

**CEQA Initial Study and Mitigated Negative Declaration
For
HUMBOLDT RESERVE, LLC
PLN-2022-17649
Assessor Parcel Numbers 204-121-005; 204-121-006; and 204-251-001**

Proposed Commercial Cannabis Cultivation Facilities

Lead Agency:

Humboldt County Planning Department
3015 H Street
Eureka, CA 95501

Prepared By:

NorthPoint Consulting Group, Inc.
1117 Samoa Blvd.
Arcata, CA 95521
(707) 798-6438

In Consultation with:

Humboldt Reserve, LLC
4798 HWY 36
Hydesville, CA 95547

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Cultivation and Operations Manual (NorthPoint Consulting Group, Inc., December 2022)

APPENDIX 2

- A. Botanical Report of Special Status Native Plant Populations and Natural Communities (Naiad Biological Consulting, September 2022)
- B. Biological Reconnaissance and Project Feasibility Assessment Report (Naiad Biological Consulting, September 2022)
- C. Road System Assessment Report (NorthPoint Consulting Group, Inc., February 2022)
- D. Cultural Resources Investigation Report for Commercial Medical Cannabis Cultivation for Humboldt Reserve, (William Rich and Associates, April 2022) – *on file with Humboldt County Planning and Building Department*
- E. Noise Source Assessment and Mitigation Plan (NorthPoint Consulting Group, Inc., February 2022)
- F. Humboldt Reserve, LLC - Anticipated Noise Modeling Memorandum (NorthPoint Consulting Group, Inc., May 2023)
- G. Phase I Environmental Site Assessment Report (Freshwater Environmental Services, May 9, 2022)
- H. Phase II Environmental Site Assessment Report (Freshwater Environmental Services, May 25, 2022)
- I. Septic Suitability Study (NorthPoint Consulting Group, Inc., December 2022)
- J. Humboldt Redwood Company Substation Memo (Jacobson Engineering, December 2022)
- K. Web Soil Survey Soil Type Map (Natural Resources Conservation Service, Web Soil Survey, January 2023)
- L. CalEEMod Analysis for Humboldt Reserve, Cannabis Project (NorthPoint Consulting, May 2023)

- M. Limited Scope Geohazard Assessment (NorthPoint Consulting Group, May 2023)
- N. Existing and Proposed Site Views for the Humboldt Reserve, LLC Cannabis Project (NorthPoint Consulting Group, May 2023)
- O. Plan for Adaptive Reuse of Developed Industrial Site Memorandum (NorthPoint Consulting Group, Inc., February 2022)

ACCRONYMS AND ABBREVIATIONS

ADA	American Disabilities Act
BACT	Best Available Control Technology
BMPs	Best Management Practices
BPTC	Best Practicable Treatment or Control
CalEEMod	California Emission Model (CalEEMod® Version 2023)
CAP	Climate Action Plan
CARB	California Air Resource Board
CBC	California Building Code
CCAC	California Clean Air Act
CCLUO	Commercial Cannabis Land Use Ordinance – Inland
CDFW	California Department of Fish and Wildlife
CDPR	California Department of Pesticide Regulation
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGP	Construction General Permit
CNEL	Community Noise Equivalent Level
CNNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPA	Community Planning Area
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
DCC	Department of Cannabis Control
DWR	Department of Water Resources
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
ISMND	Initial Study / Mitigated Negative Declaration
MSDS	Material Safety Data Sheets
NCAB	North Coast Air Basin
NCRWQCB	North Coast Regional Water Quality Control Board
NCUAQMD	North Coast Unified Air Quality Management District
PALCO	Pacific Lumber Company
PG&E	Pacific Gas and Electric Company
PM ₁₀	Particulate matter with a diameter of 10 micrometers or less
Proposed Project	Describes the components of this project, described specifically starting on Page 3
Proposed Project Area	Bounds of development associated with the Proposed Project
Proposed Project Site	Bounds of three (3) APNs, comprising one legal parcel, associated with the Proposed Project
RCEA	Redwood Coast Energy Authority
SIUR	Small Irrigation Use Registration
SMA	Streamside Management Area
SMP	Site Management Plan
Sq. ft.	Square feet
SAA	Streambed Alteration Agreement
SRA	State Responsibility Area
STX	Stream Crossing
SWPPP	Stormwater Pollution Prevention Plan

SWRCB	State Water Resources Control Board
USFWS	US Fish & Wildlife Service
USGS	United States Geological Survey
WDID	Waste Discharge Identification

1. Background

- 1. Project Title:** Humboldt Reserve, LLC Cannabis Project - Conditional Use Permit for 5.39 acres of enclosed indoor cannabis cultivation, 1.01 acre of enclosed indoor commercial nursery, and 2,400 square feet (sq. ft.) of distribution space on one legal parcel comprised of Assessor Parcel Numbers (APNs) 204-251-001, 204-121-006, and 204-121-005 on a historic mill site near Hydesville, located in the unincorporated area of Humboldt County, California.
- 2. Lead Agency Name and Address:** Humboldt County Planning & Building Department, 3015 H Street, Eureka, CA 95501-4484; Phone: (707) 445-7541; Fax (707) 445-7446
- 3. Contact Person and Phone Number:** Steven Santos, Planner; (707) 445-7245; fax: 707-445-7446; email: sasantos@co.humboldt.ca.us
- 4. Project Location:** The project site is located at 4798 Highway 36 in Hydesville, CA, 95547, on one legal ±32-acre parcel comprised of APNs 204-251-001, 204-121-006, and 204-121-005 (Sections 21 and 28, Township 2 North, Range 1 East, Humboldt Base and Meridian). The project within the Hydesville USGS 7.5-minute quadrangle. To reach the site from Eureka, travel south on US-101 for approximately 20 miles, past the city of Fortuna, to Exit 685 for California State Highway 36 East. After about 4.6 miles, the project site driveway will be on the right.
- 5. Project Sponsor's Name and Address:**

Applicant	Property Owner	Agent
Humboldt Reserve, LLC 4798 HWY 36 Hydesville, CA 95547	Lost Coast Organics, LLC 4798 HWY 36 Hydesville, CA 95547	NorthPoint Consulting Group, Inc. 1117 Samoa Blvd. Arcata, CA 95521

- 6. General Plan Designation:** Mixed Use (MU)
- 7. Zoning:** Heavy Industrial (MH/MH-Q)
- 8. Project Site:** The project site is located at 4798 Highway 36 in Hydesville, CA, 95547, on one legal parcel comprised of APNs 204-251-001, 204-121-006, and 204-121-005, approximately 0.5-miles west of the community of Carlotta (Figure 1).

The parcel is approximately 31.69 acres in size. The parcel was historically used for logging and milling operations and is a highly disturbed gravel-filled flat with slopes ranging from 0% to 5%. A railroad easement runs centrally through the parcel between APN 204-121-005 and APNs 204-251-001/204-121-006 (See Appendix 1 – Site Maps). Elevations on the parcel range from approximately 115 to 130 feet above sea level. The property contains approximately 16 acres of Prime Agricultural Soils, per Humboldt Web GIS.

The parcel is located in the South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803), which is located within the greater Van Duzen River watershed. The Van Duzen River drains into the Pacific Ocean via the Eel River. Ward Creek, a perennial (Class I) watercourse flows along the western property boundary. No other streams are located on the property. Yager Creek, a Class I watercourse, is located approximately 500 feet east of the eastern property boundary. Mapped wetlands were identified within the

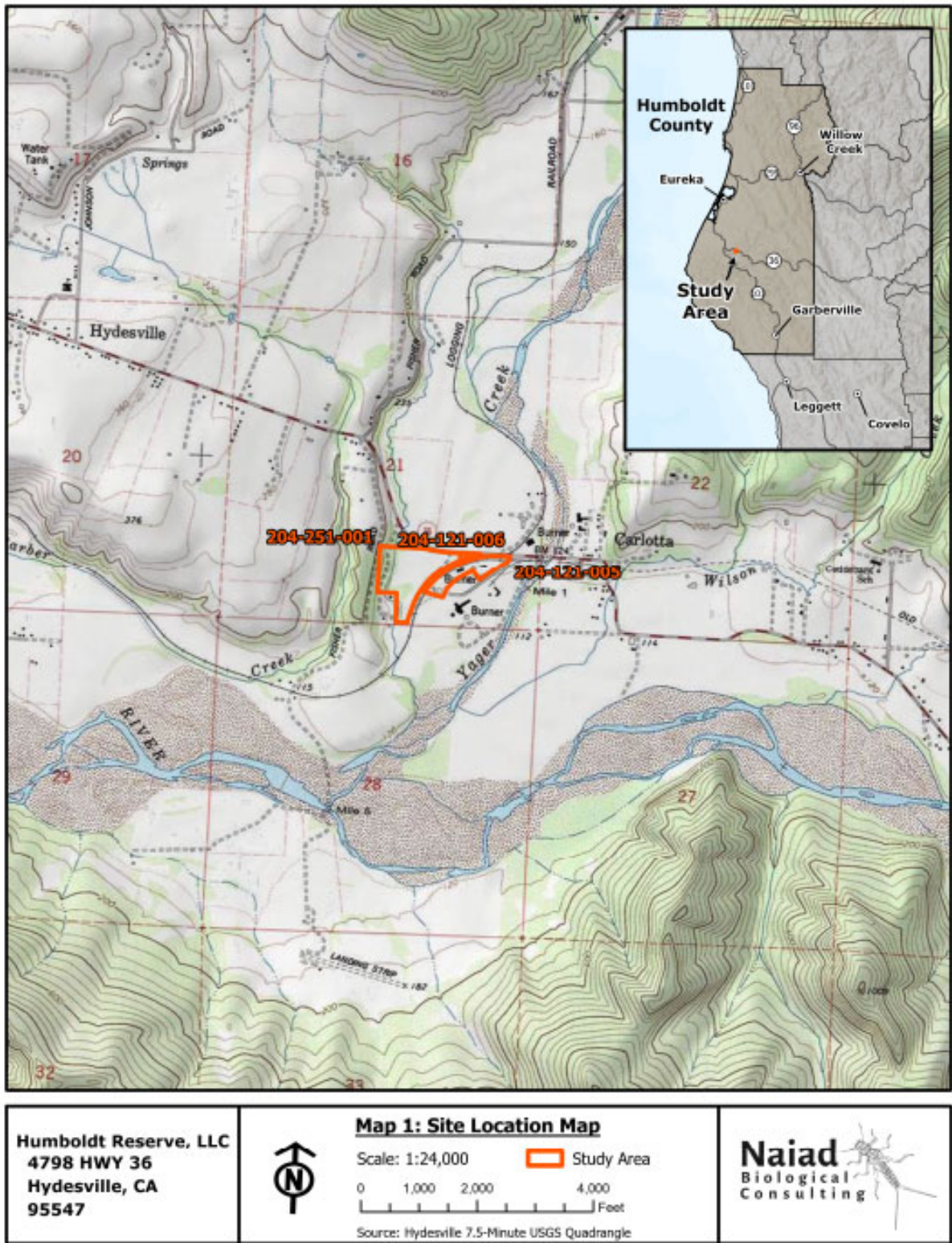


Figure 1. Proposed Project Vicinity; note that “Study Area” in this map denotes the Proposed Project Property (Source: Biological Resource Assessment, Naiad Biological Consulting, 2022)

riparian corridor of Ward Creek, near the western property boundary. No mapped or potential wetlands were identified within the Proposed Project Area. The Proposed Project, described below, would be located outside of all setbacks from watercourses and riparian buffers.

The site is located within the Hydesville-Carlotta Community Planning Area (CPA). The parcel is located outside of the Coastal Zone and outside of the mapped FEMA 100-year flood zone. The western portion of APN 204-251-001 is designated as Prime Agricultural Soils. The parcel is located within the Fortuna Fire Protection District and within the CALFIRE State Responsibility Area (SRA). The property is not under a Williamson Act Contract.

The property was previously used for milling and quarry operations and was under ownership of various operators throughout the majority of the 1900s. The parcels were part of the larger Pacific Lumber Company (PALCO) Carlotta Sawmill, which was in operation from approximately the 1930s/1940s to the 1970s/1980s. The PALCO sawmill included a log deck, lumber storage yard, two (2) conical burners, shipping yard, fueling area, oil house, sawmill equipment, millwright shop, electrician shop, truck shop, equipment boneyard, and a rock processing/crushing area (Appendix 2G and 2H).

Existing onsite infrastructure includes a 60' x 80' metal building, a 13' x 37' trailer (to be removed), two shipping containers (to be removed), and an un-used residence, which is unrelated to the proposed cannabis project. An existing, unpermitted well is located near the 60' x 80' building on APN 204-251-001, located at approximately latitude/longitude 40.535751°, -124.070741°. This well is unrelated to the cannabis cultivation operation and is not proposed to be used for any component of the Proposed Project.

The property is zoned Heavy Industrial (MH/MH-Q) and has a general plan land use designation of Mixed Use (MU). The MH-Q-zone is a Qualified Combining Zone ("Q-zone") that applies to a portion of APN 204-251-001 (Figure 3 and Figure 4). The Q-Zone was adopted on December 16, 1986, with the approval of Ordinance No. 1771, which amended Section 313-4 of the Humboldt County Code to restrict principally permitted uses on the property. The Q-Zone allows General Agriculture as a principally permitted use and does not impact this Conditional Use Permit application.

- 9. Description of Project:** Humboldt Reserve, LLC is seeking a Conditional Use Permit for indoor commercial cannabis cultivation, enclosed indoor commercial nursery, and distribution activities in accordance with the Commercial Cannabis Land Use Ordinance (CCLUO). A summary is provided in Table 1.

Specifically, the "Proposed Project" includes the following discretionary activities (Appendix 1 – Site Maps):

- 5.39 Acres (235,008 sq. ft.) of Enclosed Indoor Commercial Cannabis Cultivation in three (3) proposed commercial buildings (47,520 sq. ft. in Building 1, 47,520 sq. ft. in Building 2, and 139,968 sq. ft. in Building 3);
- 1.01 Acres (44,064 sq. ft.) of Enclosed Indoor Commercial Nursery in three (3) proposed commercial buildings (8,640 sq. ft. in Building 1, 9,504 sq. ft. in Building 2, and 25,920 sq. ft. in Building 3); and
- 2,400 sq. ft. of Distribution activities in the existing onsite 60' x 80' building and proposed 40' x 60' expansion.

The "Proposed Project" also includes the following appurtenant activities and development (Appendix 1 – Site Maps, Cultivation and Operations Manual):

- 4,800 sq. ft. of ancillary processing area (for product cultivated onsite) in the existing onsite 60' x 80' building and proposed 40' x 60' expansion;
- 25,920 sq. ft. of ancillary drying (for product cultivated onsite) and storage area in three (3) proposed buildings (5,184 sq. ft. in Building 1, 5,184 sq. ft. in Building 2, and 15,552 sq. ft. in Building 3);

- Rainwater catchment infrastructure and storage for irrigation water, including construction of a proposed ±3,120,000-gallon rainwater catchment pond (approximately 73,695 sq. ft. surface area) and installation of rainwater catchment infrastructure on existing and proposed buildings;
- Exclusive rights to a Pacific Gas and Electric (PG&E) substation located on APN 204-231-002 and owned by Humboldt Redwood Company for the project’s electrical demand;
- One compost area;
- 74 parking spaces, including a minimum of two (2) ADA spaces for employees;
- Two (2) 2,500-gallon SRA-compliant tanks with risers for fire protection;
- Septic system associated with the existing and proposed buildings; and
- Maintenance of site drainage infrastructure.

With all improvements included, the Proposed Project would comprise approximately 8.7 acres, or 381,087 sq. ft., of existing disturbed area on the 31.69-acre former mill site parcel.

Table 1: Proposed Discretionary Cannabis Activities and Associated Locations

<i>Table 1. Proposed Discretionary Cannabis Activities and Associated Locations</i>			
<u>Location</u>	<u>Indoor Cannabis Cultivation (sq. ft.)</u>	<u>Enclosed Commercial Nursery (sq. ft.)</u>	<u>Distribution (sq. ft.)</u>
<p> Building 1 (61,344 sq. ft.)	47,520	8,640	-
<p> Building 2 (62,208 sq. ft.)	47,520	9,504	-
<p> Building 3 (181,440 sq. ft.)	139,968	25,920	-
<e> 60’ x 80’ Processing Building w/ <p> 40’ x 60’ expansion (<e> 4,800 sq. ft., <p> 7,200 sq. ft.)	-	-	2,400
Totals	235,008 sq. ft. (5.39 acres)	44,064 sq. ft. (1.01 acres)	2,400 sq. ft. (0.06 acres)

Access/Parking: The Proposed Project site is accessed off of California State Highway 36. Two driveways access the subject property. The westernmost driveway is a paved access with a 48-ft. apron and a 24-ft. road width. This access driveway is the primary entrance, proposed for traffic associated with the project. The eastern driveway is used for secondary access and is approximately 23 feet in width. The eastern driveway is not proposed as a main access point for this project.

The onsite road network is graveled and extremely flat. A Road System Assessment was conducted by NorthPoint Consulting Group, Inc. in February of 2022 (Appendix 2C) and concluded that the entire onsite road network is functionally equivalent to a Category 4 Road Standard. The entire onsite road network is in good condition and is comprised of existing gravel and natural-surface roads. No improvements to the onsite road network were prescribed in the Road System Assessment.

Fire turn-around areas are proposed near the cultivation areas. 74 parking spaces, including 2 ADA-compliant parking spaces, would be located near the proposed buildings (Appendix 1 – Site Maps).

Description of Proposed Activities: The 5.39 acres of indoor cannabis cultivation would occur within enclosed buildings and would be cultivated primarily with artificial lighting supplemented by natural lighting

to produce up to six (6) flowering canopy cycles per year. Cultivation would occur within three (3) enclosed commercial buildings with lighting installed at approximately 26 watts per square foot. The buildings would be designed with semi-transparent roofs to allow natural light to supplement artificial lighting at certain times of year, if desired. Buildings would be outfitted with odor control mechanisms, including carbon filtration and mechanical ventilation controls, to ensure cannabis activities were fully enclosed, per the CCLUO, and would be designed with interior automated black-out coverings that prevent light from escaping (Appendix 1 – Cultivation and Operations Manual).

Cultivation would occur using a hydroponic system consisting of rolling benches. All irrigation runoff would be captured within the hydroponic system, piped to recapture tanks within the buildings, sterilized by in-line ultraviolet light radiation, and then recirculated back through the system. The hydroponic system would be automated on timers.

Plants ready for harvest would be cut and hung in the ancillary dry space located within each building (Appendix 1 – Site Maps). Drying would take approximately one to two weeks. Dried plants would be transferred to the proposed processing area within the 7,200-sq. ft. metal building. Plants would hand-trimmed or trimmed using a trimming machine. In lieu of drying, product could also be fresh-frozen and taken off-site for further processing and manufacturing.

The 1.01 acres of indoor nursery cultivation would occur within enclosed structures and would be irrigated and cultivated in methods like the mature cultivation plants described above. The enclosed commercial nursery would function as a Cannabis Support Facility, providing clone and juvenile plant deliveries and pickups to local cultivators. The commercial nursery would not be open to the public for a storefront-type commercial nursery (Appendix 1 – Cultivation and Operations Manual).

Distribution activities would occur within 2,400 sq. ft. of the proposed 7,200-sq. ft. metal building. Activities would include procurement of cannabis from licensed cultivators, packaging of cannabis products, and/or transportation of product to and from other licenses within the cannabis market. The proposed onsite distribution activities would also serve as a Cannabis Support Facility (Appendix 1 – Cultivation and Operations Manual).

Cultivation, commercial nursery, and distribution activities would occur year-round. Drying and processing activities would occur in concert with harvests from the flowering cultivation, up to six (6) times per year (Appendix 1 – Cultivation and Operations Manual; See Activities Schedule).

No testing, quality assurance, manufacturing, or other activities are proposed as part of this project.

Number of Employees: A total of 25 full-time, year-round employees are proposed to operate the site, including five (5) managers, two (2) security personnel, and 18 laborers. An additional 49 seasonal laborers are proposed during peak seasonal activities (e.g., harvesting, processing). Seasonal laborers would be onsite no more than 6 months per year. In total, up to 74 personnel would be located onsite during peak season at full build-out.

