



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those “Partners” (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Endangered Species Act (CEST and EA) – PARTNER

<https://www.hudexchange.info/environmental-review/endangered-species>

1. Does the project involve any activities that have the potential to affect species or habitats?

No, the project will have No Effect due to the nature of the activities involved in the project.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office.

Explain your determination:

[Click here to enter text.](#)

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.*

Yes, the activities involved in the project have the potential to affect species and/or habitats. →
Continue to Question 2.

2. Are federally listed species or designated critical habitats present in the action area?

Obtain a list of protected species from the Services. This information is available on the [FWS Website](#).

No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation may include letters from the Services, species lists from the Services’ websites, surveys or other documents and analysis showing that there are no species in the action area.*

Yes, there are federally listed species or designated critical habitats present in the action area. →
Continue to Question 3.

3. Recommend one of the following effects that the project will have on federally listed species or designated critical habitat:

No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat.

→ *If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate.*

May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Informal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.

→ Partner entities should not contact the Services directly. *If the RE/HUD agrees with this recommendation, they will have to complete Formal Consultation. Provide the RE/HUD with a biological evaluation or equivalent document. They may request additional information, including surveys and professional analysis, to complete their consultation.*

Worksheet Summary

Provide a full description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your program or region

Include all documentation supporting your findings in your submission to HUD.

A query of federally listed wildlife species for the U.S. Geological Survey 7.5-minute quadrangle encompassing the project area was obtained from the USFWS's Sacramento Endangered Species Office Information Planning and Conservation website. Additional information about the distribution of special status species with the potential to occur within the project area was compiled from the CDFW California Natural Diversity Database for occurrences of special status species within a 1-mile radius of the proposed project alignment as well as from aerial photographs of the project area. Information on the distribution of special status species with potential to occur in the project region also was compiled from published literature. Field surveys were conducted at the site on September 26, September 29, and October 18-19, 2022.

Eight state and federally listed wildlife species were identified with the potential to be within the project area:

- Plants: Butte County fritillary (*Fritillaria eastwoodiae*), Butte County morning-glory (*Calystegia atriplicifolia* ssp. *buttensis*), Lewis Rose's ragwort (*Packera eurycephala* var. *lewisrosei*)

- Amphibians: Foothill yellow-legged frog – Feather River DPS (*Rana boylei* pop. 2) and California red-legged frog (*Rana draytonii*)
- Fish: Delta smelt (*Hypomesus transpacificus*)
- Insects: Monarch butterfly (*Danaus plexippus*) and conservancy fairy shrimp (*Brachinecta conservatio*)
- Birds: California spotted owl (*Strix occidentalis occidentalis*)

California red-legged frog, Delta smelt, monarch butterfly, and conservancy fairy shrimp are federally protected under the Federal ESA. Foothill yellow-legged frog – Feather River DPS and California spotted owl are proposed for listing as threatened under the Federal ESA.

Based on the USFWS Threatened & Endangered Species Active Critical Habitat Report (accessed May 15, 2023), no federally-designated critical habitat is located within the project area. The nearest critical habitat is for Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) and is located approximately 8.5 miles southwest of the project area. No special status plant species protected by the California NPPA have been identified in the project area. Based on the reconnaissance-level survey, background research of occurrence records for special status species, and the lack of suitable habitat present, it is unlikely that special-status plants, Delta smelt, Monarch butterfly, or conservancy fairy shrimp occur within the project area.

In the Sierra Nevada range, a majority of California spotted owl occur within mid-elevation ponderosa pine, mixed conifer, white fir, and mixed-evergreen forest types, with fewer owls occurring in lower elevation oak woodlands. Nests are typically found in areas of high canopy cover, a high number of large trees, and downed trees. The nearest California spotted owl occurrence is a positive observation from 2005 approximately 2.4 miles northeast of the project area, in an area that had high tree density and canopy cover prior to the 2018 Camp Fire. Damage to trees during the Camp Fire significantly reduced the tree density, canopy cover, and understory within the project area, and clean-up activities following the fire removed downed trees, dead vegetation, and other debris. Due to low tree density and canopy cover, the project area lacks suitable nesting habitat for the California spotted owl. Based on these findings, California spotted owl are not expected to occur within the project area, and the project will have no effect on the species.

California red-legged frog and foothill yellow-legged frog

Aquatic habitat found within the project site (streams and adjacent wetland areas) provides potential breeding habitat for California red-legged and foothill yellow-legged frogs. However, neither frog species was identified during biological surveys at the project site. Foothill yellow-legged frogs have been identified approximately 1,300 feet (0.25 miles) to the northwest of the project site, while California red-legged frogs have not been documented within 1 mile of the project site. Based on the survey findings, these species are not expected to occur. However, the possibility exists that these species could become established prior to construction of the project.

Implementation of the project has the potential to result in direct impacts to California red-legged frog and foothill yellow-legged frog should they be present in the project site during project construction activities. Direct impacts to individuals of these species could result from ground disturbance activities within aquatic habitat and adjacent upland refuge habitat when movement across these areas is occurring. Impacts could also occur in refuge habitat if individuals of this species are aestivating in underground refugia or under debris. These species could be directly impacted by crushing by project equipment or vehicles. These impacts could result in direct mortality of individuals or small populations of these species.

In order to avoid or reduce potential impacts to these species, the following mitigation measure shall be implemented:

Mitigation Measure BIO-1: Protection of California Red-legged and Foothill Yellow-legged Frogs

The project proponent shall implement the following standard U.S. Fish and Wildlife Service (USFWS) Mitigation and Avoidance Measures to prevent mortality of individual frogs that may be found breeding, migrating across, or aestivating on the project site during proposed project activities.

- Preconstruction surveys for California red-legged and foothill yellow-legged frogs shall be completed within 48 hours prior to commencement of any earth-moving activity, construction, or vegetation removal within the project, whichever comes first. The preconstruction survey shall include two nights of nocturnal surveys in areas of suitable habitat.
- If any California red-legged or foothill yellow-legged frogs are encountered during the surveys, all work in the work area shall be placed on hold while the findings are reported to the CDFW and USFWS and it is determined what, if any, further actions must be followed to prevent possible take of this species.
- Where construction will occur in California red-legged and foothill yellow-legged frog habitat, or where frogs are potentially present, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat areas. A qualified biologist will assist in determining the boundaries of the area to be fenced in consultation with the Town, USFWS, and CDFW. All workers will be advised that equipment and vehicles must remain within the fenced work areas.
- A USFWS-authorized biologist will direct the installation of the fence and will conduct biological surveys to move any individuals of these species from within the fenced area to suitable habitat outside of the fence. Exclusion fencing will be at least 24 inches in height. The type of fencing must be approved by the authorized biologist, the USFWS, and CDFW. This fence should be permanent enough to ensure that it remains in good condition throughout the duration of construction on the project site. It should be installed prior to any site grading or other construction-related activities. The fence should remain in place during all site grading or other construction-related activities. The frog exclusion fence could be “silt fence” that is buried along the bottom edge.
- If at any time individuals of these species are found within an area that has been fenced to exclude these species, activities will cease until the authorized biologist moves the individuals.
- If any of these species are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the individuals. The authorized biologist in consultation with USFWS and CDFW will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist.
- Any individuals found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities.
- Clearance surveys shall occur daily in the work area.
- The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
- To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
- Project activities shall be limited to daylight hours, except during an emergency, in order to avoid nighttime activities when California red-legged and foothill yellow-legged frog may be present.

Because dusk and dawn are often the times when California red-legged and foothill yellow-legged frog are most actively foraging and dispersing, all construction activities should cease one-half hour before sunset and should not begin prior to one-half hour before sunrise.

- Traffic speed shall be maintained at 10 miles per hour or less in the work area.

In addition to the standard USFWS measures:

- Prepare and present Environmental Awareness Training to all personnel working in the field on the proposed project site. Training shall consist of a brief presentation in which biologists explain endangered species concerns. Training shall include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, regulatory requirements, and measures being incorporated for the protection of these species and their habitats shall also be discussed. Project site boundaries shall be clearly delineated by stakes and/or flagging to minimize inadvertent degradation or loss of adjacent habitat areas during project operations. Staff and/or its contractors shall post signs and/or place fence around the project site to restrict access of vehicles and equipment unrelated to project operations.
- An on-site biological monitor, shall at a minimum, check the ground beneath all equipment and stored materials each morning prior to work activities to prevent take of individuals. All pipes or tubing Four (4) inches or greater shall be sealed by the relevant contractor with tape at both ends to prevent animals from entering the pipes at night. All trenches and other excavations shall be backfilled the same day they are opened or shall have an exit ramp built into the excavation to allow animals to escape.
- Include the following measures in the project SWPPP and/or Spill Prevention Plan:
 - Prevent the potential release of petroleum materials, such as oil and diesel fuel into adjacent habitat areas, including waters of the State and U.S.
 - Locate areas for fuel storage, refueling, and servicing of construction equipment in an upland location outside of sensitive habitat.
 - Establish wash sites in upland locations and ensure wash water does not flow into stream channels or wetlands.
 - Ensure that all construction equipment is in good working condition, showing no signs of fuel or oil leaks. All questionable motor oil, coolant, transmission fluid, and hydraulic fluid hoses, fittings, and seals shall be replaced. The mechanical equipment shall be inspected on a daily basis to ensure no leaks. All leaks shall be repaired in the equipment staging area or other suitable location prior to resumption of construction activity.
 - Place oil-absorbent and spill containment materials on-site when mechanical equipment is in operation within 100 feet of a waterway. If a spill or leak occurs, no additional work shall occur until 1) the leak has been repaired, 2) the spill has been contained, and 3) CDFW and Butte County Fire Department are contacted and have evaluated the impacts of the spill.
 - Install silt fence or other sediment-control devices around construction sites near streams and wetlands to contain spoils from excavation activities.

