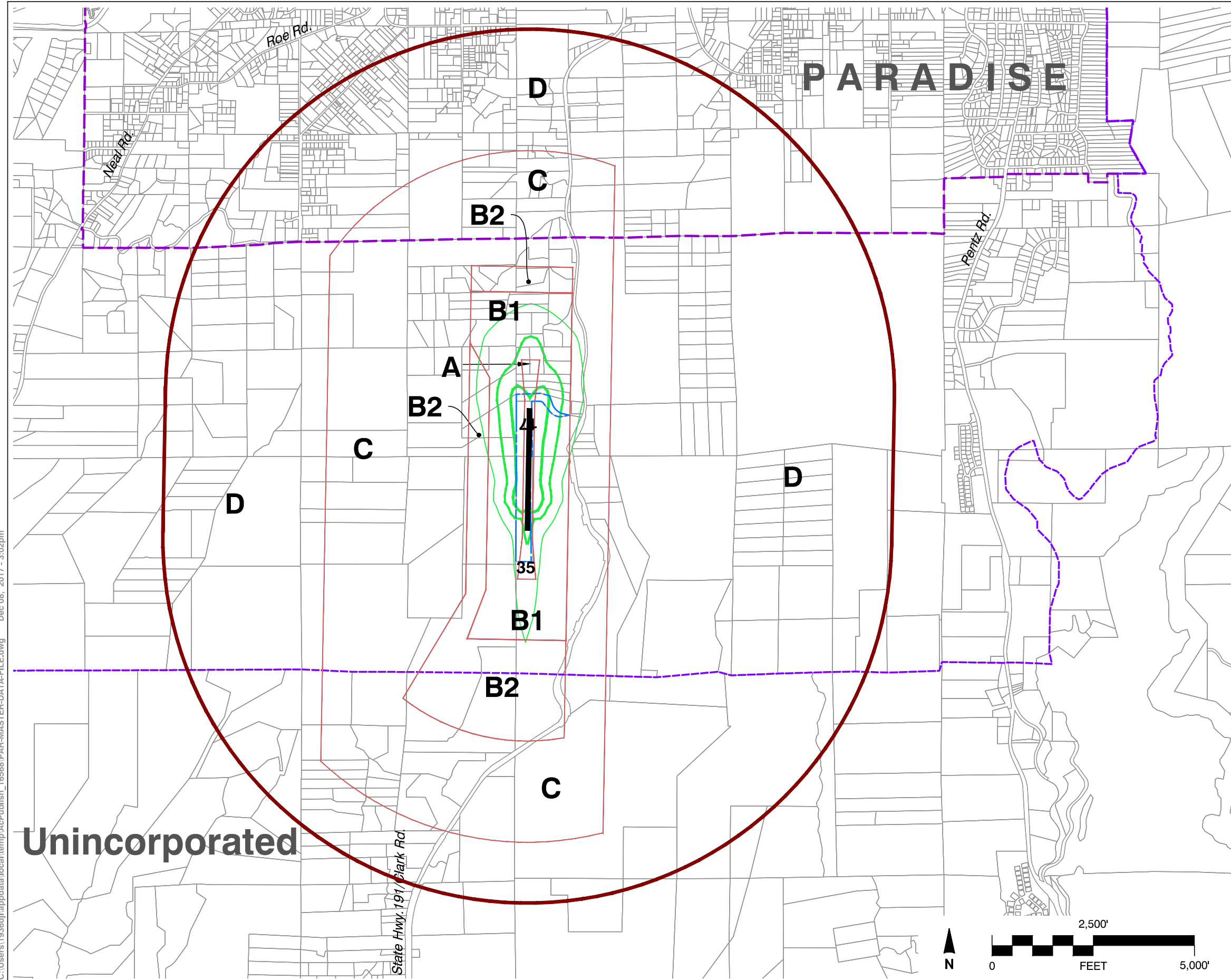
County Boundaries



California Important Farmland: Most Recent

Most Recent

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Grazing Land
- Farmland of Local Importance
- Farmland of Local Potential
- Other Land
- Confined Animal Agriculture
- Nonagricultural or Natural Vegetation
- Vacant or Disturbed Land
- Rural Residential Land
- Semi-agricultural and Rural Commercial Land
- Urban and Built-Up Land
- Water Area
- Irrigated Farmland
- Nonirrigated Farmland



Legend

Boundary Lines

- Existing Runway 17-35 (3,017' x 60')
- Airport Property Line
- City Limits
- City Sphere of Influence
- Compatibility Zones
- Airport Influence Area

Noise Factors¹

- 55 dB CNEL
 - 60 dB CNEL
 - 65 dB CNEL
- } 30,000 Future Annual Operations

Notes:

1. Noise Contour Source: Butte County Airport Land Use Compatibility Plan (2000); for compatibility planning purposes, the ALUCP forecast is brought forward to cover the requisite 20-year timeframe.

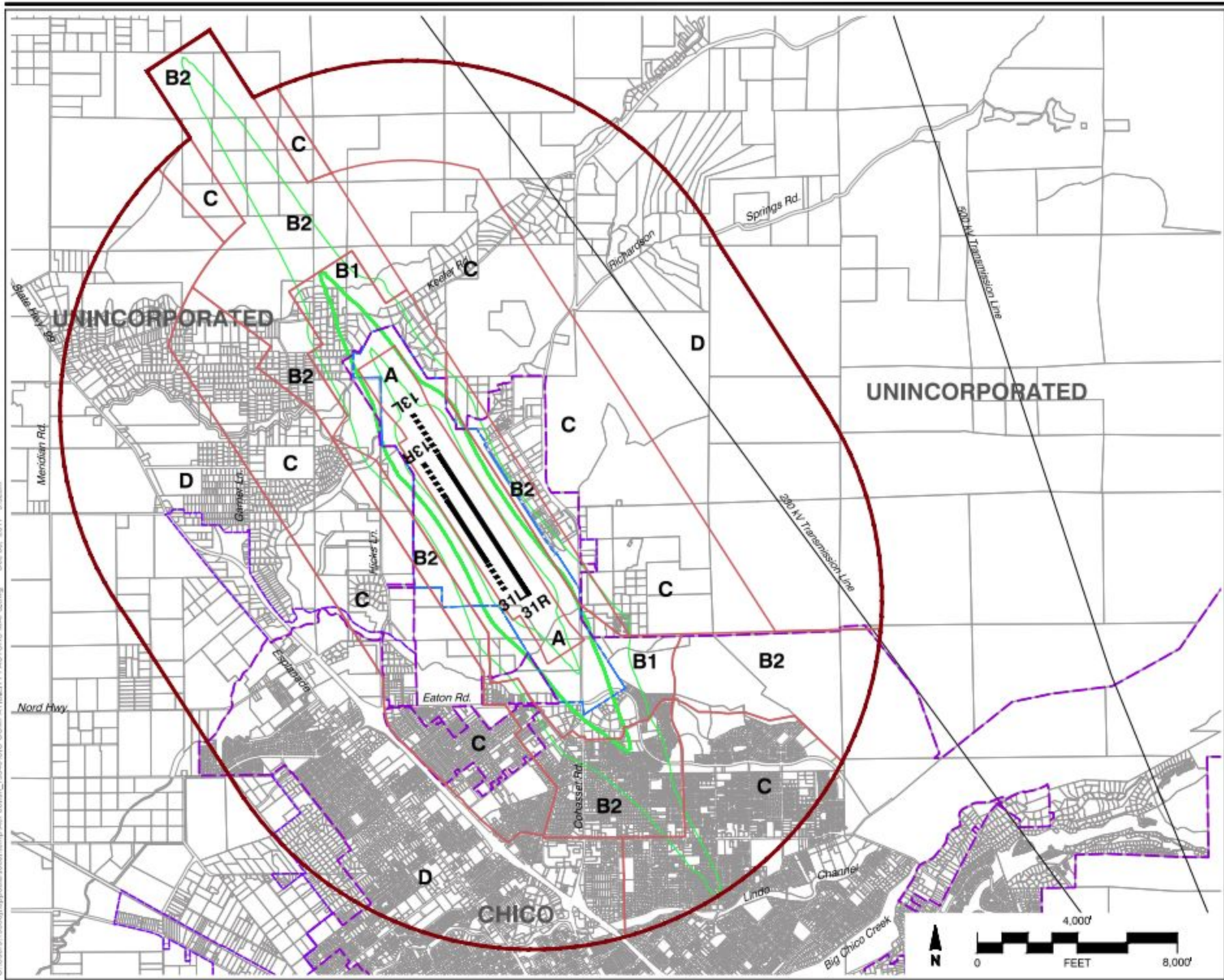
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Butte County
Airport Land Use Commission
Paradise Skypark Airport
Land Use Compatibility Plan
(Adopted November 15, 2017)

Exhibit 7-4

Compatibility Factors Map:
Noise
Paradise Skypark Airport





Legend

- Boundary Lines**
- Existing Runway
 - Runway 13L-31R (6,724' X 150')
 - Runway 13R-31L (3,000' X 60')
 - Future Runway Extension
 - Runway 13L-31R (8,600' Ult. Total Length)
 - Runway 13R-31L (6,000' Ult. Total Length)
 - Airport Property Line
 - City Limits
 - City Sphere of Influence
 - Compatibility Zones
 - Airport Influence Area

- Noise Impacts - Expanded Forecast¹**
- 55 dB CNEL
 - 60 dB CNEL
 - 65 dB CNEL
- 141,700 Future Annual Operations

- Notes:**
- Noise Contour Source: Butte County Airport Land Use Compatibility Plan (2000); for compatibility planning purposes, forecast assumes 1.5 times the draft Chico Airport Master Plan 2018 forecast of 94,740 annual operations will be reached over a 20-year timeframe.

Butte County
 Airport Land Use Commission
**Chico Municipal Airport
 Land Use Compatibility Plan**
 (Adopted November 15, 2017)

Exhibit 5-4
**Compatibility Factors Map:
 Noise**
 Chico Municipal Airport

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**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|----------------------------|----------------------------|------------------------------|---------------------|---------------------|---------------|
| 1 | Biggs | 8TH ST | N of G ST | 1,258 | 120 | 111 | 275 |
| 2 | Biggs | B ST | E of 7TH ST | 1,972 | 138 | 209 | 1 |
| 3 | Biggs | B ST | E of FIRST ST | 2,338 | 181 | 227 | 2 |
| 4 | Biggs | W BIGGS GRIDLEY RD | S of BANNOCK ST | 1,894 | 145 | 180 | 72 |
| 5 | Chico | ALAMO AVE | N of W EAST AVE | 891 | 85 | 89 | 3 |
| 6 | Chico | BIDWELL AVE | E of CARRIAGE LN | 542 | 36 | 68 | 4 |
| 7 | Chico | BROADWAY | N of SR 32 (8TH ST) | 7,499 | 586 | 696 | 5 |
| 8 | Chico | BROADWAY | S of 2ND ST | 5,913 | 510 | 575 | 242 |
| 9 | Chico | BRUCE RD | N of LAKEWEST DR | 12,593 | 1,018 | 1,208 | 225 |
| 10 | Chico | BRUCE RD | S of HUMBOLDT RD | 12,382 | 1,010 | 1,238 | 216 |
| 11 | Chico | BRUCE RD | N of SKYWAY | 7,258 | 564 | 660 | 6 |
| 12 | Chico | BRUCE RD | N of E 20TH ST | 10,701 | 818 | 995 | 7 |
| 13 | Chico | CACTUS AVE | N of EAST AVE | 614 | 65 | 60 | 8 |
| 14 | Chico | COHASSET RD | N of EATON RD | 10,002 | 855 | 991 | 237 |
| 15 | Chico | COHASSET RD | N of EAST AVE | 18,720 | 1,573 | 1,665 | 10 |
| 16 | Chico | COHASSET RD | S of EAST AVE | 26,713 | 2,068 | 2,362 | 11 |
| 17 | Chico | COHASSET RD | E of RIO LINDO AVE | 17,534 | 1,365 | 1,482 | 12 |
| 18 | Chico | CUSSIK AVE | N of W EAST AVE | 4,885 | 407 | 467 | 13 |
| 19 | Chico | DAYTON RD | S of ARCHER AVE | 6,650 | 451 | 610 | 14 |
| 20 | Chico | DR MARTIN LUTHER KING PKWY | N of SILVER DOLLAR WAY | 6,110 | 573 | 621 | 15 |
| 21 | Chico | E 1ST AVE | E of ESPLANADE | 12,298 | 931 | 958 | 49 |
| 22 | Chico | E 1ST AVE | W of ESPLANADE RD | 11,869 | 970 | 995 | 140 |
| 23 | Chico | E 1ST AVE | W of LONGFELLOW | 16,243 | 1,446 | 1,426 | 110 |
| 24 | Chico | E 1ST AVE | W of SHERMAN AVE | 19,604 | 1,503 | 1,601 | 240 |
| 25 | Chico | E 20TH ST | E of FOREST AVE | 13,493 | 1,018 | 1,188 | 16 |
| 26 | Chico | E 20TH ST | W of BRUCE RD | 7,304 | 521 | 654 | 220 |
| 27 | Chico | E 20TH ST | W of WHITMAN AVE | 16,149 | 1,138 | 1,387 | 233 |
| 28 | Chico | E 20TH ST | W of FOREST AVE | 21,106 | 1,594 | 1,766 | 17 |
| 29 | Chico | E 3RD ST | E of WALL ST | 1,153 | 119 | 109 | 77 |
| 30 | Chico | E 4TH ST | E of FLUME ST | 1,028 | 83 | 126 | 79 |
| 31 | Chico | E 5TH AVE | E of ESPLANADE RD | 5,840 | 492 | 514 | 18 |
| 32 | Chico | E 5TH AVE | W of NEAL DOW AVE | 7,221 | 672 | 705 | 19 |
| 33 | Chico | E 8TH ST | E of EL MONTE AVE | 2,660 | 299 | 286 | 21 |
| 34 | Chico | E 8TH ST | W of PARK VISTA DR | 3,775 | 522 | 440 | 211 |
| 35 | Chico | E 8TH ST | W of BRUCE RD | 2,528 | 265 | 266 | 22 |
| 36 | Chico | E 8TH ST | E of KERN ST | 1,966 | 270 | 247 | 234 |
| 37 | Chico | E EATON RD | E of FLORAL AVE | 7,771 | 910 | 832 | 23 |
| 38 | Chico | E EATON RD | E of COHASSET RD | 4,625 | 532 | 514 | 226 |
| 39 | Chico | E PARK AVE | Btwn SR 99 & CARMICHAEL DR | 26,920 | 2,135 | 2,329 | 238 |
| 40 | Chico | E PARK AVE | E of MIDWAY | 20,174 | 1,455 | 1,609 | 80 |
| 41 | Chico | EAST AVE | W of CUSSICK/HOLLY AVE | 20,566 | 1,401 | 1,701 | 81 |
| 42 | Chico | EAST AVE | E of FLORAL AVE | 15,840 | 1,293 | 1,609 | 232 |
| 43 | Chico | EAST AVE | E of COHASSET RD | 18,703 | 1,679 | 1,702 | 25 |
| 44 | Chico | EAST AVE | W of COHASSET RD | 15,039 | 1,166 | 1,347 | 214 |
| 45 | Chico | EAST AVE | E of ESPLANADE RD | 28,780 | 2,169 | 2,284 | 26 |
| 46 | Chico | EAST AVE | W of ESPLANADE RD | 23,652 | 1,769 | 2,036 | 221 |
| 47 | Chico | EAST AVE | E of CACTUS AVE | 9,462 | 826 | 1,020 | 27 |
| 48 | Chico | EATON RD | W of BURNAP AVE | 7,130 | 739 | 761 | 28 |
| 49 | Chico | EATON RD | E of ESPLANADE RD | 18,390 | 1,735 | 1,666 | 29 |
| 50 | Chico | EATON RD | W of SILVERBELL RD | 9,556 | 921 | 966 | 112 |
| 51 | Chico | EL MONTE AVE | S of HWY 32 | 2,196 | 450 | 415 | 30 |
| 52 | Chico | ESPLANADE | S of COHASSET RD | 21,815 | 1,738 | 1,933 | 209 |
| 53 | Chico | ESPLANADE RD | N of EAST AVE | 22,979 | 1,751 | 2,017 | 31 |
| 54 | Chico | ESPLANADE RD | N of EATON RD | 14,383 | 1,475 | 1,383 | 32 |
| 55 | Chico | ESPLANADE RD | N of LASSEN AVE | 16,361 | 1,289 | 1,506 | 33 |
| 56 | Chico | ESPLANADE RD | S of EAST AVE | 20,984 | 1,637 | 1,828 | 34 |
| 57 | Chico | ESPLANADE RD | N of E 1ST AVE | 21,392 | 1,724 | 1,983 | 235 |
| 58 | Chico | ESPLANADE RD | S of W SACRAMENTO AVE | 20,633 | 1,486 | 1,868 | 36 |
| 59 | Chico | FAIR ST | S of E 20TH ST | 4,971 | 378 | 441 | 37 |
| 60 | Chico | FIR ST | S of HWY 32 | 2,926 | 268 | 297 | 35 |

**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|-----------------|---------------------------|------------------------------|---------------------|---------------------|---------------|
| 61 | Chico | FLORAL AVE | N of EAST AVE | 5,542 | 520 | 568 | 38 |
| 62 | Chico | FOREST AVE | S of E 20TH ST | 12,490 | 1,052 | 1,219 | 145 |
| 63 | Chico | FOREST AVE | S of HUMBOLDT RD | 17,183 | 1,140 | 1,584 | 146 |
| 64 | Chico | FOREST AVE | W of NOTRE DAME BLVD | 10,610 | 1,143 | 1,159 | 181 |
| 65 | Chico | FOREST AVE | N of HUMBOLDT RD | 15,997 | 1,033 | 1,440 | 182 |
| 66 | Chico | FOREST AVE | N of HWY 32 | 3,522 | 324 | 331 | 183 |
| 67 | Chico | FOREST AVE | E of NOTRE DAME BLVD | 2,101 | 237 | 231 | 259 |
| 68 | Chico | GARNER LN | N of ESPLANADE | 2,312 | 304 | 252 | 277 |
| 69 | Chico | GODMAN AVE | S of E EATON RD | 1,413 | 119 | 140 | 266 |
| 70 | Chico | GUYNN AVE | N of W EAST AVE | 694 | 64 | 72 | 279 |
| 71 | Chico | HAWTHORNE AVE | W of MADRONE AVE | 706 | 97 | 80 | 186 |
| 72 | Chico | HENSHAW AVE | W of ESPLANADE | 2,911 | 208 | 247 | 281 |
| 73 | Chico | HICKS LN | N of EATON RD | 3,336 | 286 | 333 | 20 |
| 74 | Chico | HOLLY AVE | S of W EAST AVE | 4,317 | 363 | 403 | 272 |
| 75 | Chico | HOOKER OAK AVE | E of MADRONE AVE | 1,530 | 225 | 192 | 184 |
| 76 | Chico | HOOKER OAK AVE | W of MANZANITA AVE | 2,251 | 370 | 255 | 185 |
| 77 | Chico | HUMBOLDT RD | W of FOREST AVE | 2,295 | 213 | 240 | 187 |
| 78 | Chico | IVY ST | N of 11TH ST | 3,726 | 244 | 336 | 56 |
| 79 | Chico | LASSEN AVE | W of BURNAP AVE | 7,876 | 731 | 781 | 147 |
| 80 | Chico | LASSEN AVE | E of ESPLANADE RD | 10,517 | 736 | 905 | 148 |
| 81 | Chico | MAIN ST | S of 2ND ST | 11,437 | 895 | 1,077 | 149 |
| 82 | Chico | MAIN ST | S of SR 32 (8TH ST) | 11,551 | 791 | 1,046 | 150 |
| 83 | Chico | MANGROVE AVE | S of VALLOMBROSA AVE | 16,345 | 1,233 | 1,554 | 151 |
| 84 | Chico | MANGROVE AVE | S of COHASSET RD | 20,306 | 1,489 | 1,744 | 152 |
| 85 | Chico | MANGROVE AVE | S of E 1ST AVE | 21,255 | 1,651 | 1,925 | 153 |
| 86 | Chico | MANGROVE AVE | N of E 1ST AVE | 19,666 | 1,540 | 1,746 | 154 |
| 87 | Chico | MANGROVE AVE | N of E 7TH AVE | 17,871 | 1,455 | 1,600 | 189 |
| 88 | Chico | MANZANITA AVE | N of VALLOMBROSA AVE | 12,726 | 1,284 | 1,316 | 155 |
| 89 | Chico | MANZANITA AVE | N of CHICO CANYON RD | 13,439 | 1,411 | 1,363 | 156 |
| 90 | Chico | MANZANITA AVE | E of LONGFELLOW AVE | 7,563 | 800 | 763 | 157 |
| 91 | Chico | MANZANITA AVE | E of MADRONE AVE | 3,391 | 433 | 368 | 188 |
| 92 | Chico | MARIGOLD AVE | S of EAST AVE | 3,662 | 486 | 392 | 190 |
| 93 | Chico | MARIGOLD AVE | N of EAST AVE | 3,527 | 555 | 362 | 191 |
| 94 | Chico | MARIPOSA AVE | N of EAST AVE | 5,738 | 394 | 531 | 192 |
| 95 | Chico | MIDWAY RD | S of E PARK AVE | 16,074 | 1,187 | 1,303 | 111 |
| 96 | Chico | MULBERRY ST | S of PINE ST/CYPRESS ST J | 7,774 | 575 | 740 | 158 |
| 97 | Chico | NORD HWY | W of ESPLANADE | 4,273 | 425 | 400 | 212 |
| 98 | Chico | NOTRE DAME BLVD | N of SKYWAY | 16,037 | 1,272 | 1,475 | 193 |
| 99 | Chico | NOTRE DAME BLVD | N of FOREST AVE | 5,919 | 478 | 625 | 194 |
| 100 | Chico | PALMETTO | W of BRYANT AVE | 2,949 | 286 | 315 | 159 |
| 101 | Chico | PALMETTO AVE | E of MANGROVE AVE | 4,126 | 340 | 422 | 195 |
| 102 | Chico | PALMETTO AVE | E of SHERIDAN AVE | 4,180 | 353 | 410 | 196 |
| 103 | Chico | PARK AVE | N of E PARK AVE | 13,381 | 1,009 | 1,094 | 160 |
| 104 | Chico | PARK AVE | S of 16TH ST | 17,727 | 1,242 | 1,572 | 161 |
| 105 | Chico | PARK AVE | S of SR 32 | 18,276 | 1,313 | 1,598 | 162 |
| 106 | Chico | PINE ST | N of 4TH ST | 8,310 | 616 | 791 | 163 |
| 107 | Chico | RIO LINDO AVE | E of ESPLANADE | 2,457 | 193 | 221 | 282 |
| 108 | Chico | SKYWAY | E of BRUCE RD | 16,178 | 1,214 | 1,357 | 164 |
| 109 | Chico | SKYWAY | W of NOTRE DAME BLVD | 29,966 | 2,340 | 2,521 | 165 |
| 110 | Chico | SKYWAY | E of NOTRE DAME BLVD | 17,279 | 1,319 | 1,425 | 166 |
| 111 | Chico | VALLOMBROSA AVE | E of SR 99 | 3,849 | 397 | 399 | 167 |
| 112 | Chico | VALLOMBROSA AVE | W of MANZANITA AVE | 3,213 | 303 | 327 | 168 |
| 113 | Chico | VALLOMBROSA AVE | S of MEMORIAL WAY | 9,620 | 635 | 809 | 257 |
| 114 | Chico | W 11TH AVE | W of ESPLANADE | 4,781 | 453 | 453 | 264 |
| 115 | Chico | W 1ST AVE | E of HOBART ST | 9,418 | 705 | 812 | 58 |
| 116 | Chico | W 2ND ST | E of WALNUT ST (SR 32) | 5,215 | 394 | 478 | 59 |
| 117 | Chico | W 3RD ST | E of IVY ST | 1,135 | 102 | 95 | 171 |
| 118 | Chico | W 4TH ST | E of HAZEL ST | 721 | 71 | 102 | 173 |
| 119 | Chico | W 5TH ST | W of WALNUT ST (SR 32) | 4,926 | 303 | 415 | 60 |
| 120 | Chico | W 5TH ST | E of WALNUT ST (SR 32) | 3,141 | 195 | 278 | 61 |
| 121 | Chico | W 8TH AVE | E of NORD AVE (SR 32) | 6,245 | 511 | 535 | 62 |