Hours/Days of Operation: Activities associated with the proposed cultivation would typically occur seven days a week during daylight hours of 7 AM to 8 PM. This includes automated watering, transplanting, harvesting, drying, etc. Commercial nursery, processing, and distribution activities would occur between 7 AM to 6 PM.

Water Source, Storage, and Use: Water for irrigation would be sourced from rainwater catchment and reclaimed water from dehumidifiers installed in the proposed buildings. The total irrigation demand for the

Proposed Project is expected to be approximately 4.2 million gallons annually, including approximately 600,000 gallons for the commercial nursery and 3.6 million gallons for the cannabis cultivation. Irrigation would occur year-round and would total approximately 350,000 gallons per month (Table 2).

Table 2: Estimated Annual Irrigation Water Usage (1,000 Gallons)

Table 2: Estimated Annual Irrigation Water Usage (1,000 Gallons)													
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
<u>Nursery</u>	50	50	50	50	50	50	50	50	50	50	50	50	600
<u>5.39 Acres Cultivation</u>	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Total	350	350	350	350	350	350	350	350	350	350	350	350	4,200

Captured rainwater would serve as the primary water source, supplying approximately 60% of irrigation demand, and reclaimed water from dehumidifiers would serve to supplement rainwater and supply 40% of the irrigation demand. Rainwater would be collected from roofs of structures and conveyed into a proposed 3.21-million-gallon capacity rainwater catchment pond, which would also collect and store rainwater. In addition, a minimum of 30 dehumidifier units would capture condensed water and convey it to the fertigation system. Dehumidifier units would be Quest Therma-Star TR 3900 models, or similar, and would be installed directly in the buildings. These units have the potential to capture approximately 12 gallons of water per hour, or 3,900 gallons per day. Using 30 units, this corresponds to approximately 140,000 gallons per month, or approximately 1.68-million gallons of water annually (Appendix 1 – Cultivation and Operations Manual). More dehumidifiers may be added as needed.

Table 3: Irrigation Demand Breakdown by Water Source

Table 3: Irrigation Demand Breakdown by Water Source		
<u>Water Source</u>	<u>Estimated Annual Water Volume from Water Source</u>	<u>Percentage of Irrigation Demand</u>
<u>Rainwater Catchment</u>	2,520,000	60%
<u>Reclaimed Water from Dehumidifiers</u>	1,680,000	40%
Total	4,200,000	100%

The total rainwater collection potential, including surface areas of the pond and buildings, is approximately 73,695 square feet (sq. ft.). During an average rainfall year of 44 inches, the total catchment area would have the potential to collect 10,124,000 gallons of water, more than the 2,520,000-gallon irrigation demand from rainwater catchment and in excess of the total irrigation demand of 4,200,000 gallons. During an extreme drought year of 17 inches, the catchment area would be able to capture approximately 3,839,698 gallons of water, more than the 2,520,000-gallons of water from rainwater catchment. The extreme drought calculation was based off of the rainfall year 2013, which was the lowest rainfall year at the project site in the last 120 years (Appendix 1 – Cultivation and Operations Manual).

In both an average and extreme drought years, accounting for evaporation and a variety of pond volumes, using a minimum of 30 dehumidifiers, the project at full build-out would have sufficient water supply (Appendix 1 – Cultivation and Operations Manual).

Non-irrigation water for employees would be sourced from the rainwater catchment or drinking water brought to the site. Based on the Humboldt County Onsite Wastewater Treatment System (OWTS) Regulations and Technical Manual (2017), workers use approximately 15 gallons of water per day. Therefore, water for

employees at full build-out is expected to be approximately 269,175 gallons, based on usage from 25 employees year-round and 49 employees for up to six months per year. The pond is capable of supplying this water for employees (Appendix 1 – Cultivation and Operations Manual).

Traffic: Construction is proposed to be phased out over a minimum of five (5) years (see Construction Timeline, below). A period of approximately 10 weeks each year is expected for construction activities, on average. It is estimated that 10-15 personnel on average would be needed for construction activities. During this period, it is expected that construction personnel would make two (2) trips per day to the site, resulting in 20-30 trips per day. In addition, three truck deliveries per day from dump trucks or materials delivery trucks are expected, for a total of six (6) trips per day for deliveries. On average, a total of 26 to 36 trips per day are anticipated during the construction period. Larger equipment would be mobilized once at the beginning of the construction period, and out at the end of the construction period.

During operation, at full build-out, the Proposed Project would result in an average of 102 trips per day. This includes an annual average of 99 trips per day from employees. Although daily trips would vary during the time of year, this calculation was based off of the average of two (2) daily trips for each of the 25 employees, year-round, and two (2) daily trips for each of the 49 additional employees, up to six months annually. Distribution activities would result in an average of twelve (12) deliveries (24 trips) per month, or 1 additional average daily trip rounded up. Nursery activities would result in an average of 24 deliveries (48 trips) per month, or two (2) additional average daily trips rounded up.

Electrical Service and Generator Use: The Proposed Project would use an existing Pacific Gas & Electric (PG&E) electrical service through a substation leased by the applicant. The substation is located on APN 204-231-002, approximately 0.25 miles north of the subject parcel. The substation is owned by Humboldt Redwood Company and leases exclusive power rights to the applicant.

Electricity would be required for cultivation (hydroponic system and lights), nursery, drying, and processing activities, security, and water infrastructure. Equipment for the project includes lighting, dehumidifiers, fans, HVAC, and small irrigation pumps, security system, and miscellaneous equipment. Considering all equipment, the total demand for the project is expected to be approximately 7.86 MW at full project build-out. The substation can supply approximately 9.37 MW of power and thus can supply adequate electrical power to the proposed project (Appendix 2J).

The Redwood Coast Energy Authority (RCEA) Repower + plan (or similar) would be utilized through PG&E to ensure all energy required for the project is sourced from 100% renewable energy.

An onsite generator would be kept for backup purposes only. A 150-kW Generac Protector (or similar) generator would be onsite. Use would be limited to power outage events and would follow all guidelines set by Humboldt County and the State of California. Enough fuel would be stored onsite to provide minimal power, to keep basic operations running for up to 5 days, based on generator specifications. The generator would be located away from the property line to ensure the noise level does not exceed 50 decibels at the nearest tree line or property boundary, whichever is closest.

Regulated Products: The Proposed Project would utilize agricultural chemicals during cannabis cultivation, including fertilizers, nutrients, soil amendments, pesticides, fungicides. Fertilizers, nutrients, and soil amendments anticipated to be used include FloraBloom Advanced Nutrient System, Flora Micro, FloraGRO Advanced Nutrient System, Regalia Fungicide, Earth Juice Rainbow Mix Pro Grow/Bloom, General Hydroponics Grow, oyster shell, gypsum, lime, dolomite, azomite, compost, and worm castings. Other legal fertilizers, nutrients, and soil amendments similar to the above or allowable under regulations could also be used during operations. Pesticides anticipated to be used include sulfur products, neem oil and other plant oils (e.g., garlic, cottonseed, corn, clove, etc.), AzaGurad, Regalia Biofungicide, and biological controls

(Appendix 1 – Cultivation and Operations Manual). All agricultural chemicals would be properly stored in accordance with the County Agricultural Commissioner, the California Department of Pesticide Regulation (CDPR), and the Cannabis General Order No. WQ 2019-0001-DWQ (General Order). Material Safety Data Sheets (MSDS) for each chemical would be kept onsite and accessible to employees. Agricultural chemical application rates would be administered in accordance with manufacturer guidelines, and all applications would be tracked as required by regulating agencies.

Petroleum products, including gasoline and diesel, are currently stored onsite to maintain prior and existing onsite activities (e.g., to power tools, equipment, etc.). Petroleum products associated with onsite power tools and equipment would include gasoline and diesel stored in small-quantity sealed containers (e.g., 5-gallon gas cans). Up to 1,000 gallons of diesel would be kept onsite to power the 150-kW emergency generator in the event of a power outage. All petroleum products would be stored within secondary containment.

Lighting and Signage: Artificial lighting for the indoor cultivation would occur within the proposed buildings, and no light would escape. This would ensure that light does not disturb wildlife, neighboring parcels, and that lighting complies with International Dark Sky Association Standards. If structures have transparent roofs, an automated blackout tarp would be employed such that no light could escape between sunrise and sunset. All Proposed Project lighting would be designed and located so that it is confined to the property and that there is no spillover to adjacent properties. All signage would be in conformance with Humboldt County Code Section 314-87.2, unless otherwise permitted.

Site Drainage, Runoff, and Erosion Control: Humboldt Reserve, LLC will apply for coverage under the State Water Resources Control Board (SWRCB) Cannabis General Order (WQ 2019-0001-DWQ) as a completely enclosed indoor cultivator. If required by the SWRCB, a Site Management Plan would be developed utilizing Best Practicable Treatment or Control (BPTC) measures in accordance with the SWRCB’s recommendations in the Cannabis General Order and Policy. Additional filings, monitoring, and furnishing of supporting documents once the Proposed Project is fully approved and developed would be coordinated with the SWRCB.

During construction and operation, Best Management Practices (BMP) would be put into place such as not to disturb natural resources onsite and to minimize erosion and sedimentation. A Conceptual Grading and Erosion Control Plan has been developed for site grading and construction. Construction BMP/BPTC Measures, at a minimum, include the following applicable measures:

- Equipment, materials, fuels, lubricants, and/or solvents must be stored outside of riparian setbacks.
- All stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively scheduled for use within 48 hours or being used must be covered and bermed.
- Erosion prevention and sediment capture measures must be implemented within seven (7) days after completion of grading and land disturbance activities. Erosion prevention measures may include surface contouring, slope roughening, and upslope storm water diversion, in addition to mulching, hydroseeding, tarp placement, revegetation, and rock slope protection. Sediment capture measures include the implementation of gravel bag berms, straw bale barriers, fiber rolls, properly installed silt fences, and sediment settling basins.
- All loose construction materials, including soils, waste materials, etc., must be properly contained using berms, straw wattles, and/or tarps as needed.
- Fill soil must not be placed where it may discharge into surface water; all fill must be stabilized outside of riparian setbacks.
- Construction must be conducted outside of the rainy season, if feasible. Existing riparian vegetative cover (e.g., tree, shrubs, and grasses) must be maintained.
- Linear sediment controls (e.g., wattles) must be applied along the toe of the slope, face of the slope, and grade breaks of exposed slopes to comply with sheet flow length after construction of the pond,

prior to the winter season. Sheet flow lengths are not to exceed 20 feet for 0-25% slopes, 15 feet for 25- 50% slopes, and 10 feet for greater than 50% slopes.

Operational BPTC Measures, at a minimum, include the following applicable measures:

- All cannabis amendments, including fertilizers and nutrients, must be covered, stored indoors, and kept within secondary containment.
- Monitoring must occur of existing erosion control measure during and after each storm event that produces at least 0.5 inches per day or 1.0 inch per seven days of precipitation, and repair or replace any ineffective measures immediately.
- Plumbing inspections must be conducted on a weekly basis, at a minimum, to inspect for leaks in mainlines, materials, or other irrigation emitters and equipment. Outdated or inefficient irrigation system components must be regularly replaced.
- Fertilizers must be applied at agronomic rates consistent with product labeling.
- Prior to the onset of the fall and winter season, onsite culverts must be monitored for function. Any build-up of sediment or debris must be removed.
- Any disturbed bare ground must be stabilized prior to the winter season to prevent discharge of sediment to waters of the state.

All existing stormwater features onsite, including ditches and an existing 24-inch stormwater drainage pipe, would continue to be maintained.

The Cannabis General Order has construction BPTCs built into it for typical cannabis cultivation sites, which may be sufficient to cover the construction activities associated with the Proposed Project (including the construction of the pond, the buildings, and the new wastewater treatment system). However, the Cannabis General Order states that “facilities with larger disturbed areas are inherently a higher threat to water quality and are subject to additional regulatory oversight” (Cannabis General Order, Condition 11). If it is determined by the regulatory agency that construction activities proposed in the Project are outside the scope of the cannabis-specific Waste Discharge Requirement (WDR), which is possible for a project of this scale, then the applicant may be required to obtain a Construction General Permit (CGP) under the Construction Stormwater Program, per the Construction General Permit Order 2009-0009-DWQ. This will occur in concert with and at the discretion of the North Coast Regional Water Quality Control Board (NCRWQCB) and SWRCB. If required, the CGP would require the preparation of a Stormwater Pollution Prevention Plan (SWPPP). The applicant would work directly with the NCRWQCB to determine the appropriate levels of Waste Discharge Coverage required for the project.

Riparian Habitat, Wetlands, and Water Bodies: The parcel is located in the South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803), which is located within the greater Van Duzen River watershed. The Van Duzen River drains into the Pacific Ocean via the Eel River.

Ward Creek, a perennial (Class I) watercourse flows along the western property boundary. No other streams are located on the property. Ward Creek is a tributary to Yager Creek and eventually the Van Duzen River. The project has been designed to be outside of the 100-foot buffer from the riparian dripline of Ward Creek, per the Humboldt County Streamside Management Area Ordinance, as well as the 150-foot buffer from the top of creek bank, per the SWRCB Cannabis General Order (Figure 13; Appendix 2B). The project is located outside of both of these buffers.

Mapped freshwater wetlands were located inside the banks of Ward Creek. No other wetlands were identified in the vicinity near the Proposed Project Area (Appendix 2B).

No stream crossings exist onsite. The CDFW has been notified of no jurisdictional items onsite, as there are no stream crossings, points of diversion, wetlands, or other items under CDFW jurisdiction proposed in the project area.

Waste & Wastewater System: There is an existing unpermitted septic system that serves the existing onsite residence. A second onsite wastewater treatment system is proposed to serve the Proposed Project needs (Appendix 2I). The proposed leach field and septic tank would be located outside riparian setbacks. An Onsite Wastewater Treatment Suitability Letter (Appendix 2I) designated two areas on the property that would be suitable for proposed leach fields associated with the new system.

The restrooms within the processing facility and within the commercial indoor cultivation buildings, would be designed to meet Americans with Disabilities Act (ADA) standards of accessibility and would include a flushable toilet and a sink with cold and hot running water. Prior to construction, portable toilets and handwashing facilities would be provided onsite and serviced by a licensed provider.

The Proposed Project would generate solid waste in the form of cannabis plant material (e.g., stems, leaves, root balls) and agricultural refuse (e.g., empty containers, packaging, etc.), like other agricultural operations. The Proposed Project would also generate household-related waste, including trash (e.g., food wrappers) and recycling (e.g., bottles, cans). Plant material would be chipped and composted onsite, as feasible. Refuse and recycling would be taken to the Humboldt Waste Management Authority in Eureka once every two weeks or as needed.

Construction: Proposed grading activities would include grading for the pond and ground preparation for the buildings, septic system, and parking area. An engineered grading permit would be submitted to the Humboldt County Building Division for approval prior to commencement of grading activities. Building permits would also be submitted to the Humboldt County Building Division for approval prior to construction activities. Normal means and methods would be used to construct the buildings. A preliminary design has been conducted for the pond (Appendix 1 – Site Maps, Sheets C3-C5, Conceptual Grading and Erosion Control Plan, NorthPoint Consulting Group, May 2023). Approximately 20,000 cubic yards of cut and fill and approximately 2,700 cubic yards of imported material are estimated to be required. All material excavated for pond design would be reintegrated into the pond berm and building foundations; no material is proposed to be hauled offsite.

Construction activities are expected to begin in the summer or fall of 2023 after project approval, with the exact start date dependent on permit timing, dry weather, and suitable soil conditions. Humboldt Reserve, LLC is proposing to stagger construction and build-out over a period of five years, as follows:

Year 1: Construction of pond (as soon as possible after project approval) and begin construction of half of Building 2 (252' x 132').

Year 2: Finish construction of Building 2 and operate, install septic system, and begin construction of Building 1.

Year 3: Continue operating Building 2, finish construction of Building 1 and operate, start construction of processing building addition.

Year 4: Continue operating Buildings 1 and 2, finish processing building addition construction, and start construction of Building 3.

Year 5: Finish construction of Building 3, if applicable, and operate. Project built-out and fully in operation during this year.

The duration of the construction during each year is expected to take approximately 10 weeks. All construction staging areas would be located within the Proposed Project Area, on existing disturbed areas, and outside of all identified wetland and riparian setbacks. During construction, the following dust control measures would be implemented:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered as needed.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. Adjacent public roads shall be kept clean of loose dirt tracked onto the roadways from the construction-site.

10. Surrounding Land Uses and Setting: The Proposed Project is located in between the unincorporated communities of Hydesville and Carlotta off of State Highway 36. Surrounding land uses consist of industrial operations, rural residential housing, agricultural operations, and natural space. The property is zoned Heavy Industrial (MH) and has a General Plan Land Use Designation of Mixed-Use (MU). Surrounding zones include Heavy Industrial (MH), Agriculture Exclusive (AE), Agricultural General (AG), and Timber Production Zone (TPZ). Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed-Use designations.

11. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreements): Locally, permits from the Humboldt County Building Division, Humboldt County Planning Division, and Division of Environmental Health are required. The California Department of Fish and Wildlife (CDFW) was notified of the project through EPIMS and is in process. The applicant will apply applied for coverage under Order No. 2019-0001-DWQ General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (“Cannabis General Order”). Per the North Coast Regional Water Quality Control Board’s (NCRWQCB’s) discretion, a Construction General Permit (CGP) under the Construction Stormwater Program may also be required. Upon approval of the Proposed Project, Humboldt Reserve, LLC would apply for State of California Commercial Cannabis Licenses from the Department of Cannabis Control (DCC).