Migratory Birds

Trees and shrubs in the project area may provide suitable nesting habitat for migratory birds including tree-nesting raptors, such as the white-tailed kite observed during the September 26, 2022, survey. White-tailed kite are protected by both the MBTA and as a CDFW “fully protected” species. Although no active nests or nesting bird behavior was observed during the 2022 surveys, this does not preclude birds from establishing active nests between the time of the survey and project construction.

Construction activities that adversely affect the nesting success of special-status or non-special status migratory birds, including tree-nesting raptors, or result in mortality of individual birds constitute a violation of federal law, as discussed previously. Trees within and adjacent to the project site may provide suitable nesting habitat for migratory birds. The best way to avoid disturbing nesting birds is to schedule

activities outside the nesting season. Any tree or brush removal required as part of project activities should be completed during months when birds are not actively nesting.

In order to avoid or reduce potential impacts to migratory birds, the following mitigation measure shall be implemented:

Mitigation Measure BIO-2: Nesting Bird Protection

- If project work must occur during the nesting season (February 1 – September 1), MHC shall utilize a qualified biologist to survey nesting birds within the project area, no more than 14 days prior to the beginning of tree and vegetation removal or ground-disturbing activities. Results of the survey shall be submitted to the Town prior to the start of construction activities.
- If nesting birds are detected within the project area during the survey, consultation with CDFW and USFWS is recommended to establish acceptable avoidance or minimization measures to avoid impacts to migratory birds and raptors. Avoidance measures could include the establishment of a suitable activity-free buffer around active nests/roosting sites. An avoidance or minimization plan shall be submitted to the Town, CDFW, and USFWS for review and approval prior to the start of construction activities. The avoidance or minimization plan shall be submitted to the project proponent for review and approval prior to the start of construction activities. These measures will ensure that no nesting birds are impacted by construction activities.

Please see Attachment for Biological Resources Report.

MEMORANDUM

Date: May 31, 2023 Project No: 621.09.55

To: Jeffrey Riley, Project Developer
Mercy Housing California
2512 River Plaza Drive, Suite 200
Sacramento, CA 95833

From: Cord Hute, Senior Biologist

Subject: Cypress Family and Senior Housing Project Biological Resources
Technical Memorandum

Dear Mr. Riley:

This biological resources technical memorandum (tech memo) presents the results of special status species (SSS) database searches and reconnaissance-level field surveys for SSS that have the potential to occur within the project area boundary of the proposed Cypress Family and Senior Housing Project (project). This tech memo also presents the results of a tree survey that inventories tree species, sizes (diameter breast height), and tree locations on the site. Lastly, this tech memo includes a discussion of avoidance or minimization measures recommended during construction.

Accompanying this tech memo are two tables (**Tables 1 and 2**) that summarize the results of the field survey and five figures (**Figures 1, 2, 3, 4, and 5**) that present the project vicinity, project location, special status species occurrence data, tree locations, and aquatic resources in relation to the project area.

The purpose of the database searches and the reconnaissance-level field surveys are to describe the existing biological resources, special status species, or habitat that may occur within or nearby the project area. A wide variety of taxa native to the state of California have low population numbers, limited distributions, or are otherwise vulnerable to extinction or extirpation within the state and are therefore protected by state and federal laws. These species meet the criteria described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines. Although they may include ecologically significant units, species, and/or sub-species, these taxa are collectively referred to as SSS.

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PROJECT BACKGROUND

Mercy Housing Corporation proposes to construct the Cypress Family and Senior Housing Project in Paradise (Town), California. The proposed project will be constructed in two phases of 70 units each. Phase 1 will be multi-family housing of 1, 2 or 3 bedrooms. Phase 2 will be senior housing of 1-bedroom units.

Amenities for Cypress Family Housing (Phase 1) will include 86 surface parking spaces, a 2,000 square foot (sf) community center, 2 playgrounds, and plentiful open space, including a central green in the middle of the buildings located on the former hospital site. Phase 2, Cypress Senior Housing, will include 84 surface parking spaces, a 2,000-sf community center, a community garden, and plentiful open space.

To promote Green Building Sustainability and Energy Efficiency, the California Green Buildings Standards Code (CALGreen) will be adopted. The proposed project will be designed to incorporate principles of sustainability, including water and energy efficiency, resilience, and mitigating the impact of future disasters. The project's architectural character would be one- and two-story buildings broken up by walkways and green space.

For each phase of the project, a separate wastewater collection, treatment, and disposal system will be designed, permitted, and constructed. Each phase will be located on a separate property for ownership and finance purposes. Existing property boundaries will be adjusted and/or combined as necessary to accommodate the final project. Reciprocal easements for wastewater systems, access and utilities will be created as necessary. Typical residential strength wastewater is expected from each system. Each system will be designed to include secondary wastewater treatment (considered Advanced Treatment in the Town Code). The secondary wastewater treatment systems will be designed to include a minimum of two days hydraulic retention time septic tank capacity, per Town Code.

For this project, several roads will be widened to improve "all at once" evacuation. Both Clark Road, to the west of the Project, and Pentz Road to the east, will have a traffic lane added along with a pedestrian-bike path. If needed, these two roads will provide major evacuation corridors for the Project's future residents. According to the Transportation Management Plan, "A major component of Town's long-term recovery is rebuilding its transportation system to improve daily transportation and emergency evacuation, catalyze redevelopment, augment economic development, and improve Town's walkability and bicycle friendliness."

Construction is scheduled to take several years. The 70-unit multi-family Phase one would be completed first, followed by Phase two. In general terms, construction would involve the following:

Demolition

As part of the Camp Fire cleanup, much of the debris was removed from the project area. Remaining hardscape, including asphalt paving and sidewalks, would be removed as part of the project.

Grubbing/Rough Grading

Overgrown vegetation that would interfere with construction would be removed from the project area. Grading would shape the construction site and small changes in topography.

Excavation and Site Work

Following rough grading, additional excavation would bring the project area to final grade and prepare the soil for underground piping and structural slabs. Site work would involve installing underground utility pipes (some pipes may be 6-inch-diameter or larger), manholes, structural foundations, curbs, gutters, and sidewalks. The underground septic systems will undergo extensive upgrades and improvements. Excavation for concrete foundations and underground drainage pipes would be performed with excavators and/or backhoes.

Structural Facilities

The soil would be compacted and prepared for all structural facilities and piers for foundation systems. Prior to pouring concrete, structural forms, rebar, and conduits would be installed for each building. After the concrete is poured, it would be finished and cured before the forms are removed. Then building construction could commence.

Paving, Striping, Landscaping

Paving would be performed incrementally throughout the site area as large construction and non-rubber tread equipment is removed from the site. All parking areas, roads, and designated locations would be paved and striped. Landscaping may include installation and/or construction of plantings and hardscapes, water features, walls, outdoor lighting, and drainage.

Equipment and Labor Force

Various types of heavy equipment would include excavators, backhoes, bulldozers, cement trucks, cranes, graders, and a wheeled roller. Water trucks with a tank size of 2,000 to 4,000 gallons would be used for dust-control during construction.

A skilled labor force would be required to complete this project, including civil/earthwork personal, excavators, masons, painters, plumbers, landscapers, carpenters, cement finishers, operating engineers, electricians, and craftsmen. The

number of workers at the construction site would vary based on the phase and complexity of construction.

Work would generally be completed during daylight hours, typically 8:00 a.m. to 6:00 p.m., or as specified by the Town's Municipal Codes. During the construction period, construction would generally be performed 5 days per week (weekend work may occur occasionally depending on schedule), year-round, except for standard U.S. holidays. There would be no on-site temporary workforce housing, and parking of employee recreational vehicles or trailers would be prohibited.

PROJECT LOCATION

The project is located within the Town of Paradise, Butte County, California (APNs: 050-140-050, 050-140-151, 050-140-153, 050-140-155, 050-140-160, 050-140-161, and 050-140-162) (**Figure 1**). The Project area is located at 1620, 1623, and 1633 Cypress Lane, 6900 Clark Road, and 1567 and 1580 Adams Road, in Paradise, California. The nearly 24-acre site consists of 7 parcels that were largely cleared after the 2018 Camp Fire, although there are remnants remaining such as asphalt, septic tanks and leach fields, gazebos, concrete, and driveways. Some parts of the proposed site previously contained a vocational rehabilitation facility, nursing home, and church. Town officials noted that in prior years there was significant traffic turning on and off Cypress Lane. The site is bordered by formerly residential areas that were destroyed in the 2018 Camp Fire.

RELEVANT REGULATIONS

Local, state, and federal regulations that are relevant to this tech memo are described below.

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) protects plants and wildlife that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS). Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS or National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) as applicable if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Section 10 of ESA provides for issuance of incidental take permits to private parties provided a habitat conservation plan is developed.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.

On January 7, 2021, U.S. Fish and Wildlife Service (USFWS) published a final rule limiting the scope of the MBTA's prohibition on the take of migratory birds. The new rule excludes incidental take, meaning bird mortality that results from an action but is not the purpose of that action is excluded from the final rule.