**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|-----------------------------------|--|------------------------------|---------------------|---------------------|---------------|
| 122 | Chico | W 8TH AVE | W of ESPLANADE RD | 4,648 | 326 | 411 | 169 |
| 123 | Chico | W EATON RD | W of ESPLANADE | 7,590 | 722 | 701 | 208 |
| 124 | Chico | W LINDO AVE | E of NORD AVE (SR 32) | 1,035 | 80 | 101 | 63 |
| 125 | Chico | W SACRAMENTO AVE | W of CITRUS AVE | 6,529 | 584 | 582 | 64 |
| 126 | Chico | W SACRAMENTO AVE | W of NORD AVE (SR 32) | 6,113 | 525 | 529 | 65 |
| 127 | Chico | W SACRAMENTO AVE | E of NORD AVE (SR 32) | 11,806 | 842 | 996 | 66 |
| 128 | Chico | W SHASTA AVE | W of ESPLANADE | 3,396 | 266 | 315 | 265 |
| 129 | Chico | WARNER ST | S of W SACRAMENTO AVE | 7,258 | 541 | 712 | 67 |
| 130 | Chico | YOSEMITE DR | N of HWY 32 | 2,794 | 209 | 252 | 284 |
| 131 | County | 18TH ST | N of GRAND AV | 486 | 31 | 46 | 72 |
| 132 | County | AFTON RD (aka Biggs Princeton Rd) | W of AGUA FRIAS RD | 57 | 8 | 10 | 3 |
| 133 | County | AGUAS FRIAS RD | S of DURHAM DAYTON RD | 1,128 | 105 | 107 | 4 |
| 134 | County | AGUAS FRIAS RD | S of NELSON RD | 804 | 71 | 74 | 5 |
| 135 | County | BELL RD | E of NORD AVE | 2,086 | 191 | 203 | 276 |
| 136 | County | BIGGS EAST HWY | E of HWY 99 | 2,465 | 210 | 207 | 225 |
| 137 | County | CANYON DR | N of OLIVE HWY | 3,568 | 258 | 286 | 216 |
| 138 | County | CHICO RIVER RD | W of ALBERTON RD | 1,051 | 86 | 107 | 6 |
| 139 | County | COHASSET HWY | N of KEEFER RD | 1,568 | 140 | 156 | 7 |
| 140 | County | COLUSA HWY | W of HATCH RD | 835 | 75 | 91 | 8 |
| 141 | County | CONCOW RD | W of HWY 70 | 532 | 46 | 56 | 237 |
| 142 | County | DAYTON RD | N of HEGAN LN | 3,654 | 299 | 383 | 10 |
| 143 | County | DUNSTONE DR | S of GRUBBS RD | 146 | 12 | 18 | 11 |
| 144 | County | DURHAM DAYTON HWY | W of OROVILLE-CHICO HWY | 2,604 | 258 | 222 | 12 |
| 145 | County | DURHAM PENTZ RD | E of SR 99 | 7,522 | 655 | 673 | 13 |
| 146 | County | DURHAM PENTZ RD | E of SR 191 | 1,565 | 127 | 121 | 14 |
| 147 | County | E GRIDLEY RD | At FEATHER RIVER BRIDGE | 7,226 | 508 | 661 | 15 |
| 148 | County | EAST AVE | E of SR 32 | 16,960 | 1,380 | 1,406 | 49 |
| 149 | County | EL MONTE AVE | S of 8TH ST | 755 | 87 | 84 | 140 |
| 150 | County | ENTLER AVE | E of MIDWAY | 1,411 | 124 | 141 | 110 |
| 151 | County | FOOTHILL BLVD | N of LWR WYANDOTTE RD | 1,437 | 105 | 123 | 240 |
| 152 | County | FORBESTOWN RD | S of OLD OLIVE HWY | 2,762 | 220 | 241 | 16 |
| 153 | County | FORBESTOWN RD | W of ROBINSON MILL RD | 980 | 105 | 113 | 220 |
| 154 | County | FORBESTOWN RD | E of RESERVOIR RD | 46 | 5 | 5 | 268 |
| 155 | County | GARDEN DR | E of HWY 70 | 2,931 | 354 | 283 | 233 |
| 156 | County | GARNER LN | N of SR 99 | 5,047 | 508 | 453 | 17 |
| 157 | County | GRAND AVE | E of 20TH ST | 1,212 | 195 | 155 | 77 |
| 158 | County | GRAND AVE | E of 10TH ST | 4,643 | 446 | 447 | 79 |
| 159 | County | HAMILTON CITY NORD | N of BENNETT RD | 744 | 83 | 85 | 18 |
| 160 | County | HEGAN LN | E of FIMPLE LN | 3,625 | 259 | 352 | 19 |
| 161 | County | HEGAN LN | W of MIDWAY | 7,330 | 514 | 579 | 260 |
| 162 | County | HONEY RUN RD | W of CENTERVILLE RD | 965 | 80 | 94 | 21 |
| 163 | County | HUMBOLDT RD | E of CEDAR CREEK LOOP RD (Butte Meadows) | 74 | 9 | 12 | 278 |
| 164 | County | KEEFER RD | W of GARNER LN | 1,303 | 114 | 147 | 22 |
| 165 | County | KELLY RIDGE RD | N of OLIVE HWY | 2,306 | 153 | 229 | 234 |
| 166 | County | LARKIN RD | S of CHANDON AVE | 3,724 | 294 | 399 | 23 |
| 167 | County | LARKIN RD | N of EAST GRIDLEY RD | 1,674 | 134 | 167 | 226 |
| 168 | County | LARKIN RD | N of E RIO BONITO RD | 2,773 | 225 | 240 | 238 |
| 169 | County | LINCOLN BLVD | N of OPHIR RD | 7,892 | 598 | 758 | 80 |
| 170 | County | LINCOLN BLVD | S of JUNCTION W/ MYERS | 11,040 | 821 | 1,069 | 81 |
| 171 | County | LINCOLN BLVD | S of OPHIR RD | 6,375 | 469 | 572 | 232 |
| 172 | County | LOS VERJELES RD | S of LA PORTE RD | 1,440 | 92 | 132 | 25 |
| 173 | County | LOWER HONCUT RD | E of HWY 70 | 1,123 | 74 | 105 | 214 |
| 174 | County | LOWER WYANDOTTE RD | W of ALVERDA DR | 8,781 | 488 | 750 | 26 |
| 175 | County | LUMPKIN RD | N of FORBESTOWN RD | 570 | 45 | 51 | 221 |
| 176 | County | MERIDIAN RD | E of SR 99 | 1,229 | 101 | 108 | 27 |
| 177 | County | MERIDIAN RD | N of HWY 32 | 2,594 | 259 | 279 | 262 |
| 178 | County | MIDWAY RD | S of DURHAM DAYTON RD | 4,432 | 319 | 397 | 28 |
| 179 | County | MIDWAY RD | N of NELSON SHIPPEE RD | 1,368 | 121 | 122 | 29 |
| 180 | County | MIDWAY RD | S of HEGAN LN | 9,113 | 831 | 879 | 112 |

**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|---------------------|-----------------------------------|------------------------------|---------------------|---------------------|---------------|
| 181 | County | MINERS RANCH RD | S of SR 162 | 3,151 | 208 | 269 | 30 |
| 182 | County | NEAL RD | E of HWY 99 | 1,988 | 184 | 184 | 209 |
| 183 | County | NEAL RD | W of HWY 99 | 936 | 69 | 85 | 261 |
| 184 | County | OAKVALE AVE | S of SR 162 | 2,616 | 323 | 330 | 31 |
| 185 | County | OPHIR RD | E of FEATHER RIVER BLVD | 8,488 | 577 | 748 | 32 |
| 186 | County | ORD FERRY RD | W of RIVER RD | 3,188 | 259 | 291 | 33 |
| 187 | County | ORD FERRY RD | W of AGUAS FRIAS RD | 3,822 | 300 | 378 | 34 |
| 188 | County | ORO QUINCY HWY | W of OLIVE HWY | 2,680 | 217 | 243 | 235 |
| 189 | County | ORO-BANGOR HWY | S of V-7 RD | 2,417 | 170 | 250 | 36 |
| 190 | County | ORO-BANGOR HWY | E of FOOTHILL BLVD | 1,747 | 169 | 189 | 37 |
| 191 | County | ORO-QUINCY HWY | At LAKE MADRONE BRIDGE | 211 | 24 | 23 | 35 |
| 192 | County | OROVILLE-BANGOR HWY | N of SWEDES FLAT RD | 2,307 | 150 | 191 | 38 |
| 193 | County | PALERMO HONCUT HWY | N of LWR HONCUT RD | 1,251 | 85 | 113 | 222 |
| 194 | County | PALERMO RD | E of HWY 70 | 1,315 | 98 | 121 | 219 |
| 195 | County | PENNINGTON RD | S of W EVANS REIMER RD | 383 | 33 | 42 | 40 |
| 196 | County | PENTZ RD | N of HWY 70 | 2,432 | 206 | 230 | 210 |
| 197 | County | RICHVALE HWY | E of MIDWAY | 2,062 | 159 | 182 | 215 |
| 198 | County | ROSE AVE | S of WEBB AVE | 1,235 | 111 | 138 | 57 |
| 199 | County | SEVEN MILE LN | S of ORD FERRY RD | 481 | 36 | 49 | 223 |
| 200 | County | SKYLINE BLVD | S of SR 162 | 1,122 | 80 | 102 | 41 |
| 201 | County | SKYWAY | S of COUTOLENC RD | 548 | 45 | 55 | 42 |
| 202 | County | SKYWAY | N of NIMSHEW RD | 1,522 | 114 | 142 | 43 |
| 203 | County | SKYWAY | N of CAMP DE SABLE | 886 | 71 | 91 | 44 |
| 204 | County | SKYWAY | N of WYCLIFF WAY | 9,655 | 746 | 878 | 107 |
| 205 | County | SKYWAY | N of COUTOLENC RD | 11,488 | 989 | 1,005 | 197 |
| 206 | County | SKYWAY | E of CLIFFHANGER LN | 14,579 | 1,143 | 1,418 | 198 |
| 207 | County | SKYWAY | S of MANZANITA ST (Stirling City) | 418 | 35 | 40 | 253 |
| 208 | County | TOWNSHIP RD | W of HWY 99 | 2,257 | 243 | 223 | 224 |
| 209 | County | UPPER PALERMO RD | S of OPHIR RD/LOWER WYANDOT | 4,046 | 336 | 349 | 45 |
| 210 | County | W RIO BONITO RD | E of HAWKINS LN | 1,440 | 119 | 152 | 241 |
| 211 | County | W SACRAMENTO AVE | W of MUIR AVE | 902 | 73 | 105 | 46 |
| 212 | County | WALMER RD | E of LINCOLN BLVD | 3,542 | 390 | 421 | 239 |
| 213 | Gridley | CHERRY ST | W of SR 99 | 1,119 | 88 | 112 | 308 |
| 214 | Gridley | E GRIDLEY RD | E of SR 99 | 7,753 | 536 | 685 | 68 |
| 215 | Gridley | FAIRVIEW DR | N of E GRIDLEY RD | 2,171 | 172 | 245 | 318 |
| 216 | Gridley | HERON LANDING WAY | W of NEVADA ST | 1,093 | 98 | 111 | 314 |
| 217 | Gridley | MAGNOLIA ST | W of SR 99 | 5,086 | 337 | 480 | 69 |
| 218 | Gridley | SPRUCE ST | W of SR 99 | 7,877 | 592 | 686 | 70 |
| 219 | Gridley | SPRUCE ST | E of W BIGGS GRIDLEY RD | 2,489 | 247 | 201 | 315 |
| 220 | Gridley | SYCAMORE ST | W of SR 99 | 3,569 | 236 | 314 | 71 |
| 221 | Gridley | SYCAMORE ST | W of BAN DR | 2,202 | 167 | 194 | 316 |
| 222 | Gridley | SYCAMORE ST | E of VERMONT ST | 4,623 | 360 | 425 | 317 |
| 223 | Gridley | VERMONT ST | N of LITTLE AVE | 1,411 | 103 | 135 | 319 |
| 224 | Gridley | W BIGGS GRIDLEY RD | N of HERON LANDING WAY | 2,167 | 167 | 211 | 269 |
| 225 | Gridley | W LIBERTY RD | W of SR 99 | 2,335 | 149 | 224 | 309 |
| 226 | Oroville | 18TH ST | N of ORO DAM BLVD | 2,145 | 162 | 183 | 236 |
| 227 | Oroville | 5TH AV | S of ORO DAM BLVD (SR 162) | 4,932 | 381 | 484 | 73 |
| 228 | Oroville | 5TH AV | S of CAL OAK AV | 2,658 | 202 | 271 | 74 |
| 229 | Oroville | FEATHER RIVER BLVD | S of ORO-DAM BLVD (SR 162) | 8,197 | 663 | 699 | 75 |
| 230 | Oroville | FEATHER RIVER BLVD | N of ORO DAM BLVD | 10,313 | 756 | 821 | 218 |
| 231 | Oroville | FOOTHILL BLVD | S of SR 162 | 5,518 | 397 | 467 | 76 |
| 232 | Oroville | GEORGIA PACIFIC WAY | E of HWY 70 | 2,336 | 171 | 227 | 201 |
| 233 | Oroville | GRAND AVE | E of SR 70 | 6,590 | 677 | 620 | 78 |
| 234 | Oroville | HUNTOON ST | S of GRACE ST | 1,956 | 148 | 187 | 202 |
| 235 | Oroville | LARKIN RD | S of SR 162 | 3,184 | 223 | 300 | 24 |
| 236 | Oroville | LINCOLN BLVD | S of ORO DAM BLVD | 14,496 | 947 | 1,297 | 231 |
| 237 | Oroville | LINCOLN ST | S of GRACE ST | 2,429 | 184 | 231 | 227 |
| 238 | Oroville | LOWER WYANDOTTE RD | S of SR 162 | 8,530 | 697 | 744 | 82 |
| 239 | Oroville | MITCHELL ST | E of MYERS ST | 6,040 | 460 | 578 | 83 |
| 240 | Oroville | MITCHELL ST | E of FEATHER RIVER BLVD | 4,089 | 304 | 369 | 84 |

**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|---------------------|---------------------------|------------------------------|---------------------|---------------------|---------------|
| 241 | Oroville | MONTGOMERY ST | W of LINCOLN BLVD | 7,046 | 559 | 660 | 85 |
| 242 | Oroville | MONTGOMERY ST | W of TABLE MTN BLVD | 6,891 | 468 | 642 | 86 |
| 243 | Oroville | MONTGOMERY ST | W of FEATHER RIVER BLVD | 7,952 | 601 | 749 | 228 |
| 244 | Oroville | MYERS ST | N of ORO DAM BLVD | 5,555 | 462 | 517 | 229 |
| 245 | Oroville | NELSON AVE | E of SR 70 | 8,957 | 879 | 745 | 87 |
| 246 | Oroville | NELSON AVE | W of 4TH ST | 4,214 | 495 | 398 | 270 |
| 247 | Oroville | ORANGE AVE | E of BRIDGE ST | 651 | 152 | 105 | 88 |
| 248 | Oroville | ORANGE AVE | W of ACACIA AVE | 5,210 | 414 | 465 | 274 |
| 249 | Oroville | ORO-DAM BLVD | E of FOOTHILL BLVD/BRIDGE | 4,572 | 406 | 444 | 89 |
| 250 | Oroville | ORO-QUINCY HWY | E of FOOTHILL BLVD | 2,994 | 203 | 266 | 39 |
| 251 | Oroville | OROVILLE DAM BLVD E | E of CANYON HIGHLANDS DR | 3,831 | 262 | 341 | 217 |
| 252 | Oroville | TABLE MOUNTAIN BLVD | N of NELSON AVE | 4,945 | 413 | 454 | 273 |
| 253 | Oroville | TABLE MTN BLVD | S of GRAND AVE | 15,965 | 1,292 | 1,446 | 90 |
| 254 | Oroville | TABLE MTN BLVD | S of NELSON AVE | 11,199 | 973 | 1,007 | 91 |
| 255 | Oroville | WASHINGTON AVE | W of ORO DAM BLVD | 10,704 | 786 | 883 | 230 |
| 256 | Oroville | WYANDOTTE AVE | W of LOWER WYANDOTTE RD | 4,558 | 340 | 435 | 92 |
| 257 | Oroville | YARD ST | W of WASHINGTON AVE | 928 | 80 | 104 | 203 |
| 258 | Paradise | BILLE RD | E of CLARK RD | 3,345 | 375 | 340 | 93 |
| 259 | Paradise | BILLE RD | E of SKYWAY | 3,892 | 368 | 390 | 207 |
| 260 | Paradise | BILLE RD | W of SKYWAY | 1,375 | 128 | 147 | 250 |
| 261 | Paradise | BILLE RD | E of OLIVER RD | 799 | 75 | 93 | 285 |
| 262 | Paradise | BILLE RD | W of PENTZ RD | 2,239 | 373 | 280 | 286 |
| 263 | Paradise | BUSCHMANN RD | E of FOSTER RD | 943 | 86 | 90 | 288 |
| 264 | Paradise | CLARK RD | N of WAGSTAFF RD | 4,702 | 353 | 452 | 94 |
| 265 | Paradise | CLARK RD | N of PEARSON RD | 9,898 | 871 | 959 | 95 |
| 266 | Paradise | CLARK RD | N of BILLE RD | 8,305 | 755 | 875 | 251 |
| 267 | Paradise | CLARK RD | N of ELLIOT RD | 7,752 | 678 | 781 | 252 |
| 268 | Paradise | CLARK RD | N of CENTRAL PARK DR | 8,181 | 761 | 793 | 289 |
| 269 | Paradise | CLARK RD | S of SKYWAY | 4,253 | 329 | 414 | 290 |
| 270 | Paradise | CLARK RD | N of NUNNELEY RD | 9,003 | 767 | 858 | 291 |
| 271 | Paradise | ELLIOT RD | W of CLARK RD | 3,190 | 347 | 301 | 96 |
| 272 | Paradise | ELLIOT RD | E of CLARK RD | 1,994 | 169 | 185 | 97 |
| 273 | Paradise | ELLIOTT RD | E of SKYWAY | 3,189 | 375 | 319 | 293 |
| 274 | Paradise | FOSTER RD | N of ROE RD | 1,060 | 96 | 108 | 294 |
| 275 | Paradise | NEAL RD | S of SKYWAY | 3,244 | 265 | 411 | 98 |
| 276 | Paradise | NEAL RD | N of ROE RD | 2,048 | 181 | 215 | 295 |
| 277 | Paradise | NEW SKYWAY | W of PENTZ RD | 11,023 | 883 | 984 | 104 |
| 278 | Paradise | NEW SKYWAY | E of PENTZ RD | 11,656 | 1,035 | 1,065 | 105 |
| 279 | Paradise | NUNNELEY RD | E of CLARK RD | 1,032 | 94 | 115 | 296 |
| 280 | Paradise | NUNNELEY RD | W of CLARK RD | 742 | 80 | 82 | 297 |
| 281 | Paradise | OLIVER RD | W of SKYWAY | 2,014 | 188 | 197 | 204 |
| 282 | Paradise | OLIVER RD | S of BILLE RD | 874 | 87 | 85 | 298 |
| 283 | Paradise | PEARSON RD | E of CLARK RD | 4,390 | 369 | 394 | 99 |
| 284 | Paradise | PEARSON RD | E of SKYWAY | 6,148 | 521 | 605 | 205 |
| 285 | Paradise | PEARSON RD | E of SAWMILL RD | 2,818 | 243 | 250 | 244 |
| 286 | Paradise | PEARSON RD | W of PENTZ RD | 2,022 | 163 | 187 | 299 |
| 287 | Paradise | PENTZ RD | N of PEARSON RD | 2,053 | 195 | 191 | 100 |
| 288 | Paradise | PENTZ RD | N of WAGSTAFF RD | 3,107 | 392 | 342 | 101 |
| 289 | Paradise | PENTZ RD | S of PEARSON RD | 3,216 | 296 | 304 | 245 |
| 290 | Paradise | PENTZ RD | N of BILLE RD | 2,753 | 462 | 362 | 246 |
| 291 | Paradise | PENTZ RD | S of SKYWAY | 1,614 | 202 | 175 | 300 |
| 292 | Paradise | PENTZ RD | N of MALIBU | 2,093 | 184 | 211 | 301 |
| 293 | Paradise | ROE RD | E of NEAL RD | 264 | 22 | 27 | 313 |
| 294 | Paradise | SAWMILL RD | N of PEARSON RD | 621 | 62 | 68 | 302 |
| 295 | Paradise | SAWMILL RD | S of BILLE RD | 802 | 91 | 91 | 303 |
| 296 | Paradise | SKYWAY | N of ELLIOT RD | 13,862 | 1,165 | 1,210 | 102 |
| 297 | Paradise | SKYWAY | W of CLARK RD | 7,392 | 612 | 628 | 103 |
| 298 | Paradise | SKYWAY | N of WAGSTAFF RD | 8,049 | 697 | 702 | 106 |
| 299 | Paradise | SKYWAY | S of NEAL RD | 14,266 | 1,219 | 1,267 | 206 |
| 300 | Paradise | SKYWAY | S of PEARSON RD | 15,674 | 1,239 | 1,472 | 213 |
| 301 | Paradise | SKYWAY | N of BILLE RD | 9,143 | 812 | 786 | 247 |

**Butte County Association of Governments
2022/23 - Traffic Counts**

| List # | Jurisdiction | Route | Location | Average Daily Traffic Volume | AM Peak Hour Volume | PM Peak Hour Volume | Count Site ID |
|--------|--------------|----------------|-----------------|------------------------------|---------------------|---------------------|---------------|
| 302 | Paradise | SKYWAY | N of NEAL RD | 16,075 | 1,337 | 1,407 | 248 |
| 303 | Paradise | SKYWAY | N of FIR ST | 13,495 | 1,107 | 1,169 | 267 |
| 304 | Paradise | SKYWAY | N of MAXWELL DR | 11,935 | 1,051 | 1,046 | 304 |
| 305 | Paradise | VALLEY VIEW DR | E of OLIVER RD | 1,450 | 149 | 145 | 305 |
| 306 | Paradise | WAGSTAFF RD | W of CLARK RD | 2,029 | 203 | 200 | 108 |
| 307 | Paradise | WAGSTAFF RD | E of CLARK RD | 2,924 | 376 | 315 | 109 |
| 308 | Paradise | WAGSTAFF RD | W of SKYWAY | 671 | 64 | 76 | 249 |
| 309 | Paradise | WAGSTAFF RD | W of PENTZ RD | 2,619 | 336 | 268 | 306 |
| 310 | Paradise | WAGSTAFF RD | E of SKYWAY | 2,031 | 206 | 194 | 307 |

6/6/2023

Road # 1 Name:

Clark Road

Road #1

Vehicle Type

Cars

Medium Trucks

Heavy Trucks

Effective Distance

50

Distance to Stop Sign

Average Speed

35

Average Daily Trips (ADT)

8305

Night Fraction of ADT

15

Road Gradient (%)

Vehicle DNL

63

0

0

Calculate Road #1 DNL

63

Reset

Add Road Source

Add Rail Source



(<https://makeitparadise.org>)

Demographic Information

The Town of Paradise is rebuilding at a remarkable rate, with over 350 businesses open as of 12/2021 and operating across a diverse range of industries and interests. With a growing population, affordable housing and building rates, and a welcoming community, it's an ideal place for new businesses and ventures to become an integral part of the economy.

Current population and demographics

Paradise:

- ✓ 6,000 per 2021 Town of Paradise Commercial Retail Market Analysis
- ✓ 35% growth since the fire, nearly 6% of Town's pre-fire population
- ✓ Median Household income \$66,245
- ✓ Median rent \$1,079
- ✓ Median home price \$227,200
- ✓ 21% with a Bachelor's degree or higher

Magalia:

- ✓ 7,795 per 2020 census
- ✓ Median Household income \$50,415



(<https://makeitparadise.org>)

Upper Ridge:

- ✓ 10 mile radius sphere of influence (Forrest Ranch, Concow, Butte Valley, unincorporated county areas)

Building numbers and projections

November 2023 – 5 years post fire

Single-family homes: 3,034 permit applications received/2,167 homes completed

Multi-family homes: 777 unit applications received/434 units completed



Demographic projections:

- ✓ 14% growth projected annually
- ✓ Project additional 12,800 residents by 2030 for a total of 18,900 residents
- ✓ 2025 – 14,101



Commercial Retail Market Analysis Data

\$82.9 million in retail sales in 2020, \$18,000 per capita

Household estimations:

- ✓ \$25,000 spent on retail and services annually in Paradise
- ✓ \$20,000 spent on retail and services annually in the Secondary market area
- ✓ Existing Town Households anticipated to generate \$55.3 million in household spending on retail goods and services annually
- ✓ Secondary market households are anticipated to generate \$88.9 million in household spending on retail annually

DOWNLOAD CURRENT ECONOMIC DEVELOPMENT STATS
([HTTPS://MAKEITPARADISE.ORG/WP-
CONTENT/UPLOADS/2022/02/TOP_ECONOMIC-DEVELOPMENT-
SNAPSHOT.PDF](https://makeitparadise.org/wp-content/uploads/2022/02/top_economic-development-snapshot.pdf))



A small foothill community separated from the larger City of Chico by a 25-minute drive, Paradise is a Town of businesses made primarily by and for the local population. As such, the economy is dependent on the return of additional housing and repopulating the community. Since the 2018 Camp Fire, Paradise has made significant progress towards this goal.

Socioeconomic Paradise

Since 2019, the Town has added approximately 1,600 residents, representing growth of about 700 residents per year, on average. (<https://makeitparadise.org>)

Between 2019 and 2021, the Town is estimated to have added 613 units, for a total of 2,330 housing units, representing an average, annual growth of about 300 units.

The Town is projected to add about 12,800 residents and nearly 3,530 housing units between 2021 and 2030.



Retail Demand

A recent evaluation indicates Paradise businesses can't currently meet all the needs of current Town residents.

However, the Town's population is not yet large enough to attract new retail activity. In addition, infrastructure and safety projects such as the Transportation Master Plan, proposed town sewer project, additional broadband capacity, etc. may be factors in when new businesses and investors may return. (<https://makeitparadise.org>)

The primary retail categories in demand include: Food and beverage locations and services, drug stores, specialty stores, book and music stores, hobby stores, second-hand stores, general merchandise stores, and clothing stores.

While a portion of the demand for additional retail space may be captured in the supply of existing vacant retail space, much of the existing vacant space may require redevelopment.

Commercially zoned vacant lots in Town present opportunities for new commercial retail construction, when market demand and financial feasibility can support new commercial building activity.