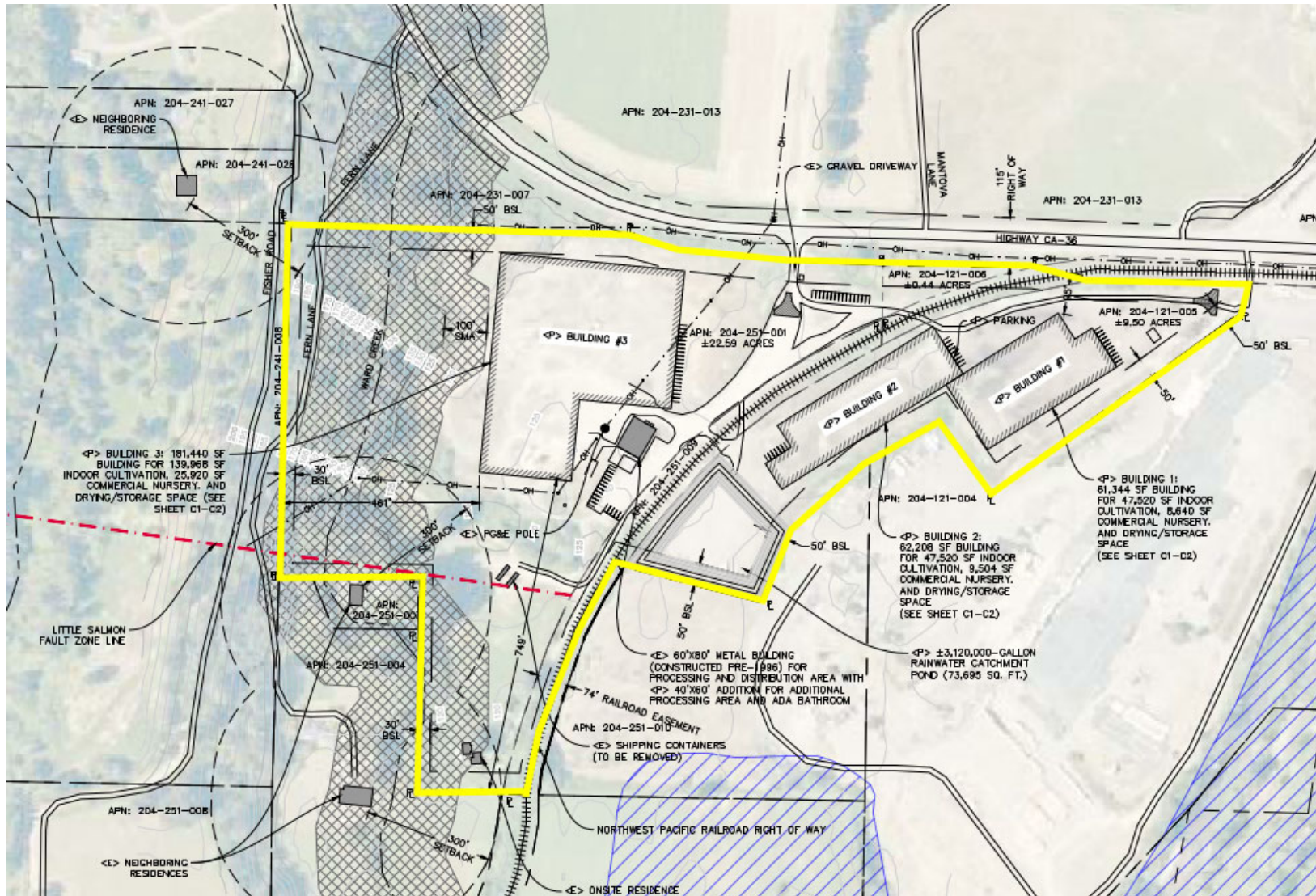


Figure 2: Proposed Project Site Plan - See Appendix 1 for full Plan Set (Source: Site Plans, NorthPoint Consulting Group, Inc., 2023)

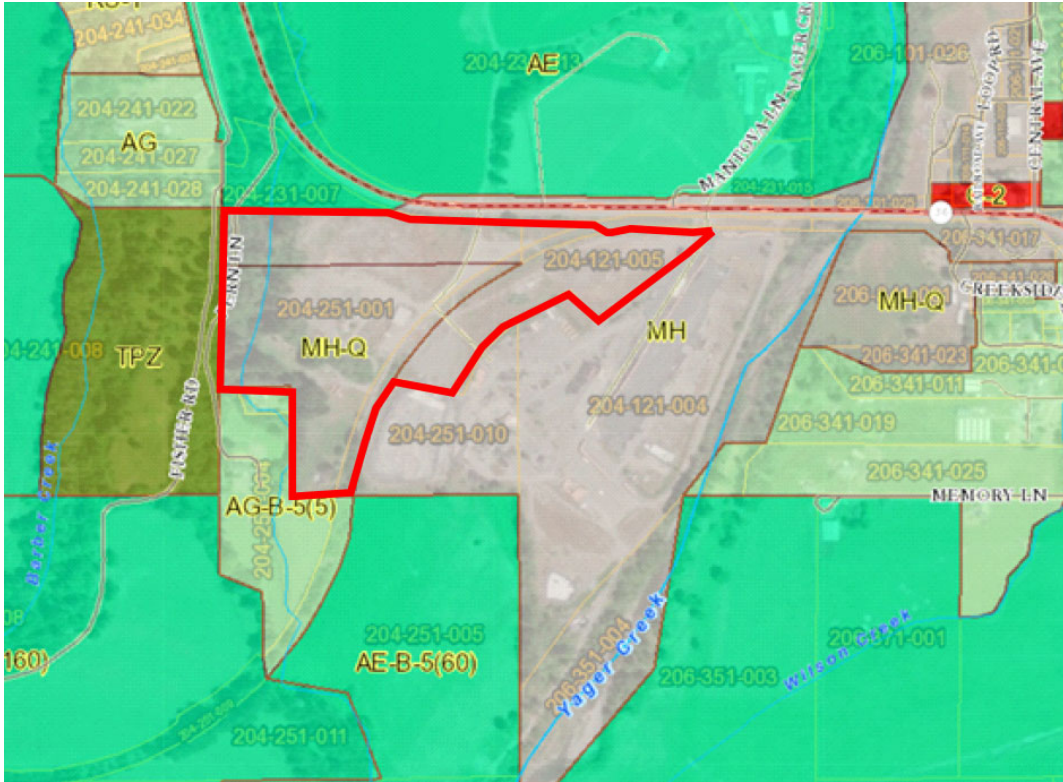


Figure 3: Zoning of Subject Property (in red) and surrounding parcels (Source: Humboldt Web GIS, 2022)



Figure 4: Qualified Combining Zone (MH-Q) Boundary (Source: Humboldt Web GIS, 2022)

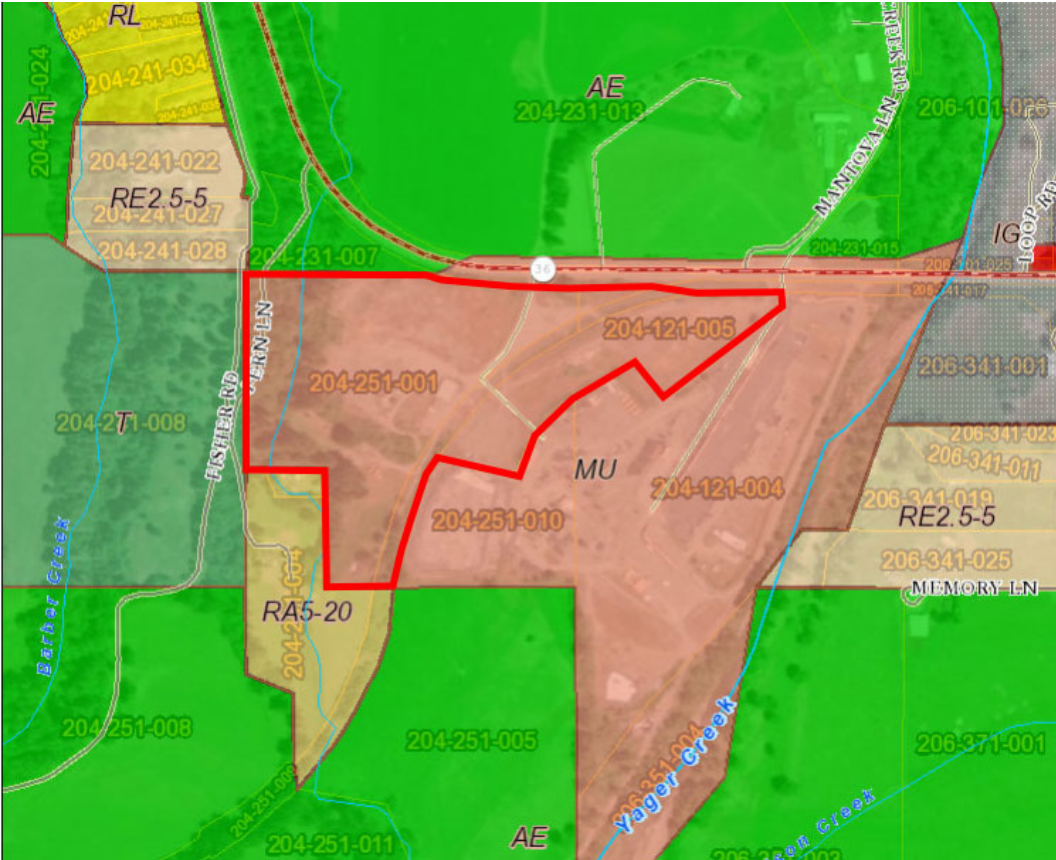


Figure 5: General Plan Land Use Designation of Subject Property (in red) and surrounding parcels (Source: Humboldt Web GIS, 2022)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:


The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic | <input checked="" type="checkbox"/> Tribal Cultural |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings
of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the project COULD have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the project COULD have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.



Signature

June 2, 2023

Date

Steven Santos, Senior Planner

Printed name

Humboldt County Planning & Building Department

For

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 21, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addresses. Identify which effects from the above checklist were within the scope of and adequately analyze in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less Than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plan, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats, however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The explanation of each issue identify:
 - a) The significant criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significant.

1. Introduction

This project-level Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the Humboldt Reserve, Inc. Cannabis Cultivation Project (Proposed Project) to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). The County of Humboldt (County) is the lead agency for this Proposed Project under CEQA. This is a tiered Initial Study off of the programmatic Final Environmental Impact Report (FEIR) prepared for the *Amendments to Humboldt County Code Regulating Commercial Cannabis Activities* (Ascent Environmental, Inc., January 2018) in association with the preparation and adoption of the Commercial Cannabis Land Use Ordinance, adopted by the Humboldt County Board of Supervisors on May 8, 2018. Applicable analyses and Mitigation Measures described in the FEIR apply.

1.1. INITIAL STUDY PURPOSE

CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If the agency finds that the Proposed Project may have a significant impact on the environment, but that these impacts will be reduced to a less-than-significant level through revisions to the project and/or implementation of specific mitigation measures, a Mitigated Negative Declaration shall be prepared.

This IS/MND is a public information document that describes the Proposed Project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the Proposed Project. It is intended to inform the public and decision-makers of the Proposed Project's potential environmental impacts and to document the lead agency's compliance with CEQA and the State CEQA Guidelines.

1.2. REVIEW PROCESS

This IS/MND is being circulated for public and agency review as required by CEQA. Because state agencies will act as responsible or trustee agencies, the County will circulate the IS/MND to the State Clearinghouse of the Governor's Office of Planning and Research for distribution and a 30-day review period.

During the review period, written comments may be submitted to:

Steven Santos
Senior Planner
Planning and Building Department
County of Humboldt
3015 H Street
Eureka, CA 95501
ssantos@co.humboldt.ca.us

2.Environmental Checklist

2.1. EXPLANATION OF INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines Appendix G recommends that lead agencies use an Initial Study (IS) checklist to determine the potential impacts of the Proposed Project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the Proposed Project. This section of the IS incorporates the Appendix G environmental checklist form, contained in the State CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas. There are four possible answers to the checklist questions on the following pages. Each possible answer is explained below:

- A *Potentially Significant Impact* is appropriate if there is enough relevant information, as well as reasonable inferences from that information, that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more of these entries are made, an Environmental Impact Report (EIR) is required.
- A *Less-than-Significant Impact with Mitigation Incorporated* is appropriate when the lead agency incorporates mitigation measures to reduce an impact from a potentially significant level to a less-than-significant level. For example, floodwater impacts could be reduced from a potentially significant level to a less-than-significant level by relocating a building to an area outside the floodway. The lead agency must describe the mitigation measures and briefly explain how the measures would reduce the impact to a less-than-significant level.
- A *Less-than-Significant Impact* is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the Proposed Project would reduce the impact(s) to a less-than-significant level. For example, the application of the City’s stormwater improvement standards would reduce potential erosion impacts to a less-than-significant level.
- A *No Impact* is appropriate where it can be demonstrated that the impact does not have the potential to adversely affect the environment. For example, a proposed in the center of an urbanized area with no agricultural lands on or adjacent to the project area clearly would not have an adverse effect on agricultural resources or operations.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

All answers must take into account the whole action involved, including potential off- and on-site, indirect, direct, construction, and operation, except as provided for under State CEQA Guidelines Section 15183 and State CEQA Statute Section 21083. The setting discussion under each resource section in this chapter is followed by a discussion of impacts and applicable mitigation measures.

2.2. CHECKLIST, DISCUSSION OF CHECKLIST RESPONSES, AND PROPOSED MITIGATION

2.2.1. AESTHETICS

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project site (APNs 204-251-001, 204-121-006, and 204-121-005) is an approximately 32-acre industrial parcel located off Highway 36 near the communities of Hydesville and Carlotta. The subject parcel is a historic industrial mill site and is currently vacant. Existing onsite structures include a 60' x 80' metal building, a trailer to be removed, two shipping containers, and an unrelated residence in the southern portion of the property. The property has historically been used for industrial, agricultural, and commercial purposes.

Humboldt County has a wide range of scenic and visual resources, including coastline, mountains, hills, ridgelines, inland water features, forests, agricultural features, and rural communities (Humboldt County General Plan, 2017).

No specific scenic vistas in the Proposed Project area have been designated by the Caltrans State Scenic Highway System Map (2022), though it has numerous segments eligible for designation due to their scenic qualities:

- State Highway 101 in its entirety in Humboldt County
- State Highway 36 from State Highway 101 near Fortuna to the Trinity County Line
- State Route 254 in Avenue of the Giants
- State Route 299 from Arcata to Willow Creek
- State Route 96 from State Route 299 at Willow Creek north to Siskiyou County

Although no scenic highways have been officially designated per Caltrans, the Humboldt County General Plan (2017) Scenic Resources Section includes a Standard (SR-S6) that states “Until such a time as a General Plan Scenic Highway Roadway Map is prepared and adopted, Humboldt County Highways listed in Sections 263.1 through 263.8 of the *California Streets and Highways Code* shall be considered to be Scenic Highways pursuant to Policy SR-P3, Scenic Highway Protection, and the County shall address the potential for significant impacts to scenic resources during ministerial and discretionary permit review” (Humboldt County General Plan, 2017, Part 3, Chapter 10. Conservation and Open Space, 10.7.4 Scenic Resources Standards).

State Route 36 from State Highway 101 near Alton to Route 3 near Peanut is listed in Section 263.3 of the *California Streets and Highways Code*, and therefore shall be considered to be a Scenic Highway for the purposes of discretionary review, until such a time as a General Plan Scenic Highway Roadway Map is prepared and adopted by Humboldt County.

The Commercial Cannabis Land Use Ordinance (CCLUO) includes Performance Standards for Light Pollution Control, including the requirement for all mixed-light cultivation and nurseries to be shielded so that no light escapes between sunset and sunrise (CCLUO, 2018). The Proposed Project has been designed to meet all CCLUO Performance Standards.

The Van Duzen River is located approximately 0.5 miles south of the Proposed Project site, per Google Earth measurements. The Van Duzen River, a tributary to the Eel River, is a designated river under the 1968 Wild and Scenic Rivers Act from the confluence with the Eel River to the Dinsmore Bridge. Under the Wild and Scenic Rivers Act, rivers can be classified as “wild”, “scenic”, or “recreational”, depending on the specific characteristics of the portion of river (National Wild and Scenic Rivers System, 2023). The portion of river closest to the Proposed Project site is designated as “Recreational”, meaning that it is a river readily accessible by road with some development along the shoreline.

Analysis

- a) **Finding:** The project will not have a substantial adverse effect on a scenic vista. *Less than significant impact.*

Discussion: The Proposed Project is not located near any designated scenic vistas. The Proposed Project is located along State Highway 36, considered a Scenic Highway by Humboldt County until such a time that a General Plan Scenic Highway Roadway Map is prepared and adopted, and within a segment of State Highway 36 eligible for designation as a California State Scenic Highway (California Department of Transportation, 2023).

Existing vegetation partially obscures the site from the highway, though there are gaps in the vegetation where the site is clearly visible. Current views of the site resemble a vacant industrial lot, including power lines, gravel roadways and parking areas, shipping containers, and an existing 60’ x 80’ metal building. Beyond the site, vegetation and hillsides are visible in the distance (See Figure 6 and Figure 7).



Figure 6: Existing Site Aesthetics – view from the north, facing east on Highway 36 (Source: Google Earth, 2023)



Figure 7: Existing Site Aesthetics – view from Highway 36 Property entrance, facing south (Source: Google Earth, 2023)

Proposed development onsite would include the three (3) new indoor cultivation facilities, the expansion of the existing metal building, and the proposed pond. Buildings would be constructed from steel and typical construction materials and would be 22 feet tall. The exterior of the building would be designed to fit in with the existing industrial of the site and would be naturally colored (e.g., creams or browns; no bright colors). See Figure 8 for a rendering of the proposed building, provided by the applicant.



Figure 8: Aesthetic Rendering of Proposed Buildings (Source: Applicant, 2022)

Proposed site views incorporating the proposed buildings were conceptualized and are included in Appendix 2N. The nearest Building to the highway would be Building #3, proposed to be constructed 50 feet from the edge of the property line, which would be located within the visual buffer from the Scenic Highway. Due to the proximity of the site to Highway 36 and the gaps in existing vegetation, the buildings and site development would be visible from east and west-bound travelers on Highway 36, as shown in Figure 9 and Figure 10.



Figure 9: Proposed Site Aesthetics - view from the north, facing east on Highway 36 (Source: Google Earth, 2023 and NorthPoint Consulting, 2023)



Figure 10: Proposed Site Aesthetics - view from Highway 36 Property entrance, facing south (Source: Google Earth, 2023 and NorthPoint Consulting, 2023)

The 2017 General Plan update identified the subject parcel, as well as other historic industrial sites, as a target for revitalization and development. Potential impacts to aesthetics from development of this site were specifically discussed and considered in the Draft Environmental Impact Report (DEIR) prepared for the Humboldt County General Plan update in 2017. The DEIR recognizes that redevelopment of the Carlotta Mill site, visible from State Route 36, could change the currently vacant character of the industrial site, and that development associated with the site could represent a change to the viewshed. Specifically, the DEIR says that the site “currently unused or significantly underutilized”, and that “the reuse of the site...could result in a substantial change to scenic views along candidate scenic roadways” (Chapter 3.16, Scenic Resources, pg. 3.16-6). The DEIR continues to conclude that implementation of the Scenic Resource Standards and Policies in the General Plan would ensure that projects are designed in a manner that would lessen significant impacts to scenic views in the County. The DEIR further concluded that impacts to aesthetics from the General Plan update were significant and unavoidable, and included a Mitigation Measure to develop and adopt a Scenic Highway Roadway Map.

Therefore, the Project was compared to the standards laid out in the Scenic Resources chapter of the Humboldt County General Plan. The proposed onsite development has been designed to preserve existing topography and vegetation, of the site to the maximum extent possible (Standard SR-S2(C)(1)), and the buildings are limited in height to 22 feet, much less than the 75 feet allowable maximum building height allowed in the Heavy Industrial (MH) (Standard SR-S2(C)(2)). No billboards or large signage is proposed (Standard SR-S2 (B) and SR-S2 (D)). Grading and earth-moving operations are proposed to be vegetatively covered post-construction (Standard SR-S2 (F)). New utility lines are proposed to be undergrounded (Standard SR-S2 (H)). In addition, all artificial light would be shielded inside the buildings with blackout covers to avoid night-time leakage (Standard SR-S4). Therefore, the Project was designed in a manner that would meet the Scenic Resource Standards and Policies laid out in the General Plan and would reduce impacts to scenic views in the County. The Van Duzen River is located approximately 0.5 miles south of the Proposed Project Area. The river reach located closest to the project site is not specifically designated as “Scenic” (National Wild and Scenic Rivers System, 2023), and therefore would not impact a designated scenic resource. Moreover, existing vegetation and topography would mostly obscure the proposed development from the Van Duzen River.

As the proposed buildings are consistent with the site use, meet the design standards of the Heavy Industrial zone, are designed to blend into the site (e.g., not using bright lights or colors), do not block views of the

surrounding hillsides, no vegetation is proposed to be impacted, and because the site was specifically identified as a currently vacant industrial site slated for redevelopment and impacts to aesthetics were identified in the Humboldt County General Plan update, the Proposed Project would not have a substantial adverse impact on a scenic vista. Therefore, the impact would be less than significant.

- b) Finding: The project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. *No impact.*

Discussion: The Project site does not have specifically designated scenic resources. In addition, no trees, rock outcroppings, or buildings are proposed to be removed as a result of the Proposed Project. Therefore, the Proposed Project would not substantially damage scenic resources within a state scenic highway. Therefore, no impact would occur.

- c) Finding: The project will not substantially degrade the existing visual character or quality of the site and its surroundings. *Less than significant impact.*

Discussion: Sensitive viewer groups typically include residents and recreationists. The existing visual character of the Proposed Project site consists of an existing metal building and empty gravel space historically used for mill operations. Areas of vegetation, trees, and shrubs are also located on the project site and would not be impacted by the Proposed Project. In the southern area of the site there is an existing residence and two shipping containers, which are not visible from the highway. The Proposed Project site is surrounded by industrial sites, agriculture, grasslands, woodlands, cannabis commercial operations, and residences.

During the Proposed Project's temporary construction periods, construction equipment, supplies, and construction activities would be visible on the subject property from immediately surrounding areas, including Highway 36 and rural residences. Construction activities are a common occurrence in the region and are not considered to substantially degrade the area's visual quality. All construction equipment would be removed from the project site following completion of the construction activities.

Development of the site for the Proposed Project would alter the site's visual character by adding proposed buildings, a pond, tanks, compost/soil piles, and other cultivation-related infrastructure (Appendix 1 - Site Maps). The maximum building height allowed in the Heavy Industrial (MH) zone is 75 feet. The proposed buildings, according to the applicant, would be approximately 22 feet tall, well under the allowable maximum building height. The Proposed Project is set to occur in the existing graveled and bare area on the property; no trees are proposed to be removed. The Proposed Project is consistent with the industrial nature of the site.