State

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the California Fish and Game Code, an Incidental Take Permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the "take" of a State listed threatened or endangered species. Under the CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. A Section 2081 permit is issued when a project is consistent with an existing Biological Opinion.

Birds of Prey and Nesting Birds

Nesting birds are protected in California under State Fish and Game Code in Section 3503. Section 3503 states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

California Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created to "preserve, protect and enhance rare and

endangered plants in this State.” The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. CESA provided further protection for rare and endangered plant species, but the NPPA remains part of the CDFG Code. No species protected by the California NPPA have been identified in the project area.

Wetlands and Other Jurisdictional Waters

The U.S. Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to stream channels, riverbanks, lakes, and other wetland features. Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into “waters” of the United States without a permit, including certain wetlands and unvegetated “other waters of the U.S.” The Corps also has jurisdiction over navigable waters, including tidally influenced ones below Mean High Water, under Section 10 of the Rivers and Harbors Act. Jurisdictional authority of the CDFW is established under Section 1602 of the Fish and Game Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Game Code states that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration agreement. The Wetlands Resources Policy of the CDFW states that the Fish and Game Commission will “strongly discourage development in or conversion of wetlands... unless, at a minimum, project mitigation assures there will be no net loss of either wetland habitat values or acreage.” Jurisdictional authority of the RWQCB is established pursuant to Section 401 of the Clean Water Act, which typically requires a water quality certification when an individual or nationwide permit is issued by the USACE. The RWQCB also has jurisdiction over “waters of the State” under the Porter-Cologne Water Quality Control Act.

The RWQCBs primary role is to enforce the federal Clean Water Act, and in doing so, assert regulatory authority over development activities affecting the water quality of navigable water and wetlands. Under Section 401(a)(1) of the Clean Water Act:

“Any applicant for a Federal license or permit to conduct any activity...which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State...that any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of this Act.”

In turn, California Code of Regulations Section 3831(k) defines the State certification required under Section 401 as:

"Water Quality Certification' means a certification that there is a reasonable assurance that an activity which may result in a discharge to navigable waters of the United States will not violate water quality standards, where the activity requires a federal license or permit."

In practice, the regional boards have applied their authority over water quality standards to all waters of the State, including wetlands. Discharge to wetlands and riparian wetlands may violate water quality objectives (e.g., turbidity, temperature, or salinity); impair beneficial uses (e.g., groundwater recharge, recreation, wildlife habitat, fish migration, and shellfish harvesting); and conflict with the anti-degradation policy.

In addition to being responsible for the maintenance and protection of California's fish and wildlife, the CDFW has authorities under California's Public Resources Code, and the federal Fish and Wildlife Coordination Act to regulate or comment on activities in wetland and riparian areas. The CDFW also assumes primary responsibility for implementation of the California State Endangered Species Act, and the Streambed Alteration Agreement (Fish and Game Code Sections 1601–1603). This agreement is one of the State's few direct legal instruments for the protection of streams, rivers, and lakes. The CDFW also comments directly to the USACE concerning fish and wildlife aspects of Section 10 and Section 404 permits. CDFW's official position regarding the protection of wetlands is that development projects should not result in a net loss of either wetland acreage or wetland habitat value.

California Department of Fish and Wildlife Lake and Streambed Alteration Agreement

The CDFW has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1602 of the California Fish and Game Code (2008b). Activities that would disturb these drainages are regulated by the CDFW through a Lake and Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

Local

Town of Paradise Code of Ordinances

Title 8, Chapter 12 of the Town Code of Ordinances requires permits for the removal of trees measuring 10 inches or greater in diameter at breast height (DBH). Additionally, a permit for the removal of 9 or more trees from a single legal

parcel will require “a written explanation by a tree expert... that the qualifying tree or trees must be felled based on circumstances for felling and/or removal under Section 8.12.090”. In response to the 2018 Camp Fire, the Town has also adopted a Hazard Tree Removal Program outlined in Title 8, Chapter 63, and is in the process of assessing trees for removal in the spring of 2023. Trees located within the project site appear to have been assessed for removal, and eligibility will be approved by the end of the winter months.

Town of Paradise General Plan

The Open Space/Conservation/Energy Element of the General Plan includes the following policies aimed at conserving natural resources:

Policy OCEP-13 – “Existing large trees of historic and/or cultural significance should be protected to the best of the town’s ability. Trees so identified should only be removed as a last resort.”

Policy OCEP-15 – “Existing, significantly important natural habitat areas having high value for birds and other wildlife should be preserved for future generations through careful land use planning and public participation.”

Policy OCEP-26 – “Natural riparian vegetation along creeks should be protected.”

METHODS

NCE conducted background research to evaluate known occurrences of state listed SSS in the project area. Background research was conducted, and the following databases were reviewed:

- California Natural Diversity Database (CNDDDB) 2022. California Department of Fish and Wildlife, Sacramento, CA. Accessed online.
- California Native Plant Society (CNPS), Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01). Accessed online.
- United States Fish and Wildlife Service (USFWS) 2022. Information for Planning and Consultation System (IPaC). Accessed online.

A one-mile buffer was established around the project area and available CNDDDB records were reviewed for this project (**Figure 3**). The CNPS inventory search consisted of CNPS list 1 and list 2 species known to occur within the nine quadrangles surrounding the project area. The results of the background research and reconnaissance-level field surveys were used to evaluate habitat and assess the potential for SSS to occur within or nearby the project area.

Two NCE biologists conducted a reconnaissance-level field biological field survey of the proposed project site in Paradise, California on September 26, 2022. Two

additional field survey were conducted on September 29, 2022 and October 18/19, 2022, to update the results of the earlier survey due to changes in the project area footprint, and to conduct a delineation of aquatic resources on the project site. These surveys were completed to evaluate habitat and identify the presence or absence of SSS within the project area. Weather during the three surveys was clear and sunny with a temperature of 90 degrees, 83 degrees, and 83 degrees respectively. Survey equipment included binoculars and an electronic tablet to collect field data. The entire project area was traversed on foot and every plant species and vegetation community type observed were recorded. Any animals or evidence of animal activity observed during the survey were also recorded. All live trees with DBH greater than 4 inches were assessed, and tree species, size, and location were documented.

RESULTS

The project area is characterized as highly disturbed suburban land, in large part due to destruction from the 2018 Camp Fire and subsequent cleanup activities. While most infrastructure within the project site has been removed since the fire in 2018, the parking lot in the northeast parcel and a smaller parking lot along the northwest edge remain, in addition to limited sections of cement sidewalks and foundations in the central and northeastern parcels. The vegetation within the project site is characterized by stands of native ponderosa pine (*Pinus ponderosa*) and incense cedar (*Calocedrus decurrens*) in the northeastern and southern portions of the site, with non-native brush dominating the understory. The western portion of the site is characterized by several stream channels with riparian habitat dominated by Himalayan blackberries (*Rubus armeniacus*) and arroyo willows (*Salix lasiolepis*). Additionally, patches of native black oak (*Quercus kelloggii*) woodland occur throughout the site, as well as open fields dominated by non-native brush and weedy herbaceous species.

During the September 26, 2022 survey, one White-tailed kite (*Elanus leucurus*) was observed circling and perching on the ponderosa pine trees in the southwest portion of the site. No other SSS were observed within or adjacent to the project area. Due to the disturbed nature of the habitat within and surrounding the rest of the project area, no other SSS are anticipated to occur within the project area during construction. A complete list of plant and animal species observed during the survey is recorded in Table 1 below.

Table 1: Species observed during surveys

Scientific Name	Common Name	Native: Y, N
Plants		
<i>Acacia melanoxylon</i>	Blackwood acacia	N
<i>Acer macrophyllum</i>	Big leaf maple	Y
<i>Albizia julibrissin</i>	Persian silk tree	N
<i>Apocynum cannabinum</i>	Hemp dogbane	Y
<i>Arctostaphylos glauca</i>	Big berry manzanita	Y
<i>Artemisia douglasiana</i>	California mugwort	Y
<i>Brassica nigra</i>	Black mustard	N, Cal-IPC Invasive: Moderate
<i>Calocedrus decurrens</i>	Incense cedar	Y
<i>Ceanothus cuneatus</i>	Buck brush	N
<i>Ceanothus integerrimus</i>	Deer brush	Y
<i>Centaurea solstitialis</i>	Yellow starthistle	N, Cal-IPC Invasive: High
<i>Cirsium vulgare</i>	Bull thistle	N, Cal-IPC Invasive: Moderate
<i>Cynosurus echinatus</i>	Hedgehog dogtail grass	N, Cal-IPC Invasive: Moderate
<i>Dianthus armeria</i>	Deptford pink	N
<i>Diospyros kaki</i>	Japanese persimmon	N
<i>Echium vulgare</i>	Viper's bugloss	Y
<i>Epilobium brachycarpum</i>	Tall annual willow herb	Y
<i>Erigeron canadensis</i>	Horseweed	Y
<i>Eschscholzia californica</i>	California poppy	Y
<i>Frangula californica</i>	California coffeeberry	Y
<i>Genista monspessulana</i>	French broom	N, Cal-IPC Invasive: High
<i>Heteromeles arbutifolia</i>	Toyon	Y
<i>Juglans hindsii</i>	Northern California black walnut	Y
<i>Juncus effusus</i>	Common rush	Y
<i>Lagerstroemia indica</i>	Crepe myrtle	N
<i>Lathyrus latifolius</i>	Perennial sweet pea	N, Cal-IPC Invasive: Watch
<i>Ligustrum lucidum</i>	Glossy privet	N, Cal-IPC Invasive: Limited
<i>Lupinus sp.</i>	Lupine	Y
<i>Mentha canadensis</i>	Mint	Y
<i>Persicaria hydropiper</i>	Smartweed	Y
<i>Phacelia imbricata</i>	Imbricate phacelia	Y