Economic development areas of focus

- ✓ Creating a walkable downtown
- ✓ Meeting construction activity demands with adequate labor force and affordable material prices

site. Development will include (6) two story and (1) single story community building. Resident amenities will include a tot lot, ball court, BBQ and outdoor recreation areas consisting of a tot lot, ball court, BBQ and shaded picnic areas. The project will include a mix of one, two and three bedroom dwelling units ranging in size from 620 to 1156 square feet of living area.

Parking Data

MINIMUM REQUIRED PARKING TABULATION

| | |
|---|-------------------|
| <700 SF=1.2/UNIT x 12= | 14.4 spaces |
| 700 - 1200 SF=1.5/UNIT x 60= | 90 spaces |
| Community Building (1per 400sf)= | 8 spaces |
| PARKING REQUIRED= | 113 SPACES |
| MIN. PARKING PER STATE DENSITY BONUS LAW | |
| One bedroom unit=1.0 x 24= | 24 spaces |
| Two bedroom unit=1.5 x 30= | 45 spaces |
| Three bedroom unit=1.5 x 18= | 27 spaces |
| Community Building (1per 400sf)= | 8 spaces |
| MIN PARKING REQUIRED= | 104 SPACES |

PARKING PROVIDED= 106 SPACES
SURPLUS PARKING= 2 SPACES

Project Data

Property Address
 6480 Clarke Road
 Paradise, CA. 95969

Site Data
 Site Area:
 GROSS: 7.55 acres
 NET:6.99 acres

Land Use and Zoning Information
 Existing General Plan:
 APN 050-200-010: TR
 APN 050-200-154, 157, 158: TC
 Existing Zoning:
 APN 050-200-010: TR-1/3
 APN 050-200-154, 157, 158: CC
 Proposed General Plan: NO CHANGE
 Proposed Zoning: NO CHANGE

Unit Mix

| | |
|----------------------------------|-----------|
| Buildings B & C | 8 |
| Paradise Alliance Church | 14 |
| Two Bed / One Bath= | 2 |
| Three Bed / Two Bath= | 24 |
| SUB TOTAL= | 24 |
| Buildings D, E, F & G | 16 |
| One Bed / One Bath= | 16 |
| Two Bed / One Bath= | 16 |
| Three Bed / Two Bath= | 16 |
| SUB TOTAL= | 48 |
| TOTAL UNITS ON SITE= | 72 |

P.O. BOX 2035
 PARADISE, CA. 95967
 ZEN DEVELOPMENT, LLC
 222 REDWOOD DR.
 P.O. BOX 1082
 WOODACRE, CA. 94973

Ruler

Line Path Polygon Circle 3D path 3D polygon

Measure the distance between two points on the ground

Map Length: 86.70 Feet

Ground Length: 86.71

Heading: 298.52 degrees

Mouse Navigation

Save Clear



[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Record Date

mm/dd/yyyy

User's Name

Road # 1 Name:

Road #1

Vehicle Type

Cars

Medium Trucks

Heavy Trucks

Effective Distance

86

Distance to Stop Sign

Average Speed

35

Average Daily Trips (ADT)

30789

Night Fraction of ADT

15

Road Gradient (%)

Vehicle DNL

65

0

0

Calculate Road #1 DNL

65

Reset

Add Road Source

Add Rail Source

Airport Noise Level

Loud Impulse Sounds?

Yes No

Combined DNL for all
Road and Rail sources

0

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Calculate

Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your **Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)



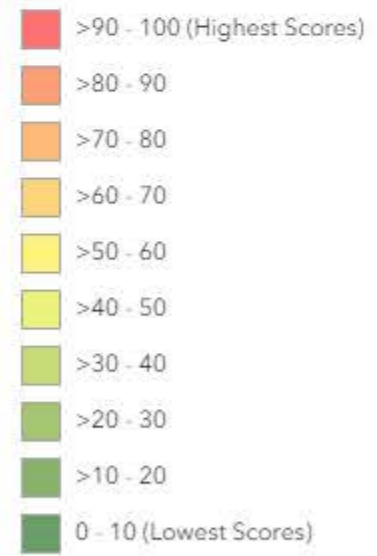
The CalEnviroScreen 4.0 tool shows cumulative impacts in California communities by census tract.

How to use this map

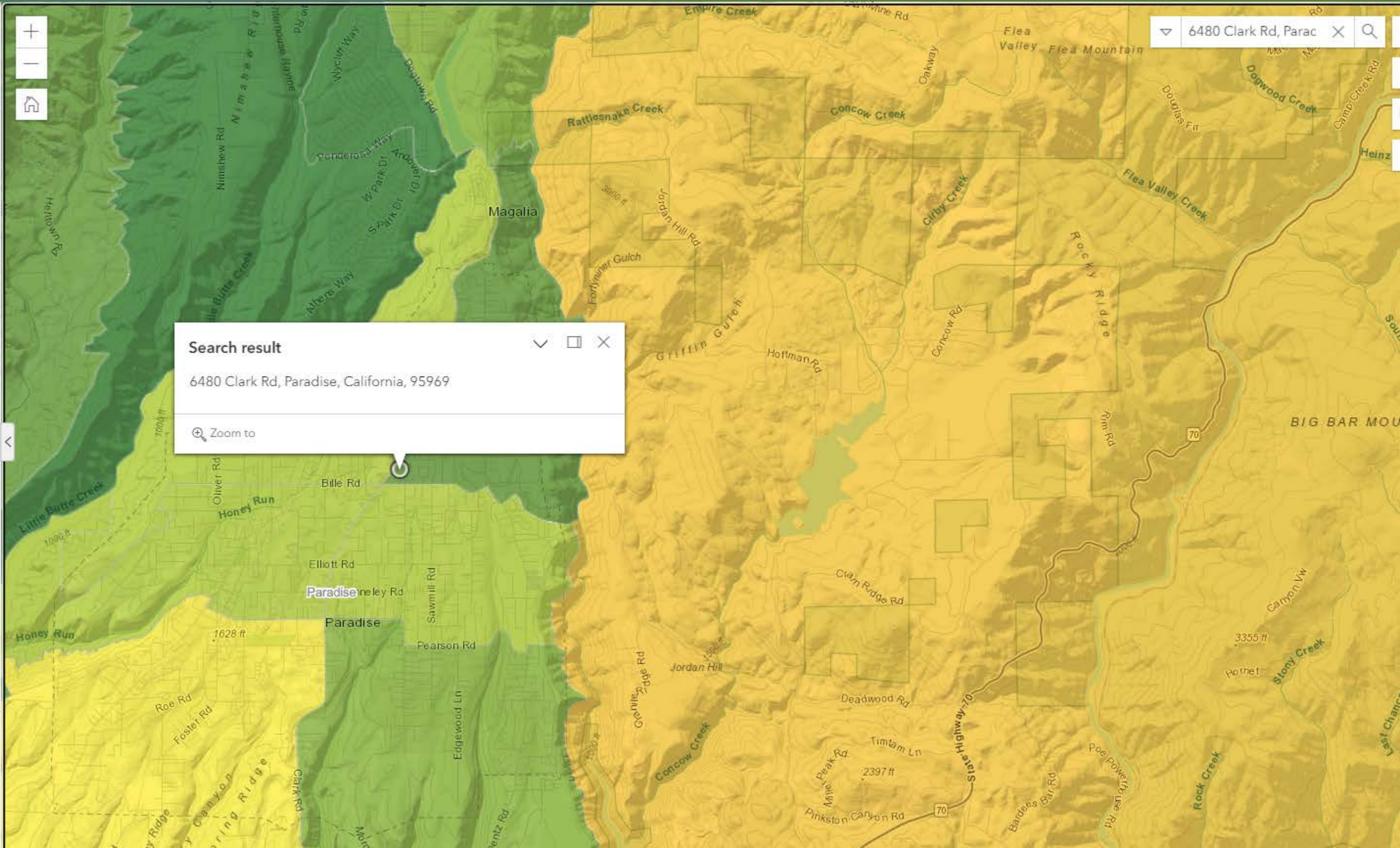
- Use your mouse or touchpad to pan around.
- Zoom in/out with a mouse wheel or the +/- icons.
- Search by location or census tract number with the **search icon**.
- Click on a census tract to view additional information in the pop-up window.
- Dock the pop-up window to the side of the screen by clicking the **dock icon**.
- Export a map view that includes the legend and popup using the **screenshot widget**.
- Learn more about CalEnviroScreen 4.0 and how this map was created [here](#)

Overall Percentile

CalEnviroScreen 4.0 Results



CalEnviroScreen 4.0 High Pollution, Low Population

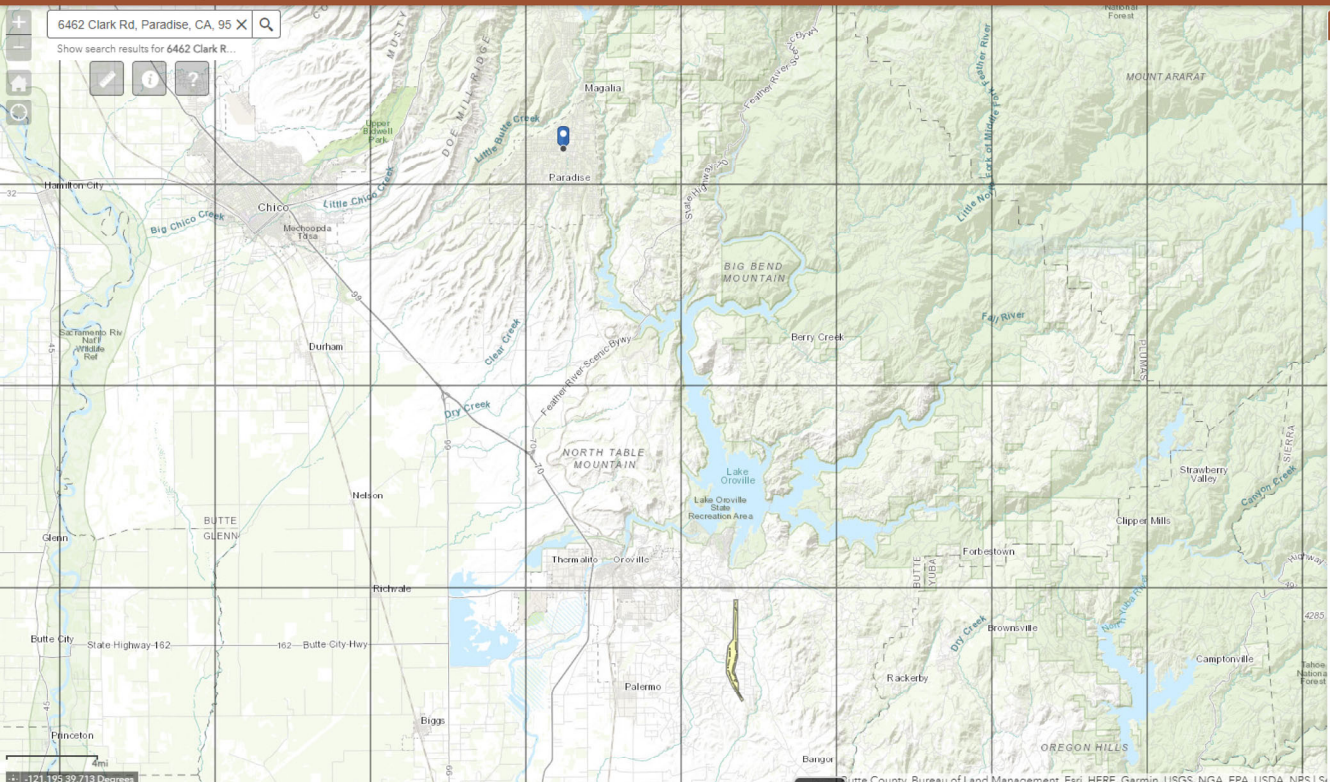


Search result [Close] [Fullscreen]

6480 Clark Rd, Paradise, California, 95969

[Magnifying Glass] Zoom to

6480 Clark Rd, Parac [Close] [Search]



Legend

Colors may vary due to transparency and overlapping data.

Fault Traces

- Accurately Located
- - - Approximately Located
- · - · - Approximately Located, Queried
- · · · Inferred
- · - · - Inferred, Queried
- · · · Concealed
- · - · - Concealed, Queried
- - - Aerial Photo Lineament

Fault Zone

- Yellow

Liquefaction Zone

- Green

Landslide Zone

- Blue

Liquefaction Landslide Overlap Zone

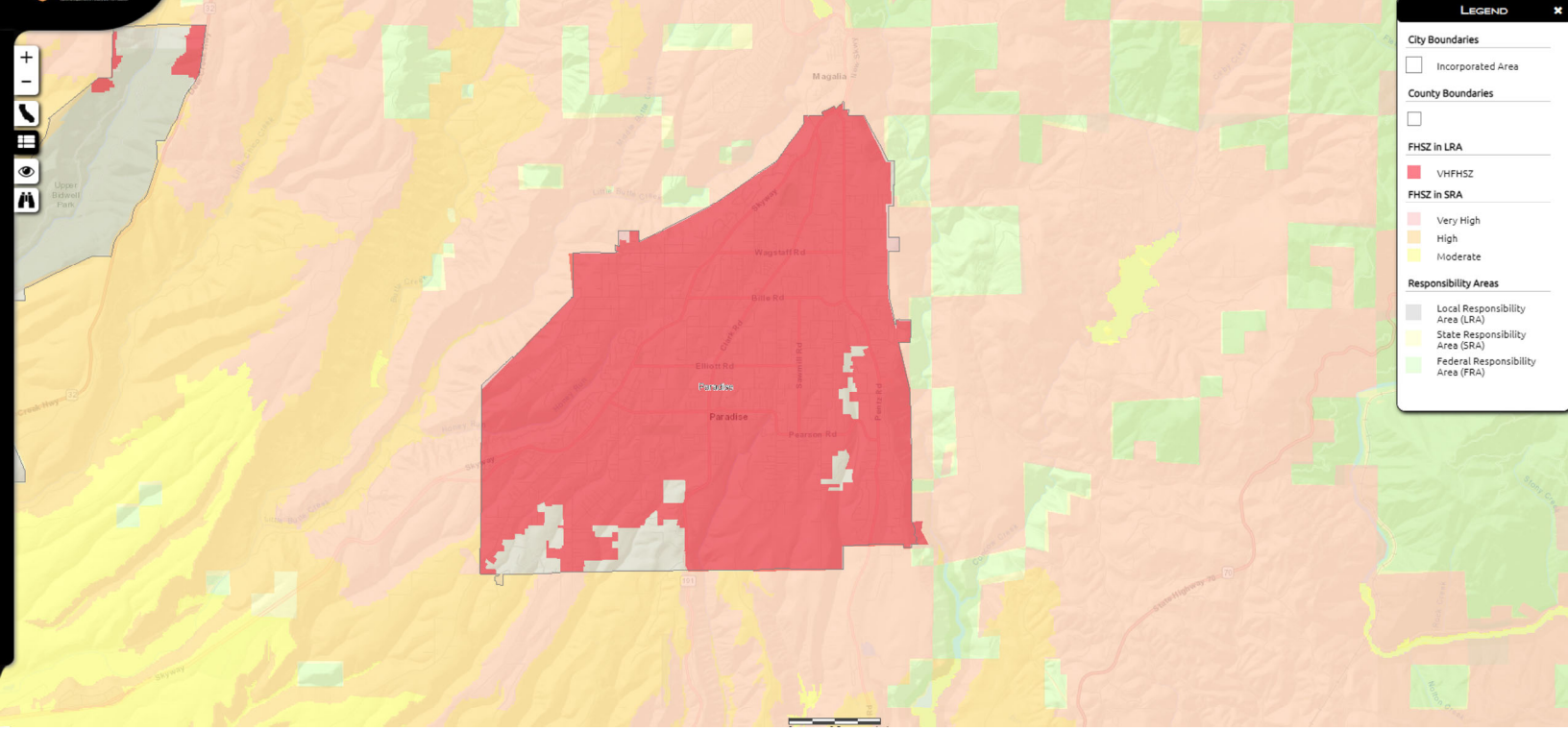
- Orange

Area Not Evaluated for Liquefaction or Landslides


- White

Parcels

- Parcel is in an Earthquake Fault Zone, a Liquefaction Zone, and a Landslide Zone
- Parcel is in an Earthquake Fault Zone and a Liquefaction Zone
- Parcel is in an Earthquake Fault Zone and a Landslide Zone
- Parcel is in an Earthquake Fault Zone
- Parcel is in a Liquefaction Zone and Landslide Zone
- Parcel is in a Liquefaction Zone
- Parcel is in a Landslide Zone
- Parcel is not in a zone or has not been evaluated



Please note that new Connecticut county and township level geographies are not available within the map.



















 An official website of the United States government






QuickFacts Paradise town, California

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.


Table


| All Topics  | Paradise town, California |
|---|---|
| Households with a computer, percent, 2017-2021 | 94.7% |
|  PEOPLE | |
| Population | |
| Population Estimates, July 1, 2022, (V2022) |  6,516 |
| Population estimates base, April 1, 2020, (V2022) |  4,764 |
| Population, percent change - April 1, 2020 (estimates base) to July 1, 2022, (V2022) |  36.8% |
| Population, Census, April 1, 2020 | 4,764 |
| Population, Census, April 1, 2010 | 26,218 |
| Age and Sex | |
| Persons under 5 years, percent |  3.8% |
| Persons under 18 years, percent |  15.8% |
| Persons 65 years and over, percent |  34.7% |
| Female persons, percent |  50.1% |
| Race and Hispanic Origin | |
| White alone, percent |  89.0% |
| Black or African American alone, percent ^(a) |  0.5% |
| American Indian and Alaska Native alone, percent ^(a) |  0.7% |
| Asian alone, percent ^(a) |  1.1% |
| Native Hawaiian and Other Pacific Islander alone, percent ^(a) |  0.2% |
| Two or More Races, percent |  5.6% |
| Hispanic or Latino, percent ^(b) |  7.0% |
| White alone, not Hispanic or Latino, percent |  86.0% |
| Population Characteristics | |
| Veterans, 2017-2021 | 911 |
| Foreign born persons, percent, 2017-2021 | 4.0% |
| Housing | |
| Housing units, July 1, 2022, (V2022) | X |
| Owner-occupied housing unit rate, 2017-2021 | 72.2% |
| Median value of owner-occupied housing units, 2017-2021 | \$287,400 |
| Median selected monthly owner costs -with a mortgage, 2017-2021 | \$1,832 |
| Median selected monthly owner costs -without a mortgage, 2017-2021 | \$566 |
| Median gross rent, 2017-2021 | \$1,071 |
| Building permits, 2022 | X |
| Families & Living Arrangements | |
| Households, 2017-2021 | 3,479 |
| Persons per household, 2017-2021 | 2.11 |
| Living in same house 1 year ago, percent of persons age 1 year+, 2017-2021 | 85.6% |
| Language other than English spoken at home, percent of persons age 5 years+, 2017-2021 | 6.6% |
| Computer and Internet Use | |
| Households with a computer, percent, 2017-2021 | 94.7% |
| Households with a broadband Internet subscription, percent, 2017-2021 | 91.9% |
| Education | |
| High school graduate or higher, percent of persons age 25 years+, 2017-2021 | 92.7% |
| Bachelor's degree or higher, percent of persons age 25 years+, 2017-2021 | 25.1% |
| Health | |
| With a disability, under age 65 years, percent, 2017-2021 | 16.0% |
| Persons without health insurance, under age 65 years, percent |  9.2% |

| Economy | |
|---|---|
| In civilian labor force, total, percent of population age 16 years+, 2017-2021 | 39.2% |
| In civilian labor force, female, percent of population age 16 years+, 2017-2021 | 33.5% |
| Total accommodation and food services sales, 2017 (\$1,000) (c) | D |
| Total health care and social assistance receipts/revenue, 2017 (\$1,000) (c) | 339,630 |
| Total transportation and warehousing receipts/revenue, 2017 (\$1,000) (c) | 7,886 |
| Total retail sales, 2017 (\$1,000) (c) | 185,996 |
| Total retail sales per capita, 2017 (c) | \$7,027 |
| Transportation | |
| Mean travel time to work (minutes), workers age 16 years+, 2017-2021 | 24.7 |
| Income & Poverty | |
| Median household income (in 2021 dollars), 2017-2021 | \$51,396 |
| Per capita income in past 12 months (in 2021 dollars), 2017-2021 | \$31,414 |
| Persons in poverty, percent |  15.9% |
|  BUSINESSES | |
| Businesses | |
| Total employer establishments, 2021 | X |
| Total employment, 2021 | X |
| Total annual payroll, 2021 (\$1,000) | X |
| Total employment, percent change, 2020-2021 | X |
| Total nonemployer establishments, 2020 | X |
| All employer firms, Reference year 2017 | 414 |
| Men-owned employer firms, Reference year 2017 | 156 |
| Women-owned employer firms, Reference year 2017 | 133 |
| Minority-owned employer firms, Reference year 2017 | 65 |
| Nonminority-owned employer firms, Reference year 2017 | 294 |
| Veteran-owned employer firms, Reference year 2017 | S |
| Nonveteran-owned employer firms, Reference year 2017 | 342 |
|  GEOGRAPHY | |
| Geography | |
| Population per square mile, 2020 | 260.1 |
| Population per square mile, 2010 | 1,432.0 |
| Land area in square miles, 2020 | 18.32 |
| Land area in square miles, 2010 | 18.31 |
| FIPS Code | 0655520 |

[About datasets used in this table](#)

Value Notes

 Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable.] Click the Quick Info  icon to the left of each row in T. learn about sampling error.

In Vintage 2022, as a result of the formal request from the state, Connecticut transitioned from eight counties to nine planning regions. For more details, please see the Vintage 2022 release notes available here: [Release Notes](#).

The vintage year (e.g., V2022) refers to the final year of the series (2020 thru 2022). Different vintage years of estimates are not comparable.

Users should exercise caution when comparing 2017-2021 ACS 5-year estimates to other ACS estimates. For more information, please visit the [2021 5-year ACS Comparison Guidance](#) page.



Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

Value Flags

- D** Suppressed to avoid disclosure of confidential information
- F** Fewer than 25 firms
- FN** Footnote on this item in place of data
- NA** Not available
- S** Suppressed; does not meet publication standards
- X** Not applicable
- Z** Value greater than zero but less than half unit of measure shown
- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper interval of an open end
- N** Data for this geographic area cannot be displayed because the number of sample cases is too small.

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

CONNECT WITH US     

[Information Quality](#) | [Data Linkage Infrastructure](#) | [Data Protection and Privacy Policy](#) | [Accessibility](#) | [FOIA](#) | [Inspector General](#) | [No FEAR Act](#) | [U.S. Department of Commerce](#) | [USA.gov](#)

Measuring America's People, Places, and Economy

2. HOUSING NEEDS ASSESSMENT

orated portion of the county and distributes each jurisdiction’s housing unit allocation among four affordability levels.

The fire rebuild allocation is unique to the region during the 6th Cycle RHNA process and stems from the November 2018 Camp Fire, which destroyed over 14,500 homes in the Town of Paradise and unincorporated Butte County.

In December 2020, The Town of Paradise received the following allocation of housing needs, broken down by income category as shown in Table 2-1.

TABLE 2-1: FINAL TOWN OF PARADISE RHNA BY INCOME TIER

| Income Group | Town of Paradise Units | Butte County Units | Town of Paradise Percent |
|---|-------------------------------|---------------------------|---------------------------------|
| Very Low Income (<50 percent of AMI) | 383 | 2,081 | 5.3% |
| Low Income (50 percent-80 percent of AMI) | 374 | 1,290 | 5.2% |
| Moderate Income (80 percent-120 percent of AMI) | 1,319 | 3,202 | 18.4% |
| Above Moderate Income (>120 percent of AMI) | 5,103 | 8,933 | 71.1% |
| Total | 7,179 | 15,506 | 100.0% |

AMI = Area Median Income. Butte County has an AMI of \$70,700.
 Source: Butte County Association of Governments Regional Housing Needs Plan, December 2020.



EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

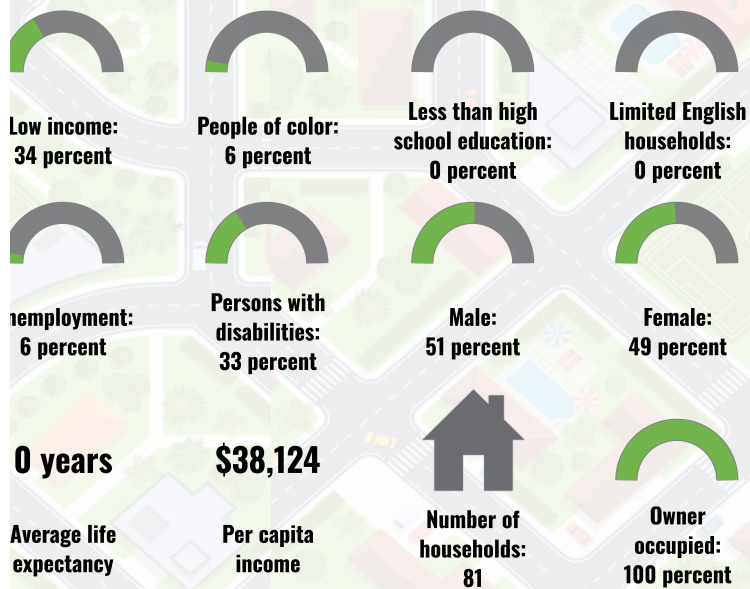
Paradise, CA

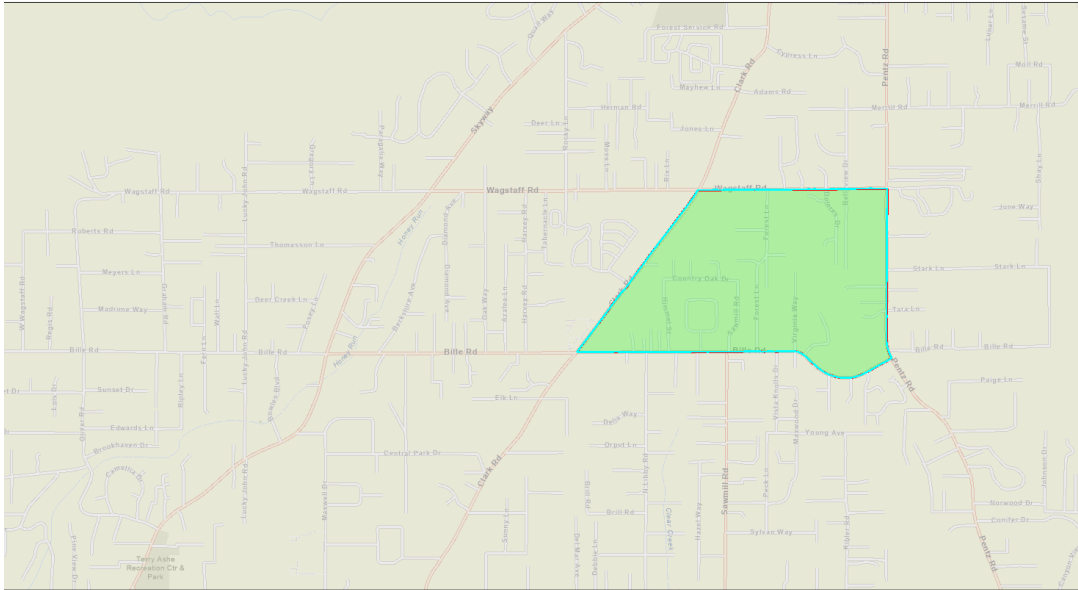
Blockgroup: 060070019003

Population: 164

Area in square miles: 0.40

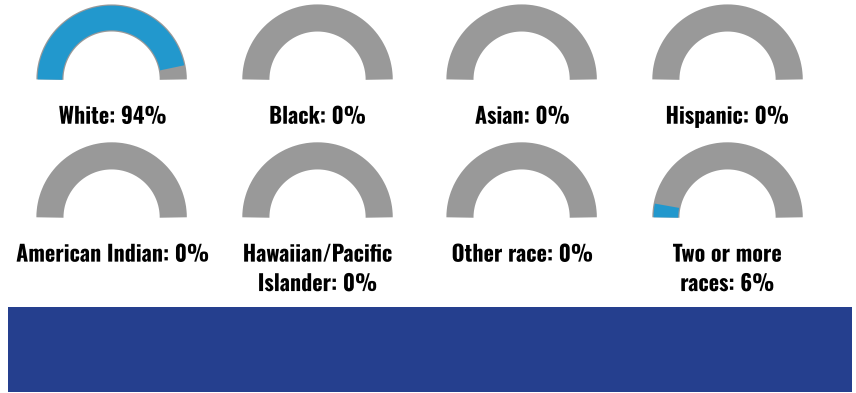
COMMUNITY INFORMATION





Project 1
 Matter 2.5
 (Percentiles)
 Less than 50 percentile

1:18,056
 0 0.17 0.35 0.7 mi
 0 0.28 0.55 1.1 km
 Esri, Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USA.



LANGUAGES SPOKEN AT HOME

| LANGUAGE | PERCENT |
|-------------------|---------|
| English | 97% |
| Spanish | 1% |
| Korean | 1% |
| Total Non-English | 3% |



LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic results can be of any race.

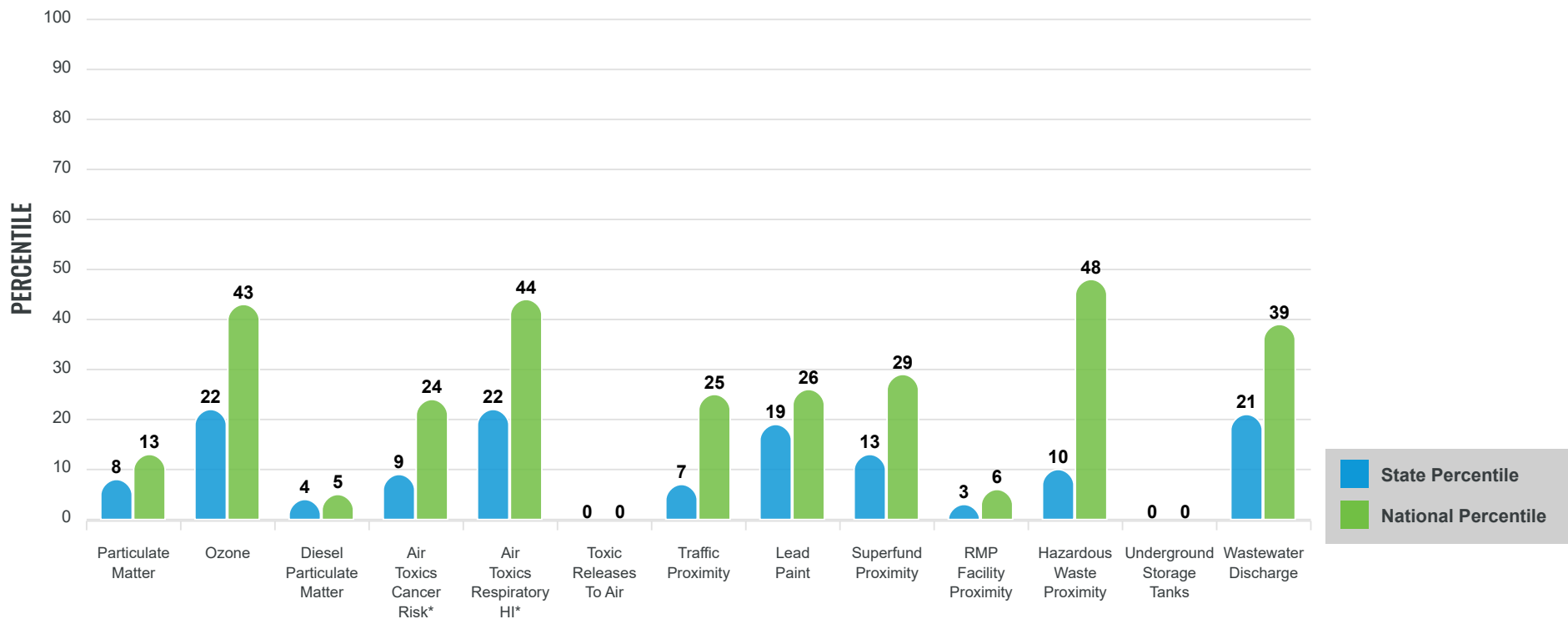
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

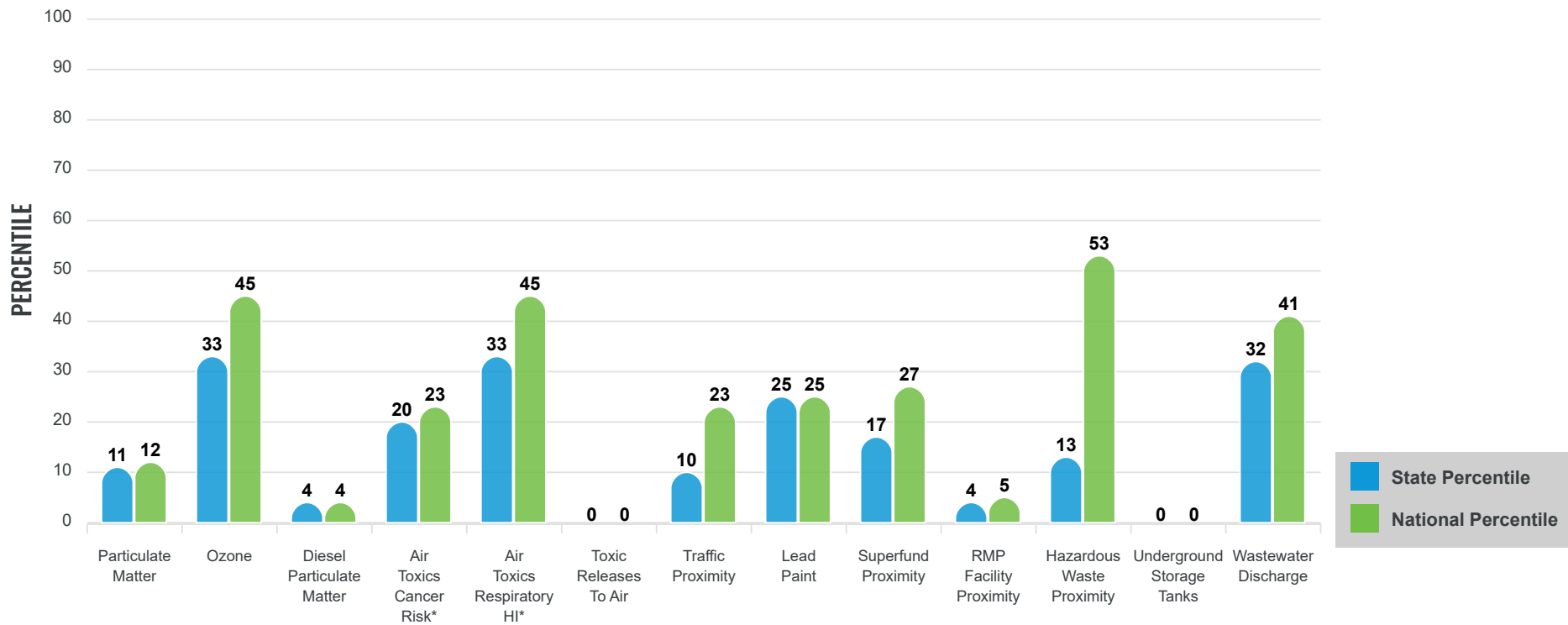
The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

EJ INDEXES FOR THE SELECTED LOCATION



The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for Blockgroup: 060070019003

EJScreen Environmental and Socioeconomic Indicators Data

| SELECTED VARIABLES | VALUE | STATE AVERAGE | PERCENTILE IN STATE | USA AVERAGE | PERCENTILE IN USA |
|---|---------|---------------|---------------------|-------------|-------------------|
| POLLUTION AND SOURCES | | | | | |
| Particulate Matter ($\mu\text{g}/\text{m}^3$) | 6.39 | 8.65 | 10 | 8.08 | 11 |
| Ozone (ppb) | 60.9 | 65.9 | 35 | 61.6 | 48 |
| Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$) | 0.0517 | 0.26 | 4 | 0.261 | 4 |
| Air Toxics Cancer Risk* (lifetime risk per million) | 20 | 27 | 3 | 25 | 5 |
| Air Toxics Respiratory HI* | 0.3 | 0.34 | 17 | 0.31 | 31 |
| Toxic Releases to Air | 0 | 780 | 0 | 4,600 | 0 |
| Traffic Proximity (daily traffic count/distance to road) | 17 | 510 | 9 | 210 | 22 |
| Lead Paint (% Pre-1960 Housing) | 0.043 | 0.31 | 25 | 0.3 | 24 |
| Superfund Proximity (site count/km distance) | 0.03 | 0.17 | 17 | 0.13 | 28 |
| RMP Facility Proximity (facility count/km distance) | 0.034 | 0.57 | 3 | 0.43 | 5 |
| Hazardous Waste Proximity (facility count/km distance) | 0.83 | 5.9 | 13 | 1.9 | 58 |
| Underground Storage Tanks (count/ km^2) | 0 | 1.5 | 0 | 3.9 | 0 |
| Wastewater Discharge (toxicity-weighted concentration/m distance) | 0.00063 | 4 | 34 | 22 | 44 |
| SOCIOECONOMIC INDICATORS | | | | | |
| Demographic Index | 20% | 45% | 12 | 35% | 31 |
| Supplemental Demographic Index | 10% | 15% | 33 | 14% | 35 |
| People of Color | 6% | 61% | 1 | 39% | 15 |
| Low Income | 34% | 28% | 65 | 31% | 60 |
| Unemployment Rate | 6% | 7% | 59 | 6% | 67 |
| Limited English Speaking Households | 0% | 9% | 0 | 5% | 0 |
| | 0% | 16% | 0 | 12% | 0 |

| SELECTED VARIABLES | VALUE | STATE AVERAGE | PERCENTILE IN STATE | USA AVERAGE | PERCENTILE IN USA |
|---------------------|-------|---------------|---------------------|-------------|-------------------|
| Over Age 64 | 34% | 16% | 94 | 17% | 93 |
| Low Life Expectancy | N/A | 18% | N/A | 20% | N/A |

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

| | |
|--|---|
| Superfund | 0 |
| Hazardous Waste, Treatment, Storage, and Disposal Facilities | 0 |
| Water Dischargers | 1 |
| Air Pollution | 0 |
| Brownfields | 0 |
| Toxic Release Inventory | 0 |

Other community features within defined area:

| | |
|-------------------------|---|
| Schools | 1 |
| Hospitals | 0 |
| Places of Worship | 2 |

Other environmental data:

| | |
|--------------------------|-----|
| Air Non-attainment | Yes |
| Impaired Waters | Yes |

| | |
|--|----|
| Selected location contains American Indian Reservation Lands* | No |
| Selected location contains a "Justice40 (CEJST)" disadvantaged community | No |
| Selected location contains an EPA IRA disadvantaged community | No |

Report for Blockgroup: 060070019003

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

| INDICATOR | HEALTH VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|---------------------------|--------------|---------------|------------------|------------|---------------|
| Low Life Expectancy | N/A | 18% | N/A | 20% | N/A |
| Heart Disease | 9.2 | 5.2 | 98 | 6.1 | 94 |
| Asthma | 10.1 | 9.5 | 68 | 10 | 58 |
| Cancer | 9.9 | 5.3 | 98 | 6.1 | 98 |
| Persons with Disabilities | 17% | 10.9% | 90 | 13.4% | 75 |

CLIMATE INDICATORS

| INDICATOR | HEALTH VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|---------------|--------------|---------------|------------------|------------|---------------|
| Flood Risk | 6% | 13% | 50 | 12% | 46 |
| Wildfire Risk | 99% | 30% | 84 | 14% | 95 |

CRITICAL SERVICE GAPS

| INDICATOR | HEALTH VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
|--------------------------|--------------|---------------|------------------|------------|---------------|
| Broadband Internet | 7% | 10% | 50 | 14% | 37 |
| Lack of Health Insurance | 3% | 7% | 25 | 9% | 21 |
| Housing Burden | No | N/A | N/A | N/A | N/A |
| Transportation Access | No | N/A | N/A | N/A | N/A |
| Food Desert | No | N/A | N/A | N/A | N/A |



Home (index.html) > [Paratransit \(Paratransit/index.html\)](#)



[SCHEDULE \(SCHEDULES/INDEX.HTML\)](#)



[PLAN MY RIDE \(HTTPS://PLANMYRIDE.BLINETRANSIT.COM/\)](https://planmyride.blinetransit.com/)



[FARES \(RIDER-TOOLS/FARES--PURCHASING-LOCATIONS\)](#)



[TOKEN TRANSIT \(RIDER-TOOLS/B-LINE-MOBILE-PASS/INDEX.HTML\)](#)

PARATRANSIT

Welcome to B-Line Paratransit

***For all reservations and cancellations call
(530) 342-0221***

B-Line Paratransit is a shared ride service designed to meet the needs of seniors and persons with qualifying disabilities who are unable to use the B-Line fixed route services. B-Line offers *two types of paratransit services*:

1. **ADA PARATRANSIT** - Individuals who cannot utilize the fixed route system must receive Americans with Disabilities Act (ADA) certification to utilize this service. This certification ensures trips are given priority status.

2. **DIAL-A-RIDE** - Dial-a-Ride service is provided only to those riders who are age 70 or older. Current riders who are between the ages of 65-70 will be able to continue to use the service, and will be grandfathered in until they reach the age of 70. Current riders who are under the age of 65 will continue to use the service until their next renewal period. At that time, if they wish to continue using the Paratransit service, they must be eligible for, and apply under the ADA process. Dial-a-Ride trips will not be given priority status should individuals with ADA certification need the service.

Eligibility Determination Procedures - If you are a new paratransit rider you will need to be registered and certified eligible by B-Line prior to using the service. To register for services, please select and complete the appropriate application below and return it to the B-Line office. Applications can also be sent to you at your request by calling the B-Line administrative office (530) 809-4616.

We converted the ADA Paratransit application to a fillable PDF form in 2021 to make it easier for you, our rider, to fill out and get back to us. You are also still able to print out a copy and complete it by hand. If you have any questions about the application please give us a call. Applications need to be completely filled out to the best of your ability in order for us to make an accurate eligibility determination.

All applications **must** be signed by the applicant or their Power of Attorney. Applications signed by any other party will not be processed.

For Dial-A-Ride, the signature field is on the bottom of the page.

For ADA Paratransit, there needs to be a signature on the bottom of page 6 of the application, and the HIPAA release.

If you need assistance filling out one of these applications, or have questions on any part of the application, please call the B-Line administrative office (530) 809-4616, option 1.

All forms and procedures are available in alternative texts upon request.

ADA Paratransit Application (documents/ADA-Paratransit-Application-updated-4-5-23.pdf) (Revised 4-5-2023)

Dial A Ride Application (documents/Paratransit/DAR-Application-Rev-3-2016.pdf) (effective July 1, 2014)

The [Paratransit Rider's Guide \(documents/Paratransit/RidersGuide19web.pdf\)](#) ([Guía del Pasajero en español \(documents/Paratransit/Paratransit-Riders-Guide-2019-Spanish.pdf\)](#)) has all the information needed to use the system, including hours, eligibility requirements and how to schedule a ride.

Fares: One-way fare is \$3.50 (same day requests are \$5.25), a 2-ride pass is \$7.00, and \$25 Value Cards are also available.

Passes can be purchased in person at Downtown Chico Transit Center, Butte County Association of Governments, Butte County Public Works and the Town of Paradise.

To purchase by mail, click here for an order form (documents/Paratransit/25-value-card-Paratransit-Ticket-Order-Form.pdf). Be certain to include a check for payment and a self-addressed, stamped envelope.

Please be aware that if you are traveling in one of our [supplemental zones \(http://www.blinetransit.com/Paratransit/Paratransit-Service-Area/index.html\)](http://www.blinetransit.com/Paratransit/Paratransit-Service-Area/index.html), value cards or cash are the only accepted forms of payment.

Use this [Interactive Paratransit Map \(https://gicwebsrv.csuchico.edu/webmaps/bcag_paratransit/prod/\)](https://gicwebsrv.csuchico.edu/webmaps/bcag_paratransit/prod/) to determine what zone you're in and what your fare will be for each trip. (If the Fare Calculator is not working, please clear your Browser Cache.)

Paratransit [Service Area Description and Maps \(Paratransit/Paratransit-Service-Area/index.html\)](#).

Complete [Butte Regional Transit Paratransit Policies \(documents/Paratransit/Paratransit-Policies-Updated-April-2022.pdf\)](#).

INFORMATION

💰 [Budget \(About-B-Line/Budget/index.html\)](#)

🗳️ [Title VI Program \(About-B-Line/Title-VI-Program/index.html\)](#)

♿️ [ADA Complaint Process \(About-B-Line/ADA-Complaint-Process/index.html\)](#)

📄 [B-Line Routing Study \(Resources/B-Line-Routing-Study/index.html\)](#)

🚗 [Unmet Transit Needs Process \(Resources/Unmet-Transit-Needs-Process/index.html\)](#)

QUICK LINKS

- [Advertising with B-Line \(About-B-Line/Transit-Advertising/index.html\)](#)
- [Useful Transit Links \(Resources/Useful-Transit-Links/index.html\)](#)
- [B-Line Tracker \(Rider-Tools/B-Line-Tracker/index.html\)](#)
- [Trip Planner \(Rider-Tools/Trip-Planner/index.html\)](#)

[Drive #125](#)

[5928](#)

[ips/GiUGEjEMWM42\)](#)



[221 \(tel:+1\(530\)342-0221\)](#)

[w.facebook.com/blinetransit\)](https://www.facebook.com/blinetransit/)

[tter.com/BLineTransit\)](https://www.twitter.com/BLineTransit/)


[w.youtube.com/channel/UCbSFXrphEHrHSPkgLd9Kagw/videos\)](https://www.youtube.com/channel/UCbSFXrphEHrHSPkgLd9Kagw/videos/)

[w.instagram.com/blinetransitca/\)](https://www.instagram.com/blinetransitca/)

 [Non-Discrimination Policy \(non-discrimination\)](#)  [High Contrast](#) [A-Z Site Map \(A-Z\)](#)

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[EMS™ \(http://www.catapultemergencymanagement.com/\)](http://www.catapultemergencymanagement.com/). | 

[Log In \(https://www.catapultcms.com/Login.aspx\)](https://www.catapultcms.com/Login.aspx)

Employment & Social Services

The Department of Employment and Social Services (DESS) is committed to collaborating with our many partners to provide a safe, healthy and self-reliant community. At DESS we aim to administer employment and social services to all citizens of Butte County with dignity and respect.

Our Mission

"We administer employment and social services, preserving the dignity of children, families and adults."

Our Vision

"Partnering for a safe, healthy, and self-reliant community."

Benefits & Services

▶ CALFRESH

CalFresh (formerly Food Stamps) helps low-income people buy the food they need to remain healthy. To qualify for CalFresh the minimum basic requirement(s) are:

- Identity of Primary Applicant
- Gross non-exempt income

- Non-citizenship Status
- Social Security Number(s)
- Residency

▶ **MEDICAL COVERAGE**

Medical coverage is available, including Medi-Cal, Expanded Medi-Cal, Health Care Reform Options, and the County Medical Services Program (CMSP).

▶ **CALIFORNIA WORK OPPORTUNITY & RESPONSIBILITY TO KIDS (CALWORKS)**

CalWORKs provides temporary financial assistance and employment-related services to needy families with minor children.

▶ **GENERAL ASSISTANCE (GA)**

General Assistance provides three months of cash assistance to eligible, employable adults and provides longer-term assistance to eligible adults who are temporarily disabled or who are awaiting Supplemental Security Income (SSI) approval.

▶ **SENIOR & ADULT SERVICES**

Adult Services provides services to help the elderly and persons with disabilities to live safely in their own homes. Investigates reports of elder or dependent adult abuse and neglect.

▶ **CHILDREN'S SERVICES**

The Children's Services Division investigates child abuse and neglect and works to preserve or restore family stability. Visit the Parent and Guardian Information and Resources page to learn more.

▶ VETERAN SERVICES

The County Veterans Service Office is an office established by the Butte County Board of Supervisors to assist veterans, their dependents and survivors, and the general public in obtaining benefits from federal, state, and local agencies administering programs for veterans.

Tab Name

Special Needs Awareness Program (SNAP)

Do you need assistance **evacuating during an emergency**? As part of Butte County's Emergency Evacuation Plan, the Department of Employment and Social Services works collaboratively with multiple agencies to ensure that those in need of evacuation assistance during an emergency are identified and evacuated safely and efficiently. [Click here for more information.](#)

ALERT FM Emergency Notification System

Butte County is partnering with Bare on the Ridge, Inc. and ALERT FM to provide ALERT FM devices to individuals that meet program eligibility guidelines and **you may be eligible** to receive a free ALERT FM receiver if you meet that criteria.

ALERT FM is a device that receives mass notifications in times of crisis or emergency. This device keeps citizens informed when the power, internet and/or cellular networks fail. **Free** devices are available on a **first come, first-served** basis for eligible households. Once supplies have been exhausted you may request to be added to a waitlist.

To register for the program please complete the [ALERT FM Application \(PDF\)](#) and submit or call 530-552-6887. Visit the [ALERT FM website](#) to learn more.



Apply for Benefits

Contact Us



Shelby Boston

Director/Public Guardian/Public Administrator

Employment & Social Services

Mailing Address

P.O. Box 1649
Oroville, CA 95965

Phone: [877-410-8803](tel:877-410-8803)

Fax: 530-879-3614

Hours

8:00 am to 4:30 pm

Locations

Oroville

78 Table Mountain Boulevard
Oroville, CA 95965

Chico

765 East Avenue
Chico, CA 95926

Paradise

7204 Skyway
Paradise, CA 95969

24-Hour Emergency Numbers

Customer Service Center

Phone: 877-410-8803

Children's Services

Phone: 800-400-0902

Adult Services

Phone: 800-664-9774

Family Urgent Response System

Phone: 833-939-3877 (FURS)

Butte 211

Dial 211 or visit the [Butte 211 website](#)

[Directory](#)

SWIS Facility/Site Activity Details

Neal Road Recycling and Waste Facility (04-AA-0002)

| | | | | | |
|-------------------------|-------------------------|------------------------------|---------------------------------|---------------------------------------|-------------------------------|
| Summary | Details | Activities 2 | Inspections 419 | Enforcement Actions 9 | Documents 301 |
|-------------------------|-------------------------|------------------------------|---------------------------------|---------------------------------------|-------------------------------|

Activity

Solid Waste Landfill

Classification

Solid Waste Facility

Category

Disposal

Operational Status

Active

Regulatory Status

Permitted

Ceased Operation Date

1/1/2048

Closure Type

Estimate

Inspection Frequency

Monthly

Max. Permitted Throughput

1,500

Volume Unit Type

Tons per day

Remaining Capacity

20,847,970

Remaining Capacity Date

7/1/2009

Max. Permit Capacity

25,271,900

Capacity Unit Type

Cubic Yards

Total Acreage

190.00

Disposal Acreage

140.00

Permitted Elevation

500

Elevation Type

MSL

Permitted Depth

150

Depth Type

MSL

WDR Landfill Class

II,III

Waste Types

Wood Waste

Tires

Sludge (BioSolids)

Mixed Municipal

Metals

Inert

Green Materials

Construction/demolition

CalRecycle Contact: [Lauren Grant](#) (916) 341-6115

[← Back](#)

CALGreen Construction Waste Management Requirements

Waste Diversion

CALGreen requires covered projects to recycle and/or salvage for reuse a minimum 65% of the nonhazardous construction and demolition waste or meet a local construction and demolition waste management ordinance, whichever is more stringent.