Because the Proposed Project would not impact existing trees or riparian vegetation, the proposed buildings would conform with the regulations of the Heavy Industrial zone such as building setbacks from property lines, and agricultural/industrial activities are typical uses in the Proposed Project Area, the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings, and therefore, the impact is less than significant.

- D) Finding: The project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. *Less than significant impact.*

Discussion: New sources of light associated with the Proposed Project include lighting for mature cannabis plants and ancillary nursery plants, lighting within the buildings for employees, and security lighting on the outside of proposed buildings. Indoor cultivation would be grown utilizing primary artificial lighting within enclosed buildings. The buildings would be designed with semi-transparent roofs to allow natural light in to supplement artificial lighting.

The FEIR certified for the CCLUO found that new commercial cannabis projects would not create a significant new source of substantial light or glare as long as Projects follow the Performance Standards in the CCLUO. The CCLUO includes three (3) light pollution control performance standards, described in §55.4.12.4, as follows:

- (a) *Structures used for Mixed Light Cultivation and Nurseries shall be shielded so that no light escapes between sunset and sunrise.*

The buildings proposed in the operations plan would be designed with interior automated black-out coverings that prevent light from escaping. Black-out coverings would be deployed automatically one-half hour before sunset and one-half hour after sunrise. If automated blackout covers were to malfunction, employees would manually cover the greenhouse to ensure light does not escape. Lighting for processing and distribution activities would be contained within fully enclosed structures and would not escape.

- (b) *Where located on a Parcel abutting a residential Zoning District or proposed within Resource Production or Rural Residential areas, any Security Lighting for Commercial Cannabis Activities shall be shielded and angled in such a way as to prevent light from spilling outside of the boundaries of the Parcel(s) or Premises or directly focusing on any surrounding uses.*

Surrounding zones include Heavy Industrial (MH), Agriculture Exclusive (AE), Agricultural General (AG), and Timber Production Zone (TPZ). Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed-Use designations. Therefore, this Performance Standard would apply. Per the Operations Plan (Appendix 1), all new outdoor lighting (e.g., security lighting) would be the minimum lumens required for security and safety purposes, directed downward, and shielded to prevent lighting spillover. All lighting would be designed and located so that it is confined to the property and that there is no spillover onto adjacent properties.

- (c) *The County shall provide notice to the operator upon receiving any light pollution complaint concerning the cultivation site. Upon receiving notice, the applicant shall correct the violation as soon as possible and submit written documentation within ten (10) calendar days, demonstrating that all shielding has been repaired, inspected, and corrected as necessary. Failure to correct the violation and provide documentation within this period shall be grounds for permit cancellation or administrative penalties, pursuant to the provisions of 55.4.5.3.*

If a light pollution complaint was received about the Proposed Project, the applicant would correct the violation as soon as possible and provide evidence within ten (10) calendar days of the complaint.

The new structures proposed would not be constructed of materials that would reflect light or cause any sources of glare that would impact surrounding land uses, or drivers on adjacent roadways. All new lighting on the property would conform with International Dark Sky Association Standards. The Proposed Project would comply with all Light Pollution Control Performance Standards in the CCLUO. Per the FEIR, commercial cannabis projects adhering to these Performance Standards would have a less than significant impact. Therefore, the Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and impacts would be less than significant.

Mitigation Measures

None.

2.2.2. AGRICULTURE AND FORESTRY RESOURCES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The site is currently mostly graveled and is vacant other than an existing metal building and a residence in the southern area of the parcel. The site is zoned Heavy Industrial (MH) and has a land use designation of Mixed Use (MU). The property is currently used for industrial and residential purposes. The property is not in contract under the Williamson Act.

The Farmland Mapping and Monitoring Program of the California Department of Conservation has not yet mapped farmland in Humboldt County (<http://www.conservation.ca.gov/dlrp/fmmp>, November 2022). The property does contain Prime Agricultural Soils (Figure 11). The property contains approximately 16 acres of Prime Agricultural Soils (Humboldt Web GIS, 2022).



Figure 11: Prime Agricultural Soils (light brown shaded areas) located on the Project Site (Source: Humboldt Web GIS, 2022). Proposed Project Site is outlined in red.

Analysis

- a) **Finding:** The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. *Less than Significant Impact.*

Discussion: Humboldt County is not included in the Farmland Mapping and Monitoring Program (FMMP), and no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located onsite (California Department of Conservation, 2022). Therefore, no impact to such specified farmland would occur.

The property contains approximately 16 acres of mapped Prime Agricultural Soils (Figure 11). The Prime Agricultural Soils are located on APN 204-251-001 and overlap with Building 3, a building proposed for cannabis cultivation, which is non-soil dependent agricultural project. Site soils where cannabis is proposed to be developed are existing gravel and compacted, pre-disturbed areas with little vegetation that were historically used for milling and industrial operations. The site has not been used for agricultural activities within the last century.

The Proposed Project would not convert prime or unique farmland or farmland of statewide importance to a non-agricultural use. Impacts would be less than significant, and no mitigation would be necessary.

- b) **Finding:** The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. *No impact.*

Discussion: The subject property is not under an existing Williamson Act Contract. No agricultural zoning exists on the property. The subject property is zoned Heavy Industrial (MH) and has a land use designation of Mixed Use (MU). The Heavy Industrial zone specifically allows for cannabis cultivation operations such

as the one proposed. Therefore, the Proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

- c) Finding: The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526). *No impact.*

Discussion: The Proposed Project would not conflict with existing forestland or timberland zoning because no development is proposed to occur within the forested areas of the property. The property is zoned Heavy Industrial (MH); no timberland-related zoning exists onsite. All project components are proposed to occur within the disturbed, flat areas on the industrial property. No trees are proposed to be removed. Therefore, the Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, and no impact would occur.

- d) Finding: The project will not result in the loss of forest land or conversion of forest land to non-forest use. *No impact.*

Discussion: The Proposed Project components would take place within the industrially zoned areas on existing disturbed flat land previously used for industrial operations. No development would occur within the vegetated areas of the property and no trees are proposed to be removed as part of the Proposed Project. Therefore, the Proposed Project would not result in the loss of forestland or conversion of forest land to non-forest use and no impact would occur.

- e) Finding: The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. *No Impact.*

Discussion: The Proposed Project would not produce significant growth inducing or cumulative impacts that would result in the conversion of farmland or forest land. The Proposed Project includes cannabis cultivation on an old industrial site. Placing cannabis cultivation on old industrial sites lowers the demand for use of prime farmland for cannabis cultivation. There is no potential cumulative impact related to cumulative farmland or timberland conversion associated with this project. ,.

Therefore, the Proposed Project is not anticipated to indirectly convert farmland to non-agricultural land or forest land to non-forest land. *No Impact.*

2.2.3. AIR QUALITY

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project site is within the North Coast Air Basin (NCAB). The NCAB extends for 250 miles from Sonoma County in the south to the Oregon border, and includes Humboldt County, Mendocino County, and Northern Sonoma County. The climate of NCAB is influenced by two major topographic units: the Klamath Mountains and the Coast Range provinces. The climate is moderate with the predominant weather factor being moist air masses from the ocean. Annual average precipitation is approximately 44 inches per year (PRISM, 2022). Dominant winds in the NCAB exhibit seasonal patterns. In the coastal areas strong north to northwesterly winds are common in the summer and from the southwest during storm events occurring during winter months.

Proposed Project activities are subject to the authority of the North Coast Unified Air Quality Management District (NCUAQMD) and the California Air Resources Board (CARB). The NCUAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate (PM₁₀) standard, which relates to concentrations of suspended airborne particles that are 10 micrometers or less in size. In determining whether a project has significant air quality impacts on the environment, agencies often apply their local air district's thresholds of significance to projects in the review process. The District has not formally adopted specific significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emissions rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 – New Source Review (NSR) and Prevention of Significant Deterioration (PSD), Section 5.1 – BACT (pages 8-9) (www.ncuaqmd.org).

Analysis

- a) **Finding:** The project would not conflict with or obstruct implementation of the applicable air quality plan. *Less than significant impact with mitigation incorporated.*

Discussion: The site is an existing industrial site, accessed by paved roads. The onsite road network is graveled. This impact is related to consistency with the applicable air quality management or attainment plan. A potentially significant impact to air quality would occur if the Proposed Project would conflict with or obstruct the implementation of the applicable air quality management or attainment plan. Although the Proposed Project would represent an incremental increase in air emissions within the district, of primary concern is that Proposed Project-related impacts have been properly anticipated in the regional air quality planning process and reduced whenever feasible. Therefore, it is necessary to assess the Proposed Project's consistency with the applicable district air quality management or attainment plan(s). Air quality in Del Norte, Humboldt, and Trinity counties is regulated by the NCUAQMD. The NCUAQMD's primary responsibility is to achieve and maintain federal and state air quality standards, subject to the powers and duties of the CARB. The NCUAQMD is currently listed as being in "attainment" or "unclassified" for all federal health protective standards for air pollution (ambient air quality standards). However, under State ambient air quality standards, the air district has been designated "nonattainment" for particulate matter less than ten microns in size (PM₁₀). PM₁₀ emissions include, but are not limited to, smoke from wood stoves, dust from traffic on unpaved roads, vehicular exhaust emissions, and airborne salts and other particulate matter naturally generated by ocean surf.

The California Clean Air Act (CCAA) requires the NCUAQMD to achieve and maintain State ambient air quality standards for PM₁₀ by the earliest practicable date. The NCUAQMD prepared the Particulate Matter Attainment Plan, Draft Report, in May 1995 (Attainment Plan). This report includes a description of the planning area (North Coast Unified Air Quality District), an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's attainment plan established countywide goals to reduce PM₁₀ emissions and eliminate the number of days in which standards are exceeded. The plan does not include project specific related requirements. However, NCUAQMD Rule 104, Section D – Fugitive Dust Emissions is used to address non-attainment for PM₁₀ by prohibiting specific activities and providing reasonable precautions to prevent particulate matter from becoming airborne. Under Rule 104, Section D "no person shall allow handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne." Rule 104, Section D provides the following reasonable precautions that shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following provisions:

- a. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
- b. The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
- c. The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
- d. The prompt removal of earth or other track out material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

Additionally, according to the Humboldt County General Plan, unpaved road dust accounts for approximately 58.2% of the County's PM₁₀ emissions (2017). While the driveway to the Proposed Project site is paved, the remainder of the existing onsite roads are comprised of compacted, well-maintained gravel. To comply with the General Plan and NCUAQMD Rule 104, Section D – Fugitive Dust Emissions, the Proposed Project design incorporates relevant control measures identified in the PM₁₀ Attainment Plan appropriate to incorporate into construction and operational activities. These measures are included as **Mitigation Measures AQ-1**. Therefore, the Proposed Project would not conflict with or obstruct implementation of the NCUAQMD Attainment plan for PM₁₀ and the impacts would be less than significant with mitigation incorporated.

- b) **Finding:** The project would not 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. *Less than significant impact with mitigation incorporated.*

Discussion: The NCUAQMD is currently listed as being in “attainment” or is “unclassified” for all federal health protective standards for air pollution (ambient air quality standards). However, under State ambient air quality standards, the air district has been designated “nonattainment” for PM₁₀ (NCUAQMD website, 2021). The Proposed Project would generate PM₁₀ emissions from construction and operational activities.

Construction: During construction, scraping, grading, tilling, excavating, building construction, landscaping, and vehicle traffic could generate emissions and dust. The NCUAQMD has advised that, generally, an activity that individually complies with the state and local standards for air quality emissions would not result in a cumulatively considerable increase in the countywide PM₁₀ air quality violation. Potential particulate matter could be generated during construction activities and build-out of the site, in general; however, short-term construction activities that use standard quantities and types of construction equipment are not required to be quantified and are assumed to have a less than significant impact. In addition, the Proposed Project design incorporates control measures identified in the PM₁₀ appropriate to this type of project to reduce fugitive emissions. These measures are included in **Mitigation Measure AQ-1**.

The NCUAQMD and the County have not adopted thresholds of significance for construction generated PM₁₀. However, the Bay Area Quality Management District (BAAQMD) has established thresholds that can be used for significance determination. The BAAQMD bases the determination of significance for fugitive dust on consideration of the control measures to be implemented. If all appropriate emissions control measures recommended by BAAQMD are implemented for a project, then fugitive dust emissions during construction are not considered significant. BAAQMD recommends a specific set of Basic Construction Measures to reduce emissions of construction generated PM₁₀ to less than significant. The BAAQMD Basic Construction Measures are consistent with NCUAQMD Rule 104, Section D, provide supplemental additional measures to control fugitive dust, and have been incorporated into **Mitigation Measure AQ-1**. Therefore, with incorporation of **Mitigation Measure AQ-1**, the construction related Proposed Project impacts would be less than significant impact.

The FEIR developed for the CCLUO concludes that short-term, construction-generated emissions would not exceed NCUAQMD-recommended daily emissions thresholds for PM₁₀. It also found that, although the NCAB is in nonattainment for PM₁₀ emissions, that construction for a single cultivation operation or non-cultivation operation would not substantially contribute to an existing or projected air quality violation or conflict with air quality planning efforts in Humboldt County. However, because the Proposed Project is of significant size and scope, a project-specific air quality analysis was done to analyze whether emissions from the project would be less than stated thresholds.

The Proposed Project would not be built out in one year. The applicant is proposing a phased construction process that would take place over a minimum of five years, as described in the Project Description. Construction of the pond, in year 1, would have the highest potential for dust generation, as that is when the bulk of earthwork would take place. The NCUAQMD has indicated that it is appropriate for lead agencies to compare proposed construction emissions that last more than one year to its stationary source significance thresholds which are provided in (Table 4). If the Proposed Project’s construction emissions are below these thresholds, the Proposed Project’s impacts are considered to be less than significant.

The California Emission Estimator Model (CalEEMod®) Version 2023 was used to estimate emissions from Proposed Project related construction activities (Appendix 2L). The estimated emissions along with the NCUAQMD significance thresholds are summarized in Table 4.

Table 4: Construction Pollutant Emissions (Source: CalEEMod, 2023 - Appendix 2L)

Year	Pollutant	Proposed Project Emissions - Unmitigated		Significance Thresholds		Exceeds Threshold?
		Maximum Tons/year	Maximum Lbs./day	Tons/year	Lbs./day	
Year 1	ROG	0.05	0.27	40	50	No
	NO _x	0.46	2.54	40	50	No
	CO	0.49	2.71	100	500	No
	SO _x	<0.005	<0.005	40	80	No
	PM ₁₀	0.07	0.37	15	80	No
	PM _{2.5}	0.04	0.23	10	50	No
Year 2	ROG	0.25	1.36	40	50	No
	NO _x	0.44	2.42	40	50	No
	CO	0.54	2.96	100	500	No
	SO _x	<0.005	<0.005	40	80	No
	PM ₁₀	0.05	0.26	15	80	No
	PM _{2.5}	0.03	0.16	10	50	No
Year 3	ROG	0.22	1.20	40	50	No
	NO _x	0.35	1.92	40	50	No
	CO	0.45	2.46	100	500	No
	SO _x	<0.005	<0.005	40	80	No
	PM ₁₀	0.02	0.13	15	80	No
	PM _{2.5}	0.02	0.09	10	50	No
Year 4	ROG	.09	0.47	40	50	No
	NO _x	0.32	1.76	40	50	No
	CO	0.42	2.31	100	500	No
	SO _x	<0.005	<0.005	40	80	No
	PM ₁₀	0.03	0.19	15	80	No
	PM _{2.5}	0.02	0.12	10	50	No
Year 5	ROG	0.52	2.83	40	50	No
	NO _x	0.35	1.93	40	50	No
	CO	0.58	3.17	100	500	No
	SO _x	<0.005	0.01	40	80	No
	PM ₁₀	0.04	0.24	15	80	No
	PM _{2.5}	0.02	0.10	10	50	No

There are no specific default values for agricultural operations, so the most fitting Land Use Types from CalEEMod were used. Approximately 304,992 sq. ft. of “Industrial – Unrefrigerated Warehouse- No Rail” was used to calculate emissions related to the cultivation and nursery activities, and 7,200 sq. ft. of “Industrial-General Light Industry” was used to calculate emissions related to the processing and distribution activities. As construction is proposed to take place over a period of five years, emissions from construction activities were staggered by projected annual construction activities, using anticipated dates of activities, as described in the Project Description and in coordination with the Applicant. All other non-default CalEEMod values were sourced from the Cultivation and Operations Manual (Appendix 1) or were determined using the best available information. Methods to reduce dust described in Mitigation Measure AQ-1 were incorporated into the CalEEMod analysis and are reflected in the results.

As shown in the table, all construction-related emissions are less than the significance thresholds; thus, the Proposed Project’s construction emissions are considered to have a less than significant impact.

Operation: During operation of the Proposed Project, the primary activities that would generate pollutant emissions would be daily vehicle traffic, delivery truck traffic, and the potential use of a back-up fuel-powered generator during power outages. Although the use of the generator would be infrequent, generator use was considered as part of the operational impact analysis. Since the Proposed Project would result in an increase in operational trips (employees and delivery trucks), operational analysis includes emissions from these mobile sources. Proposed Project operational emissions were estimated using CalEEMod. At full build-out the Proposed Project would result in an average of 50 daily trips by full-time employees and 49 trips by seasonal contract laborers during peak seasonal events (less than 6 months per year). Approximately 72 truck trips would be expected per month from nursery and distribution activities (rounding up to approximately 3 truck trips per day on average for the purposes of this calculation). For the CalEEMod analysis, it was assumed that 102 trips were occurring daily, year-round, rendering a conservative estimate because seasonal contract laborers would not work year-round. The estimated emissions along with the NCUAQMD significance thresholds are summarized in Table 5. As shown in the table, all operational-related emissions are less than the significance thresholds, even when combining construction pollutant emissions, although temporary, from Table 5. Thus, the Proposed Project’s operational emissions are considered to have a less than significant impact.

Table 5: Operational Pollutant Emissions (Source: CalEEMod Analysis, 2023 - Appendix 2L)

Pollutant	Proposed Project Emissions - Unmitigated		Significance Thresholds		Exceeds Threshold?
	Tons/year	Lbs./day	Tons/year	Lbs./day	
ROG	0.26	1.45	40	50	No
NO _x	0.13	0.72	40	50	No
CO	1.45	7.97	100	500	No
SO _x	<0.005	<0.005	40	80	No
PM ₁₀	0.02	0.12	15	80	No
PM _{2.5}	0.01	0.07	10	50	No

Therefore, the Proposed Project impacts are less than significant with **Mitigation Measure AQ-1** incorporated.

c) **Finding:** The project would not expose sensitive receptors to substantial pollutant concentrations. *Less than significant impact.*

Discussion: Sensitive receptors (e.g., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effect of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes.

The Proposed Project site is within the Hydesville-Carlotta Community Planning Area, and is located near industrial, rural residential and agricultural uses, including other cannabis activities and industrial operations. Sensitive receptors typically include nearby residents, schools, persons with medical conditions / chronic illnesses and seniors.

Sensitive receptors near the Proposed Project site primarily include rural residences to the north, west, and east of the Proposed Project. Based on review of 2021 Google Earth aerial imagery, approximately 125 off-site residences are located within 1 mile of the Proposed Project area (Figure 12).



Figure 12: Off-site Residences within 1-mile of the Proposed Project Area (Source: Google Earth, 2022 Imagery)

This estimated number and location of residences was determined using a visual counting methodology of buildings that appeared to be residences from aerial imagery. A conservative approach was used while counting residences; if a building was not clearly a residence but could potentially be one it was included in the total count. Parcels with more than three buildings that could be residences were counted as having three residences. The 125 number of residences serves as an approximation; it is possible that the true number is slightly lower or higher than was counted. Therefore, to account for methodological error, a range of between 120 to 130 residences is used for the analysis. The closest residence to the parcel is located on adjacent property APN 204-251-003 to the southeast of APN 204-251-001, approximately 350 feet from proposed cannabis cultivation.

The Proposed Project is located within the Hydesville Elementary School District. Hydesville Elementary School is located approximately 1.3 air-miles northwest of the Proposed Project, and Cuddeback Union Elementary School is located approximately 1.4 air-miles east of the Proposed Project (Google Earth, 2022).

No known assisted living centers, hospitals, or medical centers are located within the project vicinity. The nearest hospital is Redwood Memorial Hospital, located in Fortuna, approximately 4.5 air-miles northwest of the Proposed Project site.