<i>Phytolacca americana</i>	Common pokeweed	N, Cal-IPC Invasive: Limited
<i>Pinus ponderosa</i>	Ponderosa pine	Y
<i>Plantago major</i>	Common plantain	N
<i>Poterium sanguisorba</i>	Small burnet	N
<i>Pteridium aquilinum</i>	Bracken Fern	Y
<i>Quercus agrifolia</i>	Coast live oak	Y
<i>Quercus kelloggii</i>	Black oak	Y
<i>Quercus lobata</i>	Valley oak	Y
<i>Ribes montigenum</i>	Alpine prickly current	Y
<i>Rubus armeniacus</i>	Himalayan blackberry	N, Cal-IPC Invasive: High
<i>Salix lasiolepis</i>	Arroyo willow	Y
<i>Sericocarpus linifolius</i>	Narrowleaf whitetop aster	Y
<i>Solidago missouriensis</i>	Missouri goldenrod	Y
<i>Symphyotrichum chilense</i>	Pacific aster	Y
<i>Toxicodendron diversilobum</i>	Poison oak	Y
<i>Typha latifolia</i>	Broad-leaved cattail	Y
<i>Verbascum blattaria</i>	Moth mullein	N
<i>Verbascum thapsus</i>	Common mullein	N, Cal-IPC Invasive: Limited
<i>Vitis californica</i>	California wild grape	Y

Animals		
<i>Aphelocoma californica</i>	California scrub jay	Y
<i>Canis latrans</i>	Coyote	Y
<i>Cathartes aura</i>	Turkey vulture	Y
<i>Corvus corax</i>	Common raven	Y
<i>Elanus leucurus</i>	White-tailed kite	Y
<i>Lepus californicus</i>	Black-tailed jackrabbit	Y
<i>Odocoileus hemionus</i>	Black-tailed mule deer	Y
<i>Oreortyx pictus</i>	Mountain quail	Y
<i>Sialia mexicana</i>	Western bluebird	Y

The tree survey documented 183 trees on the site with a DBH greater than 4 inches. The complete results of the tree survey are included below as **Table 2** and are illustrated in **Figure 4**.

Table 2: Tree Survey Results

ID#	Scientific Name	Common Name	DBH in inches	Native: Y/N	Notes
1	<i>Pinus ponderosa</i>	Ponderosa pine	15	Y	
2	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
3	<i>Pinus ponderosa</i>	Ponderosa pine	7	Y	
4	<i>Pinus ponderosa</i>	Ponderosa pine	13	Y	
5	<i>Pinus ponderosa</i>	Ponderosa pine	13	Y	
6	<i>Pinus ponderosa</i>	Ponderosa pine	24	Y	
7	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	
8	<i>Pinus ponderosa</i>	Ponderosa pine	7	Y	
9	<i>Pinus ponderosa</i>	Ponderosa pine	15	Y	
10	<i>Pinus ponderosa</i>	Ponderosa pine	14	Y	
11	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	
12	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	
13	<i>Pinus ponderosa</i>	Ponderosa pine	11	Y	
14	<i>Pinus ponderosa</i>	Ponderosa pine	12	Y	
15	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
16	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
17	<i>Pinus ponderosa</i>	Ponderosa pine	12	Y	
18	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
19	<i>Pinus ponderosa</i>	Ponderosa pine	12	Y	
20	<i>Pinus ponderosa</i>	Ponderosa pine	13	Y	
21	<i>Pinus ponderosa</i>	Ponderosa pine	10, 12	Y	Multitrunk
22	<i>Pinus ponderosa</i>	Ponderosa pine	18, 13	Y	Multitrunk
23	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	
24	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
25	<i>Pinus ponderosa</i>	Ponderosa pine	11	Y	
26	<i>Pinus ponderosa</i>	Ponderosa pine	14	Y	
27	<i>Calocedrus decurrens</i>	Incense cedar	26	Y	
28	<i>Calocedrus decurrens</i>	Incense cedar	21, 15	Y	Multitrunk
29	<i>Calocedrus decurrens</i>	Incense cedar	16, 18, 8, 12, 9	Y	Multitrunk
30	<i>Calocedrus decurrens</i>	Incense cedar	19, 7, 16, 12	Y	Multitrunk
31	<i>Calocedrus decurrens</i>	Incense cedar	21, 16	Y	Multitrunk
32	<i>Calocedrus decurrens</i>	Incense cedar	15	Y	
33	<i>Calocedrus decurrens</i>	Incense cedar	17, 11	Y	Multitrunk
34	<i>Calocedrus decurrens</i>	Incense cedar	13	Y	
35	<i>Calocedrus decurrens</i>	Incense cedar	27	Y	
36	<i>Pinus ponderosa</i>	Ponderosa pine	7	Y	

37	<i>Calocedrus decurrens</i>	Incense cedar	25	Y	
38	<i>Calocedrus decurrens</i>	Incense cedar	25	Y	
39	<i>Calocedrus decurrens</i>	Incense cedar	20	Y	
40	<i>Calocedrus decurrens</i>	Incense cedar	23	Y	
41	<i>Calocedrus decurrens</i>	Incense cedar	35	Y	
42	<i>Calocedrus decurrens</i>	Incense cedar	24	Y	
43	<i>Calocedrus decurrens</i>	Incense cedar	30	Y	
44	<i>Calocedrus decurrens</i>	Incense cedar	12	Y	
45	<i>Calocedrus decurrens</i>	Incense cedar	16	Y	
46	<i>Calocedrus decurrens</i>	Incense cedar	26	Y	
47	<i>Pinus ponderosa</i>	Ponderosa pine	37	Y	
48	<i>Quercus alba</i>	White oak	24, 25	N	Multitrunk
49	<i>Quercus kelloggii</i>	Black oak	9	Y	
50	<i>Quercus kelloggii</i>	Black oak	16	Y	
51	<i>Quercus kelloggii</i>	Black oak	16	Y	
52	<i>Quercus kelloggii</i>	Black oak	26, 24	Y	Multitrunk
53	<i>Quercus kelloggii</i>	Black oak	10	Y	
54	<i>Pinus ponderosa</i>	Ponderosa pine	19	Y	
55	<i>Pinus ponderosa</i>	Ponderosa pine	15	Y	
56	<i>Pinus ponderosa</i>	Ponderosa pine	27	Y	
57	<i>Robinia pseudoacacia</i>	Black locust	14	N	
58	<i>Calocedrus decurrens</i>	Incense cedar	19	Y	
59	<i>Pyrus communis</i>	Common pear	9, 12	N	Multitrunk
60	<i>Juglans hindsii</i>	Northern California black walnut	2, 14	Y	Multitrunk
61	<i>Quercus kelloggii</i>	Black oak	23	Y	
62	<i>Quercus kelloggii</i>	Black oak	12	Y	
63	<i>Quercus kelloggii</i>	Black oak	6	Y	
64	<i>Juglans hindsii</i>	Northern California black walnut	15	Y	
65	<i>Quercus kelloggii</i>	Black oak	8	Y	
66	<i>Quercus kelloggii</i>	Black oak	6	Y	
67	<i>Pinus ponderosa</i>	Ponderosa pine	34	Y	
68	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
69	<i>Pinus ponderosa</i>	Ponderosa pine	31	Y	
70	<i>Pinus ponderosa</i>	Ponderosa pine	19	Y	
71	<i>Pinus ponderosa</i>	Ponderosa pine	34	Y	
72	<i>Pinus ponderosa</i>	Ponderosa pine	13	Y	
73	<i>Pinus ponderosa</i>	Ponderosa pine	35	Y	
74	<i>Pinus ponderosa</i>	Ponderosa pine	13	Y	
75	<i>Pinus ponderosa</i>	Ponderosa pine	9	Y	
76	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	

