TOWN OF PARADISE

5555 SKYWAY • PARADISE, CALIFORNIA 95969-4931

SITE EVALUATION REPORT

Date: _____ Client Name: _____ OS# _____

Assessor's Parcel Number: _____ Parcel Size: _____

Slope: _____ Existing or Proposed Wells: _____

Surface Water:

a. Stream: _____

b. Drainage Swale: _____

Groundwater:

a. Perched: _____

b. Seasonal: _____

Landslides or Unstable Soils: _____

Easements: _____

Roads, Driveways: _____

Existing Structures: _____

Vegetation: _____

Rock Outcrops: _____

Escarpments and Large Cuts: _____

Proposed Development: _____

Utilities (Water, Gas, Power, etc): _____

Soil Type Description (Attach Report): _____

_____

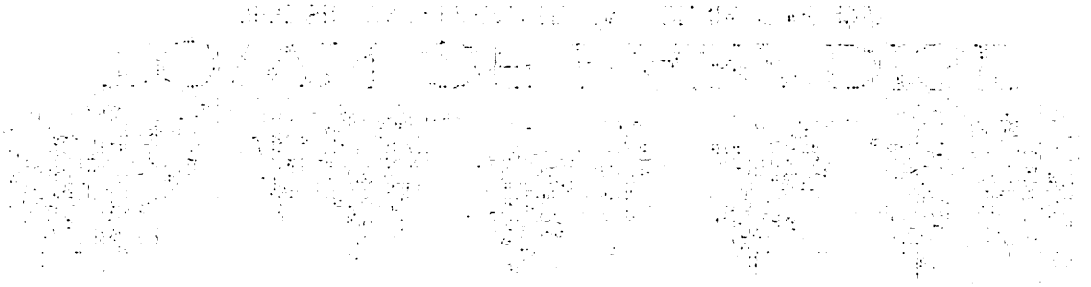
Perc Test Results (Attach Report): _____

Comments: _____

_____

_____

Evaluator/Engineer: _____



TOWN OF PARADISE

Property Owner:_____ Location:_____

AP#:_____ Date:_____ Weather/Lighting/Temp:_____

Test Pit:#_____ Total Depth:_____

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 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	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

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	i r 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)	l n i
E	V. Crse (11-50mm)	Coarse (21-50mm)	Coarse (51+mm)	e v

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_____

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

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: / Number:	V.Fine (1mm)	Fine (1-2mm)	Medium (2-5mm)	Coarse (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

Pores: Size: / Number:	V.Fine (1mm)	Fine (1-2mm)	Medium (2-5mm)	Coarse (5-10+mm)
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Few	<10	<10	<1	<1
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Many	≥100	≥100	≥10	≥5

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

Boundary:	Abrupt	Clear	Gradual	Diffuse
	<3/4 in (2cm)	¾ to2 in (2-5cm)	2-6 in (5-15cm)	>6 in (15cm)
Topo:	Smooth____	Wavy~~~	Irregular~~~	Broken —___

Soil Water: Dry (D) Moist (M) Wet (W)

Limiting Depth:_____
Comments:

Horizon:_____ Depth____to____ Color Chip_____

O A E B C R a-organic<1/6 b-buried c-concretions d-root restriction
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Topo:	Smooth____	Wavy~~~	Irregular~~~	Broken —___

Soil Water: Dry (D) Moist (M) Wet (W)

Limiting Depth:_____
Comments:

1.2 SITE EVALUATION REPORT

Site evaluations may be conducted by either qualified onsite wastewater disposal system designers or authorized Town personnel. Evaluations conducted by private designers must be approved by the Onsite Sanitary Official prior to the development of construction plans and specifications.

A. Site Evaluation By Qualified Designers

A qualified designer may conduct a site evaluation and prepare a Site Evaluation Report for approval by the Town. Site Evaluations must be conducted by or under the direct supervision of one of the following:

1. Registered Civil Engineer
2. Certified Professional Soil Scientist
3. Certified Engineering Geologist or Registered Geologist
4. Registered Environmental Health Specialist

The professional conducting or directly supervising the evaluation must be knowledgeable and experienced in the field of onsite wastewater disposal. The Town will institute a procedure of random, unannounced verification inspections to ensure that site evaluations by qualified designers meet the standards of the Town.