The code applies to various occupancies and types. Please see [this table](#) for general requirements for each type. For specifics on the code's scope, see Section 101.3. Also see Section 101.11 for a list of steps that can be used to determine which sections apply to each type of occupancy.

Methods of Compliance

- Enforcing agencies can require contractors to develop and maintain a waste management plan and document diversion and disposal. OR
- Utilize a waste management company that can provide verifiable documentation that it meets 65% waste diversion. OR
- Use a waste stream reduction alternative:
 - Non-residential new construction and residential high rise (4 stories or more) projects with a total disposal weight of ≤ 2 lbs/ft² meets the 65% waste diversion requirement.
 - Residential low rise (3 stories or less) with new construction disposal of ≤ 3.4 lbs/ft² meets the 65% waste diversion requirement.

Recycling by Occupants (Space for Recycling)

Newly constructed non-residential buildings, certain non-residential additions and multi-family housing with ≥ 5 units should provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at minimum) paper, corrugated cardboard, glass, plastics, organic waste and metals.

For more information on CALGreen's waste diversion requirements, refer to the [FAQ](#) page.

[Know Your Waste Stream](#)

For more information contact: Local Assistance & Market Development, LAMD@calrecycle.ca.gov



April 30, 2021

Notice of Preparation of an Environmental Impact Report and Public Scoping Meeting Notice

RE: Paradise Sewer Project

To Interested Agencies and Persons:

The Town of Paradise (Town) as the Lead Agency for the Paradise Sewer Project (Proposed Project) has issued this Notice of Preparation (NOP) pursuant to the California Environmental Quality Act (CEQA) to notify responsible and trustee agencies and other interested parties that an Environmental Impact Report (EIR) will be prepared to evaluate potential environmental impacts of the Proposed Project. The Town is soliciting public input regarding the scope and content of environmental information to be included in the EIR.

The NOP provides information about the public review and comment period, project location, project description, and the probable environmental effects of the Proposed Project, and is posted on the Town's website at www.paradisesewer.com.

Agency and Public Review and Comment

The Town is interested in receiving input from agencies, stakeholders, and the public regarding the Proposed Project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the Proposed Project, if any is required. Please respond with written comments regarding the proposed scope and the intended content of the EIR as it relates to your agency's area of statutory responsibility or your areas of concern or expertise. We are requesting that all comments be provided in writing to enable us to address the comments as intended in the EIR. Written comments are also requested from organizations and other interested parties regarding the scope and evaluation of potential environmental issues associated with the Proposed Project.

Written responses are due within 30 days of the receipt of this NOP, as provided by state law. As such, a 30-day public review and scoping period is established from May 3 to June 3, 2021. Comments may be submitted by mail or email, or by attending the public scoping meeting (see details below) and submitting a written comment. All comments should indicate a contact person for the agency or organization.

Two virtual public scoping meetings regarding the Proposed Project and EIR will be held. You, members of your agency or organization, and the public are invited to attend to provide written comments on the scope and content of environmental information to be included in the EIR. These meetings will include a brief overview of the Proposed Project and EIR process, and will allow time for questions about the project and process.



The Town will hold these public scoping meetings on May 13 with an approximately 30-minute presentation starting at 6:00 p.m. and on May 25 with an approximately 30-minute presentation starting at 12:00 p.m. In light of the COVID-19 pandemic, the meetings will be held virtually for remote public participation. The meeting links and call-in number for the presentation are provided below.

| Thursday, May 13, at 6:00 p.m. | Tuesday, May 25, at 12:00 p.m. |
|--|--|
| WebEx Link: bit.ly/Paradise_Sewer_Mtg1 WebEx Password: Paradise Dial In #: 408-418-9388 Code: 123 202 6837 | WebEx Link: bit.ly/Paradise_Sewer_Mtg2 WebEx Password: Paradise Dial In #: 408-418-9388 Code: 123 877 2748 |

For additional accessibility preferences, please post a message on the project website at paradisesewer.com/contact (from subject dropdown menu, select “Submit a comment on Environmental Impact Report”). Persons who are deaf, hard of hearing, or speech impaired (TDD) may contact the California Relay Service TTY and/or Voice Line at 1-800-735-2929, or 711.

We value your input and look forward to hearing from you. For your convenience, we have a number of ways for you to provide comments at any time during the 30-day comment period ending at 5:00 p.m. on June 3, 2021. Comments can be submitted the following ways:

- Direct Mail:
Colette Curtis, Public Information Officer
Town of Paradise
5555 Skyway
Paradise, CA 95969
- Website and Virtual Meeting comment submittal: paradisesewer.com/contact (from subject dropdown menu, select “Submit a comment on Environmental Impact Report”).
- Telephone: 530-872-6291, ext. 112

If you are an authorized representative of a Responsible Agency or a Trustee Agency, the Town needs to know the views of your agency regarding the scope and content of the environmental information that is relevant to your agency’s statutory responsibilities in connection with the Proposed Project. Your agency will need to use the EIR when considering whether to permit or otherwise approve the Proposed Project. Comments received from State of California agencies should address (1) whether the agency will be a Responsible Agency or a Trustee Agency for the Proposed Project, and (2) if the agency is a Responsible Agency, the significant environmental issues and reasonable alternatives and mitigation measures that the Responsible Agency will need to have explored in the analysis. We will also need the name, address, telephone number, and email address of the contact person for your agency.



Project Location

Paradise is in eastern Butte County, in the western foothills of the Sierra Nevada Mountains. The topography of Paradise is characterized by intervening ridges and valleys sloping to the southwest, with elevations ranging from 1,080 to 2,320 feet. Paradise is bordered on the east by the west branch of the Feather River and on the west by Little Butte Creek. Paradise is approximately 12 miles east of the City of Chico, California; 20 miles northwest of the City of Oroville, California; and 90 miles north of the City of Sacramento California. The primary entrances to Paradise are Skyway and Highway 191 (Clark Road). Paradise is connected to Chico via Skyway and to Oroville via Highway 191, which is known as Clark Road upon entering Paradise.

Chico, also in Butte County, sits on the Sacramento Valley floor close to the foothills of the Sierra Nevada range to the east. Chico's terrain is generally flat, with increasingly hilly terrain beginning at the eastern city limits. The city is traversed by two creeks, Big Chico Creek and Little Chico Creek, and the Lindo channel, all of which feed into the Sacramento River. Highways 32 and 99 comprise Chico's regional transportation network. Highway 32 connects Chico residents to Glenn and Plumas Counties to the west and east, respectively. Highway 99 connects residents to Tehama and Sutter Counties to the north and south, respectively (see Figure 1, map inset).

Project Background

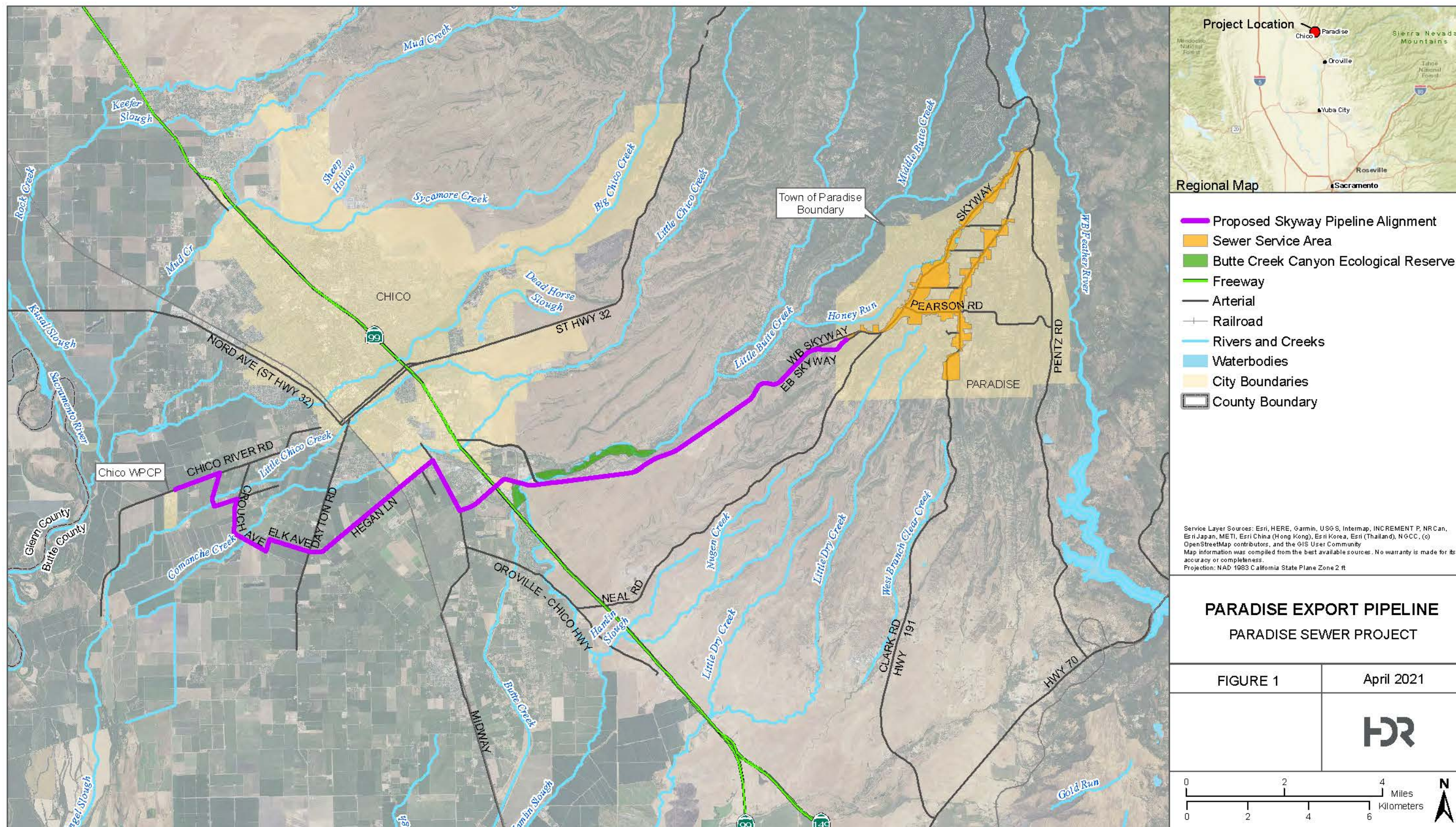
Since its incorporation in 1979, the Town has sought a formal wastewater treatment solution for the community, with service for commercial and densely populated residential areas being a priority. Failed and failing septic systems create the potential for public health and environmental concerns and have limited economic growth. Prior to the Camp Fire, which almost completely destroyed the town in 2018, Paradise was the largest unsewered community in California.

The Town has supported numerous studies to address its need for a centralized wastewater treatment solution, and in its most recent study,¹ the Town identified a proposed sewer service area. The proposed sewer service area includes the Town's commercial corridors, and as described in the 2017 study, it represented the area that had the most septic systems that had failed or were projected to fail by 2022.

Existing Facilities

Wastewater treatment facilities in Paradise consist of individual, privately owned septic tanks and soil absorption disposal systems known as leach fields, together with several engineered subsurface disposal systems serving commercial and institutional facilities. Businesses and residences near the future sewer system continue to rely on septic tanks and leach field systems for wastewater treatment and disposal.

¹ Bennett Engineering, 2017, Town of Paradise Sewer Project Alternatives Analysis and Feasibility Report: Determining a Preferred Option for Implementation, June 21.

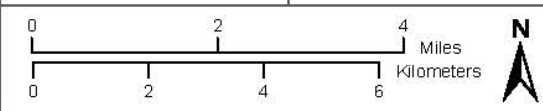


- Proposed Skyway Pipeline Alignment
- Sewer Service Area
- Butte Creek Canyon Ecological Reserve
- Freeway
- Arterial
- + Railroad
- Rivers and Creeks
- Waterbodies
- City Boundaries
- County Boundary

Service Layer Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
 Map information was compiled from the best available sources. No warranty is made for its accuracy or completeness.
 Projection: NAD 1983 California State Plane Zone 2 ft

PARADISE EXPORT PIPELINE
PARADISE SEWER PROJECT

FIGURE 1 April 2021





The Chico Water Pollution Control Plant (WPCP) is approximately 5 miles southwest of Chico on 120 acres of land owned by the City of Chico. The City of Chico owns and operates the Chico WPCP, which provides wastewater treatment and disposal for the greater Chico area. The Chico WPCP service area comprises the incorporated area of Chico and small parcels of unincorporated Butte County.

The Chico WPCP treatment system consists of screening for removal of large solids, grit removal, primary clarification, activated sludge treatment with secondary clarification, and chlorination/dechlorination. Sludge is treated by anaerobic digestion followed by mechanical dewatering. Biosolids are hauled directly from the centrifuge building for land application in unincorporated Sacramento County, California. The treated wastewater from the Chico WPCP is discharged to the Sacramento River through a submerged outfall diffuser and is regulated in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079081 (Order No. R5-2016-0023). This order permits an average dry weather flow effluent flow of 12 million gallons per day (gpd).

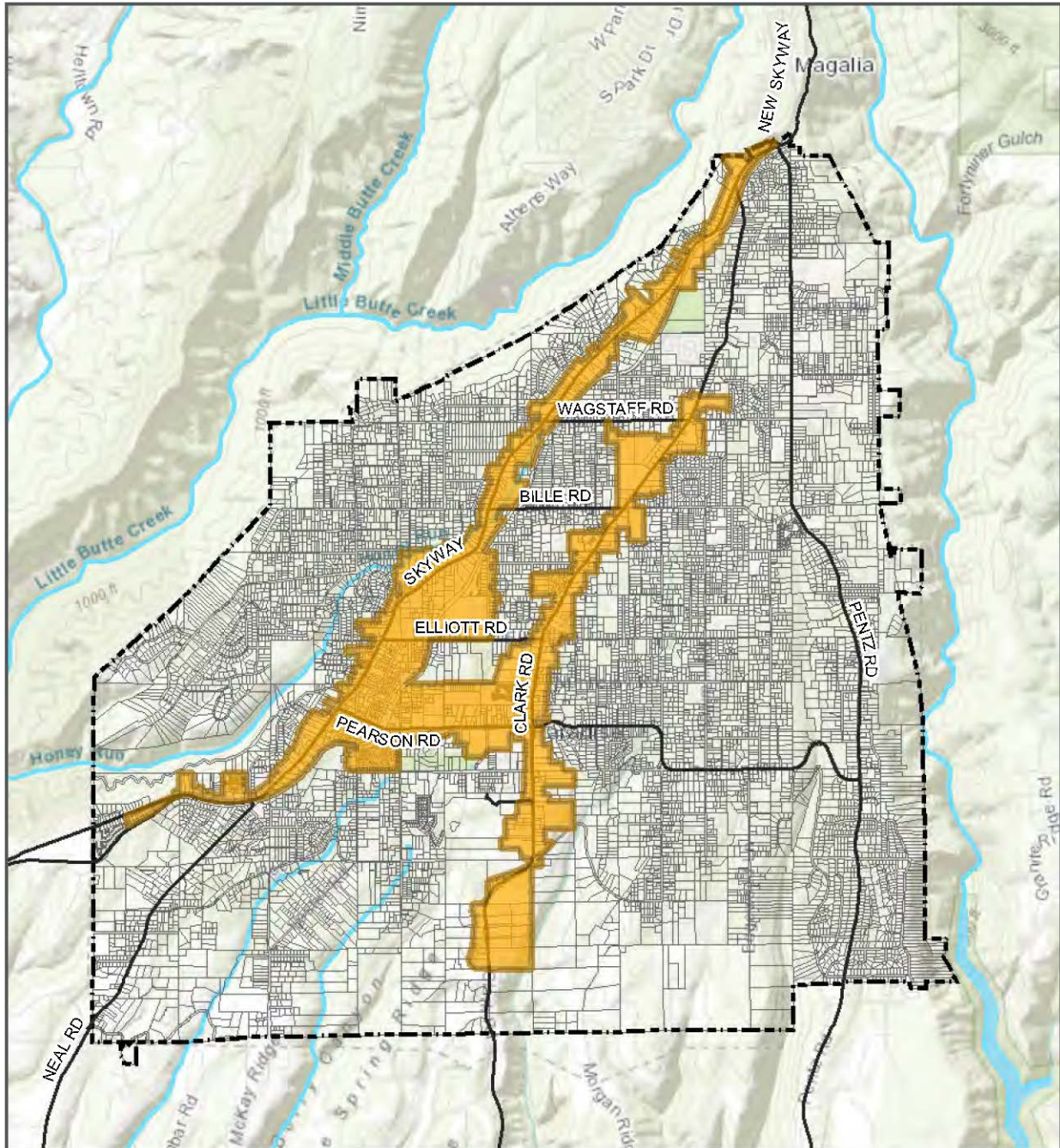
Project Description

The Proposed Project consists of three constructed components—a wastewater collection system in Paradise, an 18-mile export pipeline to convey wastewater to the Chico WPCP, and connection to the WPCP—and operation of the new sewer system. The export pipeline would begin at the southwest edge of Paradise and run for approximately 8 miles along Skyway until reaching south Chico, at which point the pipeline would leave Skyway and continue west, crossing Butte Creek, Highway 99, and the Union Pacific Railroad, and terminating at the Chico WPCP in Chico. The Proposed Project would not change the service area of the Chico WPCP other than the addition of the Paradise connection and treatment. Moreover, there would be no additional fees for Chico residents and rate payers as a result of the Proposed Project.

Sewer Service Area

The sewer service area (SSA) would serve approximately 1,500 parcels (out of the 11,000 total parcels in Paradise) along the Skyway, Clark Road, and Pearson Road corridors (see Figure 2). The SSA also would serve most businesses in Paradise and would enable future construction of affordable multi-family housing, which is limited because of multiple septic system constraints such as high groundwater, poor soils, and limited parcel sizes.

At the time of initial operation, an estimated 360 occupied parcels within the SSA would be generating an average wastewater flow of 109,000 gpd. It is estimated that it could take 30 years for the entire SSA to be occupied, at which time the average wastewater flow would be 448,000 gpd. The Town is considering this level of development and wastewater flow in planning its wastewater treatment solutions.



| | | |
|--|--|--|
| | <ul style="list-style-type: none"> Sewer Service Area Paradise_Parcels City Boundaries Freeway Arterial Railroad Rivers and Creeks Waterbodies | |
| | <p>TOWN OF PARADISE PROPOSED SEWER SERVICE AREA PARADISE SEWER PROJECT</p> <p>FIGURE 2 APRIL 2021</p> | |



Collection System

The collection system would serve all parcels within the SSA, and would consist of a system of gravity sewers, small pump stations, and force mains. This collection system would enable properties within the SSA to have existing septic tanks and leach line systems abandoned altogether and would remove future onsite wastewater treatment and dispersal requirements. Because of the varied topography within the SSA, a number of pump stations and pressurized force mains would be required to pump flows out of valleys and swales, and back up to an adjacent gravity sewer. The collection system would consist of approximately 157,000 feet of 2- to 4-inch-diameter force mains, 29,000 feet of 8-inch-diameter gravity trunk lines, and 28 pump stations, all within public right-of-way. The gravity sewers would come together at the southwest edge of town, on Skyway, where they would transition to the export pipeline to the Chico WPCP.

Export Pipeline

The proposed export pipeline would start along Skyway at the south end of the Paradise collection system and would continue southwest along Skyway. Near Chico, at the bend where Skyway turns north, the pipeline would continue west, heading cross-country with crossings of Butte Creek and Highway 99 until reaching Midway, and would proceed into Chico and end at the Chico WPCP. The connection to the Chico WPCP is not associated with other ongoing facility upgrades. Figure 1 shows the proposed export pipeline route and connection to the Chico WPCP.

Operation and Maintenance

Operation and maintenance activities would occur with the facilities that comprise the Proposed Project. This would include various inspections, servicing, and replacement of pertinent Proposed Project facility elements at designated intervals.

Probable Environmental Effects of the Proposed Project

After completing a preliminary review of the Proposed Project, as described in Section 15060(d) of the CEQA Guidelines, the Town has determined that an EIR should be prepared to assess the potentially significant environmental impacts of the Proposed Project.

The EIR will address environmental impacts of the Proposed Project's construction and operation activities and will propose mitigation measures to address significant impacts that are identified. The following describes the anticipated environmental issues that may be addressed in the EIR:

- **Aesthetics.** Potential impacts on aesthetics during construction and operation of the Proposed Project will be considered. Although temporary impacts may occur during construction, no permanent change in the visual landscape or viewshed is expected.
- **Agriculture and Forestry Resources.** Given the rural conditions, impacts on agriculture and forestry resources will be considered. However, it is anticipated that the Proposed Project would not result in impacts on prime agriculture and forestry resources that cannot be avoided.



- **Air Quality and Greenhouse Gas Emissions.** Criteria air pollutants generated during construction and operation of the Proposed Project would be estimated using the California Emissions Estimator Model (CalEEMod). Potential impacts on air quality will be assessed by comparing the Proposed Project's criteria air pollutant emissions with the thresholds of significance for criteria air pollutants in the Butte County Air Quality Management District's (BCAQMD) *CEQA Air Quality Handbook*.

Construction would be the main source of greenhouse gas (GHG) emissions. GHG emissions during construction of the Proposed Project would be estimated using CalEEMod. Impacts associated with GHG emissions would be determined by comparing project GHG emissions during construction to BCAQMD's recommended thresholds for GHG emissions contained in the *CEQA Air Quality Handbook*.

- **Biological Resources.** The Town is completing field surveys to catalogue protected species and habitat conditions including wetlands and vernal pools. The EIR will consider impacts of proposed trenching and trenchless construction methods on biological resources.
- **Cultural Resources.** Potential impacts on cultural resources that could occur during ground-disturbing construction activities will be evaluated. An initial historic records search was completed, and intensive pedestrian surveys are being completed as part of this planning process. The findings from these studies will be used to analyze the potential physical impacts on historic, pre-historic, archaeological, and cultural resources that could result from proposed construction activities.
- **Energy.** A temporary increase in the consumption of energy would be required during construction, and a long-term increase in the use of energy would be required for operation of the Proposed Project. The impact analysis will assess if the Proposed Project would result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation, or would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
- **Geology and Soils.** Construction of the Proposed Project could result in site-specific impacts on or from local geology and soils conditions. Potential impacts related to geologic, seismic, and soils constraints will be assessed. Potential impacts on paleontological resources and mineral resources will also be considered.
- **Hazards and Hazardous Materials.** Potential impacts related to hazards and hazardous materials will be evaluated, including the potential hazardous materials associated with transport, use, and disposal of hazardous materials during construction and potential hazardous emissions or hazardous materials used during construction and operation of the Proposed Project.
- **Hydrology and Water Quality.** Potential impacts on hydrology and water quality will be described based on qualitative assessment of Project construction activities. No permanent changes to hydrology are expected to result from the Proposed Project.



- **Land Use and Planning.** Although the Proposed Project is not expected to change existing land use, the EIR will evaluate zoning within the sewer service area in relation to current and future development.
- **Noise.** Potential construction-period noise and vibration impacts on sensitive receptors (residences) near the Proposed Project will be assessed. Operational noise will also be analyzed in the EIR.
- **Population and Housing.** While the Proposed Project is not a response to the recovery effort from population and housing loss associated with the 2018 Camp Fire, the Proposed Project could lead to new opportunities for population and housing in the sewer service area. It is not anticipated that siting of the Proposed Project would lead to housing displacement. The balance of current and planned housing in the sewer service area would be considered against the Chico WPCP capacity.
- **Public Services.** Impacts on fire protection services, law enforcement services, schools, and other public services will be evaluated based on available information.
- **Recreation.** Potential impacts on existing recreational resources will be evaluated. It is not anticipated that the Proposed Project would affect existing recreational facilities or activities.
- **Transportation.** Because much of the proposed collection and export pipeline would be constructed in or adjacent to existing roadways, impacts on transportation are expected. Construction-related vehicle trips will be estimated, and temporary construction-related traffic will be evaluated to identify any hazardous conditions on roadways or inadequacies in emergency access that may result during construction of the Proposed Project.
- **Tribal Cultural Resources.** The Town is coordinating with interested tribes in accordance with Assembly Bill 52. Impacts on tribal cultural resources will be evaluated based on discussions with tribes regarding the relationship of the Proposed Project to the ongoing practice of traditional life ways.
- **Utilities and Service Systems.** The Proposed Project would introduce a new utility and service system, which will be analyzed. Construction and operation of the Proposed Project would raise demands on water supply and power utilities.
- **Wildfire.** The Proposed Project is in a state responsibility area, traversing moderate and high fire hazard severity zones. Therefore, this evaluation will focus on the potential for construction activities to impair an emergency response or evacuation plan, exacerbate wildfire risks, and expose people to risks due to post-fire effects, consistent with standards in the CEQA Guidelines Appendix G. The focus will be on elements of construction that could exacerbate fire hazard risks; however, once construction is completed, the underground pipeline would not create conditions that would affect wildland fire risks.
- **Other Sections.** The EIR will include additional topics as required by the CEQA Guidelines, including significant irreversible environmental changes, growth inducement, cumulative

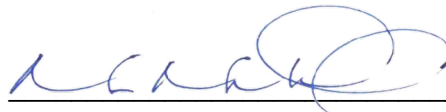


impacts, and alternatives. The EIR will describe and evaluate a reasonable range of alternatives to the Proposed Project that would feasibly attain most or all of the Proposed Project's basic objectives while avoiding or substantially lessening any significant effects of the Proposed Project. These alternatives may include alternative pipeline routes. For each alternative, the EIR will assess the degree to which it might reduce one or more identified significant project impacts, whether it could result in other new or increased impacts, its feasibility, and the degree to which it is consistent with the Proposed Project objectives. The "No Project" alternative will also be evaluated as required by CEQA.