77	<i>Pinus ponderosa</i>	Ponderosa pine	17, 6	Y	Multitrunk
78	<i>Pinus ponderosa</i>	Ponderosa pine	18	Y	
79	<i>Pinus ponderosa</i>	Ponderosa pine	28	Y	
80	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
81	<i>Pinus ponderosa</i>	Ponderosa pine	23	Y	
82	<i>Pinus ponderosa</i>	Ponderosa pine	15	Y	
83	<i>Pinus ponderosa</i>	Ponderosa pine	15	Y	
84	<i>Pinus ponderosa</i>	Ponderosa pine	7	Y	
85	<i>Pinus ponderosa</i>	Ponderosa pine	27, 14	Y	Multitrunk
86	<i>Pinus ponderosa</i>	Ponderosa pine	24	Y	
87	<i>Pinus ponderosa</i>	Ponderosa pine	20	Y	
88	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
89	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
90	<i>Pinus ponderosa</i>	Ponderosa pine	12	Y	
91	<i>Pinus ponderosa</i>	Ponderosa pine	19	Y	
92	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
93	<i>Quercus douglasii</i>	Blue oak	13	Y	
94	<i>Quercus douglasii</i>	Blue oak	17	Y	
95	<i>Quercus douglasii</i>	Blue oak	18	Y	
96	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
97	<i>Pinus ponderosa</i>	Ponderosa pine	28	Y	
98	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
99	<i>Pinus ponderosa</i>	Ponderosa pine	23	Y	
100	<i>Pinus ponderosa</i>	Ponderosa pine	23	Y	
101	<i>Quercus kelloggii</i>	Black oak	10, 10	Y	Multitrunk
102	<i>Pinus ponderosa</i>	Ponderosa pine	25	Y	
103	<i>Pinus ponderosa</i>	Ponderosa pine	33	Y	
104	<i>Pinus ponderosa</i>	Ponderosa pine	17	Y	
105	<i>Pinus ponderosa</i>	Ponderosa pine	17	Y	
106	<i>Pinus ponderosa</i>	Ponderosa pine	23	Y	
107	<i>Pinus ponderosa</i>	Ponderosa pine	9	Y	
108	<i>Pinus ponderosa</i>	Ponderosa pine	37	Y	
109	<i>Pinus ponderosa</i>	Ponderosa pine	24	Y	
110	<i>Pinus ponderosa</i>	Ponderosa pine	19	Y	
111	<i>Pinus ponderosa</i>	Ponderosa pine	14	Y	
112	<i>Pinus ponderosa</i>	Ponderosa pine	17	Y	
113	<i>Pinus ponderosa</i>	Ponderosa pine	18	Y	
114	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
115	<i>Pinus ponderosa</i>	Ponderosa pine	23	Y	
116	<i>Quercus kelloggii</i>	Black oak	6	Y	
117	<i>Quercus kelloggii</i>	Black oak	5	Y	

118	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
119	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
120	<i>Pinus ponderosa</i>	Ponderosa pine	35	Y	
121	<i>Pinus ponderosa</i>	Ponderosa pine	30	Y	
122	<i>Quercus kelloggii</i>	Black oak	17, 11, 11, 15	Y	Multitrunk
123	<i>Quercus kelloggii</i>	Black oak	14	Y	
124	<i>Pinus ponderosa</i>	Ponderosa pine	28	Y	
125	<i>Quercus kelloggii</i>	Black oak	22	Y	
126	<i>Pinus ponderosa</i>	Ponderosa pine	14	Y	
127	<i>Pinus ponderosa</i>	Ponderosa pine	31	Y	
128	<i>Pinus ponderosa</i>	Ponderosa pine	30	Y	
129	<i>Quercus kelloggii</i>	Black oak	11	Y	
130	<i>Pinus ponderosa</i>	Ponderosa pine	32	Y	
131	<i>Quercus kelloggii</i>	Black oak	12	Y	
132	<i>Pinus ponderosa</i>	Ponderosa pine	22	Y	
133	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
134	<i>Pinus ponderosa</i>	Ponderosa pine	10	Y	
135	<i>Pinus ponderosa</i>	Ponderosa pine	14	Y	
136	<i>Pinus ponderosa</i>	Ponderosa pine	16	Y	
137	<i>Quercus kelloggii</i>	Black oak	12	Y	
138	<i>Quercus kelloggii</i>	Black oak	15	Y	
139	<i>Quercus kelloggii</i>	Black oak	19	Y	
140	<i>Quercus kelloggii</i>	Black oak	15	Y	
141	<i>Quercus kelloggii</i>	Black oak	7	Y	
142	<i>Quercus kelloggii</i>	Black oak	19	Y	
143	<i>Quercus kelloggii</i>	Black oak	14	Y	
144	<i>Pinus ponderosa</i>	Ponderosa pine	20	Y	
145	<i>Quercus kelloggii</i>	Black oak	7	Y	
146	<i>Quercus kelloggii</i>	Black oak	11	Y	
147	<i>Quercus kelloggii</i>	Black oak	11	Y	
148	<i>Quercus kelloggii</i>	Black oak	7	Y	
149	<i>Pinus ponderosa</i>	Ponderosa pine	35	Y	
150	<i>Pinus ponderosa</i>	Ponderosa pine	40	Y	
151	<i>Pinus ponderosa</i>	Ponderosa pine	37	Y	
152	<i>Pinus ponderosa</i>	Ponderosa pine	42	Y	
153	<i>Pinus ponderosa</i>	Ponderosa pine	22	Y	
154	<i>Pinus ponderosa</i>	Ponderosa pine	47	Y	
155	<i>Pinus ponderosa</i>	Ponderosa pine	30	Y	
156	<i>Pinus ponderosa</i>	Ponderosa pine	37	Y	
157	<i>Pinus ponderosa</i>	Ponderosa pine	27	Y	
158	<i>Quercus kelloggii</i>	Black oak	9, 10	Y	Multitrunk

159	<i>Pinus ponderosa</i>	Ponderosa pine	32	Y	
160	<i>Pinus ponderosa</i>	Ponderosa pine	32	Y	
161	<i>Quercus kelloggii</i>	Black oak	12	Y	
162	<i>Quercus kelloggii</i>	Black oak	12	Y	
163	<i>Pinus ponderosa</i>	Ponderosa pine	22	Y	
164	<i>Pinus ponderosa</i>	Ponderosa pine	24	Y	
165	<i>Pinus ponderosa</i>	Ponderosa pine	26	Y	
166	<i>Pinus ponderosa</i>	Ponderosa pine	28	Y	
167	<i>Pinus ponderosa</i>	Ponderosa pine	24	Y	
168	<i>Pinus ponderosa</i>	Ponderosa pine	32	Y	
169	<i>Pinus ponderosa</i>	Ponderosa pine	40	Y	
170	<i>Pinus ponderosa</i>	Ponderosa pine	40	Y	
171	<i>Pinus ponderosa</i>	Ponderosa pine	42	Y	
172	<i>Pinus ponderosa</i>	Ponderosa pine	30	Y	
173	<i>Pinus ponderosa</i>	Ponderosa pine	40	Y	
174	<i>Pinus ponderosa</i>	Ponderosa pine	40	Y	
175	<i>Pinus ponderosa</i>	Ponderosa pine	8	Y	
176	<i>Quercus kelloggii</i>	Black oak	12	Y	
177	<i>Quercus kelloggii</i>	Black oak	5	Y	
178	<i>Quercus kelloggii</i>	Black oak	26	Y	
179	<i>Quercus kelloggii</i>	Black oak	15	Y	
180	<i>Quercus kelloggii</i>	Black oak	20	Y	
181	<i>Sambucus sp.</i>	Elderberry	0	Y	
182	<i>Calocedrus decurrens</i>	Incense cedar	16	Y	
183	<i>Quercus kelloggii</i>	Black oak	14, 20, 14	Y	Three trees

Database research identified a variety of special status plant and animal species known to occur in the region of the project area. The following species have CNDDDB occurrence records within one mile of the proposed project site (see **Figure 3**):

- Butte County fritillary (*Fritillaria eastwoodiae*)
- Butte County morning-glory (*Calystegia atriplicifolia ssp. buttensis*)
- Lewis Rose's ragwort (*Packera eurycephala var. lewisrosei*)
- Foothill yellow-legged frog (*Rana boylei*)

These and other SSS are unlikely to utilize the project area due to the highly disturbed nature of the project area and its surroundings. Ongoing disturbance from the 2018 Camp Fire, subsequent cleanup activities, and nearby redevelopment make for poor-quality habitat and make potential for other SSS occurrence within the project area unlikely.

During the second and third surveys, NCE delineated several named and unnamed stream channels and four freshwater emergent wetlands, primarily in the western section of the project area and mostly contained within the Phase II project area (see **Figure 5**). These stream channels and wetlands cover a total of 1.45 acres within the project site. Approximately 0.19 linear miles of Dry Creek runs through the western portion of the project site, starting north of Cypress Lane and running south towards Adam Road. Approximately 0.12 linear miles of unnamed Stream Channel 1 runs through the project site west of and parallel to Dry Creek, with a perpendicular portion that juts out south of Cypress Lane. Approximately 0.09 linear miles of unnamed Stream Channel 2 runs through the southeastern corner of the project site. The stream channels were bordered by approximately 0.79 acres of riparian habitat dominated by Himalayan blackberries and arroyo willows. Unnamed Wetland A covers approximately 0.21 acres west of the streams and north of Cypress Lane. Unnamed Wetland B covers 0.24 acres bordering the west side of Dry Creek in the western portion of the project site, just south of Cypress Lane. Unnamed Wetland C and D cover approximately 0.14 acres bordering the east and west side of Dry Creek in the southwestern portion of the project site.

The USFWS IPaC Official Species List identifies California red-legged frog (*Rana draytonii*) as a species that may be of concern for the project area. Although no California red-legged frogs were observed during the September 26, 2022, September 29, 2022, or October 18/19, 2022 surveys, the stream channels and freshwater emergent wetlands in the project area provide suitable habitat for this species.

DISCUSSION/RECOMMENDATIONS

The proposed project has been designed to generally avoid impacts to wetlands and stream channels. However, the improvement and widening of Cypress Way to provide access to the project site during Phase I and II of the project will require installing new culverts and fill within stream channels, leading to impacts to these aquatic features. Prior to constructing the proposed project, Mercy will determine the exact quantity of aquatic resources to be impacted and will obtain regulatory permits from the USACE (Section 404 permit), CDFW (Streambed Alteration agreement), and RWQCB (Section 401 permit) to comply with federal and state regulations. Mercy will purchase mitigation bank credits or provide onsite mitigation/restoration for impacts to aquatic resources at a ratio agreed to between the Town, USACE, RWQCB, and CDFW.