A Site Evaluation Report prepared by a qualified designer must be approved by the Onsite Sanitary Official before the property owner authorizes the preparation of construction plans and specifications. Town approval of a Site Evaluation Report is required for the issuance of a construction permit. Town approval is obtained by submitting the Site Evaluation Report along with a completed application form provided by the Town and payment of the required fee. The Onsite Sanitary Official may perform a brief site inspection as part of the approval process depending on the location of the proposed site. Justification must be given for a denial of approval for an onsite wastewater disposal system recommendation by a qualified designer.

An approved Site Evaluation Report is transferable with a property sale provided the intended use of the property, structure size, and intended disposal area(s) do not change. There may be a long period of time between the site evaluation and system construction on some parcels. The Town's rules and regulations could change during this time. The Town therefore reserves the right to change the type of system specified in the Site Evaluation Report approval at any time until a construction permit is issued. Lots or parcels located in identified areas of high groundwater or marginal soil conditions will be inspected by the Town.

B. Exemption To Soils and Percolation Requirements

All single family residential lots, created by parcel map or subdivision map, and approved by the Town of Paradise subsequent to November 27, 1979, will be considered to be approved with respect to soils and percolation data, if the following criteria are met:

1. The parcel is located in an area location that is listed as AVD, 0-30" (Aiken Very Deep, 0-30% Slope) as illustrated on the general soil map of Paradise prepared by Wert & Associates, on file at the Town Onsite Division.
2. The parcel is not located in an area known to have problematic soils conditions, such as high water table, perched water, or very slow percolation rates (>60 min/inch)

Soil conditions that differ substantially from that represented on the Wert soils map may require relocation of the proposed system or other measures, such as engineered or special design systems, at the discretion of the Town Onsite Sanitary Official.

C. Denial Of Approval

Upon receipt of a completed Site Evaluation report, the Onsite Sanitary Official may deny approval of the Site Evaluation recommendations if:

- The proposed system would not comply with the approved rules and regulations of the Town.
- The proposed system location is compromised by an encumbrance.
- The report contains false information.

D. Site Evaluation Report Requirements

The following items shall be included in the Site Evaluation Report:

- Assessor's parcel map, which may be acquired at the Butte County Assessor's office.
- Preliminary site development plan, drawn to scale, including:

  a. Parcel size: The map must include dimensions of parcel and any easements on the parcel.

  b. Topography: Topographic map of the parcel at a scale of one inch equals fifty feet (1"=50') and two foot contours or greater.

  c. Surface waters: All ponds, intermittent streams, perennial streams, and springs must be located accurately.

  d. Landslides or unstable soils: Areas that appear to be unstable should be checked by an engineering geologist or civil engineer to determine if the presence of an absorption field will cause mass movement.

  e. Existing and proposed wells located within 100 feet of the proposed absorption fields (initial and replacement).

  f. Encumbrances such as easements, roads, rock outcrops, etc.

g. Escarpments and large cuts (See Figures 1.1 and 1.2).

h. Soil test hole locations

i. Proposed and existing developments

j. Utilities such as water mains, gas lines, power lines, etc.

- Description of soil and groundwater conditions on the site.

a. Soil profiles: A minimum of two soil profiles taken from soil test pits shall be described. The pits should represent the soils in the initial and replacement area. The test pits should be a minimum of twenty-four inches wide by four feet long by seven feet deep and easily exited by a person. If pits are dug by hand, they should be deep enough to examine the soil to a depth of seven feet.