As indicated by the air quality impact analysis under subsection b), the Proposed Project would not produce significant quantities of criteria pollutants (e.g., PM₁₀) during short-term construction activities or long-term operation.

As part of the proposed cultivation, agricultural chemicals, including fertilizers and pesticides/fungicides, would be applied and fed to cannabis plants. Agricultural chemicals would be either fed to plants through the hydroponic system or applied topically, both of which would occur within enclosed buildings. No aerial spraying would occur. Application is normally required to be administered a minimum of 300 feet from sensitive receptors (e.g., residences) in the case of dry pesticides and 200 feet in the case of wet pesticides. The Proposed Project area is greater than 350 feet from the nearest sensitive receptor (residence on APN 204-251-003), and greater than 350 feet from all other nearby residences. Moreover, all application of agricultural chemicals would occur within enclosed structures and would not be released into the open air.

Therefore, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and the impacts would be less than significant.

- d) Finding: The project would not result in emissions (such as those leading to odors adversely affecting a substantial number of people). *Less than significant impact.*

Discussion: During long-term operation of the Proposed Project there is the potential to impact air quality due to unmitigated odors that could be generated by the proposed cultivation and processing activities.

The closest land uses to the Proposed Project site that could potentially be impacted by odors are primarily surrounding residences. As described above, there are approximately 120 to 130 offsite residences within one mile of the Proposed Project area (Figure 12). The residents in these homes could potentially experience odors from the Proposed Project cultivation activities. According to the 2020 Census, the average household size in Humboldt County was 2.41 (US Census Bureau, 2022). Based on this it is estimated that the nearby residential units would provide housing for between approximately 289 and 313 people, the majority of which are located greater than 600 feet from the Proposed Project area.

The Proposed Project site is located within the Hydesville-Carlotta Community Planning Area, which has special requirements and setbacks to minimize odor impacts under the CCLUO. To avoid emissions, including odors that could adversely impact the nearby residents, the applicant is proposing to conduct all commercial cannabis activities indoors, within enclosed structures. Per the CCLUO, “enclosed”, means activities “conducted within an enclosed structure employing mechanical ventilation controls in concert with carbon filtration or other equivalent or superior method(s) minimizing the odor of cannabis outside of the structure” (CCLUO, Section 55.4.4 Definitions). Accordingly, all buildings associated with the Proposed Project would be enclosed and would include mechanical ventilation controls and carbon filters to prevent adverse odors or other emissions from impacting nearby residents. As this is required by the CCLUO for cultivation within a Community Planning Area, no additional mitigation measures are required.

Although there are approximately 289 to 313 residents within 1 mile of the Proposed Project area, it is unlikely they will experience adverse impacts from odor due to the design and odor minimization measures described above. The Proposed Project site meets all siting criteria outlined in the CCLUO and is consistent with surrounding land uses. Therefore, Proposed Project impacts would be less than significant.

Mitigation Measures

AQ-1. During construction and operation, the following dust control measures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, active graded areas, excavations, and unpaved access roads) shall be watered two times per day in areas of active construction.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All vehicle speeds on unpaved roads shall be limited to 15 mph, unless the unpaved road surface has been treated for dust suppression with water, rock, wood chip mulch, or other dust prevention measures.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. Clear signage shall be provided for construction workers at all access points.
- All construction and operation equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications.

2.2.4. BIOLOGICAL RESOURCES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the United States Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or the United States Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on Federally protected wetlands (including, but not limited to, marshes, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological Resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Proposed Project site is located off of Highway 36 near Hydesville, CA on one legal parcel of approximately 31.69 acres in size. The parcel has historically been developed for industrial purposes and was part of the former Pacific Lumber Company Carlotta Sawmill, which operated for a majority of the 20th century. Existing onsite infrastructure includes a 60' x 80' metal building, a 13' x 37' trailer (to be removed), two shipping containers (to be removed), and an un-used residence, which is unrelated to the proposed cannabis project. An existing, unpermitted well is located near the 60' x 80' building on APN 204-251-001, located at approximately latitude/longitude 40.535751°, -124.070741°. This well is unrelated to the cannabis cultivation operation and is not proposed to be used for any component of the Proposed Project. The subject parcel has had various tenants but has primarily been vacant for the last few years.

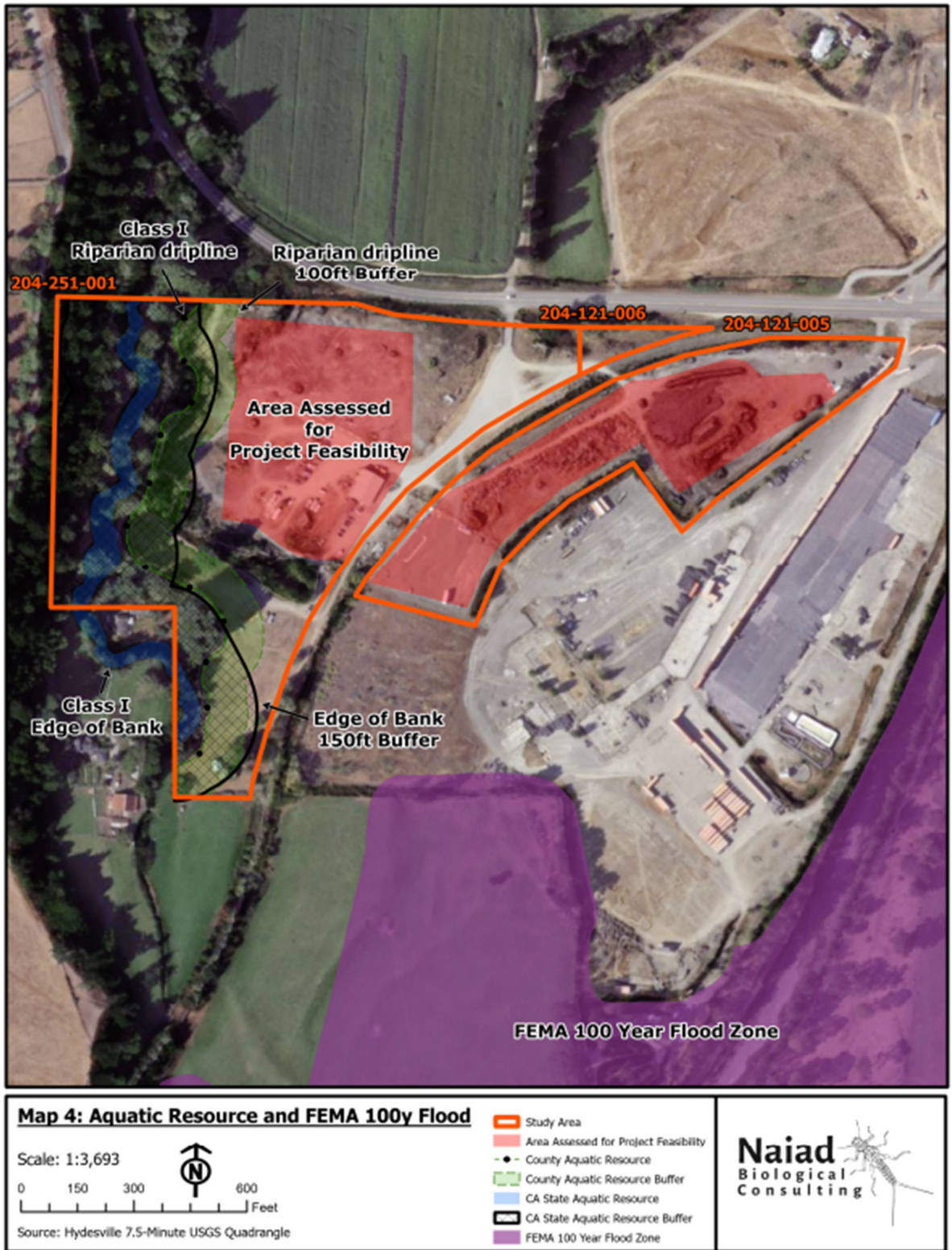


Figure 13: Onsite Aquatic Resources and Buffers (Source: Biological Report, Naiad Biological Consulting, 2022)



Figure 14: California Vegetative Alliances (Source: Biological Report, Naiad Biological Consulting, 2022)



Figure 15: Mapped Wetlands per National Wetlands Inventory and onsite soils per NRCS Web Soil Survey (Source: Biological Report, Naiad Biological Consulting, 2022)

Elevations on the parcel range from approximately 115 to 130 feet above sea level (Google Earth, 2022). Average annual precipitation is approximately 44 inches per year (PRISM, 2022). The parcel is located in the

South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803), which is located within the greater Van Duzen River watershed. The Van Duzen River drains into the Pacific Ocean via the Eel River. Ward Creek, a perennial (Class I) watercourse flows along the western property boundary (*Figure 13*, Appendix 1 – Site Maps). No other streams are located on the property. Yager Creek, a Class I watercourse, is located approximately 500 feet east of the eastern property boundary (Appendix 1 – Site Maps). The parcel is located outside of the Coastal Zone and outside of the mapped FEMA 100-year flood zone (*Figure 13*).

A Biological Reconnaissance and Project Feasibility Assessment Report (“Biological Report”) and a Botanical Report of Special Status Native Plant Populations and Natural Communities (“Botanical Report”) were prepared for the site by Naiad Biological Consulting in September 2022 (Appendix 2A). The purpose of these reports was to provide information as to whether the Project site contains or potentially contains aquatic resources, sensitive plants and wildlife species, and/or jurisdictional wetlands.

Special-Status Plant Species: Sensitive Natural Communities and Rare Plants

Naiad Biological Consulting conducted a query of the CDFW’s California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) database and collected information regarding the hydrologic, physiographic, habitat, and species-distribution of plant species, especially those with 1 or 2 rankings under the California Rare Plant Ranks (CRPR). A field survey was conducted on March 17th, 2022. Two floristic field surveys were conducted on May 1st, 2022, and July 15th, 2022. These surveys were conducted in accordance with the CDFW’s “Protocols for Surveying and Evaluating Impacts to Sensitive Status Native Plant Populations and Natural Communities” (2018) and were timed to maximize the floristic periods of potential rare plants. The survey encompassed the entire Proposed Project area (Appendix 2A - See Figure 2 for survey tracks).

A total of 51 special-status plant species, including 1 bryophyte, 1 lichen, and 49 vascular plant species, were identified in the initial query of databases. The Report noted that there was documented occurrence of one (1) special-status plant species, maple leaved checkerbloom (*Sidalcea malachroides*), within a one-mile radius of the Proposed Project. The species was not observed onsite. The Botanical Report concluded that none of the listed species, including CRPR 1 or 2 rare plants, were observed onsite during the survey. No further botanical surveys were recommended (Appendix 2A).

Two (2) special-status habitat communities were queried in the CNDDDB BIOS search in the 7.5-minute USGS Hydesville quadrangle and 8 adjacent quadrangles: Upland Douglas Fir Forest and Northern Coastal Salt Marsh. Neither of these communities were identified onsite. California Vegetative Alliances identified within the Proposed Project site include Urban-Related Bare Soil, Red Alder Alliance, and Redwood Alliance, with all project development located on the Urban-Related Bare Soil alliance (Figure 14). No special-status vegetation communities were identified during the survey. The Botanical Report concluded that the Proposed Project would be located in a heavily disturbed industrial zone devoid of rare plants.

Special-Status Fish and Wildlife Species:

During preparation of the Biological Report, Naiad Biological Consulting conducted a query of relevant databases (including CDFW’s CNDDDB, CalFlora, and the USFWS website) to determine the special-status species with the potential to be located onsite. A field survey was conducted on March 17th, 2022, to observe signs of wildlife, including tracks, scat, nests, habitats, etc., and determine the potential impact to these species from the Proposed Project.

A total of 59 special-status wildlife species were identified in the 9-quad CNDDDB database query of the 7.5’ USGS Hydesville quadrangle: five (5) amphibians, 25 birds, eleven (11) fishes, two (2) insects, twelve (12) mammals, three (3) mollusks, and one (1) reptile. See the Biological Report for the full list of species (Appendix 2B). Since the majority of the Proposed Project Site did not possess habitats meeting the habitat criteria, a refined species search was generated for known occurrences of listed species within 2-miles. Of the

59 species, eleven (11) were determined to have documented occurrences within a 2-mile radius of the Proposed Project and were therefore examined more closely for likelihood to occur onsite. These 11 species included two (2) amphibians, four (4) birds, four (4) mammals, and one (1) reptile. Unless otherwise referenced, species details are sourced from the Biological Report. Note that the Biological Report refers to the “Study Area”, which is equivalent to the “Proposed Project Site”, comprised of the three subject APNs (204-251-001, 204-121-006, and 204-121-005). The Biological Report also refers to the “Area Assessed for Project Feasibility”, which is equivalent to the “Proposed Project Area” or bounds of project disturbance.

The eleven (11) species are as follows:

Amphibians (2):

Northern red-legged frog (*Rana aurora*) – The Northern red-legged frog is a CDFW Species of Special Concern. It is known to occur along the California coast from Mendocino County north to southwestern British Columbia, at elevations from sea level to 1,160 m (0–3,800 ft). The northern red-legged frog requires permanent or nearly permanent pools in streams, marshes, or ponds. This species was documented within a 2-mile radius and was identified in the Biological Report as having a “low to moderate” potential to inhabit the project site. Northern red-legged frogs could inhabit Ward Creek, near the eastern property boundary, or could use the site for migration purposes. Habitat is present within the Study Area (Proposed Project Site) but not within the Proposed Project Area.

Foothill yellow-legged frog (*Rana boylei*) – The Foothill yellow-legged frog is a CDFW Species of Special Concern and has recently been designated as a candidate for threatened listing under the California ESA. Within California, foothill yellow-legged frogs were historically found in the Sierra Nevada foothills, up to elevations of approximately 6,000 feet, and in the Coast Range from the Oregon state border south to the San Gabriel River in southern California. Foothill yellow-legged frogs inhabit rocky streams or rivers with permanent water, though they can be found in many habitats. This species was documented within a 2-mile radius and was identified in the Biological Report as having a “low to moderate” potential to inhabit the project site. Foothill yellow-legged frogs could inhabit Ward Creek, near the eastern property boundary, or could use the site for migration purposes. Habitat is present within the Study Area (Proposed Project Site) but not within the Proposed Project Area.

Birds (4):

Bank Swallow (*Riparia riparia*) – The bank swallow is listed under the California Endangered Species Act (CESA) as Threatened. This species requires vertical banks or cliffs with fine-textured soils near waterways for nesting. A documented occurrence of this species from 1946 occurs within a 2-mile radius of the Proposed Project site. This species was identified in the Biological Report as having a “high” potential occurrence for project site flyover (not nesting). No suitable nesting habitat is present within the Proposed Project Area.

American peregrine falcon (*Falco peregrinus anatum*) - The American peregrine falcon is a CDFW fully protected Species and is protected under the Migratory Bird Treaty Act. It was historically protected under the federal and state ESAs but has been delisted 1999 due to recovery. American peregrine falcons have a wide range, typically using cliffs and ledges near bodies of water for cover and nesting areas. They may also breed in woodland or forest habitat with nearby riparian and wetland areas. There is an occurrence of this species within 2 miles of the Proposed Project Site, but no exact location was given. The American peregrine falcon was identified in the Biological Report as having a “low” potential of flying over or nesting within the Proposed Project Area.

Osprey (*Pandion haliaetus*) - The Osprey is protected under the Migratory Bird Treaty Act and is on the CDFW watch list. Ospreys are located across Humboldt County, primarily near fish-bearing major rivers or waterbodies for hunting and near tall snags or trees for nesting. This species was identified in the Biological Report as having a “moderate” potential to flyover the site, and a high likelihood to occur in

adjacent surrounding areas. No suitable habitat for nesting was identified within the Proposed Project Area.

Great Blue Heron (*Ardea Herodias*) – The Great Blue Heron is not specifically listed or of concern from CDFW, however it is ranked by CDFW as having a G5 Global Rank and S4 State Rank following NatureServe’s 2012 Conservation Status Assessment. Great Blue Herons can be found near marshes, swamps, shores, rivers, and creeks, and a documented occurrence exists within 2 miles of the Proposed Project Area. This species was identified in the Biological Report as having “low” potential to occur onsite or flyover the site.

Mammals (4):

Sonoma Tree Vole (*Arborimus pomo*) - The Sonoma tree vole is a CDFW Species of Special Concern and occurs along the North Coast in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats. The small rodent specializes in feeding on Douglas-fir and grand fir needles, and typically constructs nests in Douglas-fir trees. This species was identified in the Biological Report as having “low” potential to occur onsite.

Humboldt Marten (*Martes caurina humboldtensis*) – The Humboldt marten is listed under the Federal Endangered Species Act as Threatened and is listed under the CESA as Endangered. The Humboldt Marten is also a CDFW Species of Special Concern. Martens occur only in the coastal redwood zone in Northern California, and prefer conifer forests with low, overhead cover. This species could utilize habitat onsite, outside of the Proposed Project Area, but was identified in the Biological Report as having “low” potential to occur onsite.

Townsend’s Big-Eared Bat (*Corynorhinus townsendii*) – The Townsend’s big-eared bat is a CDFW Species of Special Concern. Townsend’s big eared bats require caves, mines, tunnels, buildings, or other structures for roosting and are sensitive to noise. This species was identified in the Biological Report as having “moderate” potential to flyover the site, but due to their sensitivity to human disturbance and the industrial nature of the site, suitable habitat for the Townsend’s big-eared bat was not identified within the Proposed Project Area.

Humboldt Mountain Beaver (*Alpodontia rufa humboldtiana*) – The Humboldt Mountain beaver is not specifically listed or documented as a Species of Special Concern from CDFW, however it is ranked by CDFW as having a G5TNR Global Rank and S4NR State Rank following NatureServe’s 2012 Conservation Status Assessment. This species often creates burrows on gentle slopes in moist forests, often near surface water. No habitat for this species exists within the direct Proposed Project Area, and this species was identified in the Biological Report as having “low” potential to occur onsite.

Reptiles (1):

Western pond turtle (*Emys marmorata*) - The western pond turtle is a CDFW Species of Special Concern and the only freshwater turtle native to most of the west coast of temperate North America. In California it is found from the Oregon border along the Coast Ranges to the Mexican border, and west of the crest of the Cascades and Sierras. The western pond turtle is found in intermittent or permanent rivers, creeks, lakes, marshes, ditches, or reservoirs. This species was identified as having “low” potential to occur onsite in the Biological Report. Habitat for this species does not exist directly within the Proposed Project Area.

Wetlands and Waters

Mapped wetlands, per the National Wetland Inventory, exist within and around the riparian corridor of Ward Creek on the eastern property boundary (Figure 15). These include riverine wetlands within the channel of Ward Creek, and freshwater forested/shrub wetland within the riparian area surrounding Ward Creek. The

final Biological Resource Assessment (Appendix 2B) investigated the site for potential wetland areas in the vicinity near Proposed Project activities. The investigation included visual search for wetland indicators, including hydrophytic vegetation and hydrology. At the time of the site visit, in March of 2022, these indicators would have been visible, as it had recently rained over an inch in the two weeks preceding the site visit, including the few days before. Based on the visual assessment of the Proposed Project Site, no three-parameter wetland areas were identified. No further wetland delineations or assessments were recommended (Appendix 2B).

As mentioned above, the property contains one perennial (Class I) watercourse, Ward Creek (Figure 13). The Biological Report included delineation of the edge of riparian habitat of this onsite streams such that proper setbacks as required in the Humboldt County Streamside Management Area Ordinance could be mapped for incorporation into the Proposed Project's design parameters.

Analysis

- a) **Finding:** The project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. *Less than significant impact with mitigation incorporated.*

Discussion: As mentioned above, a Biological Reconnaissance and Project Feasibility Assessment Report ("Biological Report") and a Botanical Report of Special Status Native Plant Populations and Natural Communities ("Botanical Report") were prepared for the site by Naiad Biological Consulting in September 2022 (Appendix 2A).

The site itself is highly disturbed, supporting only ruderal vegetation and has minimal potential to support habitat for listed or sensitive species. The primary areas with potential habitat impacts would be along the creek channel.