Aquatic habitat found within the project site (streams and adjacent wetland areas) provides potential breeding habitat for California red-legged and foothill yellow-legged frogs. However, neither frog species was identified during biological surveys

at the project site. Foothill yellow-legged frogs have been identified approximately 1,300 feet (0.25 miles) to the northwest of the project site, while California red-legged frogs have not been documented within one mile of the project site. Based on the findings of our surveys, we expect these species to be absent. However, the possibility exists that these species could become established prior to construction of the proposed project.

Implementation of the proposed project has the potential to result in direct impacts to California red-legged frog and foothill yellow-legged frog should they be present in the proposed project site during project activities. Direct impacts to individuals of these species could result from ground disturbance activities within aquatic habitat and adjacent upland refuge habitat when movement across these areas is occurring. Impacts could also occur in refuge habitat if individuals of this species are aestivating in underground refugia or under debris. These species could be directly impacted by crushing by project equipment or vehicles. These impacts could result in direct mortality of individuals or small populations of these species.

In order to avoid or reduce potential impacts to these species to a less than significant level, the following measures will be implemented:

The project proponent shall implement the following standard U.S. Fish and Wildlife Service (USFWS) Mitigation and Avoidance Measures to prevent mortality of individual red-legged frog that may be found breeding, migrating across, or aestivating on the proposed project sites during proposed project activities. These measures will also effectively protect foothill yellow-legged frogs from impacts.

- Preconstruction surveys for California red-legged and foothill yellow-legged frog shall be completed within 48 hours prior to commencement of any earth-moving activity, construction, or vegetation removal within project sites, whichever comes first. The preconstruction survey shall include two nights of nocturnal surveys in areas of suitable habitat.
- If any California red-legged and foothill yellow-legged frog are encountered during the surveys, all work in the work area shall be placed on hold while the findings are reported to the CDFW and USFWS and it is determined what, if any, further actions must be followed to prevent possible take of this species.
- Where construction will occur in California red-legged and foothill yellow-legged frog habitat where frogs are potentially present, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat areas. A qualified biologist will assist in determining the boundaries of the area to be fenced in

consultation with the Town, USFWS, and CDFW. All workers will be advised that equipment and vehicles must remain within the fenced work areas.

- An USFWS authorized biologist will direct the installation of the fence and will conduct biological surveys to move any individuals of these species from within the fenced area to suitable habitat outside of the fence. Exclusion fencing will be at least 24 inches in height. The type of fencing must be approved by the authorized biologist, the USFWS, and CDFW. This fence should be permanent enough to ensure that it remains in good condition throughout the duration of the construction project on the project site. It should be installed prior to any site grading or other construction-related activities are implemented. The fence should remain in place during all site grading or other construction-related activities. The frog exclusion fence could be "silt fence" that is buried along the bottom edge.
- If at any time individuals of these species are found within an area that has been fenced to exclude these species, activities will cease until the authorized biologist moves the individuals.
- If any of these species are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the individuals. The authorized biologist in consultation with USFWS and CDFW will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist.
- Any individuals found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities.
- Clearance surveys shall occur daily in the work area.
- The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
- To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
- Project activities shall be limited to daylight hours, except during an emergency, in order to avoid nighttime activities when California red-legged and foothill yellow-legged frog may be present. Because dusk and dawn are often the times when California red-legged and foothill yellow-legged frog are most actively foraging and dispersing, all construction activities should cease

one half hour before sunset and should not begin prior to one half hour before sunrise.

- Traffic speed should be maintained at 10 miles per hour or less in the work area.

Trees and shrubs within and adjacent to the project site may provide suitable nesting habitat for migratory birds including tree-nesting raptors, such as the white-tailed kite observed during the September 26, 2022 survey. White-tailed kite is protected by both the MBTA and as a CDFW Fully Protected species. Although no active nests or nesting bird behavior was observed during the September 26, 2022, September 29, 2022, and October 18/19, 2022 surveys, this does not preclude birds from establishing active nests between the time of these surveys and project construction. Construction activities that adversely affect the nesting success of special-status or non-special status migratory birds, including tree-nesting raptors, or result in mortality of individual birds constitute a violation of the Federal Migratory Bird Treaty Act (16 U.S.C., scc. 703, Supp. I, 1989) which prohibit killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. If a migratory bird, regardless of its federal or state status, were to nest in trees on or near the site prior to or during proposed construction activities, such activities could result in the abandonment of active nests or direct mortality to these birds.

Based on observations from the reconnaissance-level field survey, two avoidance and minimization measures are recommended. Specifically, we propose measures to avoid potential impacts to migratory birds and raptors.

The best way to avoid disturbing nesting birds is to schedule activities outside the nesting season. Any tree or brush removal required as part of project activities should be completed during months when birds are not actively nesting (September 2 – December 31). If vegetation removal or ground disturbance near potential migratory bird nesting habitat is proposed during the nesting season (January 1 - September 1), a survey for active bird nests shall be conducted by a qualified biologist no more than two weeks prior to initiation of these activities. If nests are identified, then avoidance and minimization measures must be implemented and coordination with the CDFW is recommended. Below are two construction requirements to ensure that no unanticipated effects on nesting birds will occur during project construction.

Standard CDFW Requirement #1: If project work must occur during the nesting season (January 1 – September 1), the Town shall utilize a qualified biologist to survey nesting birds within the project area, no more than 14 days prior to the beginning of tree and vegetation removal or ground disturbing activities. A copy of

the survey shall be submitted to the Town prior to the start of construction activities.

Standard CDFW Requirement #2: If nesting birds are detected within the project area during the survey, consultation with CDFW and USFWS is recommended to establish acceptable avoidance or minimization measures to avoid impacts to migratory birds and raptors. Avoidance measures could include the establishment of a suitable activity-free buffer around active nests/roosting sites. The size of the buffer, duration of buffer, acceptable activities, and other details will be established through consultation with the CDFW and USFWS. The avoidance or minimization plan shall be submitted to the Town, CDFW, and USFWS for review and approval prior to the start of construction activities. These measures will ensure that no nesting birds are impacted by construction activities.

General Construction Measures to Protect Wildlife: NCE also recommends the following general construction measures be implemented by the Town to protect wildlife species and habitats:

- The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into adjacent habitat areas, including waters of the State and U.S.,
- Areas for fuel storage, refueling and servicing of construction equipment must be located in an upland location outside of sensitive habitat,
- Wash sites must be located in upland locations to ensure wash water does not flow into stream channels or wetlands.
- All construction equipment must be in good working condition, showing no signs of fuel or oil leaks. All questionable motor oil, coolant, transmission fluid, and hydraulic fluid hoses, fittings and seals shall be replaced. The mechanical equipment shall be inspected on a daily basis to ensure no leaks. All leaks shall be repaired in the equipment staging area or other suitable location prior to resumption of construction activity.
- Oil absorbent and spill containment materials shall be located on site when mechanical equipment is in operation within 100 feet of a waterway. If a spill occurs, no additional work shall occur until, 1) the mechanical equipment is inspected by the contractor and the leak has been repaired, 2) the spill has been contained, and 3) CDFW and the Town are contacted and have evaluated the impacts of the spill.
- To avoid debris contamination into drainages and other sensitive wildlife habitats, silt fence or other sediment control devices will be placed around construction sites in these areas to contain spoils from construction excavation activities.

- Surveys for identified special-status species shall be conducted by qualified biologists at the appropriate times before construction starts to determine occupancy at the site. If no special-status species are found, no further action other than the Best Management Practices identified above are required. If individuals are found, including nesting birds, a buffer zone around the species or nest will be required at a sufficient distance to prevent take of individual species.
- Due to the potential for special-status species to occur, move through, or into the project area, an on-site biological monitor, shall at a minimum, check the ground beneath all equipment and stored materials each morning prior to work activities during disturbing activities to prevent take of individuals. All pipes or tubing Four (4) inches or greater shall be sealed by the relevant contractor with tape at both ends to prevent animals from entering the pipes at night. All trenches and other excavations shall be backfilled the same day they are opened or shall have an exit ramp built into the excavation to allow animals to escape.
- Environmental Awareness Training shall be presented to all personnel working in the field on the proposed project site. Training shall consist of a brief presentation in which biologists knowledgeable of endangered species biology and legislative protection shall explain endangered species concerns. Training shall include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, status under the California and Federal Endangered Species Acts, and measures being incorporated for the protection of these species and their habitats shall also be discussed. Project site boundaries shall be clearly delineated by stakes and /or flagging to minimize inadvertent degradation or loss of adjacent habitat areas during project operations. Staff and/or its contractors shall post signs and/or place fence around the project site to restrict access of vehicles and equipment unrelated to project operations.

Should you have any questions, please don't hesitate to contact Cord Hute via email at chute@ncenet.com, or Annabel Li via email at ali@ncenet.com.