Further Information

For environmental review information or questions about the Proposed Project, please contact us at through our project website at paradisewer.com/contact (from subject dropdown menu, select "Submit a comment on Environmental Impact Report") or by calling us at 530-872-6291, ext. 112

Sincerely,

 4/23/2021

Marc Mattox

Town of Paradise Director of Public Works

Chapter 7 Water Service Reliability and Drought Risk Assessment

This chapter describes the long-term reliability of PID’s water supply portfolio in all hydrologic year types out to the year 2045 including a Drought Risk Assessment, assuming a drought condition through the coming five years. PID’s existing and planned water management strategies and options for increasing the reliability of water supplies are also addressed. Shorter term reliability planning that may require immediate action, such as drought or a catastrophic supply interruption, is addressed in the Water Shortage Contingency Plan. These requirements are outlined in the CWC as follows:

Water Code Section 10635(a)

Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

7.1 Constraints on Water Sources

This section addresses potential legal, environmental, water quality, and climatic effects on the reliability of water supply sources through the year 2045. Climactic changes from seasonal rainfall result in inconsistent water supply from year to year, however the District uses a combination of a Yield Analysis Model and additional supply data to monitor annual conditions and determine appropriate planning actions to achieve reliability for PID’s customers.

7.1.1 Legal Constraints

PID does not anticipate that legal constraints will affect the reliability of water supply through the term of this Urban Water Management Plan; however, several legal terms do apply to the water rights that PID holds. Those terms are described below.

7.1.1.1 Statement of Water Diversion and Use No. S008459

PID’s most senior water right has a priority date prior to 1914 and has been adjudicated. PID must make first use of this supply right whenever diverting water. It is a direct diversion right, meaning is it not intended for diversion to storage, but rather use as the diversion is taking place. There are no other legal constraints that apply to this supply right.

7.1.1.2 Water Right Permit 271 (Application A000476)

PID’s second most senior water right has a priority date of 1916 and remains in permit status. This right includes all season diversion to storage allowance for both Paradise and Magalia Reservoir. DSOD requirements limit the amount of storage that can be held in Magalia reservoir by the setting of a reduced water surface elevation. The date for full beneficial use of this supply occurred in December 2007. A request was made to the State Water

Resources Control Board seeking a License for the amount of water perfected to date. Additionally, a Petition was filed to seek an increase in the place of use area from the original 11,500 acres to a total area of 35,000 acres to include areas of Del Oro Water Company's Magalia, Paradise Pines, and Limesaddle Districts (as shown in Appendix F), as well as some improvements to facilitate several new beneficial uses (*e.g.*, hydropower, raw water transfer). The CEQA process for the petition has begun but is not yet complete. The CEQA document must be completed before the SWRCB can approve the petition and issue a License.

7.1.1.3 Water Right Permit 16040 (Application A022061)

PID's most junior water right has a priority date of 1965; however, it remains in permit status and has not yet been perfected. This right allows for wet season (October 1 to May 31) diversion to storage in Paradise Lake; however, the existing capacity of Paradise Lake does not allow for the full use of this storage right. The date in which full beneficial use was to be made was December 2007. Since PID had not made full beneficial use at that time, a petition was submitted to the State Water Resources Control Board seeking a 25-year extension as well as several other improved terms. These included an increase in the place of use area from the original 11,500 acres to a total area of 35,000 acres to include areas of Del Oro Water Company's Magalia, Paradise Pines, and Limesaddle Districts (as shown in Appendix F), as well as some improvements to facilitate several new beneficial uses (*e.g.*, hydropower, raw water transfer). The CEQA process for the petition has begun but is not yet complete. The CEQA document must be completed before the SWRCB can issue an approval of the petition.

This water right is subject to Term 91. Term 91 can be enacted to curtail diversions within the Sacramento-San Joaquin River Delta watershed when the Central Valley Project and State Water Project conditions dictate a need to release water for in-basin entitlements. When enacted, PID is notified that all diversions under this right are curtailed until such time as the Term 91 is lifted later in the year. Typically, this does not have a measurable effect on PID since flows from which diversions can be made in Butte Creek are typically very low or nonexistent at the point in the year when the Term 91 is generally enacted (late spring/early summer).

7.1.2 Water Quality Constraints

PID receives a very consistent high quality surface water supply from its watershed. Butte County has established a watershed protection zone inclusive of the runoff into Paradise Lake and Magalia Reservoir. Prior to the 2018 Camp Fire, the District's primary water quality vulnerability was a point source contamination of Magalia Reservoir stemming from the highway across the dam – for example, an overturned tanker truck spilling into the reservoir. In order to mitigate this risk, PID received grant funding from DWR and the Infrastructure Bank of California and constructed the Magalia Reservoir Raw Water Bypass. PID was then able to receive supplies above Magalia Reservoir and deliver them directly to the WTP.

Until the Camp Fire occurred, causing widespread damage to the Town of Paradise and resulting significant impacts to the PID water distribution system, wildfire had not been considered a water quality hazard for PID. In the weeks following the Camp Fire, PID issued a Water Quality Advisory to its customers out of concern for possible contamination of the water distribution system. Upon initial testing, it was determined that contamination resulting from the exposure of the distribution piping network to volatile organic compounds, or VOCs, had occurred. It was also confirmed that the Water Treatment Plant and source water in Paradise and Magalia Reservoirs had not been affected by the fire and were of the same high quality. This allowed PID to focus on the pipe network itself in determining the extent of VOC contamination.

PID staff undertook a large-scale water quality sampling effort, collecting samples from over 6,000 locations and running over 400,000 individual tests in order to characterize the extent and nature of this VOC contamination. Overall, it was determined that 95% of the mains were clear and serving potable water. Approximately 50% of service laterals serving structures which had burned in the fire were found to contain contaminants. As a result of these determinations, PID has undertaken a systematic program to replace service laterals serving destroyed structures portions of water mains where persistent contamination has been found are also being replaced as part of this program. As these replacements have taken place, PID has lifted the Water Quality Advisory to each structure as confirmation of potable water quality at each site is achieved.

Since August of 2020, following the Recovery Water Quality Sampling effort, PID has conducted continuous Assurance Monitoring, systematically sampling throughout the service area to confirm the continued potability of the water delivered throughout. The results of the Assurance Monitoring program indicate that PID continues to serve customers with reliable, high quality potable water.

7.1.3 Physical Constraints

The physical constraints of recycled water, surface water, and groundwater are discussed in the following sections.

7.1.3.1 Recycled Water

Recycled water is not part of PID's supply portfolio as there is no centralized treatment of wastewater within the Town of Paradise and thus no production of recycled water for use. Development of these systems is not currently planned within the horizon of this document although general feasibility is being analyzed at this time.

7.1.3.2 Surface Water

PID is highly dependent upon the water supply storage provided by the Paradise and Magalia Dams. At the time of plan preparation, PID's full allotment of water rights cannot be realized due to the physical constraint of limited storage capacity.

Paradise Lake is currently limited to a water surface elevation of 2568, with a maximum storage capacity of 11,500 AF. Without this physical storage constraint, PID would be able to divert and store up to 15,500 AF of water supply at this location, representing a 4,000 AF limitation.

Magalia Reservoir is currently limited to a water surface elevation of 2,200, approximately 26 feet below the physical crest of the dam. This limitation was imposed by DSOD in 1997 in response to concerns regarding the stability of Magalia Dam and the nature of its hydraulic fill, earthen embankment construction. The Magalia Fault traverses the left abutment of the Dam itself, which is designated by DSOD as a conditionally active fault at this time. These conditions have limited the operational storage at the Dam to the current water surface elevation, with a maximum storage of 800 AF. Without this limitation, Magalia Dam can store up to 2,800 AF of water supply, a difference of 2,000 AF. PID is currently in the design phase of a project to retrofit Magalia Dam and correct any stability deficiencies. Once PID can secure funding for the construction of this project and move forward with construction, a petition will be made to the DSOD to restore the original water surface elevation of 2,225.8, alleviating this storage constraint.

7.1.3.3 Groundwater

The physical constraints on the current groundwater supply are the result of the operation and pumping capacity of PID’s single well. At the time of plan preparation, the well is non-operational. As Recovery efforts continue, the well will be identified in order of priority as a project for PID to repair. Once operational again, the well is still limited by the physical nature of water supply in fractured rock conditions.

7.1.4 Other Constraints

Aside from legal and physical constraints, there are no other identified constraints in supply for PID.

7.2 Water Supply Reliability Assessment

This section addresses the reliability of the PID’s water supply in average, single dry, and multiple dry water years. PID uses the following water year definitions from the Guidebook:

PID Table 7-A Reliability Assessment Year Type Characterization

| Year Type | Description | Representative Year Selected |
|-------------------------------|---|------------------------------|
| Average or Normal Year | A single year or averaged range of years that most closely represents the average water supply available to the Supplier. | 1936 |
| Single Dry Year | The year that represents the lowest water supply available to the Supplier. | 1933 |
| Five Consecutive Year Drought | The driest five-year historical sequence for the supplier. | 1929-1933 |

The reliability of the potable water supply is discussed in the following sections and is compared to the projected potable water demand. There is no supply or demand for recycled water.

7.2.1 Potable Water Supply and Demand Assessment

This section provides an assessment of PID’s expected water supply and demand for Normal Year, Single Dry Year, and Five Consecutive Year Drought scenarios, based on data available at the time of publication of this UWMP.

As shown in PID Table 7-A above, PID has identified the following base water years to represent the Year Types:

- **Average or Normal Year:** 1936
- **Single Dry Year:** 1933
- **Five Consecutive Year Drought:** 1929-1933

PID has identified these base water years based on the District’s Yield Analysis Model, including a combination of runoff and reservoir storage data. These years listed above represent an average year of runoff (assumed 100% of supply), a critically dry year (29% of average), and the lowest five-year average runoff in complete PID records (78% down to 29% of average over 5 years). Supply availability calculations were conducted on a calendar year basis in this UWMP update, as opposed to water year calculations as was done in the 2015 UWMP. Available supply was calculated by taking the storage volume in PID’s reservoirs on January 1 of the year, calculating the direct diversions PID was able to make use of (above a 0.5 cfs base environmental bypass flow), and finally calculating additional runoff available for storage in the reservoirs, in compliance with PID’s water rights described elsewhere in this UWMP. Supply volumes calculated this way for base years are provided in DWR Table 7-1.

DWR Table 7-1

| Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment) | | | |
|---|--|---|---|
| Year Type | Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020 | Available Supplies if Year Type Repeats | |
| | | <input type="checkbox"/> | Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____ |
| | | <input checked="" type="checkbox"/> | Quantification of available supplies is provided in this table as either volume only, percent only, or both. |
| | | Volume Available * | % of Average Supply |
| Average Year | 1936 | 21,141 | 100% |
| Single-Dry Year | 1933 | 6,071 | 29% |
| Consecutive Dry Years 1st Year | 1929 | 15,223 | 72% |
| Consecutive Dry Years 2nd Year | 1930 | 16,465 | 78% |
| Consecutive Dry Years 3rd Year | 1931 | 12,182 | 58% |
| Consecutive Dry Years 4th Year | 1932 | 9,239 | 44% |
| Consecutive Dry Years 5th Year | 1933 | 6,071 | 29% |

NOTES: The above years represent the Normal Year, lowest single year available supply, and the lowest 5 year supply with complete PID records. Each year's supplies includes any remaining storage left from the previous year supply, taken into account at January 1 of each year. D Tank Well supplies are not included in these values as the well was not yet constructed in these years, nor is it currently planned for reoperation until 2030.

7.2.2 Comparison of Supply and Demand

A comparison of projected water supply and demand during Normal, Single Dry, and Five Consecutive Year Drought conditions are included in DWR Table 7-2, DWR Table 7-3, and DWR Table 7-4. It is important to note that in all scenarios shown in these tables, Normal Year demands are shown, without the expected conservation percentages ranging from 10-50% that would be expected in drought conditions. By comparing reduced supply volumes in dry years to Normal Year demand levels, it is shown conservatively that PID is able to successfully meet demand in all year types.

7.2.3 Total Water Supply and Demand Comparison

A comparison of projected total potable water supply and demand during a Normal Year is included in DWR Table 7-2. As shown, there is an adequate water supply in Normal Years to meet demands through 2045.

DWR Table 7-2

| Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison | | | | | |
|--|--------|--------|--------|--------|--------|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| Supply totals | 21,141 | 21,186 | 21,186 | 21,186 | 21,186 |
| Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| Difference | 17,184 | 16,830 | 16,272 | 16,077 | 16,102 |
| NOTES: All volumes in AF. Note, this Normal Year supply differs from that outlined in DWR Table 6-9 as these values include reasonably expected storage volumes remaining in the reservoirs on January 1 from the previous years' supply. D Tank Well assumed to be repaired and operational to the standard capacity of 45 AF in normal year conditions as of the year 2030 when it is expected to be in operation again. | | | | | |

A comparison of projected water supply and demand during a Single Dry Year is included in DWR Table 7-3. As shown, there is adequate water supply to meet demand in single dry years through 2045, even with supplies reduced as far down as 29% of Normal.

DWR Table 7-3

| Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | | |
|--|-------|-------|-------|-------|-------|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| Supply totals | 6,071 | 6,421 | 6,421 | 6,421 | 6,421 |
| Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| Difference | 2,114 | 2,065 | 1,507 | 1,312 | 1,337 |
| NOTES: All volumes are in AF. All supply volumes include storage remaining in the reservoirs on January 1 of each year. D Tank Well assumed to be repaired and operational to the full historical capacity of 350 AF in drought conditions as of the year 2030 when it is expected to be in operation again. | | | | | |

A comparison of projected water supply and demand during a Five Consecutive Year Drought is included in DWR Table 7-4. As shown, there is adequate water supply to meet demand in all extended drought years through 2045.

DWR Table 7-4

| Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison | | | | | | |
|--|---------------|--------|--------|--------|--------|--------|
| | | 2025 | 2030 | 2035 | 2040 | 2045 |
| First year | Supply totals | 15,223 | 15,573 | 15,573 | 15,573 | 15,573 |
| | Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| | Difference | 11,266 | 11,217 | 10,659 | 10,464 | 10,489 |
| Second year | Supply totals | 16,465 | 16,815 | 16,815 | 16,815 | 16,815 |
| | Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| | Difference | 12,508 | 12,459 | 11,901 | 11,706 | 11,731 |
| Third year | Supply totals | 12,182 | 12,532 | 12,532 | 12,532 | 12,532 |
| | Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| | Difference | 8,225 | 8,176 | 7,618 | 7,423 | 7,448 |
| Fourth year | Supply totals | 9,239 | 9,589 | 9,589 | 9,589 | 9,589 |
| | Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| | Difference | 5,282 | 5,233 | 4,675 | 4,480 | 4,505 |
| Fifth year | Supply totals | 6,071 | 6,421 | 6,421 | 6,421 | 6,421 |
| | Demand totals | 3,957 | 4,356 | 4,914 | 5,109 | 5,084 |
| | Difference | 2,114 | 2,065 | 1,507 | 1,312 | 1,337 |
| NOTES: All volumes are in AF. All supply volumes include storage remaining in the reservoirs on January 1 of each year. D Tank Well assumed to be repaired and operational to the full historical capacity of 350 AF in drought conditions as of the year 2030 when it is expected to be in operation again. | | | | | | |

As stated in DWR Table 7-4, DWR Table 7-3, and DWR Table 7-2, there is sufficient supply to meet demands in all year types through 2045.

7.2.4 Deficit Mitigation

Paradise relies upon annual precipitation and runoff in the Butte Creek watershed. Depending upon trends in climate change, annual precipitation and snowpack conditions, Paradise may experience shortage in the future. However, through the planning horizon of this Urban Water Management Plan, there is no anticipated shortage of supply in any year type. This is partially due to the reduction in demand caused by the 2018 Camp Fire. As Paradise continues to rebuild following the disaster, trends in redevelopment and possible intensification may change the outlook of water supply through 2045. Much of those development trends cannot be predicted yet, so soon after such an unprecedented community change. PID is committed to working in close partnership with the Town of Paradise and Butte County to track these trends and plan accordingly in both the short and long-term.

7.3 Drought Risk Assessment

In DWR Table 7-5, the lack of any deficit in supply for a near-term extended drought condition is shown. PID actively encourages responsible use of water and conservation principles in all year types; however, there is no indication of the need for these conservation efforts to mitigate a shortage of supply.

The availability of each of PID’s water rights is examined in Chapter 6 of this UWMP, specifically in PID Tables 6-A and 6-B whereby discussion of season limitations and curtailments are outlined. PID’s reliance on runoff from the Feather River Watershed is significantly mitigated by PID’s storage rights in Paradise Lake and Magalia Reservoir. Even considering physical limitations on these storage quantities, PID is able to demonstrate reliable water supply for Normal Year demands through the horizon of this planning document in all hydrologic year types.

The USGS climate change study cited in Chapter 6 outlines a cyclical pattern to precipitation quantities through 2099, but no overall decline. In periods of extended drought, PID is demonstrably able to continue to supply high quality water. In periods of excess, PID can store supplies against future drought.

DWR Table 7-5

| Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b) | | | | | |
|---|--------|--------|--------|-------|-------|
| Category | 2021 | 2022 | 2023 | 2024 | 2025 |
| Total Water Use | 4,287 | 4,205 | 4,122 | 4,040 | 3,957 |
| Total Supplies | 15,223 | 16,465 | 12,182 | 9,239 | 6,071 |
| Surplus/Shortfall w/o WSCP Action | 10,936 | 12,260 | 8,060 | 5,199 | 2,114 |
| Planned WSCP Actions (use reduction and supply augmentation) | | | | | |
| WSCP - supply augmentation benefit | 0 | 0 | 0 | 0 | 0 |
| WSCP - use reduction savings benefit | 0 | 0 | 0 | 0 | 0 |
| Revised Surplus/(shortfall) | 10,936 | 12,260 | 8,060 | 5,199 | 2,114 |
| Resulting % Use Reduction from WSCP action | 0% | 0% | 0% | 0% | 0% |

7.4 Regional Supply and Reliability

All water consumed by PID comes from local supply sources. No water is imported from other regions, nor does PID anticipate importing water from other regions throughout the UWMP planning period. However, the District is actively engaged in planning on multiple potential projects and coordination intended to strengthen water supply reliability throughout the Ridge area, in addition to investing in long-term water storage augmentation projects like the future Magalia Dam Retrofit Project. Projects like Magalia Dam will correct flood risk issues in the Paradise and Magalia areas as well as downstream, while also providing additional stability of water supply and storage in the region. PID is a committed regional partner in working to solve supply shortage issues before they become a critical reality, with climate change and increasingly limited supply sources at the crux of the issue. PID will continue these efforts into the future and work with its partner agencies to find the best path forward.



Search

Fire Department

Burning is Suspended Effective June 26, 2023

Fire Department



Welcome to Paradise Fire & Rescue

We are an "All-Risk" department, meaning that we respond to all emergencies: fires, emergency medical services, hazardous materials, rescues, and public assists. Our mission to protect the community is a cooperative agreement with CAL FIRE. With a headquarters in Oroville, Fire Chief Garrett Sjolund directs over 400 firefighters at all ranks and experience. The Town is located geographically within the Butte Unit's Northern Division under the direction of Division Chief Patrick Purvis. Battalion Chief Rick Manson supervises the day to day operations of the Paradise Battalion and retains his office at Station 81. By contracting with CAL FIRE the Town of Paradise is able to staff two fire stations with three-person engine companies, and one station with a two-

person engine company. This allows for a rapid response to all coverage areas and facilitates being able to retain the town-wide Insurance Service Office rating of three.

In addition, to the Town's resources, CAL FIRE maintains their own stations in Paradise and the neighboring community of Magalia. These resources are available to assist with the Town's fire protection efforts as necessary.

The Town of Paradise employs a fire prevention inspector, fire marshal, and administrative assistant for the fire department, and all ordinances and municipal codes related to hazard abatement and burning for the Town of Paradise remain in effect.

Residential growth has created a Wildland Urban Interface (WUI) that requires greater preparedness than ever before on behalf of emergency staff and residents. The Town of Paradise is located in a defined "very high fire hazard severity zone" pursuant to the California Government Code § 51175 and the California Health and Safety Code § 13108.5. Because of this designation, prevention and preparedness are of utmost importance. Defensible space around all structures is vital to safety, and property owners are asked to do their part in keeping properties clear of overgrown vegetation and other fire hazards. A partnership between the professional firefighters and residents is essential if this foothill environment is to remain a safe and beautiful place to live.

Station 81

767 Birch Street

Telephone: (530) 872-6264

Facsimile: (530) 877-5957

Recorded Burn Info: (530) 872-6264

Office Hours: 9:00 am - 1:00 pm, Monday through Friday

Services

- Purchase Burn Permits (cash or check only)
- Report Hazard Concerns
- Purchase Hydrant Flows (cash or check only)
- Schedule Tours
- Records Requests prior to October 2012

Station 82

5545 S. Libby

Records Request

CAL FIRE

176 Nelson Avenue, Oroville

(530) 538-7888

Mail/come in with date of incident and address. \$20.00.

Supporting Documents

-  Wildfire Prepared Homeowner Guide (12 MB)
-  Wildfire Prepared Brochure (3 MB)
-  Wildfire Prepared Home Standard (5 MB)

Contact Information

Fire Station 81

767 Birch St. Paradise CA 95969

(530) 872-6264

Recorded Burn info: (530) 872-6264

Mon. – Fri. 9 am to 1 pm

Fire Station 82

5545 S. Libby Rd

Paradise, CA 95969

Chris Rainey

Fire Prevention Inspector II

Office: (530) 872-6291 ext. 304

crainey@townofparadise.com

Shane DeValera

Fire Prevention Inspector II

Office: (530) 872-6291 ext. 440

Cell: (530) 693-7338

sdevalera@townofparadise.com

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5555 Skyway | Paradise, CA 95969 | Monday – Thursday 8:00am – 5:00pm

a municode design
Evacuation Status Map



Search

Police Department

Police Department



Message from the Chief of Police

"Welcome to the Paradise Police Department website. As Chief, I am extremely proud of the men and women who make up the department and serve this community. The employees and volunteers of this department are committed to providing quality public safety services to our community. We continue to do our utmost to maintain our outstanding reputation, high level of personalized service, and



progressive technological advances to keep Paradise citizens informed.

The Paradise Police Department is thankful to the community for its support of the department and its mission. Most importantly, we understand it is only with the cooperation, involvement and partnerships of the citizens of Paradise that we can make our town a better and safer place to live.

We are striving to create a website that is not only a source of information, but a learning tool that will provide our community and their children with the tools to keep them safe. Please feel free to browse our pages using the links and let us know what you think."

--Eric Reinbold, Chief of Police

Mission Statement

The purpose of the Paradise Police Department is to serve the members of the community; to protect their lives, liberties, and property. With well-trained and professional personnel we will strive to provide our Town with a sense of safety, security, and trust. We will prepare for this responsibility by our commitment to training and community awareness.

We will serve our community with integrity, honesty, dedication, loyalty, and professionalism, while striving for excellence in all we do. We value our responsive relationship with our community.

By using our available resources, we vow to vigorously and professionally pursue those who commit crimes, and be sensitive and empathetic to those who have been victimized. We will endeavor to improve the quality-of-life in our Town.

Our people are the Department's most valuable assets. We will promote pride and maintain an atmosphere of mutual cooperation, understanding, and teamwork. We recognize each member as an individual and treat each member with respect, dignity, and fairness.

We will prepare for the future to meet the changing needs of our Town. In all things, we will never compromise our core principles and values.

Contact Information

5595 Black Olive Dr
Paradise, CA 95969

(530) 872-6241

[View Full Contact Details](#)



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5555 Skyway | Paradise, CA 95969 | Monday – Thursday 8:00am – 5:00pm

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Evacuation Status Map



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[ELECTRONIC SIGN AT TERRY ASHE RECREATION CENTER \(/ELECTRONIC-SIGN-AT-THE-TERRY-ASHE-RECREATION-CENTER\)](/ELECTRONIC-SIGN-AT-THE-TERRY-ASHE-RECREATION-CENTER)

[PARADISE WELCOME SIGN \(/PARADISE-WELCOME-SIGN\)](/PARADISE-WELCOME-SIGN)

Parks & Facilities



We Create Community and Quality of Life Through People, Park and Programs.