Special-Status Plant Species and Wetlands

No wetlands or potential wet areas were located in the Proposed Project area. No further wetland studies were recommended. No rare plants (CRPR 1 or 2) or special-status vegetation communities were identified during the botanical survey of the Proposed Project Area. The Botanical Report concluded that the Proposed Project would be located on a heavily disturbed industrial zone devoid of rare plants. The Botanical Report concluded that no listed species were observed during the survey, and no further botanical surveys were recommended (Appendix 2A).

Special-status Wildlife

A total of eleven (11) special-status wildlife species were identified as having documented occurrences within a 2-mile radius of the Proposed Project or were identified as being impacted by the Proposed Project. No other species were identified as having high potential to occur onsite, due to the lack of habitat and the industrial nature of the site.

Amphibians

Two (2) amphibian species have documented occurrences within 2-miles of the Proposed Project Site and were investigated in the Biological Report: the Northern red-legged frog (*Rana aurora*) and the Foothill yellow-legged frog (*Rana boylei*). Both species were identified in the Biological Report as having a low to moderate potential to occur within the project site, as the species could inhabit onsite watercourses. All proposed development would adhere to setbacks and buffers from this stream. No habitat for either species is directly located within the Proposed Project Area.

The Biological Report concluded that the Proposed Project is not anticipated to cause any harm or take of either of these two amphibian species if riparian buffers are met. However, as amphibians can migrate,

preconstruction surveys are recommended to assure no individuals are located within the area proposed for development during construction. This has been incorporated as **Mitigation Measure BIO-1**. With implementation of this mitigation measure, impacts to amphibians from the Proposed Project would not be significant.

Birds

Four (4) bird species have documented occurrences within 2-miles of the Proposed Project Site and were further investigated in the Biological Report: the bank swallow (*Riparia riparia*), the American peregrine falcon (*Falco peregrinus anatum*), the osprey (*Pandion haliaetus*), and the Great blue heron (*Ardea Herodias*). No specific habitat within the Proposed Project Site was determined to be suitable for nesting of any of these bird species. However, construction and operation of the Proposed Project may have the potential to disturb sensitive bird species by impacting nesting or foraging habitat during construction, or by ongoing noise and light pollution during operation. Therefore, the Biological Report preconstruction bird surveys for raptors and nesting birds if construction occurs during nesting season, between February 1st and August 31st. This has been incorporated as **Mitigation Measure BIO-2**.

The Biological Report also investigated and discussed potential impacts from the Proposed Project to Northern spotted owls (*Strix occidentalis caurina*). The nearest known Northern spotted owl Activity Center (AC) is located approximately 1.10 air miles southeast (HUM1110). Additional Activity centers are located approximately 1.20 air miles northeast (HUM0689), and approximately 1.26 air miles east (HUM 10370). The Biological Report states that the area assessed for the Proposed Project does not have Northern Spotted Owl habitat preference due to the “size, structure, and species of the trees within the Study Area, and is therefore not likely utilized for nesting, roosting, or foraging/hunting by Northern Spotted Owls” (Appendix 2B pg. 23). The Biological Report did find that there is moderate suitable habitat for Northern Spotted Owls in the area surrounding the Proposed Project, however, if the Proposed Project does not generate noise levels of 70 dB or greater and does not produce light pollution, no impacts to Northern Spotted Owls would be anticipated (Appendix 2B).

Therefore, with incorporation of Mitigation Measure BIO-2, impacts to bird species from the Proposed Project would be less than significant.

Mammals

Four (4) mammal species have documented occurrences within 2-miles of the Proposed Project Site and were further investigated in the Biological Report: the Sonoma Tree Vole (*Arborimus pomio*), the Humboldt Marten (*Martes caurina humboldtensis*), the Townsend’s Big-Eared Bat (*Corynorhinus townsendii*), and the Humboldt Mountain Beaver (*Alpodontia rufa humboldtiana*). No suitable habitat for these species was identified onsite, per the Biological Report. Therefore, the Proposed Project is unlikely to significantly impact any of these species. No further recommendations were noted in the Biological Report, and no mitigation measures were recommended.

Reptiles

One (1) reptile species had a documented occurrence within 2-miles of the Proposed Project Site and as further investigated in the Biological Report: the Western pond turtle (*Emys marmorata*). The Western pond turtle could utilize onsite aquatic resources, or the pond associated with the Proposed Project. The Biological Report concluded that the Proposed Project is not anticipated to cause any harm or take of this species if riparian buffers are met. However, as this species can terrestrially migrate, preconstruction surveys are recommended to assure no individuals are located within the area proposed for development during construction. This has been incorporated as **Mitigation Measure BIO-1**. With implementation of this mitigation measure, impacts to reptiles from the Proposed Project would not be significant.

No stream crossings exist onsite, and no instream work is proposed as a part of this project. A Non-Jurisdictional Items Notification has been prepared for CDFW.

A list of all plants found onsite, including non-native and invasive species was included in the report (Appendix 2A). The Report stated that approximately 36% of plants identified onsite are classified as invasive grasses. The Proposed Project would likely not indirectly impact special-status plant or wildlife species through the increased spread of invasive species. In fact, implementation of the Proposed Project would reduce the presence of invasive species onsite through removal and eradication of invasive species after site development, as described in the Cultivation and Operations Manual (Appendix 1). Invasive species eradication would include hand-tool removal (shovels, weed wrenches, trowels, or hand saws). Implementation of the Proposed Project would reduce the presence of invasive species onsite through regular monitoring and mechanical removal of invasive species. In addition, compliance with the Cannabis General Order requires that all construction equipment used at the cannabis cultivation site (e.g., excavators, graders, etc.) must be cleaned before arriving and before leaving the site to prevent transfer of invasive species. Therefore, no indirect impact to special-status plants or wildlife is anticipated because of invasive species.

Erosion and sediment control measures must utilize textiles that are made of loose-weave mesh (e.g., not plastic or nylon monofilament netting) to prevent wildlife entrapment.

With incorporation of **Mitigation Measure BIO-1 and BIO-2**, adherence to the Performance Standards in the CCLUO, compliance with the SWRCB Cannabis General Order and Policy, and adherence to the recommendations in the Biological Report, the Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

- b) Finding: The project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. *Less than significant impact.*

Discussion: According to the Biological Report, no wetlands or wet areas were observed onsite. Riparian habitat exists along Ward Creek, a perennial stream east of the Proposed Project Area. The Proposed Project has been designed to maintain riparian buffers and is set back at least 150 feet from perennial watercourses (Figure 13). The edge of riparian habitat was mapped in the Biological Report, and all buffers exceed Streamside Management Area Ordinance setback requirement of 100 feet from the edge of the riparian zone. Building and grading permits would be obtained from the Humboldt County Building Department prior to any ground disturbance.

Prior to operation of the Proposed Project, the applicant would apply for coverage for indoor cultivators under the SWRCB Cannabis General Order 2019-0001-DWQ. The SWRCB Cannabis General Order includes Best Practicable Treatment or Control (BPTC) Measures that are required to be implemented for the life of the project, including storing hazardous materials outside of riparian setbacks, properly winterizing/covering all materials to ensure no impacts to waters of the state, and implementing erosion control and sediment capture mechanisms prior to the onsite of the rainy season. See Project Description for further details.

With the implementation operating restrictions provided in this document, and compliance with SWRCB Cannabis General Order and Construction General Order, as required, and the County's grading regulations, potential impacts to sensitive communities would be less than significant.

- c) Finding: The project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *Less than significant impact.*

Discussion: As described above, no wetlands or wet areas as defined by Section 404 of the Clean Water Act or as defined by the County General Plan were identified onsite. All Proposed Project development is sited outside of all minimum setbacks from streams as required by the SWRCB and Humboldt County.

A Conceptual Grading and Erosion Control Plan for the site has been developed (Appendix 1 – Site Maps, NorthPoint Consulting Group, 2023). The preliminary design includes BMPs and erosion control methods to implement during construction. In addition to the BMPs listed in the Erosion Control Plan and described in the Project Description, the project would follow all regulations associated with the SWRCB Construction General Permit and/or Cannabis General Order, as required by the North Coast Regional Water Quality Control Board. Construction of the Proposed Project would occur during the dry months when it is not raining and appropriate BMPs would be installed. All construction materials, including gravel and soils would be covered and fiber rolls would be installed around the perimeter of all construction areas to ensure no sediment discharges into Waters of the US. Spoils piles would be covered, and fiber rolls would be installed around the perimeter of construction areas to ensure no sediment discharges into Waters of the United States (US) or Waters of the State.

Therefore, the Proposed Project as proposed and in compliance with regulatory requirements and Waste Discharge Requirements, would not have a substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Impacts would be less than significant.

- d) Finding: The project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. *Less than significant impact with mitigation incorporated.*

Discussion: Wildlife movement corridors are areas that connect suitable wildlife habitat areas in an otherwise fragmented region. The site is in a rural area of Humboldt County and is currently used for industrial uses, and is surrounded by industrial, agricultural, and residential uses. The area in which the proposed development is proposed do not contain habitats unique to the area such that the removal of the habitat would preclude wildlife from moving through the site. As discussed above, the site has been designed to meet minimum setback requirements, no trees are proposed to be removed, no work would be done directly within streams or within the riparian areas; therefore, the Proposed Project would not directly interfere with movement of fish and other aquatic species.

Once the Proposed Project is completed and buildings are constructed, there exists the possibility that noise and light pollution may adversely impact, either directly or indirectly, migratory sensitive species. All power would come from renewable energy sourced through PG&E. The onsite backup generator would only be used for emergencies. The new structures proposed would not be constructed of materials that would reflect light or cause any sources of glare that would impact surrounding land uses, or drivers on adjacent roadways. All new lighting on the property would conform with the CCLUO and with International Dark Sky Association Standards.

Mitigation measures would be implemented during construction to reduce potential impacts, as discussed above, to migratory wildlife, including migratory birds. Therefore, the Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Impacts are less than significant with implementation of **Mitigation Measures BIO-2**.

- e) Finding: The project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *Less than significant impact.*

Discussion: The Proposed Project would not involve the removal of any trees. In addition to the general biological resources policies in the County General Plan, the County maintains Streamside Management Areas (SMAs) to protect sensitive fish and wildlife habitats and to minimize erosion, runoff, and other conditions detrimental to water quality. All SMA buffers would be exceeded, and no trees are proposed to be removed. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance and the impact would be less than significant.

- f) Finding: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. *No impact.*

Discussion: According to the U.S. Fish & Wildlife Service Environmental Conservation Online System (ECOS), the Proposed Project site is not located within the boundaries of a Habitat Conservation Plan. Habitat Conservation Plans (HCP) in Humboldt County include the following: 1) Green Diamond Resource Company California Timberlands & Northern Spotted Owl (formerly Simpson Timber Company); 2) Humboldt Redwood Company (formerly Pacific Lumber, Headwaters); 3) Regli Estates; and 4) Humboldt Bay Municipal Water District Habitat Conservation Plan. These Habitat Conservation Plans primarily apply to forest lands in the County. According to the CDFW website, the Proposed Project site is not located in the boundaries of a Natural Community Conservation Plan (CDFW, 2019). The conservation plans for Humboldt County, listed on California Regional Conservation Plans Map on the CDFW website, include the Green Diamond and Humboldt Redwoods Company (previously Pacific Lumber Company) Habitat Conservation Plans.

No trees would be removed as a result of the Proposed Project. Therefore, the Proposed Project would not conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan.

Mitigation Measures

BIO-1. Preconstruction surveys for amphibians and reptile species shall be conducted within 14 days prior to project development or construction. The survey shall cover the entire area proposed for development and shall follow protocols for visual encounter surveys and focus along the edges of the aquatic resource buffers and refuge sites located within the site. If special-status reptiles or amphibians are determined to be present, relocation to other onsite suitable habitat shall occur in coordination with CDFW.

BIO-2. For all construction-related activities that take place within the nesting season, accepted as February 1 through August 31, a preconstruction nesting-bird survey for migratory and nesting birds shall be conducted by a qualified biologist no more than two weeks prior to construction within the Proposed Project area and a buffer zone determined by the qualified biologist, depending on the species nesting. The timing of surveys shall be determined in coordination with the CDFW. If active nests are found, a no-disturbance buffer zone shall be established, the size of which the biologist shall determine based on nest location and species. Within this buffer zone, no construction shall take place until the young have fledged or until the biologist determines that the nest is no longer active. For nesting raptors, surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting raptors are detected, the biologist shall establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted.

2.2.5. CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project Site (APNs 204-251-001, 204-121-006, and 204-121-005) is an approximately 31.69-acre parcel located off of State Highway 36 near Hydesville, CA. The subject parcel is an industrially zoned parcel historically used for mill and mining/processing operations. The area was traditionally occupied by the Nongatl Tribe. Descendants of the Nongatl are now typically members of the Bear River Band of the Rohnerville Rancheria and other communities (Appendix 2D).

A Cultural Resources Investigation Report was prepared for the property by William Rich, M.A., of William Rich and Associates in April 2022 (Appendix 2D). The purpose of the investigation was to document whether cultural resources were present within the Proposed Project area, and whether any present cultural resources would be considered “Tribal Cultural Resources” or “historic resource” under CEQA. The report included data queries from the National Register of Historic Places (NRHP), Determinations of Eligibility for the NRHP, the California Register of Historical Places, and the California listing of Historical Landmarks.

The Cultural Resources Investigation Report included an examination of archaeological site records and survey reports in the area as identified by the Northwest Information Center (NWIC). No previous surveys in the vicinity have included the Proposed Project area. Two prior surveys have been conducted within a quarter mile of the property. Both prior surveys were for Caltrans investigations along Highway 36, north of the project. One cultural resource (site P-12-002568) is recorded within ¼ mile of the property. This cultural resource is a short segment of abandoned railroad track, approximately 295 feet north of the Proposed Project Area.

The Native American Heritage Commission (NAHC) was contacted on February 5, 2021, to request a tribal consultation list and a search of the Sacred Lands Inventory File. The NACH responded on March 3, 2021, stating that no sacred lands are present within the Proposed Project Site, and provided a list of suggested contacts. Per this list, letters regarding the project were sent to representatives of the Bear River Band of the Rohnerville Rancheria and the Wiyot Tribe on February 5, 2021. A response from the Wiyot Tribe yielded no information about the site but included recommendations for inadvertent discovery protocol. No additional responses were received.

The Cultural Resources Investigation Report also included a field survey which encompassed all of the Proposed Project Area (Figure 16). The field surveys occurred on January 21st, 2021, February 18th, 2021, and March 8th, 2022. The Proposed Project area was investigated for the presence of archaeological deposits, historic features, or other cultural resources. The report concluded that no historical resources, as defined in CEQA, Article 4, Section 15064.5 (a), were identified within the Proposed Project area or within a 600-foot buffer from the Proposed Project area (William Rich and Associates, 2022).

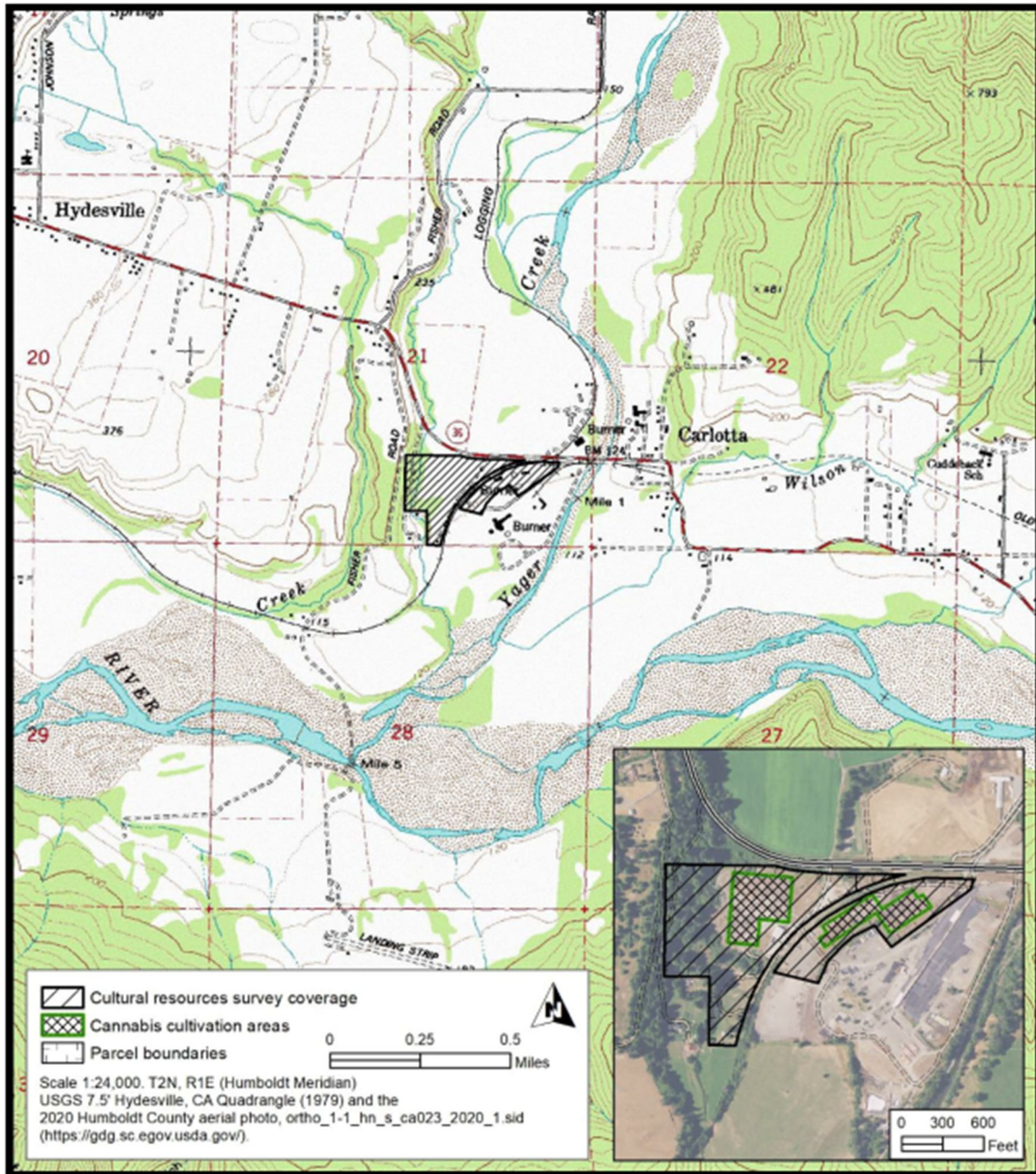


Figure 16: Cultural Resources Survey Coverage Map (Source: Appendix 2D - William Rich and Associates, 2022)

Analysis

- a) Finding: The project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. *Less than significant with mitigation incorporated.*

Discussion: The Cultural Resources Investigation Report completed by William Rich and Associates (Appendix 2D) identified no historical resources as defined by Section 15064.5 within the Proposed Project area or property, nor were there any previous records of historical resources located on the subject property. With the incorporation of proposed **Mitigation Measure CUL-1**, the impact would be less than significant.

- b) Finding: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. *Less than significant impact with mitigation incorporated.*

Discussion: The Cultural Resources Investigation Report completed by William Rich and Associates (Appendix 2D) identified no archaeological resources as defined by Section 15064.5 within the Proposed Project area or property, nor were there any previous records of archaeological resources located on the subject property. However, due to the historic and prehistoric uses of the project site, there is potential of discovering unknown subsurface archaeological resources during the proposed construction activities, therefore, Mitigation Measure CUL-1 is included to ensure that potential project impacts on cultural resources are eliminated or reduced to less than significant levels. This Mitigation Measure was also specifically requested by the Wiyot Tribe. With the incorporation of **Mitigation Measure CUL-1** the impact would be less than significant.

- c) Finding: The project would not disturb any human remains, including those interred outside of formal cemeteries. *Less than significant impact with mitigation incorporated.*

Discussion: The Cultural Resource Investigation Report completed by William Rich and Associates (2022) did not identify any human remains on the project site. However, due to the historic and prehistoric uses of the project site, there is potential of discovering unknown human remains during the proposed construction activities, therefore, the inadvertent discovery protocol, **Mitigation Measure CUL-1** is included. With the proposed mitigation, the impact would be less than significant.