Minimum observation of the soils are:

- Thickness of each major horizon
- Texture based on USDA definition of textural classes
- Structure
- Color
- Presence of roots, pores, clay skins
- Mottles (low and high chroma)
- Estimates of permeability

All of these soil features are defined in Appendix A.

b. Soil permeability: Often the observations made in the soil profile descriptions will be adequate to assess permeability for a single family dwelling. Where the soil permeability is in question, soil percolation tests shall be required. For very sensitive sites, soil absorption tests shall be needed (see Appendix C for guidelines).

c. Soil underlain by saprolite: Saprolite is material that can be textured, crushed, or broken with hand pressure. If there are clay films or iron coatings with moist values of five or less and moist chromas of four or more, and/or organic coatings with moist values of three or less and moist chromas of three or more occurring on fracture surfaces, then saprolite will be considered soil. Where the material does not meet the above criteria, it shall be treated as fractured bedrock.

d. Presence of saturated soil: The maximum height of a water table shall be noted. Often the presence of a water table can be detected by soil mottles. However, mottling in the soils of Paradise can understate the maximum level of water table. High levels of oxidized iron, long periods between periods of high

rainfall, and high levels of oxygen in the soil water prevent mottles from being as prominent as they are in other soils. For those sites suspected of having a seasonal water table and having unmottled soil, or on sites located in identified areas of high groundwater, monitoring of the water levels will be required (see Appendix B).

The type of water table needs to be determined. Most of the sites in Paradise with drainage problems have temporary high water tables. Typically, they are perched on a clay pan or bedrock and are not used for domestic purposes. If there is an aquatard (bedrock, clay layer) which prevents waters leaving an absorption field from entering an aquifer used for domestic purposes, it is considered temporary. A perched water table must last longer than a continuous two-week period. Anything less than two weeks is considered insignificant.

Table 13.04.120

STANDARDS FOR LOCATION AND PLACEMENT OF SEWAGE DISPOSAL SYSTEMS

Minimum Horizontal Distance Required from	Septic Tank (feet)	Leaching Trench (feet)
Building or structure	5[1]	5[1]
Roadway setback	20[3]	20[3]
Private water well	50	100
Public water well	100	100
Lake, reservoir or other water impoundment	50[4]	200[4]
Groundwater drainage system such as french drain, curtain drain, etc.	25[5]	50[5]
Spring, seep, lava outcropping	50	50 to 100
Intermittent and perennial stream, irrigation ditch or other perennial watercourse	50[2,4,9]	100[2,4,9]
Ravine, drainageway or ephemeral stream	50[2,4]	50[2,4]
Leaching trench	1	10
Swimming pool	5	5
Water line	5	5
Water main	10	10
Driveway or parking area	0[7]	0[8]
Cut bank or fill	10	Four times height of cut or fill[6]
Surface storm-drainage pipe	5[5]	25[5]

Notes for Table 13.04.120:

1. Including porches and steps whether covered or uncovered, breezeways, roofed patios, carports, covered walks, covered driveways and similar structures or appurtenances.

2. Culverting these drainageways will not be allowed to reduce these setback requirements.

3. Greater or lesser distances are required depending on the size of right-of-way.

4. Distance from high waterline of a ten-year recurrent storm.

5. Greater or lesser distances may be required depending on site characteristics.

6. Four times the height of the bank, measured from the top edge of bank (with a one-hundred-foot maximum distance).

7. Only if access is provided and minimum one-foot cover is provided.

8. Only if percolation rate is under thirty minutes per inch.

9. Two-hundred-foot sewage disposal setback required for property within the Middle and Upper Honey Run Basins, as described in the Wastewater Management Study of 1983.

10. Intermittent, perennial, ephemeral streams as described on page 9 of the Paradise Master Storm Drainage Study (1980).

(Ord. 219 §2(part), 1992)

ARTICLE III. NEW OR EXISTING SYSTEMS ON EXISTING LOTS

13.04.200 Applicability requirements of the on-site manual. The installation of new sewage disposal systems upon existing parcels and/or the alteration of existing sewage disposal systems located upon existing parcels shall be subject to all applicable provisions and regulations established within the town adopted on-site manual and this chapter. (Ord. 219 §2(part), 1992)