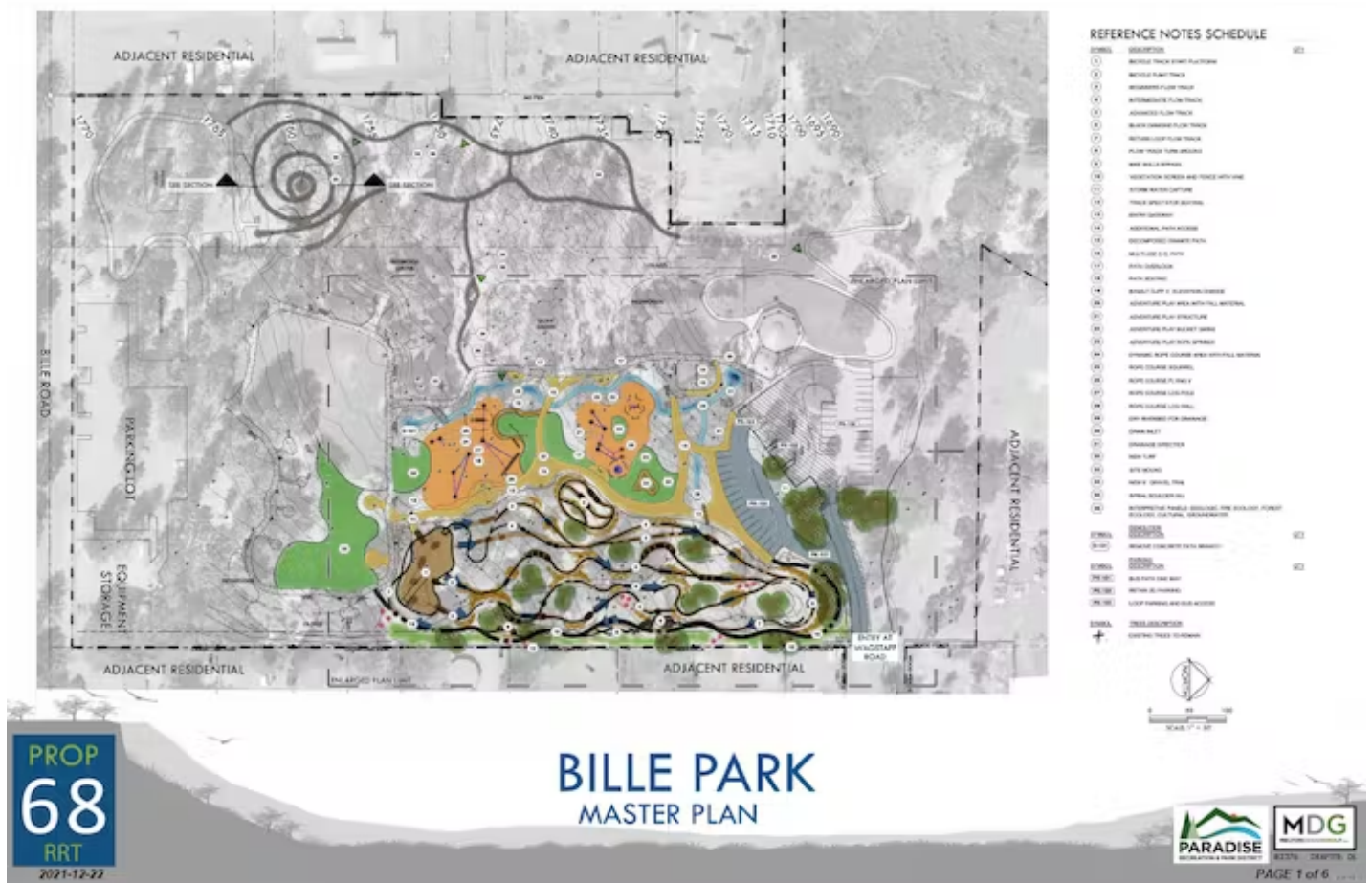


Lakeridge Park - Coming Soon!

The citizens of Magalia and the Upper Ridge have been working with PRPD staff and Board to get a park in Magalia since 2006. At LONG last PRPD is pleased to announce that the District has received funding to build Lakeridge Park in Magalia. This \$5,227,277 grant will fund the development of a new recreation center, grass play field, outdoor sport court, adventure playground, two traditional...

READ MORE »

(/lakeridge-park-coming-soon)



Bille Park Enhancements - Coming Soon!

Paradise Recreation and Park District (PRPD, District) is excited to announce that the Rural Recreation and Tourism grant proposal to enhance Bille Park has been awarded funding. The District applied for, and will receive, \$1,439,535 to develop new features and amenities for this highly beloved park. These new features and amenities include a high-ropes course, new adventure playground, native...

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The Terry Ashe Recreation Center

The Terry Ashe Recreation Center is located at 6626 Skyway in the heart of Paradise with a gazebo surrounded by tall pines. Our newly renovated facility contains a large room and a kitchen along with a wood dance floor, sound system and lighting; an ideal place for celebrations of every kind.

[READ MORE »](#)

(/the-terry-ashe-recreation-center)



Paradise Lake

As of June 1st, 2020, the Paradise Recreation and Park District (PRPD) has taken over recreation amenities and operations at Paradise Lake from the Paradise Irrigation District (PID).

[READ MORE »](#)

[\(/paradise-lake\)](/paradise-lake)



Bille Park

Bille Park is located at 501 Bille Road. Surrounded by a redwood grove, the Counselor's Circle and group BBQ area will provide a serene setting for your special outdoor wedding and reception.

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[\(/bille-park\)](/bille-park)



Bille Park Expansion

Bille Park Expansion is located at 6261 W. Wagstaff Road. This beautiful park with its natural creek side setting, enchanting Gazebo, large covered Pavilion and kitchen will offer a spectacular location for your special day. This facility offers a scenic backdrop for your ceremony and reception with winding paved pathways, meadows, a waterfall cascading into a small pond, and a picturesque bridge...

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(/bille-park-expansion)



Aquatic Park

The Aquatic Park located at 5600 Recreation Drive, and offering colorful foliage in the fall, has an arbor and a group BBQ area. The creek flows into a tranquil pond with a fountain that makes an excellent backdrop for your priceless photos.

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Aquatic Park Swimming Pool

5600 Recreation Drive • 872-6380

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Moore Road Ball Park, Lezlie Morrow Memorial Dog Park, & Horse Arena

(Forest Service Road off Clark Road-6705 Moore Rd)

Two ball park fields

Lezlie Morrow Dog park

Horse riding arena

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Concow Pool

11666 Concow Rd.

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Coutolenc Park

Coutolenc Park is currently under recovery construction.

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Photo Credit: TiffanyDPhotography

Butte County



Weddings on the Ridge



Bille Park

- Outdoor Covered Pavilion with kitchenette
- Butte Creek Canyon / Sunset Views
- Grassy lawn, water feature & bridges



Paradise Lake

- Gazebo & Group Picnic Area
- Beautiful Lake & Forest Views

WEDDINGS ON THE RIDGE

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FACILITY RENTALS & RESERVATIONS

Online Reservations click here (Picnic Areas only)

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6626 SKYWAY, PARADISE CA 95969
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August 31, 2023

Mr. Jason Brandman
First Cabon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597

DRAFT Transportation Impact Study for the Clark Road Apartments

Dear Mr. Brandman;

As requested, W-Trans has prepared an analysis of the potential transportation impacts associated with the proposed Clark Road Apartments to be located at 6480 Clark Road in the Town of Paradise. The purpose of this letter is to set forth the project's anticipated trip generation and the results of our evaluation of the issues identified in the California Environmental Quality Act (CEQA) as potentially resulting in transportation impacts.

Existing Conditions

The study area consists of Clark Road, which runs along the frontage of the project site in the Town of Paradise. Clark Road generally runs north-south. Along the project frontage, Clark Road has two 12-foot travel lanes in each direction, a continuous two-way left-turn lane (TWLTL), and a posted speed limit of 35 miles per hour (mph). Traffic counts obtained on July 26, 2023, indicate that the street has an average daily traffic (ADT) volume of about 7,000 vehicles.

Project Description

The project as proposed would result in the construction of 72 apartment units on four undeveloped parcels, 71 of which would be designated as low-income, affordable housing. The remaining unit would be reserved for an on-site manager. Access would be via two private driveways on the east side of Clark Road, as shown on the enclosed site plan.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, for Multi-family Housing (Low-Rise) Not Close to Transit (LU #220). While there are rates applicable to affordable housing with income limits, these rates were not applied to achieve a more conservative analysis. Based on the application of these rates, the proposed project is expected to generate an average of 485 trips per day, including 29 a.m. peak hour trips and 37 trips during the p.m. peak hour. These results are summarized in Table 1.

Table 1 – Trip Generation Summary

| Land Use | Units | Daily | | AM Peak Hour | | | | PM Peak Hour | | | |
|-----------------------|-------|-------|-------|--------------|-------|----|-----|--------------|-------|----|-----|
| | | Rate | Trips | Rate | Trips | In | Out | Rate | Trips | In | Out |
| MF Housing (Low-Rise) | 72 du | 6.74 | 485 | 0.40 | 29 | 7 | 22 | 0.51 | 37 | 23 | 14 |

Note: du = dwelling unit

Trip Distribution

Given the location of the project site in the northerly half of the Town of Paradise it is anticipated that 60 percent of project generated trips would be allocated to the south of the project site and 40 percent north of the project site.

Alternative Modes of Transportation

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, a network of pedestrian facilities exists in the vicinity of the project site with a combination of sidewalks and shoulders on low-volume streets. There are sidewalks on both sides of Clark Road and on the north side of Bille Road. No sidewalks are present on other streets in the vicinity of the project site, but the remaining streets in the project vicinity are low-volume residential streets with shoulders that pedestrians are able to walk on. Multi-use paths are planned along the entire length of the north side of Bille Road and along the west side of Clark Road from Villa Falls to the northern Town limits per *The Town of Paradise Transportation Master Plan*, Mark Thomas, 2022.

Pedestrian Safety

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians. Collision records available from the California Highway Patrol (CHP) as published in their Statewide Integrated Traffic Records System (SWITRS) reports were reviewed for the most current five-year period available, which was January 1, 2018, through December 31, 2022, at the time of the analysis. During the five-year study period there were two reported collisions involving pedestrians along the study segment. Both of these collisions occurred at the intersection of Clark Road/Wagstaff Road in the early morning, before sunrise. The intersection, while signalized, only has streetlights on two of the four corners, which may not be adequately lighting the entire intersection. The skewed angle that Wagstaff Road and Clark Road intersect results in a larger intersection with longer crossing distances than a typical orthogonal intersection. As a result, the Town of Paradise may wish to consider installing additional streetlights at the intersection or implementing an early pedestrian interval, a “walk” indication that displays for several seconds before the adjacent traffic receives a green indication, to improve pedestrian safety.

Finding – Pedestrian facilities serving the project site are adequate.

Recommendation – The Town of Paradise may wish to install additional streetlights or implement an early pedestrian interval at the intersection of Clark Road/Wagstaff Road to improve pedestrian safety.

Bicycle Facilities

Existing and Planned Bicycle Facilities

There are no bicycle facilities in the project area. The shared use of minor streets provides adequate access for bicyclists. According to *The Town of Paradise Transportation Master Plan* a Class I multi-use pathway is planned along the west side of Clark Road from Villa Falls to the northern Town limits and along the entire length of the north side of Bille Road. The proposed project would not conflict with this planned future facility.

Bicyclist Safety

Collision records for the study area were reviewed to determine if there had been any bicyclist-involved crashes. During the five-year study period between January 1, 2018, through December 31, 2022, there was one reported collision involving a bicyclist along the study segment at the intersection of Clark Road/Cypress Lane. Because only a single collision with a bicyclist was reported, no pattern of behavior could be determined.

Finding – Bicycle facilities serving the project site are adequate and the project would not conflict with plans to provide a future pathway on Clark Road and Billie Road.

Transit Facilities

Existing Transit Facilities

The Butte Regional Transit (B-Line) provides fixed route bus service in the Town of Paradise and throughout Butte County. Routes 40 and 41 run within a half mile of the project site. Route 40 runs from the Chico Transit Station to the Paradise Transit Center from 6:50 a.m. to 7:20 p.m. on weekdays with headways that range from 1.5 to 5.5 hours and from 9:50 a.m. to 6:00 p.m. on Saturdays with headways that range from two to four hours. Route 41 operates from the Chico Transit Station to the Paradise Pine RV Park. The route operates from 7:20 a.m. to 6:30 p.m. with headways of 2.5 hours on weekdays and on Saturdays the route operates from 9:45 a.m. to 6:00 p.m. with headways ranging from three hours to five hours.

Two bicycles can be carried on all B-Line buses. Bike rack space is on a first come, first served basis.

Impact on Transit Facilities

The project as proposed is likely to create little additional demand for transit and as such is expected to have a less-than-significant impact on transit facilities. The Town of Paradise may wish to consider expanding transit routes and shrinking existing headways as areas within the Town redevelop.

Finding – Transit facilities serving the project site are currently adequate.

Recommendation – Transit routes in the future may need to be improved to accommodate development.

Significance Finding – The proposed project would have a less-than-significant impact on existing or proposed facilities for pedestrians, bicyclists, and transit riders as it is consistent with plans and policies for these modes.

Vehicle Miles Traveled (VMT)

Senate Bill (SB) 743 established the change in Vehicle Miles Traveled (VMT) as a result of a project as the basis for determining impacts with respect to transportation and traffic under CEQA. As of the date of this analysis, the Town of Paradise has not adopted thresholds of significance related to VMT. As a result, project-related VMT impacts were assessed based on guidance published by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018. The

technical advisory notes that “a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of a less-than-significant impact for a 100-percent affordable residential development (or the residential component of a mixed-use development) in infill locations.” Because the proposed project is an infill affordable housing development, the screening guidance provided by OPR would apply, and it is reasonable to conclude that the project would have a less-than-significant impact on VMT.

Significance Finding – As an affordable housing development, the project can be presumed to have a less-than-significant transportation impact on VMT.

Safety

Collision Analysis

The collision history for the study segment of Clark Road within one mile of the project site was reviewed to determine any trends or patterns that may indicate a safety issue. For the same five-year period previously described the calculated collision rate for the study segment of Clark Road was compared to the average collision rate for similar facilities statewide, as indicated in *2019 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for segments in the same environment (urban, suburban, or rural), with the same number of lanes (three, four, ect.), and vehicle travel speed (above or below 45 mph). The calculated collision rate of 1.33 collisions per million vehicle miles (c/mvm) is slightly higher than the statewide average of 1.00 c/mvm. The reported collisions were therefore further reviewed.

Ten of the 34 total collisions that occurred along the study segment were broadside collisions, seven were sideswipes, five were head-on collisions, five were rear-ends, three were hit objects, two were vehicle-pedestrian collisions, and another two had some “other” cause. In terms of the primary collision factor, automobile right-of-way violations caused 12 collisions, five were caused by unsafe speeds, three were caused by someone driving on the wrong side of road, three were due to driving under the influence, two collisions each were attributed to improper turning, ignoring traffic signals, unsafe starting or backing, and “other” causes, and one collision each was attributed to improper passing, pedestrian right-of-way violation, and other hazardous movements. Nine of the collisions occurred at the intersection of Clark Road/Wagstaff Road and six occurred at the intersection of Clark Road/Bille Road. As countermeasures, the Town of Paradise may wish to look for opportunities to improve streetlighting, add retroreflective faceplates to traffic signals, and refresh and enhance striping along Clark Road to improve guidance for drivers as well as increasing enforcement to reduce excessive speeds. The collision rate calculations are enclosed.

Finding – Clark Road has a calculated collision rate above the statewide average for similar facilities.

Recommendations – The Town of Paradise may consider improving lighting, adding retroreflective faceplates to signal heads, and restriping lane markings along Clark Road to improve guidance for motorists and increase enforcement to reduce collisions.

Site Access

The site would be accessed by two driveways to be located approximately 650 and 870 feet north of the intersection of Clark Road/Bille Road. There is a TWLTL along the frontage of the project site that would facilitate left turns into the project site without impacting through traffic, as well as facilitate two-stage left turns out of the project site. Sight distances along Clark Road at the project driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* (HDM) published by Caltrans. The recommended sight distances for driveways are based on stopping sight distance, which uses the approach travel speed as the basis for determining the recommended sight distance. Given the posted speed limit of 35 mph on Clark Road, the recommended stopping sight distance needed is 250 feet.

Based on field measurements obtained at the locations of the proposed driveways, sight lines extend approximately 300 feet to both directions which is adequate for five mph over the posted speed limit. Landscaping and signage can impede sight lines; therefore, it is recommended that any new landscaping, signage, or other structures to be placed along the project frontage should be outside of the vision triangle at each driveway, or should be less than three feet or more than seven feet in height above the pavement surface to maintain a clear line of sight.

(NOTE: the sight distance evaluation is based on street-level photography and will be field-verified prior to issuing the report for Town review.)

Turn Lane Warrant

Due to the presence of a TWLTL adjacent to the project site, left turns from Clark Road to the proposed driveways would be adequately accommodated.

Finding – Access to the proposed project driveways would be expected to operate acceptably given the presence of a two-way left-turn lane on Clark Road.

Significance Finding – The project would not introduce any new design hazards as it is served by a two-way left-turn lane and sight lines are adequate.

Emergency Response

Site access and circulation are expected to function acceptably assuming applicable design standards are applied during final design of the project site. Further, as all roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the minimal volume of project-generated traffic on surrounding streets would not appreciably affect emergency response times.

Finding – The proposed project would have a less-than-significant impact on emergency response times. Site access for emergency vehicles would be adequate assuming it is built to meet all applicable design and construction standards.

Conclusions and Recommendations

- The proposed project would be expected to generate 485 new daily trips, with 29 of these trips occurring during the a.m. peak hour and 37 trips during the p.m. peak hour.
- Pedestrian, bicycle, and transit facilities are adequate to serve the project site given the location and the site design is consistent with all plans and policies relative to these modes.
- The Town of Paradise may wish to install additional intersection lighting, or implement an early pedestrian interval at the intersection of Clark Road/Wagstaff Road to improve pedestrian safety.
- While currently adequate, existing transit service may need to be expanded in the future to accommodate further development.
- The project would have a less-than-significant impact in terms of vehicle miles traveled.
- The segment of Clark Road in the study area had a calculated collision rate above the statewide average for similar facilities for the five-year period reviewed.

- The Town of Paradise may consider improving lighting conditions, adding retroreflective faceplates to signal heads, and refreshing striping along Clark Road to reduce collisions.
- Adequate stopping sight distances are available at the proposed driveway locations. (To be field verified)
- To preserve existing sight lines, any new signage, monuments, or other structures installed as part of the project should be positioned outside of the vision triangles of a driver waiting on the project driveway. Landscaping planted within the vision triangle should be low-lying or above seven feet and maintained to remain outside the area needed for adequate sight lines.
- Site access would be adequate as there is an existing two-way left-turn lane on Clark Road to accommodate left turns into and out of the two driveways.
- The proposed project would have a less-than-significant impact on emergency response times. The proposed project access and circulation would be expected to function acceptably for emergency response vehicles.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

William Andrews, EIT
Assistant Engineer

Cameron Nye, EIT
Associate Engineer

Dalene J. Whitlock, PE, PTOE
Senior Principal

DJW/cn/PAR009.L1

Enclosures: Site Plan, Collision Rate Calculations



**Mitigation
Measures:**

Because no significant impacts have been identified, no mitigation measures are required.

3.5 AIR QUALITY

Setting:

Please refer to Sections 4.2 and 16.4 of Volume III, *Environmental Setting*, for a description of air quality in the Paradise Planning Area and the Butte County *Air Quality Attainment Plan*, respectively.

Impacts:

Impact Evaluation Criteria: The federal and State ambient air quality standards provide the basis for evaluating air quality impacts. These standards are shown in Table 3.5-1. Non-attainment of a federal or State emission standard for any pollutant is a significant impact. Because the State standards set forth under the California Clean Air Act of 1988 are more restrictive than federal standards, the State standards will be used for determination of significant impacts. It is unlikely that an individual development project consistent with the *General Plan* would, in itself, exceed a standard. However, almost every project will result in an incremental contribution to a condition in which standards are exceeded, and a significant cumulative impact will result.

Impact #3.5-1: Adoption of the *General Plan* will result in the accommodation of an increased population within the Planning Area over time and at buildout. The increase in population will result in increased vehicle traffic and increased emissions that will contribute to the cumulative regional degradation of air quality in the Paradise Planning Area and the Northern Sacramento Valley Air Basin. Refer to Table 3.1-1 for *General Plan* buildout figures and Table 3.13-3 for traffic generation figures. Based upon these figures, the estimated mobile source emissions which will result from adoption and implementation of the *General Plan* are shown in Table 3.5-2. These estimated emissions were calculated

TABLE 3.5-1
AMBIENT AIR QUALITY STANDARDS

| POLLUTANT | AVERAGING TIME | CALIFORNIA STANDARDS ¹ | | NATIONAL STANDARDS ² | | |
|--|---------------------------|---|--|---------------------------------------|-------------------------------------|---|
| | | CONCENTRATION ³ | METHOD ⁴ | PRIMARY ^{3,5} | SECONDARY ^{3,6} | METHOD ^{4,7} |
| Ozone | 1 Hour | 0.09 ppm (180 ug/m ³) | Ultraviolet Photometry | 0.12 ppm (235 ug/m ³) | Same as Primary Std. | Ethylene Chemilumi- nescence |
| Carbon Monoxide | 8 Hour | 9.0 ppm (10 mg/m ³) | Non- dispersive Infrared Spectros- copy (NDIR) | 9 ppm (10 mg/m ³) | - | Non- dispersive Infrared Spectros- copy (NDIR) |
| | 1 Hour | 20 ppm (23 mg/m ³) | | 35 ppm (40 ug/m ³) | | |
| Nitrogen Dioxide | Annual Average | - | Gas Phase Chemilumi- nescence | 0.053 ppm (100 ug/m ³) | Same as Primary Std. | Gas Phase Chemilumi- nescence |
| | 1 Hour | 0.25 ppm (470 ug/m ³) | | - | | |
| Sulfur Dioxide | Annual Average | - | Ultraviolet Fluoro- rescence | 80 ug/m ³ (0.03 ppm) | - | Parar- osoniline |
| | 24 Hour | 0.05 ppm (131 ug/m ³) ⁸ | | 365 ug/m ³ (0.14 ppm) | - | |
| | 3 Hour | - | | - | 1300 ug/m ³ (0.5 ppm) | |
| | 1 Hour | 0.25 ppm (655 ug/m ³) | | - | - | |
| Suspended Particulate Matter (PM ₁₀) | Annual Geometric Mean | 30 ug/m ³ | Size Selective Inlet High Volume Sampler and Gravimetric Analysis | - | - | - |
| | 24 Hour | 50 ug/m ³ | | 150 ug/m ³ | Same as Primary Stds. | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | - | | - | | |
| Sulfates | 24 Hour | 25 ug/m ³ | Turbi- dometric Barium Sulfate | - | - | - |

| POLLUTANT | AVERAGING TIME | CALIFORNIA STANDARDS ¹ | | NATIONAL STANDARDS ² | | |
|--|------------------|---|---|---------------------------------|----------------------|-------------------|
| | | | | | | |
| Lead | 30 Day Average | 1.5 ug/m3 | Atomic Absorption | - | - | Atomic Absorption |
| | Calendar Quarter | - | | 1.5 ug/m3 | Same as Primary Std. | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 ug/m3) | Cadmium Hydroxide STRactan | - | - | - |
| Vinyl Chloride (chloroethene) | 24 Hour | 0.010 ppm (26 ug/m3) | Tedlar Bag Collection, Gas Chroma- tography | - | - | - |
| Visibility Reducing Particles | 1 Observation | In sufficient amount to reduce the prevailing visibility ⁹ to less than 10 miles when the relative humidity is less than 70% | | - | - | - |
| APPLICABLE ONLY IN THE LAKE TAHOE AIR BASIN | | | | | | |
| Carbon Monoxide | 8 Hour | 6 ppm (7 mg/m3) | NDIR | - | - | - |
| Visibility Reducing Particles | 1 observation | In sufficient amount to reduce the prevailing visibility to less than 30 miles when the relative humidity is less than 70% | | - | - | - |

Source: State of California, Air Resources Board, November, 1989.

1. California standards for ozone, carbon monoxide, sulfur dioxide (1 hour), nitrogen dioxide and particulate matter - PM₁₀, are values that are not to be exceeded. The sulfates, lead, hydrogen sulfide, vinyl chloride, and visibility reducing particles standards are not to be equaled or exceeded.
2. National standards, other than ozone and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon a reference temperature of 25° C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25° C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
8. At locations where the state standards for ozone and/or suspended particulate matter are violated. National standards apply elsewhere.
9. Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.



utilizing the URBEMIS #3 computer model developed by the California Air Resources Board.

Conclusion: The mobile source emissions reported in Table 3.5-2 will contribute to local exceedances of State ozone standards, for which Paradise is a nonattainment area. Development in accordance with the *General Plan* will also contribute to regional emissions of ozone and PM₁₀ which are currently not in compliance with State standards. In order to comply with the requirements of the California Clean Air Act, Butte County must reduce reactive organic gas emissions by 7.58 tons per day by 1994, with further reduction deadlines by 1997 and 2000 (*Air Quality Attainment Plan*, Northern Sacramento Valley Air Basin, 1991). Therefore, any increase in emissions will have a significant cumulative impact, even with the adoption and implementation of policy statements and implementation measures incorporated in the proposed *General Plan*. Additional mitigation measures are recommended, but will not reduce impacts to a level which is less than significant.

Policy statements and implementation measures incorporated in the *General Plan* which will reduce impacts on air quality include the following:

Circulation Element

- CP-11** Establishment of a park-and-ride facility at the upper end of Paradise shall be pursued in order to reduce trips passing through Paradise on Skyway.

- CP-13** The feasibility of a bicycle path and hiking system and a network of trails shall be explored, with access to schools, creeks, commercial and residential areas, parks, along canyons, and extending from Stirling City to Chico.