Mitigation Measures

CUL-1. If cultural resources are encountered during construction activities, all onsite work shall be stopped in the immediate area and within 50-foot buffer of the discovery location. The County, THPOs for the Bear River Band of the Rohnerville Rancheria and Wiyot Tribe, and Archaeologist shall be contacted immediately. No material can be removed from the site until Tribes have agreed to a disposition plan and approval has been granted by County. A qualified archaeologist shall be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Tribal Historic Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria and the Wiyot Tribe shall be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials (see below). Historic archaeological discoveries may include nineteenth century building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, wells or privies. Work near the archaeological find(s) shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendation for further action.

If human remains are discovered during project construction, work shall be stopped at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner shall be contacted to determine if the cause of death must be investigated. If the coroner determines that the re-mains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner shall contact the NAHC. The descendants or most likely descendants of the deceased shall be contacted, and work shall not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. The County, THPOs for the Bear River Band of the Rohnerville Rancheria and Wiyot Tribe, and Archaeologist shall be contacted immediately. No material can be removed from the site until Tribes have agreed to a disposition plan and approval has been granted by County.

2.2.6. ENERGY

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy re- sources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy and energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project is for 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities, in addition to space for processing, drying, storage. Three (3) indoor cultivation buildings are proposed (totaling 304,992 sq. ft.) and a 40’ x 60’ expansion to an existing 60’ x 80’ metal building is proposed (totaling 7,200 sq. ft.). Indoor cultivation of cannabis would utilize artificial lighting at approximately 26 watts/sq. ft. and would be supplemented by natural lighting. All cultivation and nursery activities would occur within enclosed structures.

Electricity at the project site is currently provided by an existing service from Pacific Gas and Electric Company (PG&E). The Proposed Project would utilize an existing PG&E electrical service through a substation leased by the applicant. The substation is located on APN 204-234-002, approximately 0.25 miles north of the subject property (Figure 17). The substation is owned by Humboldt Redwood Company and leases exclusive power rights to the applicant. Utility infrastructure to connect to the substation is already in place: power poles with overhead lines already connect the Proposed Project site to the substation. The power pole that connects to the substation is located in the northeast corner of the property (Appendix 1 – Site Maps). No off-site improvements of utility lines, including those that traverse State Highway 36, would need to occur for the Proposed Project.

An analysis of the substation was conducted by a licensed Professional Engineer, Fred Jacobson, with Jacobson Engineering (Appendix 2J). The analysis reviewed the substation capacity and compared it to the projected load. The Memorandum found that the substation could supply up to 9,375 KVA of connected load capacity without exceeding a 65 degree C average temperature rise.

In Fall of 2022, it was widely reported by local news outlets that PG&E was close to reaching the limits of electrical transmission line capacity to southern Humboldt County, including to Hydesville and Carlotta and the location of the Proposed Project (Lost Coast Outpost, September 19, 2022). Improvements to existing PG&E infrastructure to increase capacity are expected to cost millions of dollars and will take several years, if not decades (Lost Coast Outpost, 2022). Although the Proposed Project is located in the impacted area, the substation is already powered and does not need an increase in electrical service or capacity. Utility lines already exist that connect the substation to the Proposed Project site. Therefore, the concerns with local PG&E capacity likely would not impact the Proposed Project.

Electricity for the Proposed Project would be required for cultivation (hydroponic system and lights), nursery, drying, and processing activities, security, and water infrastructure. Equipment for the project includes lighting, dehumidifiers, fans, HVAC, and small irrigation pumps, security system, and miscellaneous equipment, as described in the Humboldt Redwood Company Substation Memo (Appendix 2J). Considering all equipment, the total maximum for the project is expected to be approximately 7.86 MW at full project build-out, with all equipment operating at once.

A 150-kW generator would be kept onsite for backup only (e.g., power outage events). The CCLUO requires 100% renewable energy source for all proposed cannabis projects and includes Performance Standards for Energy Use.

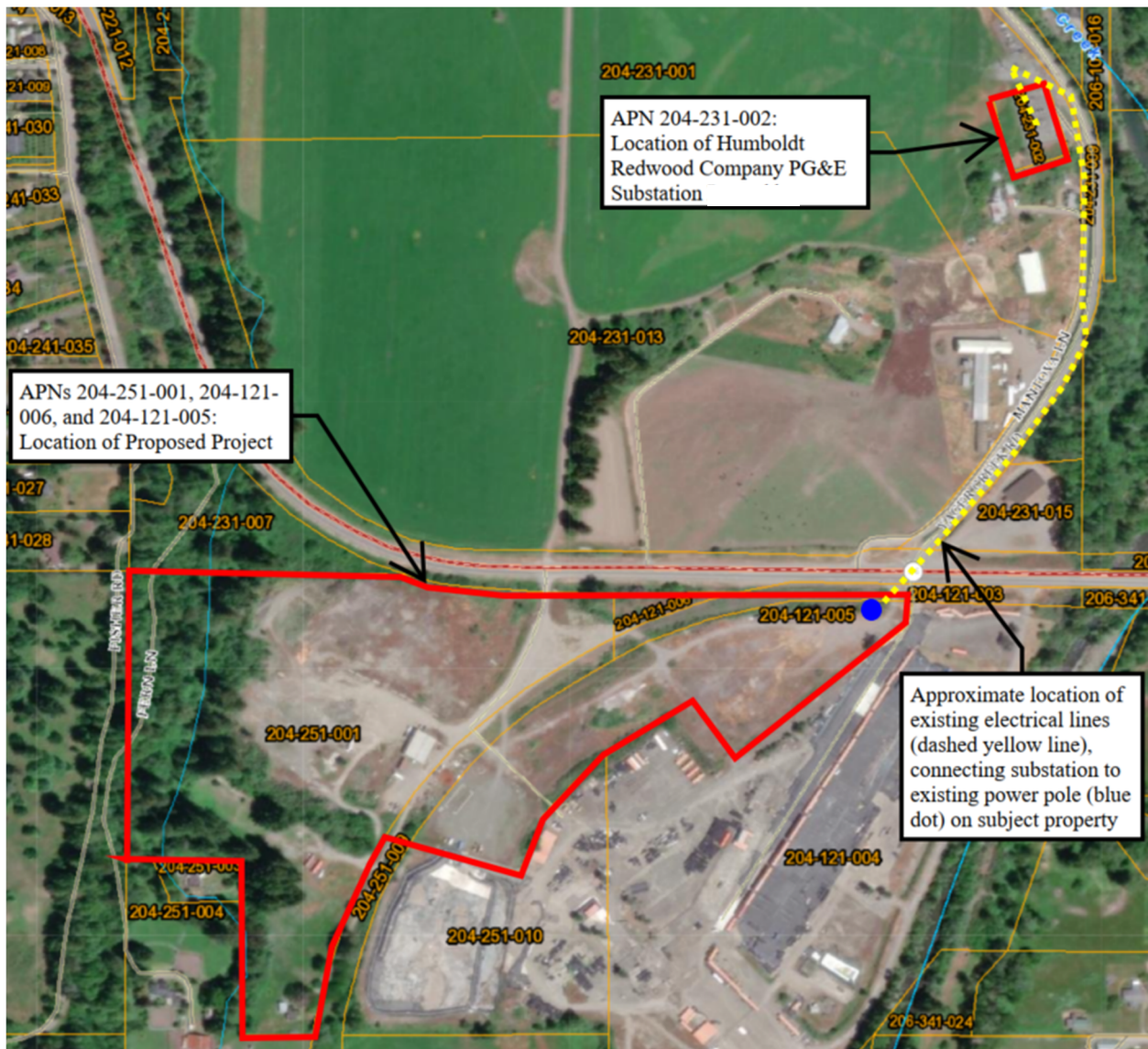


Figure 17: Location of Substation Leased by Applicant on APN 204-231-002 in relation to the Proposed Project Site (Source: Humboldt Web GIS, 2023)

The State of California Building Energy Efficiency Standards under the California Building Code (CBC), known widely as Title 24, outline requirements for all new commercial and residential construction projects. Title 24 is part of California's wider strategy to require all new commercial construction projects to be zero net energy by 2030 (California Energy Efficiency Strategic Plan, 2011). Title 24 standards would apply to any buildings seeking a commercial building permit from the Humboldt County Building Department, including the three (3) proposed indoor cultivation buildings and the addition to the existing metal building.

Also at the state level, Senate Bill (SB) 100 is California's Commitment to 100% Clean Energy, which requires 60% of the power purchased by California utilities to come from renewable sources by 2030.

Locally, the Humboldt County General Plan includes an Energy Element (Humboldt County, 2017). The Energy Element promotes self-sufficiency, independence, and local control in energy management and supports diversity and creativity in energy resource development, conservation, and efficiency. The Energy Element notes that key renewable energy resources include biomass, wind, wave, and small run-of-river hydroelectric. According to the Energy Element, local biomass resources are used to provide about 25% to 30% of the County's electricity needs. Roughly half of the electricity serving Humboldt County is generated at the Pacific Gas and Electric Company Humboldt Bay Generating Station. The County imports about 90% of its natural gas; the rest is obtained locally from fields in the Eel River valley. Humboldt County has an approximately peak electrical demand of 170 MW (Humboldt County General Plan, Energy Element, 2017).

The County of Humboldt has prepared a public review draft Climate Action Plan (April 7, 2022), which is currently being circulated and reviewed. The primary goal of the Climate Action Plan (CAP) is to reduce greenhouse gas emissions from local sources to prevent the most catastrophic effects of climate change. It has not been adopted as of the writing of this report.

Analysis

- a) **Finding:** The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. *Less than significant impact.*

Discussion: Power for the Proposed Project would be required for indoor cultivation (hydroponic system and lights), nursery, drying, and processing activities, security, and water infrastructure. Maximum power for the Proposed Project would total 7.86 MW at full build-out, with all equipment running simultaneously. This calculation includes the following equipment, per estimations from the applicant: 8,600 x 780-watt Gavita LED lights, 130 x Quest 4,266-watt dehumidifiers, 720 x Schaefer 276-watt Horizontal Air Flow fans. The 7.86 MW also includes an approximately 330,000-watt HVAC system, and approximately 70,000 watts for smaller miscellaneous equipment, including small irrigation pumps, controllers, security systems, etc. (Appendix 2J) Per the Humboldt Redwood Company Substation Memorandum, the substation leased by the applicant has sufficient capacity to provide all power needs for the Proposed Project.

Energy for the Proposed Project would come entirely from renewable energy sources, by purchasing 100% renewable energy RCEA Repower + Plan (or similar) through PG&E.

As described above, proposed equipment includes low-energy lighting (LED) lighting, and energy-efficient HVAC systems. All proposed buildings would comply with Title 24 building energy efficiency standards, which are designed to reduce wasteful and unnecessary energy consumption in newly constructed buildings. No construction could occur until a commercial building permit, demonstrating compliance with Title 24, was obtained through the Humboldt County Building Department.

Generators would not be utilized as a primary source of power. A back-up generator, such as a 150-kW Generac Protector (or similar) would remain onsite for emergency purposes only. No excessive diesel

consumption would occur, as this generator would only be employed during power outages or emergencies, as necessary.

Humboldt County has an approximately peak electrical demand of 170 MW (Humboldt County General Plan, Energy Element, 2017). The anticipated peak electrical demand for the Proposed Project is 7.86 MW, which represents maximum usage if all equipment was running simultaneously. Therefore, the Proposed Project peak electrical demand is approximately 4.6% of the total County's peak electrical usage.

Energy usage in Humboldt County from non-residential sources is lower than in previous decades (California Energy Commission, 2023). The California Energy Commission analyzed non-residential electricity use in Humboldt County from 1990 to 2020 and found that current use is approximately half compared to the late 1990s (approximately 400 GWh/year compared to approximately 820 GWh/yr.). In 2021, non-residential sources used approximately 425 GWh/year (California Energy Commission, 2023). Current use is approximately half compared to the late 1990's. Even with the addition of energy from the Proposed Project, nonresidential energy use would still equate to less energy than levels typical of the 2000s (California Energy Commission, 2023).

Renewable energy is proposed to meet all of the energy demand for this project, and energy is proposed to be used in an efficient manner through the installation of low-energy lighting and efficient HVAC systems (dehumidifiers, fans, ventilation, etc.). All proposed buildings would comply with Title 24 building energy efficiency standards. Therefore, a less than significant impact would occur.

- b) **Finding:** The project would not conflict with or obstruct a state or local plan for renewable energy and energy efficiency. *Less than significant impact.*

Discussion: The Proposed Project would only use the amount of electricity required for its operations, supplied in full by renewable energy, and not in a wasteful manner. Proposed equipment includes low-energy lighting (LED lighting), and an efficient HVAC system.

The project would comply with all local and state renewable energy and energy efficiency plans. The Proposed Project would comply with the building energy efficiency standards for all new commercial buildings, set by Title 24. Per the CCLUO, all energy sourced for this project must come from a 100% renewable source. This would be achieved for the Proposed Project by purchasing PG&E power through RCEA Repower + Program (or similar 100% renewable energy plan). In accordance with SB 100, PG&E currently obtains 33% of its power supply from renewable energy sources, which is on track to meet the 60% renewable energy mix by 2030 (PG&E website, Accessed November 2022). The project would not conflict with the Humboldt County General Plan Energy Element or the local draft Climate Action Plan. See Section 2.2.8, Greenhouse Gas Emissions, for further analysis. Therefore, a less than significant impact would occur.

Mitigation Measures

None.

2.2.7. GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project Site is a 31.69-acre parcel located east of the community of Hydesville in the unincorporated area of Humboldt County. Humboldt County is a rural area of California, subject to many potential natural hazards including sea level rise, wildfires, landslides, earthquakes, and flooding. A Geohazard Assessment Letter was conducted for the Project and is included in Appendix 2M.

No historic landslides or fires are mapped within the Proposed Project Site. The property is not at risk of flooding from sea level rise or dam failure inundation. The property is not located within a 100-year FEMA Flood Zone (Humboldt County Web GIS, 2022 and Appendix 1 – Site Maps). The Proposed Project Site is not listed as an area of potential liquefaction and is located within an area Low Instability for seismic safety (Humboldt County Web GIS, 2022).

The property contains two types of soils, per the Natural Resources Conservation Service. Approximately 30 acres of the site are Ferndale soils (Map unit symbol 220) and approximately 2 acres of the site are Fiedler-Petellen-Nanningscreek complex (Map unit 341). All proposed development would occur on Ferndale soils (*Figure 18*). Ferndale soils are characterized as having 0 to 2% slopes and are comprised of well-drained silt loam and sandy loam soils (Appendix 2K).

The Proposed Project site is located within Northern California's Coast Ranges Geomorphic Province, which is a geologically active region at risk for strong ground shaking. Humboldt County is located within the two highest of five seismic risk zones specified by the Uniform Building Code. The Cascadia Subduction Zone runs north offshore of Humboldt, Del Norte, Oregon, and Washington. Landslides and soil slips are common due to the combination of sheared rocks, shallow soil profile development, steep slopes, and heavy seasonal precipitation (Humboldt County 2025 General Plan Update. Natural Resource and Hazards Report; Pg. 10-9).

The Proposed Project site is situated in an active earthquake zone, as is all of Humboldt County. The Little Salmon Fault Zone enters the southern portion of the subject property (*Figure 19* and Appendix 1 – Site Maps). The Little Salmon Fault Zone is a quaternary fault zone, which is part of the Cascadia subduction zone (United States Geological Survey, 2023).

Alquist Priolo fault zones are regulatory zones surrounding the surface traces of active faults in California (USGS, 2023). Two Alquist Priolo Fault Zones are located near the Proposed Project Area, one located 0.26 miles west/northwest of the Proposed Project Area, and the other located 0.41 miles north of the Proposed Project Area (*Figure 19*). No portion of the subject property or the area proposed for development is located within an Alquist Priolo Fault Zone.



Figure 18: Proposed Project Site Soil Map Units - Proposed Project Area located entirely on “Ferndale” Soils, Unit 220 (Source: Web Soil Survey, 2023 - Appendix 2K)

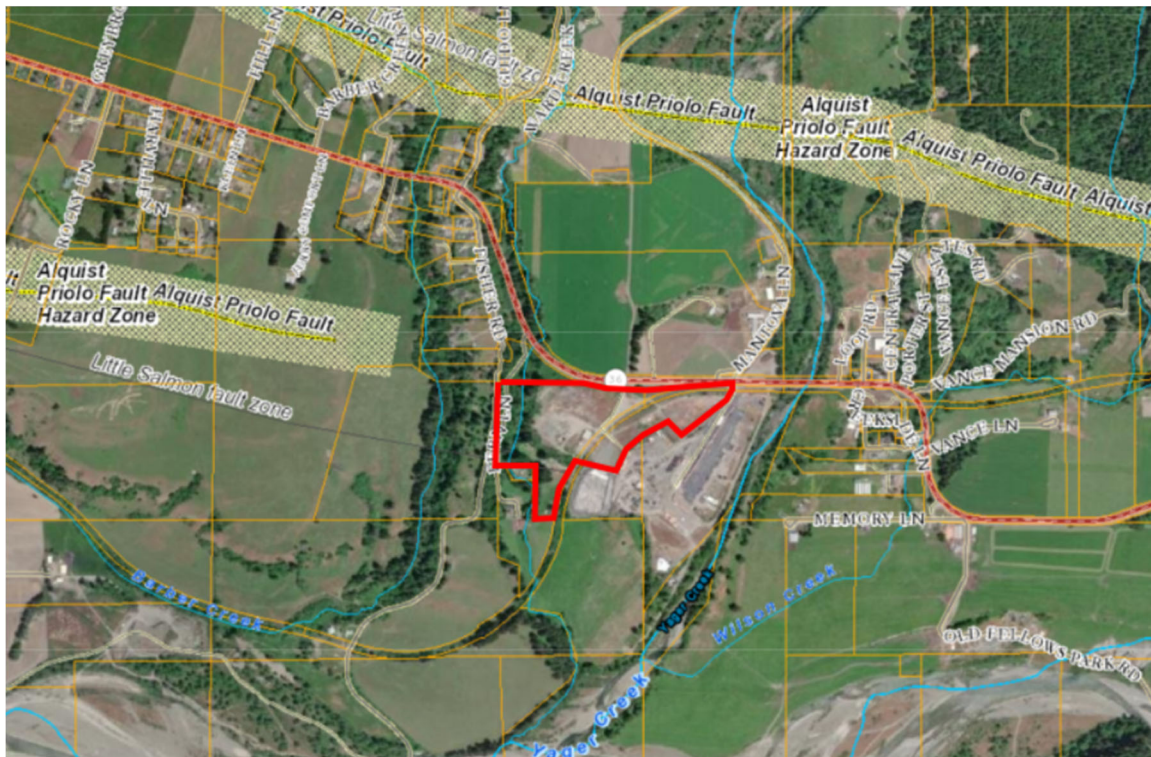


Figure 19: Alquist Priolo Fault Zones (yellow boxed area) and Little Salmon Fault Zone (grey line) in proximity to Subject Parcel, outlined in red (Source: Humboldt Web GIS, 2022)

Analysis

- a. i) **Finding:** The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. *Less than significant impact.*

Discussion: Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake’s seismic waves. The magnitude and nature of fault rupture can vary for different faults or even along different strands of the same fault. Surface rupture can damage or collapse buildings, cause severe damage to roads and pavement structures, and cause failure of overhead as well as underground utilities.

There are no earthquake faults delineated on Alquist Priolo Fault Zone maps within the Proposed Project Area (California Geological Survey, 2010 and Humboldt Web GIS, 2022), however, two Alquist Priolo Fault Zones are located within 0.5-miles of the site (*Figure 19*). One is located approximately 2,000 north and approximately 1,000 feet west (Appendix 2M). The Geohazard Assessment concluded that surface rupture due to faults or lateral spreading resulting from earthquake motion is not likely, based on the distance to the active fault zones (NorthPoint Consulting Group, Inc., 2023).

The Little Salmon Fault transverses the southern area of the property (*Figure 19*). The Little Salmon Fault is a late quaternary fault zone (USGS, 2023; Appendix 2M). This fault is not located directly under any proposed buildings. The State of California provides minimum standards for building design through the California Building Code (CBC). Where no other building codes apply, CBC Chapter 29 regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the State and is based on the federal Uniform Building Code (UBC) used widely throughout the country. The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in CBC Chapter 16. The Code identifies seismic factors that must be considered in structural design.