Thank you,



Cord Hute
Senior Scientist



Annabel Li
Staff Scientist

References:

- California Department of Fish and Wildlife (CDFW) 2022. California Natural Diversity Database (CNDDDB). Wildlife and Habitat Data Analysis Branch. Sacramento, California. <https://www.wildlife.ca.gov/Data/CNDDDB> [accessed August 2022].
- California Invasive Plant Council (CAL-IPC). (2022). "CAL-IPC Inventory" Biogeographic Data Branch, Sacramento, CA. <https://www.cal-ipc.org/plants/inventory/> [accessed September 2022]
- California Native Plant Society (CNPS), Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). <https://www.rareplants.cnps.org> [accessed September 2022].
- Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA. 1300 pp.
- United States Fish and Wildlife Service (USFWS). (2022). Information for Planning and Consultation. <https://ecos.fws.gov/ipac/> [accessed August 30, 2022]

Attachments

Figure 1 – Project Vicinity Map

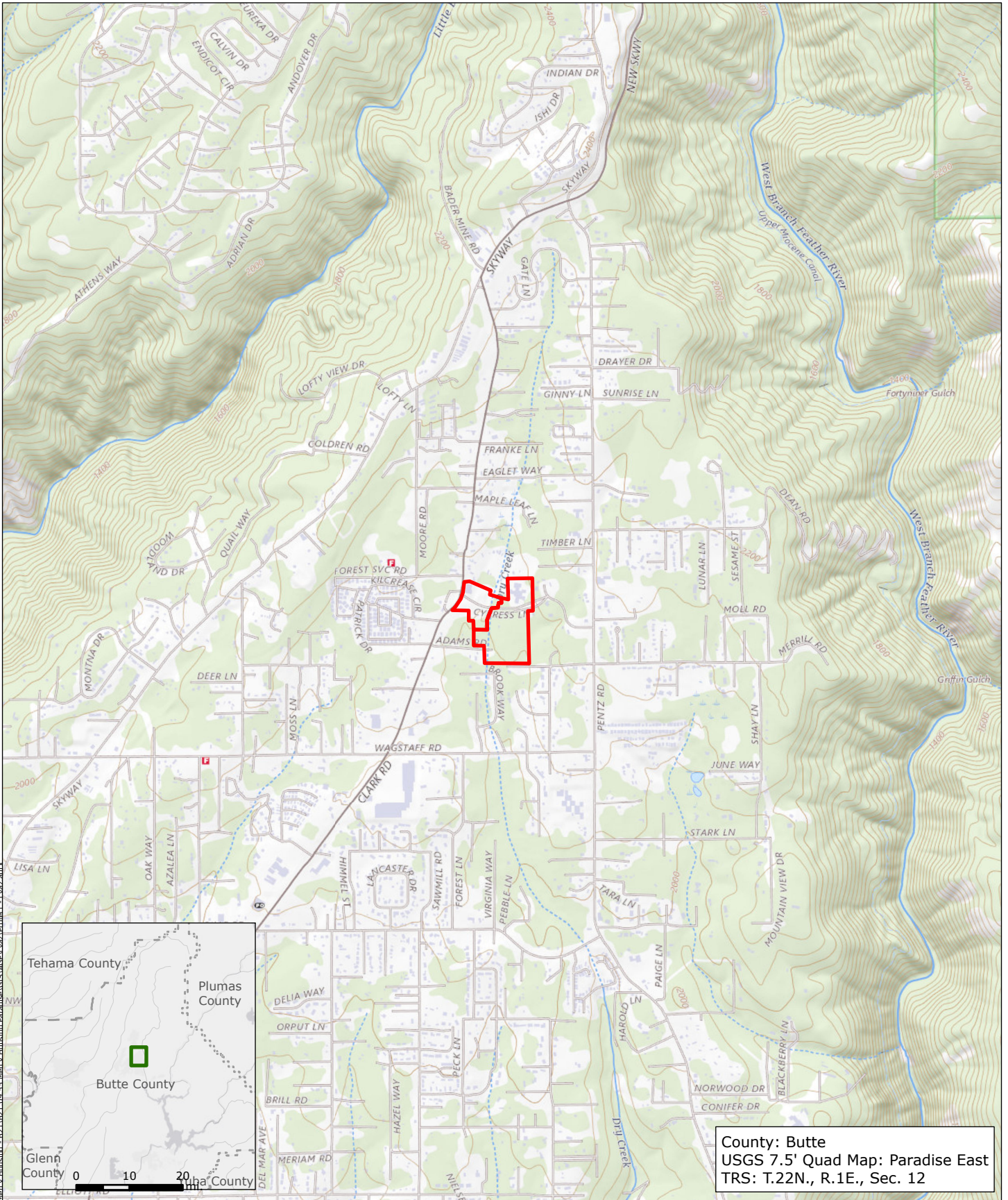
Figure 2 – Project Location Map

Figure 3 – CNDDDB Occurrences Map

Figure 4 – Tree Survey Map

Figure 5 – Aquatic Resources Delineation Map





County: Butte
 USGS 7.5' Quad Map: Paradise East
 TRS: T.22N., R.1E., Sec. 12

Legend
 Project Site



Cypress Lane Housing Project
 Town of Paradise, Butte County
 Project Area Location Map

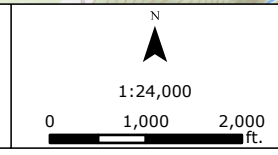


FIGURE
1

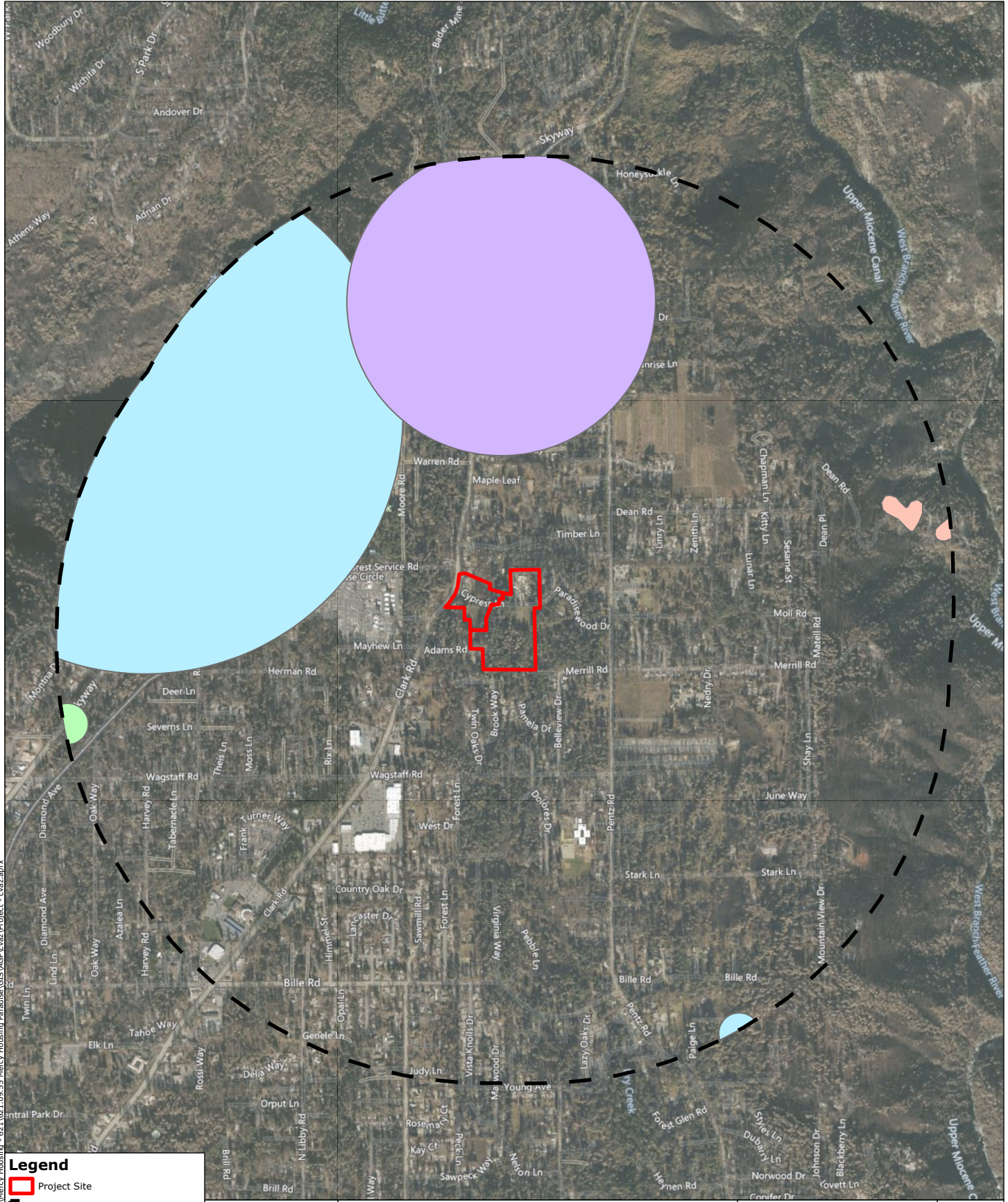
SOURCE ESRI USGS Topographic Basemap	JOB NUMBER CD621.55	DRAWN cvaz	DATE 9/7/2022	REVISED 9/28/2022	APPROVED mlaitinen
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<p>Legend</p> <p> Project Site</p>		<p>Cypress Lane Housing Project Town of Paradise, Butte County Project Area Detail Map</p>	<p style="text-align: center;">N</p> <p style="text-align: center;">1 in. = 300 ft.</p> <p style="text-align: center;">0 100 200 300 ft.</p>	<p>FIGURE</p> <p style="font-size: 2em;">2</p>	
<p>SOURCE Bing Aerial Basemap</p>	<p>JOB NUMBER 621.09.55</p>	<p>DRAWN cvaz</p>	<p>DATE 8/29/2022</p>	<p>REVISED 10/21/2022</p>	<p>APPROVED mlaitinen</p>



Legend

- Project Site
- 1-mile Buffer
- CNDBB Occurrences**
- Butte County fritillary
- Butte County morning-glory
- Lewis Rose's ragwort
- foothill yellow-legged frog