**TABLE 3.5-2
ESTIMATED INCREMENTAL MOBILE SOURCE EMISSIONS
ATTRIBUTABLE TO GENERAL PLAN BUILDOUT
(LBS/DAY)**

| Emissions Source | Organic Gases | | | Carbon Monoxide | Nitrogen Oxides |
|-------------------------|------------------|-----------|------------|-----------------|-----------------|
| Vehicle Trips | 805.0 | | | 7809.9 | 1672.6 |
| | PM ₁₀ | | | Sulfur Oxides | |
| | 171.1 | | | 200.8 | |
| Assumptions: | | | | | |
| | Residential | | | Commercial | |
| | Home-Work | Home-Shop | Home-Other | Work | Non-Work |
| Trip Length | 10.9 | 8.0 | 9.3 | 10.6 | 9.0 |
| % Started Cold | 88.6 | 40.4 | 58.8 | 77.8 | 27.6 |
| Trip Speed | 35 | 35 | 35 | 35 | 35 |
| Percent Trip | 27.3 | 21.2 | 51.5 | | |
| Vehicle Fleetmix | | | | | |
| Vehicle Type | Percent Type | Leaded | Unleaded | Diesel | |
| Light Duty Autos | 72.8 | 0.0 | 97.5 | 2.5 | |
| Light Duty Trucks | 14.3 | 0.0 | 97.4 | 2.6 | |
| Medium Duty Trucks | 4.3 | 0.0 | 100.0 | 0.0 | |
| Heavy Duty Trucks | 3.9 | 11.4 | 88.6 | N/A | |
| Heavy Duty Trucks | 3.9 | N/A | N/A | 100.0 | |
| Motorcycles | 0.9 | 100.0 | N/A | N/A | |



- CP-15** The Town shall consider the needs of bicyclists and pedestrians when approving new development.
- CP-17** Explore the feasibility of establishing a trail system in the Secondary Planning Area. [Sphere of Influence].
- CP-20** Automobile dependency within Paradise shall be reduced for local residents and visitors by implementing congestion management and trip reduction plan programs that decrease the number of vehicle miles travelled which, in turn, reduces air pollution and congestion and saves energy.
- CP-21** As staff and funding become available, expanded transit services for seniors and the handicapped shall be promoted in accordance with the results of future studies.
- CP-23** Expansion of public transportation services within Paradise and between Paradise and major employment centers shall be supported by BCAG actions.
- CI-11** Coordinate with Butte County in the maintenance of a regional traffic model and region-wide congestion management program (as defined by AB 171, 1989).
- CI-13** Require new development to provide a pedestrian pathway on at least one side of new public streets and new private roads (if feasible).
- CI-16** Require transportation facilities such as bus stops to be incorporated into major new developments.



CI-17 Utilize transportation funds for selected alternative transportation facilities and/or programs.

Open Space/Conservation/Energy Element

OCEI-14 Adopt by reference the Butte County *Air Quality Attainment Plan*.

OCEI-15 Eliminate leaf burning and provide alternatives for disposing of yard debris.

OCEI-31 Future planning decisions shall assist in maintenance and improvement of air quality in the Paradise region.

Impact #3.5-2: Construction activities within the Planning Area will contribute to air pollution emissions from heavy construction equipment and from the generation of dust from grading activities.

Conclusion: Even though short-term or temporary in nature, an increase in pollutant emissions is a significant impact in an area which exceeds the State standards for ozone and particulate matter. Impacts of dust generated will be reduced to a level which is less than significant by practices already implemented by the Town of Paradise. These practices include the application of best management practices, including watering to control dust during construction or use of other acceptable dust palliatives, and the grading permit procedures and requirements and road construction requirements described in Sections 3.2 and 3.4 above. Regulation of emissions from construction equipment is outside the jurisdiction of the Town of Paradise, and such emissions cannot be mitigated.

Impact #3.5-3: The development of new businesses or industries which increase stationary source emissions.



Conclusion: All new businesses and industries which produce stationary source emissions must receive an air quality permit from the Butte County Air Pollution Control District. All permits issued must be in compliance with the *Air Quality Attainment Plan*, State and local standards and regulations, including consideration of cumulative regional emissions. Because all new businesses and industries must meet these requirements, it is determined that this impact will be less than significant, and no mitigation measures are required.

Mitigation Measures:

Mitigation Measure #3.5-1. The Butte County Air Pollution Control District (APCD) has recommended installation and maintenance of an air monitoring station in the Paradise area to monitor ozone, carbon monoxide and particulate matter. Applies to Impact #3.5-1.

Effectiveness of Measure: Air quality monitoring will assist the Butte County APCD and the Town in determining compliance with State and federal standards and the *Air Quality Attainment Plan*, but will not reduce air quality impacts.

Implementation/Monitoring: The Butte County APCD will be responsible for installing and maintaining the monitoring station. Public Resources Code Section 21081.6 provides that where the approving agency has received mitigation suggestions from an agency having jurisdiction by law over natural resources affected by a project, the latter agency must prepare and submit a reporting or monitoring program applicable to the proposed mitigation measure, if so requested by the approving agency. The Town of Paradise intends to submit such a request to the APCD.

3.6 HYDROLOGY

Setting: Please refer to Section 5.0 of Volume III, *Environmental Setting*, for a description of surface hydrology, water quality, and Town

along a high quality transit corridor²¹ will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units

A project or plan near transit which replaces affordable residential units²² with a smaller number of moderate- or high-income residential units may increase overall VMT because the increase in VMT of displaced residents could overwhelm the improvements in travel efficiency enjoyed by new residents.²³

If any of these exceptions to the presumption might apply, the lead agency should conduct a detailed VMT analysis to determine whether the project would exceed VMT thresholds (see below).

Presumption of Less Than Significant Impact for Affordable Residential Development

Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT.^{24,25} Further, "... low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available."²⁶ In areas where existing jobs-housing match is closer to optimal, low income housing nevertheless generates less VMT than market-

²¹ Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

²² Including naturally-occurring affordable residential units.

²³ Chapple et al. (2017) *Developing a New Methodology for Analyzing Potential Displacement*, Chapter 4, pp. 159-160, available at <https://www.arb.ca.gov/research/apr/past/13-310.pdf>.

²⁴ Karner and Benner (2016) *The convergence of social equity and environmental sustainability: Jobs-housing fit and commute distance* ("[P]olicies that advance a more equitable distribution of jobs and housing by linking the affordability of locally available housing with local wage levels are likely to be associated with reduced commuting distances").

²⁵ Karner and Benner (2015) *Low-wage jobs-housing fit: identifying locations of affordable housing shortages*.

²⁶ Karner and Benner (2015) *Low-wage jobs-housing fit: identifying locations of affordable housing shortages*.

rate housing.^{27,28} Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed use projects) containing a particular amount of affordable housing, based on local circumstances and evidence. Furthermore, a project which includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.

2. Recommended Numeric Thresholds for Residential, Office, and Retail Projects

Recommended threshold for residential projects: A proposed project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita. Proposed development referencing a threshold based on city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the number of units specified in the SCS for that city, and should be consistent with the SCS.

Residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact. In MPO areas, development measured against city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the region-based threshold would undermine the VMT containment needed to achieve regional targets under SB 375.

For residential projects in unincorporated county areas, the local agency can compare a residential project's VMT to (1) the region's VMT per capita, or (2) the aggregate population-weighted VMT per capita of all cities in the region. In MPO areas, development in unincorporated areas measured against aggregate city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the regional threshold would undermine achievement of regional targets under SB 375.

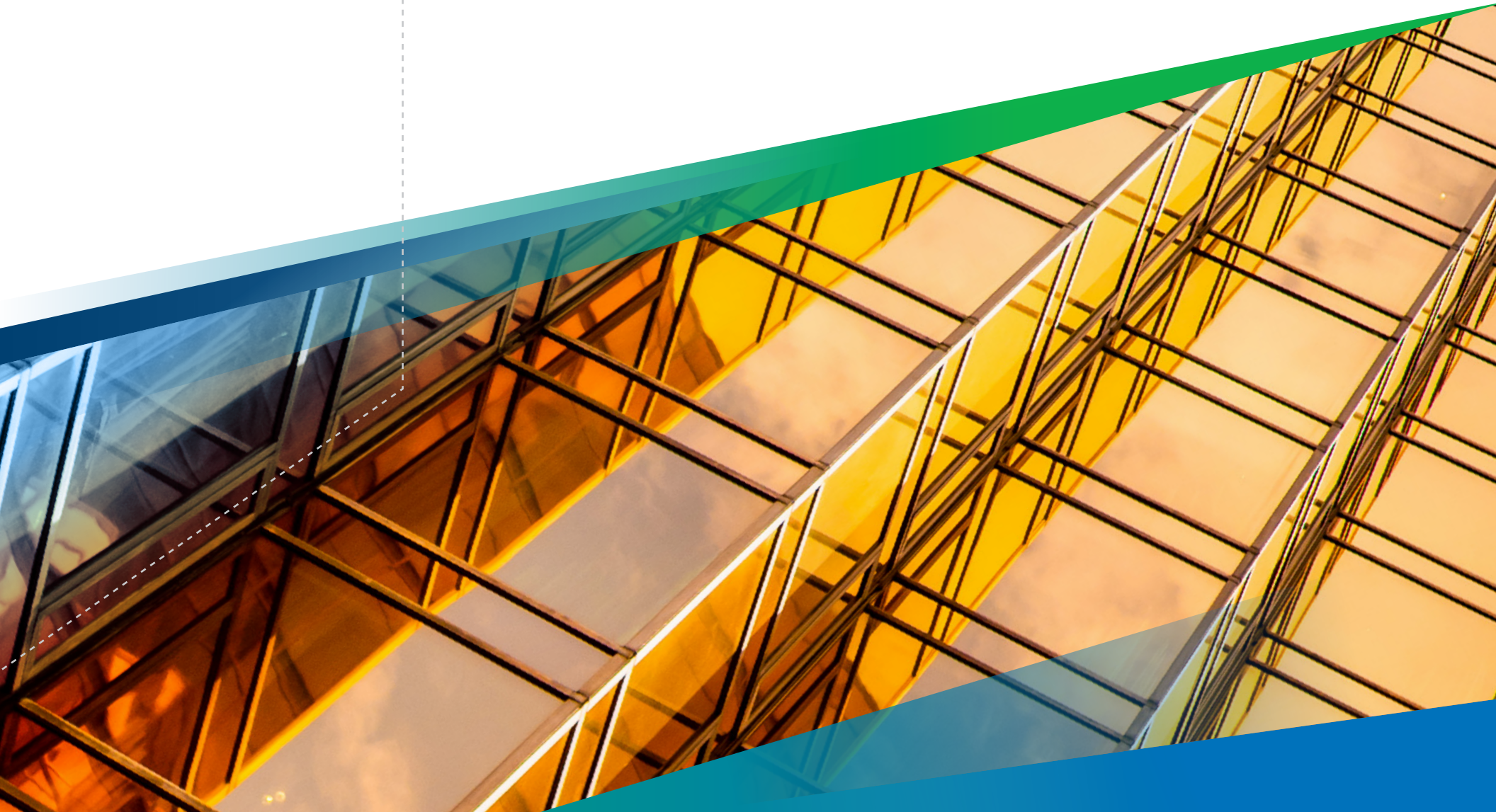
²⁷ Chapple et al. (2017) *Developing a New Methodology for Analyzing Potential Displacement*, available at <https://www.arb.ca.gov/research/apr/past/13-310.pdf>.

²⁸ CAPCOA (2010) *Quantifying Greenhouse Gas Mitigation Measures*, pp. 176-178, available at <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>.



2022

BUILDING ENERGY EFFICIENCY STANDARDS SUMMARY



Executive Summary

The California Energy Commission (CEC) is the state's primary energy policy and planning agency with a mission to lead the state to a 100 percent clean energy future. The CEC develops policy to reduce energy usage and costs, limit the environmental impacts of energy generation and use, and ensure a safe, resilient, and reliable supply of energy.

What Does the CEC Have to Do With the Building Code?

Homes and businesses use nearly 70 percent of California's electricity and are responsible for a quarter of California's greenhouse gas (GHG) emissions. As California's energy policy agency, the CEC was mandated by the Warren-Alquist Act to periodically update and adopt building standards to increase energy efficiency of buildings and reduce GHGs. Part 6 of Title 24 implemented this mandate so that every three years the CEC presents Building Energy Efficiency Standards (Energy Code) updates for new construction and renovations to existing buildings.

After the CEC adopts these standards, they are submitted to the California Building Standards Commission for approval and inclusion with other changes to the building code. The Energy Code is designed to be cost-effective so that implementation is affordable while helping California manage energy demand and advance the state's climate and clean air goals.

HOMES AND BUSINESSES USE NEARLY 70 PERCENT OF CALIFORNIA'S ELECTRICITY AND ARE RESPONSIBLE FOR A QUARTER OF CALIFORNIA'S GREENHOUSE GAS (GHG) EMISSIONS.



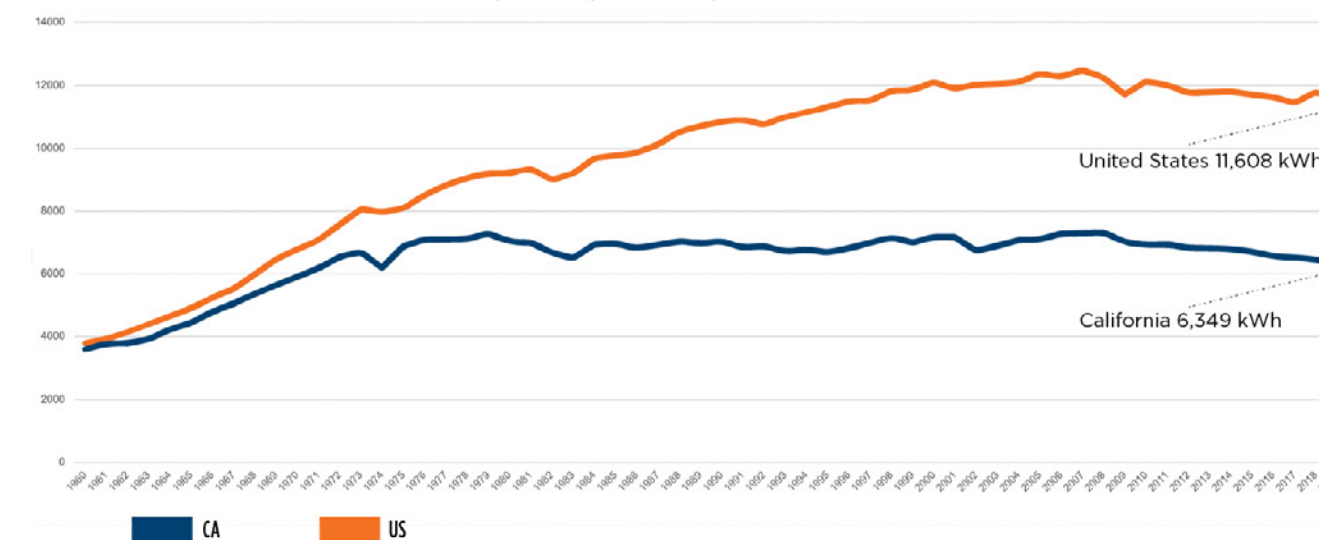
How Do Standards Affect Me?

The standards help everyone! As standards require upgrades such as better insulation and more effective climate control in buildings, the increases in energy efficiency reduce utility bills. This also improves comfort inside buildings. The standards increase the market value of properties by making them more affordable to operate. They reduce GHGs by using less energy from fossil fuel-burning power plants that emit harmful smog-forming pollutants and climate-changing gases. Some of the

water-saving measures in the standards lead to more efficient appliances and building fixtures that buoy California's water supply and save energy by using and moving less water.

Thanks in part to California's efficiency standards, the state's per capita energy use has stayed nearly flat since the early 1970s, even as the state's economy grew by 80 percent.

Annual Electricity Consumption Per Capita in United States and California



CALIFORNIANS USE 31 PERCENT LESS ENERGY COMPARED TO THE AVERAGE AMERICAN



WHAT'S NEW FOR 2022?

The proposed 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

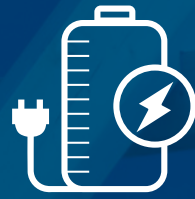
- Encouraging electric heat pump technology and use
- Establishing electric-ready requirements when natural gas is installed
- Expanding solar photovoltaic (PV) system and battery storage standards
- Strengthening ventilation standards to improve indoor air quality



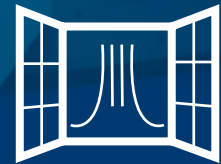
2022 Energy Code: Better for the Environment and You

Heat pumps use less energy and produce fewer emissions than traditional HVACs and water heaters.

Electric-ready building sets up owners to use cleaner electric heating, cooking, and electric vehicle (EV) charging when they're ready to invest in those technologies.



Using battery storage allows onsite energy to be available when needed and reduces the grid's reliance on fossil fuel power plants.



Better ventilation can reduce illness from poor air quality and reduce disease transmission.

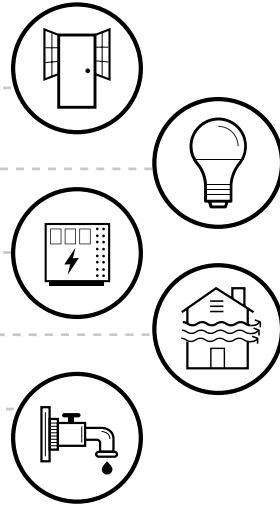


The Energy Code in Action

Since 1978, energy standards have supported California's long-term strategy to meet energy demand, conserve resources, and act as an environmental steward. All building standards under consideration must be cost-effective and technically feasible to be adopted.

The Energy Code governs:

- Window and door materials
- Lighting
- Electrical panels
- Insulation
- Faucets
- And more



**40 YEARS
OF ENERGY EFFICIENCY
STANDARDS FOR
BUILDINGS AND
APPLIANCES HAVE
SAVED CALIFORNIANS
MORE THAN
\$100 BILLION**

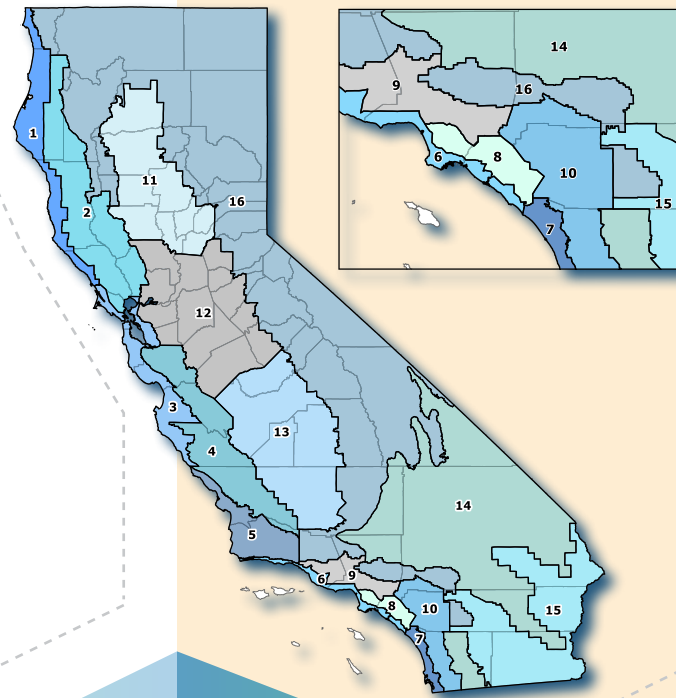
These requirements vary between home and business buildings, as well as among climate zones in which they are implemented. The Energy Code applies to new construction and renovations to existing buildings.

The Energy Code has not only revolutionized building construction in California, but influenced efficiency goals and practices in countries around the globe. Every update helps the state meet its energy and environmental goals while directly benefiting building owners and occupants through more comfortable buildings that save money on energy costs and, not incidentally, increase market value.

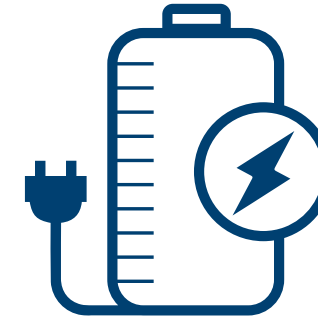
With climate change impacts accelerating, there is an even greater need for homes that are comfortable, efficient, and resilient. Each updated code guides the construction of buildings to keep energy use down, better withstand extreme weather, and reduce climate and air pollution.

It's an Area We Call the "Climate Zone"

California is so vast and varied in landscape and weather that there is no one building design that can be the most energy-efficient everywhere. To accommodate those differences, the state is divided into 16 climate zones. Each climate zone represents a geographic area based on such factors as temperature, weather, and typical energy use. Each zone has an assigned energy budget, based on the maximum amount of energy that a building (or portion of a building) can be designed to consume per year. Minimum efficiency requirements are created from that energy budget.



The Energy-Efficient Revolution Continues



The CEC was born of the energy crisis that affected the United States in the early 1970s. To address energy demand that outstripped supply, California created the CEC to design energy policy that reduced use through better efficiencies. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid.



UPDATES FOR 2022

New and more efficient technologies are being developed all the time, with many supported by funding from state programs that bring these energy innovations to markets and consumers. The 2022 Energy Code builds on California's technology innovations, encouraging inclusion of market-ready electric products in new construction, such as heat pumps for climate control and water heating.

The update also requires all new homes be electric-ready. That means buildings with gas stoves have the electrical panels and wiring to support a switch to electric stoves. Further advancements and cost reductions will continue to expand electric options for heating, cooking, laundering, and EV charging to meet all Californians' needs. These are crucial steps in the state's progress toward 100 percent clean electricity and carbon neutrality by midcentury, or earlier.

Proposed Standards

The 2022 Energy Code update revises energy efficiency standards for newly constructed buildings, as well as additions and alterations to existing buildings. The CEC engaged in a lengthy public process leading up to adoption of the proposed 2022 standards.

2022 Energy Code Benefits



Increases on-site renewable energy generation from solar.



Increases electric load flexibility to support grid reliability.



Reduces emissions from newly constructed buildings.



Reduces air pollution for improved public health.



Encourages adoption of environmentally beneficial efficient electric technologies.

How Does the 2022 Energy Code Affect Homes?

- Establishes energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units.
- Requires homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances.
- Increases minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality.
- Allows exceptions to existing solar PV standards when roof area is not available (such as for smaller homes).

How Does It Affect Businesses?

- Establishes combined solar PV and battery standards for select businesses. Systems are sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants.
- Establishes new efficiency standards for commercial greenhouses (primarily cannabis growing).
- Improves efficiency standards for building envelope, various internal systems, and grid integration equipment, such as demand-responsive controls to buoy grid stability.

**OVER 30 YEARS,
THE 2022 ENERGY CODE
IS ESTIMATED TO PROVIDE
\$1.5 BILLION
IN CONSUMER BENEFITS
AND REDUCE 10
MILLION METRIC
TONS OF GHGS, EQUIVALENT
TO TAKING NEARLY 2.2
MILLION CARS OFF
THE ROAD FOR A YEAR.**

Breaking Down the Updates

Heat Pumps: The New Standard

Heat pumps are an electric technology for water and space heating that increases efficiency, reduces GHGs, and enables load flexibility. Current California market share is less than 6 percent in new home construction.

Standards include:

- Single-family homes — heat pump water or space standard.
- Multifamily homes such as apartment buildings — heat pump space heating standard.
- Businesses — heat pumps standard for schools, offices, banks, libraries, retail, grocery.

New Homes to Be Electric-Ready

The standards require single-family homes to be electric-ready, including:

- Electrical circuits for space heating, water heating, cooking/ovens, and clothes dryers.
- Electrical panel, branch circuits, and transfer switch for battery storage.
- Dedicated circuits and panels to easily convert from natural gas to electric in the future.

Solar and Storage Use Expanded

The 2022 Energy Code extends solar and introduces battery storage standards to the following building types:

- High-rise multifamily (apartments and condos)
- Hotel-motel
- Tenant space
- Office, medical office, and clinics
- Retail and grocery stores
- Restaurants
- Schools
- Civic (theaters, auditoriums, and convention centers)



The Challenge of Existing Buildings

In addition to new buildings, the standards apply to substantial upgrades to existing homes and businesses.



At least 50 percent of single-family homes and nearly 60 percent of California's apartment complexes (about 14 million total residences) were built before the state's first energy standards.

Updating older buildings is critical to achieving the state's climate and clean energy goals.

Communities Ahead of the Curve

California is already an international leader in energy efficiency and clean energy. However, after each update, many cities and counties choose to adopt standards that exceed the state minimum. The California Green Building Standards ("CALGreen" or Part 11 of Title 24) include voluntary reach standards, which offer model building code language for local governments that wish to go beyond the minimum statewide requirements.

Reach standards are an important tool for jurisdictions to meet their own climate goals. It allows them to decide on standards that meet their needs and interests, so long as they also meet or exceed state code requirements.

Historically, such local ordinances have served as a bellwether for statewide standards. They provide a place to test market readiness for new technologies and regulations, drive innovation of new technologies and efficiencies, and bring down the cost of efficient building technologies by creating an installed user base that encourages scale manufacturing.

What's Next?

In developing the standards over the past two years, the CEC met with more than 50 industry stakeholder groups, and 43 public workshops were held.

Under the rulemaking, the standards are vetted over a 45- to 60-day period before they go to the CEC for adoption. Then they are submitted to the California Building Standards Commission for approval as one part of the whole building code. Builders, contractors, and other stakeholders have one year until implementation to gear up for the change.

2022 Energy Code Update Timeline

California Energy Commission Adoption
California Building Standards Commission Approval Hearing
Effective Date

August 2021
December 2021
January 1, 2023

For Further Reading

- The Rulemaking Process: bit.ly/3fPO2H8
- 2019 Building Energy Efficiency Standards Frequently Asked Questions: bit.ly/3fJHOs8
- 2019 California Energy Efficiency Action Plan: (overall webpage) bit.ly/3s4fYMc
- California Building Decarbonization Assessment: bit.ly/3iwpuEM



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