**Cypress Lane Housing Project
Town of Paradise, Butte County
CNDBB Occurrences Map**

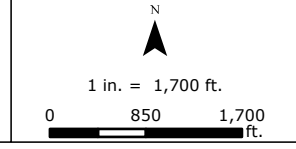
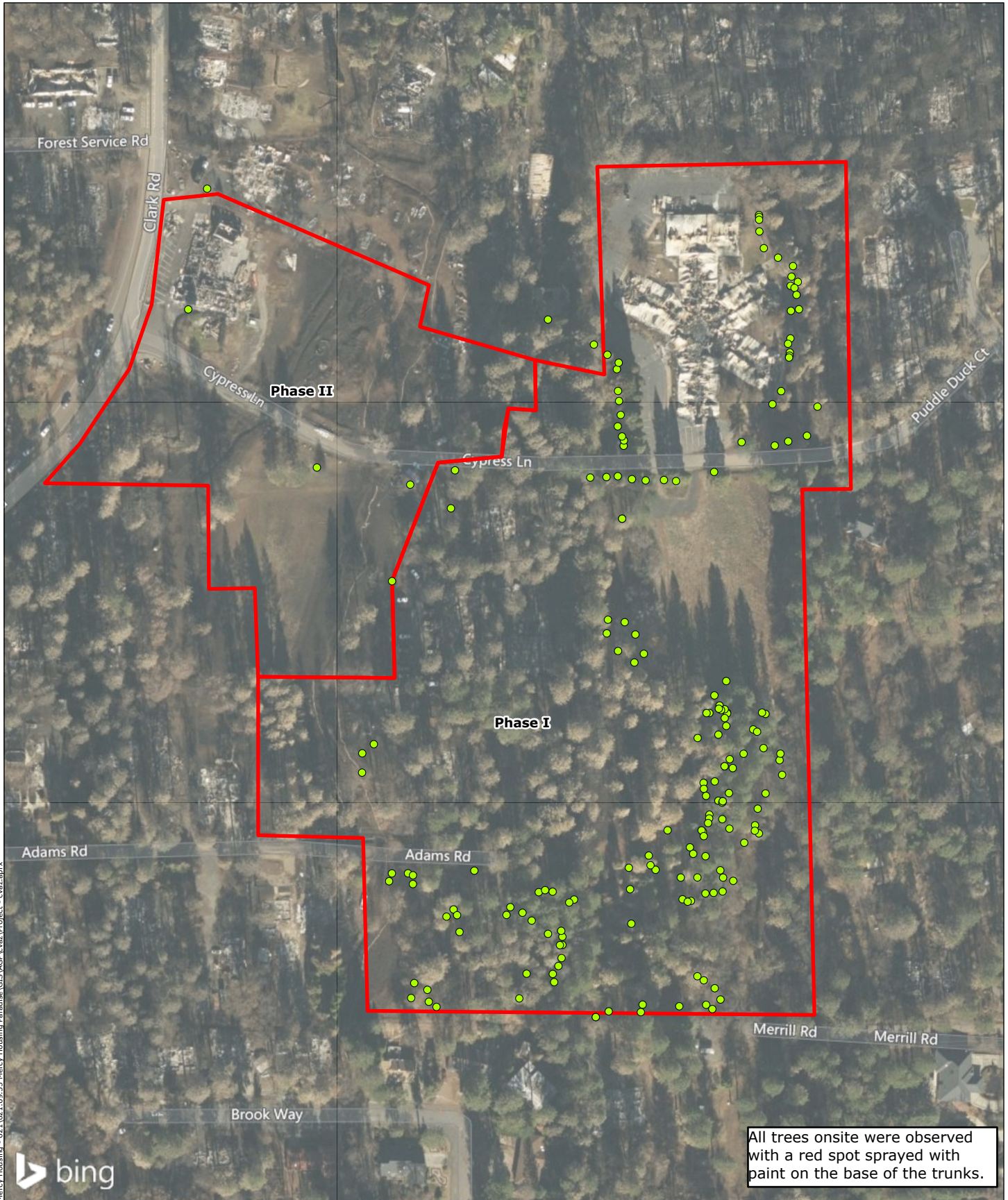


FIGURE
3

SOURCE Bing Aerial Basemap; CNDBB 2022	JOB NUMBER CD621.55	DRAWN cvaz	DATE 8/30/2022	REVISED 10/24/2022	APPROVED chute
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Legend

- Project Site
- Tree location (183 Trees)



**Cypress Lane Housing Project
Town of Paradise, Butte County
Tree Survey Map**

All trees onsite were observed with a red spot sprayed with paint on the base of the trunks.

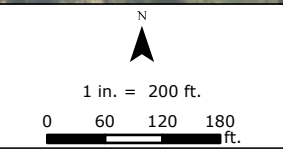
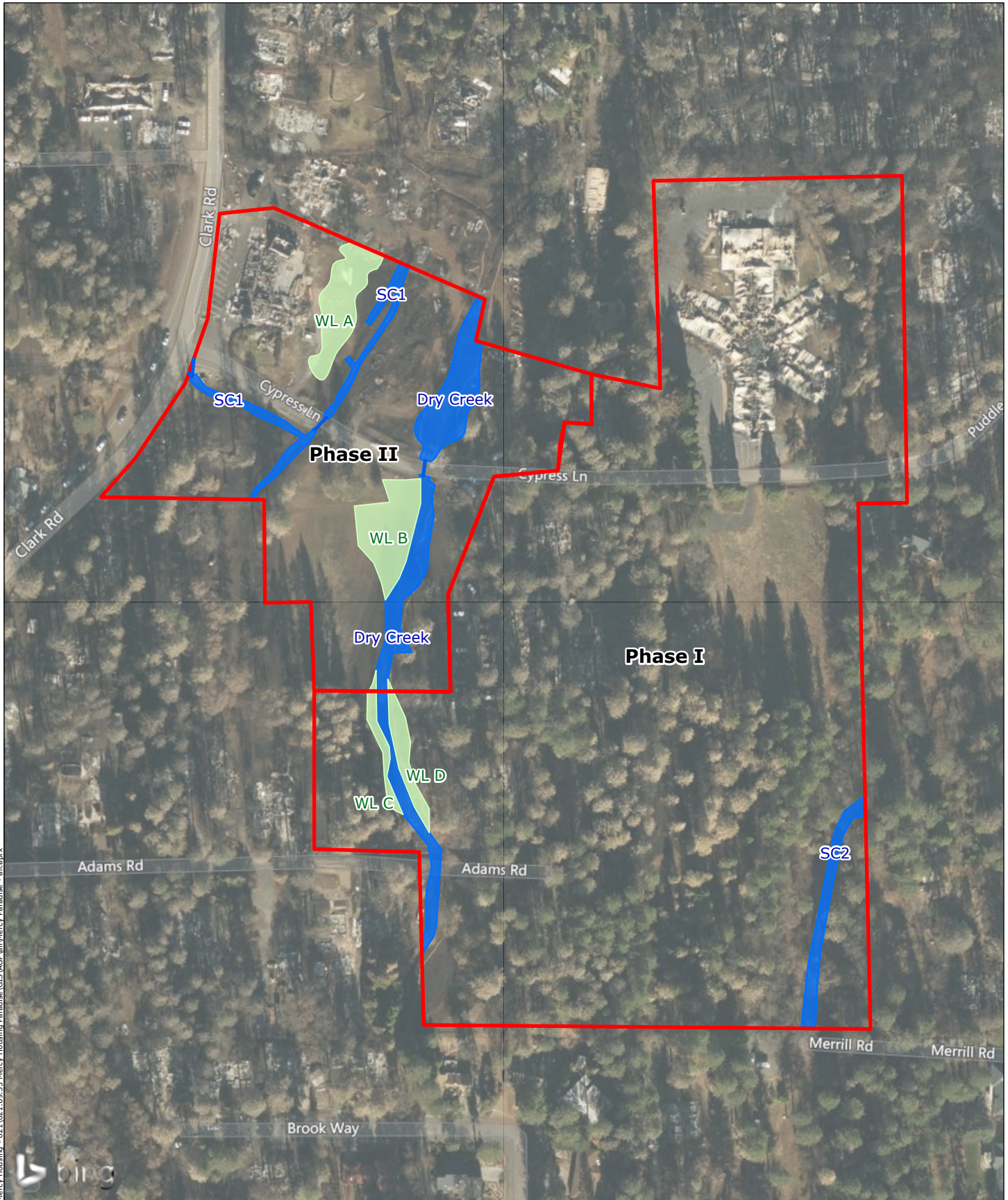

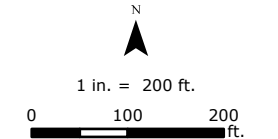


FIGURE
4

SOURCE Bing Aerial Basemap	JOB NUMBER 621.09.55	DRAWN cvaz	DATE 10/24/2022
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<p>Legend</p> <ul style="list-style-type: none"> Project Site Stream Wetland Culvert 		<p>Cypress Lane Housing Project Town of Paradise, Butte County Aquatic Resource Delineation Map</p>	 <p>1 in. = 200 ft.</p> <p>0 100 200 ft.</p>
<p>SOURCE Bing Aerial Basemap; NCE</p>	<p>JOB NUMBER 621.09.55</p>	<p>DRAWN ali</p> <p>DATE 10/19/2022</p>	<p>REVISED 5/19/2023</p> <p>APPROVED chute</p>

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