Since the project buildings will be designed to California Building Code seismic standards, and because the Proposed Project Area is not located within an Alquist Priolo Fault zone (e.g., an “active” earthquake zone), surface fault rupture is not considered to be a significant hazard for the project site any more than in other areas of earthquake-prone Humboldt County. Therefore, the project would not expose people or structures to substantial adverse effects from a fault rupture and the impact would be less than significant.

- a. ii) **Finding:** The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. *Less than significant impact.*

Discussion: Earthquakes on active faults in the region have the capacity to produce a range of ground shaking intensities in the project area. Ground shaking may affect areas hundreds of miles distant from an earthquake’s epicenter. Ground motion during an earthquake is described by the parameters of acceleration and velocity as well as the duration of the shaking. A common measure of ground motion is peak ground acceleration (PGA). The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g). Moderate earthquake hazard areas are defined as areas with ground accelerations of less than .092g and Violent earthquake hazard areas have ground accelerations of 0.65g to 1.24g. The California Geological Survey, Probabilistic Seismic Hazards Mapping Ground Motion Page (www.conservation.ca.gov) indicates a maximum PGA on the order of 0.61g for a seismic event with a 10 percent probability of exceedance in 50 years (design basis earthquake).

See discussion in a, i), above. There are no earthquake faults delineated on Alquist Priolo Fault Zone maps within the Proposed Project Area, though two Alquist Priolo Fault Zones are located within 0.5-miles of the project site. All buildings associated with the Proposed Project would be developed and constructed according to the California Building Code, which requires rigorous standards for building design in seismically prone areas.

The Proposed Project structures would be required to follow all requirements outlined in the CBC. The Geohazard Assessment (Appendix 2M) did not recommend further geological consultation but did recommend the preparation of an R2 Soils Report, which would occur during the Grading Permit application process post-project approval. The R2 Soils Report would be developed for all proposed buildings during the permitting process prior to construction to identify site-specific constraints. Therefore, the Proposed Project would not expose people or structures to substantial adverse effects involving strong seismic ground shaking.

- a. iii) Finding: The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. *No impact.*

Discussion: Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state because of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluidlike behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations.

According to the Humboldt County Web GIS system (2023), the project site is not designated as an area subject to liquefaction. Therefore, the Proposed Project would not expose people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction, and there would be no impact.

- a. iv) Finding: The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. *Less than significant impact.*

Discussion: Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Earthquake motions can induce significant horizontal and vertical dynamic stresses in slopes that can trigger failure. Earthquake-induced landslides can occur in areas with steep slopes that are susceptible to strong ground motion during an earthquake. The youthful and steep topography of the coast range is known for its potential for landslides.

The Proposed Project area does not contain any areas of known high slope instability (the Proposed Project Area is designated as an area of “low” instability). No historic landslides are mapped on the property (Humboldt County Web GIS, 2023). The site is extremely flat, with slopes ranging from 0% to 2%. Therefore, the Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

- b) Finding: The project would not result in substantial soil erosion or the loss of topsoil. *Less than significant impact.*

Discussion: Scraping, grading, ground disturbance, and the removal of on-site groundcover and vegetation (e.g., grasses) within the project footprint would occur during construction of the proposed structures. The site has been heavily disturbed. It is an existing graveled site, with a history of varied levels of industrial development. The Project parcel is mapped as having an area of “Low Instability”.

Soil qualities can be an indicator of the potential loss of topsoil due to disturbance from proposed development. The Proposed Project area is in Ferndale soils, which have a low wind erodibility group index

rating of 6, meaning that the area proposed for development is not very susceptible to wind erosion (Web Soil Survey, 2023).

Furthermore, a majority of the site is graveled, and thus topsoil is covered and unlikely to be susceptible to erosion. The Proposed Project does not involve the removal of any vegetation outside of the Proposed Project footprint that could result in erosion. All cultivation activities would occur within constructed buildings. Additionally, to prevent runoff to riparian areas, water conservation and containment measures would be implemented including the maintenance of a stable, vegetated buffer between the cultivation areas and riparian zone.

Prior to construction onsite, the applicant would be required to obtain Grading and Building Permits from Humboldt County. A Grading Permit, associated Erosion and Control Plan, and Soils Report, would be developed and submitted to the Humboldt County Building Department upon Project approval. Preliminary soil analysis, conducted for the Septic Suitability and Geohazard Assessment (Appendix 2M) indicates soils onsite are stable. A Conceptual Grading and Erosion Control Plan has been developed and did not identify issues concerning loss of topsoil or soil stability, as long as required erosion control mechanisms are followed.

In addition, the Project would comply with the requirements of the SWRCB Cannabis General Order and/or the SWRCB Construction General Permit, which stipulates employment of Best Management Practices (BMPs) and Best Practicable Treatment or Control measures (BPTCs). The Project would also be required to adhere to the standard erosion control measures of the Humboldt County General Plan.

Therefore, the Proposed Project would not result in substantial soil erosion or the loss of topsoil and a less than significant impact would occur.

- c) Finding: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. *Less than significant impact.*

Discussion: According to Humboldt County GIS data, the parcel is not mapped within an area of potential liquefaction. The National Earthquake Hazards Reduction Program (NEHRP) denotes project soils as Geological Unit C, indicating very dense soil and soft rock (NEHRP, 2022).

Design and construction of the project would incorporate appropriate engineering practices to ensure seismic stability as required by the CBC and county standards. Therefore, the Proposed Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse and a less than significant impact would occur.

- d) Finding: The project would not be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property. *Less than significant impact.*

Discussion: Expansive soils possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time due to expansive soils, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

Ferndale soils (Appendix 2K) are characteristic of silt to sandy loam, which are not typically considered to be expansive soils. The Proposed Project would comply with all structural requirements per the California Building Code, and an R-2 Soils Report would be conducted for the property prior to construction. See additional discussions above. Therefore, the Proposed Project would not be located on expansive soils creating

substantial risks to life or property. Impacts would be less than significant, and no mitigation would be necessary.

- e) Finding: The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. *Less than significant impact.*

Discussion: The existing onsite residence includes a septic tank and leach field of unknown permitting status. The proposed cultivation buildings and processing facility would require a new onsite wastewater treatment system or systems (Appendix 1 – Site Maps).

State law requires permits for onsite systems to ensure that they are constructed and sited in a manner that protects human health and the environment. A Septic Suitability Survey, conducted by NorthPoint Consulting Group, Inc. (Appendix 2I), analyzed the soils and found potential leach field locations with soils adequate to support a safe and effective onsite wastewater treatment system or systems. Two test holes were augured to depths of 24” and 28”, and one backhoe test hole was dug to a depth of 8 feet to examine subsurface soils. Soil samples were visually analyzed, collected, and tested for textural analysis by SHN Consulting Engineers (Appendix 2I). Results of the soil textural analysis demonstrated that Zone 2 soils are present at all three test locations, demonstrating that, in accordance with the Humboldt County Onsite Wastewater Treatment System Regulations and Technical Manual, soil properties can be used to calculate the system size and further percolation testing is not required (Appendix 2I).

In addition, non-wet weather field percolation tests were performed at the three test holes. Stabilized percolation rates were found to be approximately 5-6 minutes/inch at the 24” and 28”-deep test holes, and 35 minutes/inch at the 8’-deep test hole (Appendix 2I).

As a result of this Septic Suitability Survey, two potential leach field locations with adequate soils were identified: an area of approximately 44,100 sq. ft. south of the existing metal building and an area of approximately 16,450 sq. ft. south of Highway 36 (Appendix 2I). The investigation concluded that the Proposed Project Site would be capable of treating sewage associated with 74 employees, the maximum number of employees at any given time (Appendix 2I).

A permit would be obtained through the Humboldt County Division of Environmental Health and/or State Water Resources Control Board, as appropriate and as required by regulating agencies, prior to installation of the onsite wastewater treatment system. Any onsite wastewater treatment system components, including septic tank, leach field, and secondary leach field, would be located outside the wetland and riparian setbacks determined for this project.

Therefore, the Proposed Project would not have soils incapable of adequately supporting the use of septic tanks for the disposal of wastewater. In addition, the system would be reviewed and approved by the County Division of Environmental Health. Impacts would be less than significant, and no mitigation would be necessary.

- f) Finding: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. *Less than significant impact with mitigation incorporated.*

Discussion: The Project includes earthwork for the proposed for the buildings and for construction of the pond. Although the site has been previously developed, it is possible that excavation for the pond could unearth paleontological resources. The depth of pond excavation is estimated at 14 feet in depth below grade and the previous depth of excavation in that area is unknown (Appendix 1 see Sheets C3 and Sheets C4 of the Site Maps – Conceptual Grading and Erosion Control Plan). Additionally, regional uplifting and other seismic activity in the area have limited the potential for discovery of paleontological resources. Due to this, there is

a potential for fossils to be discovered and inadvertently damaged during project construction even in an area with a low likelihood of occurrence. As such an inadvertent discovery protocol for paleontological resources has been included as **Mitigation Measure GEO-1**. With the proposed Mitigation Measure GEO-1, the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Mitigation Measures

GEO-1. If paleontological resources are encountered during implementation of the Project, ground disturbing activities will be temporarily redirected from the vicinity of the find. A qualified paleontologist shall be retained by the developer to make an evaluation of the find. If a significant paleontological resource(s) is discovered on the property, the qualified paleontologist shall develop a plan of mitigation which shall include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation in the find a local qualified repository, and preparation of a report summarizing the find.

2.2.8. GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project is for 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities, in addition to processing, drying, and storage activities. Three (3) indoor cultivation buildings are proposed (totaling 304,992 sq. ft.) and a 40' x 60' expansion to an existing 60' x 80' metal building is proposed (totaling 7,200 sq. ft.). Indoor cultivation of cannabis would utilize artificial lighting at approximately 26 watts/sq. ft. and would be supplemented by natural lighting. All cultivation and nursery activities would occur within enclosed structures.

As described in the Project Description, traffic would increase onsite during construction and operation of the Proposed Project. During construction, which is proposed to be phased over five (5) years, at a minimum, approximately 20-30 employee trips would occur per day. In addition, six (6) round trips per day from dump trucks or material delivery trucks (based on 3 deliveries per day) are expected on average for a total of 26 to 36 trips per day during the construction period. Larger equipment would be mobilized once at the beginning of the construction period, and out at the end of the project.

During operation, an average of 99 employee trips would occur daily. Additionally, one (1) average daily trip from distribution activities (24 trips per month result from 12 deliveries per month), and an average of two (2) daily trips from nursery activities (resulting from 24 deliveries per month) would occur. In total, an average of 102 trips per day would be anticipated from the Proposed Project at full build-out.

GHGs are emitted into the atmosphere around from a variety of sources, including the combustion of fuel for energy and transportation, cement manufacturing, and refrigerant emissions. GHGs are gases that can trap heat in the atmosphere, a process that is analogous to the way a greenhouse traps heat. GHGs are emitted from human activities, as well as through natural processes. Increasing GHG concentrations in the atmosphere are leading to global climate change.

The primary GHGs that are of concern for development projects include Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. Emissions of CO₂ are largely by-products of fossil fuel combustion and CH₄ results from off-gassing associated with agricultural practices and landfills (California Air Resources Board, 2017; Humboldt County General Plan, 2017).

Greenhouse gases are regulated on federal, state, and local levels. At the state level, Assembly Bill (AB) 32 Scoping Plan (2017 Update) contains the main strategies California will use to reduce GHG emissions. AB

32 was originally passed by the California Global Warming Solutions Act of 2006 and details strategies and greenhouse gas reduction goals for projects across the state, including the now-achieved requirement to reduce statewide GHG emissions to 1990 levels by 2020 (a 28% reduction). In 2016, AB 32 was amended to require California to reduce GHG emissions to 40% below 1990 levels by 2030 (California Air Resources Board, 2017).

Locally, Humboldt County is complying with AB 32 to reduce GHG emissions to 40% below 1990 levels by 2030. The County has been coordinating with other local agencies to finalize a regional Climate Action Plan (CAP) to reduce greenhouse gas (GHG) emissions throughout Humboldt County. The first draft of the CAP was released in 2012. The CAP explores locally oriented strategies to reduce emissions from vehicle travel, electricity consumption, natural gas use and other sources of GHGs. The current Humboldt Regional Climate Action Plan, Environmental Review Draft, April 7, 2022, document is currently available for public review.

The County has existing programs and policies in place that reduce and minimize GHG emissions:

- Draft Humboldt County Regional Climate Action Plan (2022)
- Air Quality Element, Humboldt County General Plan (2017)
- Commercial Cannabis Land Use Ordinance (2018)
- California Air Resources Board Climate Change Scoping Plan (2017)
- NCUAQMD Particulate Matter Attainment Plan (1995)

Sources of greenhouse gas emissions from the project would occur during short-term construction activities (e.g. equipment) and long-term operation of the project (e.g. lights, fans, odor control measures, vehicle/truck traffic, equipment, residential energy use, and back-up generators used during power outages). Propane would be used in the nurseries.

- a) Finding: The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. *Impacts are less than significant.*

Discussion: The Proposed Project would significantly impact greenhouse gas (GHG) emissions if it were to generate substantial GHG emissions exceeding the CEQA thresholds of significance adopted by the NCAQMD and Humboldt County. NCAQMD and Humboldt County have not adopted thresholds of significance for GHG emissions from non-stationary sources. However, the Bay Area Quality Management District (BAAQMD) has established GHG thresholds that can be used in for significance determination. These thresholds are used by other counties in California without adopted thresholds of significance. Thus, for the analysis of GHG emissions, BAAQMD's GHG thresholds are used to evaluate the significance of the Proposed Project's GHG emissions. For land use development projects, the BAAQMD GHG threshold is "annual emissions less than 1,100 metric tons per year (MT/yr.) of CO₂e" (BAAQMD, 2017).

Mobile sources of greenhouse gases from the Proposed Project would include equipment used during short-term construction and vehicle/truck traffic from long-term operation. All construction equipment would be maintained to meet current emissions standards as required by the California Air Resources Board (CARB). The bulk of operational greenhouse gas emissions would come from vehicle and truck traffic as the Proposed Project is in a rural location in the unincorporated area of Humboldt County, trips from larger metropolis areas (e.g., Fortuna or Eureka), are a source of greenhouse gas emissions. However, the Cannabis Support Facility for nursery and distribution would provide services for other local farms in the Hydesville/Carlotta/Fortuna/Bridgeville areas which may not currently have ample access to such facilities, which could reduce the frequency of trips to Eureka or Garberville by other local cultivators. Additionally, the applicant would encourage carpooling where possible to reduce vehicle trips.

In addition, the Proposed Project would be electrically powered exclusively by renewable energy sources through PG&E and the RCEA Repower + Plan. All buildings would be designed to meet or exceed Title 24 requirements, in accordance with the California Building Code.

Construction and operation GHG emissions were estimated using the California Emission Estimator Model (CalEEMod®) Version 2023 (Appendix 2L). Information for the CalEEMod Analysis was derived from applicant information and correspondence, and default parameters were used where appropriate (e.g., construction equipment list). Mitigation measures available in the model, such as carpooling, Title 24 compliance, the offset of propane use, and use of renewable energy, were not included in the analysis and therefore the CalEEMod analysis represents a conservative estimation of Project emissions. The results are summarized in Table 6.

Table 6: Proposed Project Greenhouse Gas Emissions (Source: CalEEMod, 2023)

Year	Emission Source	CO ₂ e (MT/yr)	BAAQMD Threshold (MT/yr)	Exceeds Threshold?
Year 1	Construction - Unmitigated	74	1,100	No
Year 2	Construction - Unmitigated	87	1,100	No
Year 3	Construction - Unmitigated	76	1,100	No
Year 4	Construction - Unmitigated	70	1,100	No
Year 5	Construction - Unmitigated	121	1,100	No
At full build-out	Operation - Unmitigated	638	1,100	No

As can be seen in Table 6, emissions of GHGs would be below the BAAQMD CEQA threshold, and therefore significant or cumulative impacts to the environment due to GHG emissions from the project are not likely. Thus, the Proposed Project would not generate GHGs, either directly or indirectly, that would have a significant impact on the environment and impacts would be less than significant.

- b) **Finding:** The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gas. *Less than significant impact.*

Discussion: The Proposed Project would significantly impact greenhouse gas (GHG) emissions if it were to conflict with an adopted plan, policy or regulation intended to reduce GHG emissions. The project proposes a facility that would involve the cultivation and processing of cannabis. For the purposes of this analysis, the Proposed Project was evaluated against the following applicable plans, policies, and regulations (also listed above).

1) Humboldt County Draft Climate Action Plan (2022)

Humboldt County prepared a Draft Climate Action Plan (CAP) in 2012 which includes a comparison of greenhouse gas emissions from 2006 and 1990. The emissions of carbon dioxide equivalents in unincorporated Humboldt County in 2006 were shown to have declined by approximately a half million metric tons when compared to 1990 levels. This decrease may be attributed to a decline in industrial emissions in Humboldt County since 1990 related to a decline in the lumber industry and closure of several major industrial facilities related to timber processing.

More recently, the County has prepared an updated Humboldt Regional Climate Action Plan (April 2022). The CAP is currently under review but is available for public review. The more recent CAP includes an analysis of GHG emissions in 2015 as compared to 1990, with an immediate goal of reducing GHG emissions to 40% below 1990 levels, consistent with statewide targets. The 2015 GHG emissions analysis found that approximately 53.2% of emissions arise from the transportation sector, 12.6% come from livestock, 11.9% come from stationary combustion, 10.6% from Electricity Consumption, 5.6% come from industrial point sources, and the remainder from a multitude of other sectors (CAP, 2022) = This

project, as proposed, mitigated, and conditioned, is consistent with the following GHG reduction Goals, Strategies, Objectives, and Implementation Measures listed in the County of Humboldt Draft Climate Action Plan:

- *Reduce Rural Vehicle Trips*: See discussion above. The Proposed Project would inherently increase vehicle trips to the property, compared to the current vacant status, as a new commercial project is being proposed. At full build-out, the Proposed Project would result in an average of 102 trips per day. This classifies the project as “small project”, having fewer than the Governor’s Office of Planning and Research (OPR) threshold of 110 daily new trips (Office of Planning and Research, 2018). The Proposed Project would also serve as a Cannabis Support Facility for the surrounding Hydesville, Carlotta, Bridgeville, and Dinsmore rural areas, supporting nearby farms who could now utilize the distribution and nursery services proposed in this project rather than traveling to a larger metropolis area (e.g., Eureka or Garberville), subsequently reducing vehicle trips.
- *Objective 2.1.1: Increase Density and Mixed-Use Development in Infill Priority Areas*:
 - *Implementation Measure 2.1.1.1: Infill Development. 2030 Target: Increase Housing and/or Job Density by 200% in Infill Priority Areas*
The Proposed Project is an existing industrial site located near an urban area, falling into the category of infill priority area pre the CAP. The site is already disturbed; no undeveloped land is proposed to be impacted, and no vegetation is proposed to be removed. Job density would be directly increased in an infill priority area as a result of this Project.
 - *Implementation Measure 2.1.1.2: Increase Mixed-Use. 2030 Target: Increase Mixed-uses to Achieve a Ratio of 1.5 jobs per household in infill priority areas.*
The Proposed Project is an existing industrial site. This Project would help the county reach Implementation Measure 2.1.1.2 by increasing jobs in an infill priority area.
- *Strategy 2.6: Reduce Rural Vehicle Trips*
The Proposed Project would inherently increase vehicle trips to the property, compared to the current vacant status, as a new commercial project is being proposed. At full build-out, the Proposed Project would result in an average of 102 trips per day. This classifies the project as “small project”, having fewer than the Governor’s Office of Planning and Research (OPR) threshold of 110 daily new trips (Office of Planning and Research, 2018). The Proposed Project would also serve as a Cannabis Support Facility for the surrounding Hydesville, Carlotta, Bridgeville, and Dinsmore rural areas, supporting nearby farms who could now utilize the distribution and nursery services proposed in this project rather than traveling to a larger metropolis area (e.g., Eureka or Garberville), subsequently reducing vehicle trips.
- *Strategy 3.3: Promote All-Electric Building Design for New Construction. By 2030, 100% of new construction is all-electric.*
The County is transitioning away from natural gas and propane in new construction. The buildings are designed to be primarily electric, powered by PG&E. All new construction will comply with Title 24 Building Energy Efficiency Standards and the California Building Code.
- *Objective 3.4.3: Improve Energy Efficiency in New Buildings and Objective 3.6.1: Energy Efficiency in Large Commercial and Industrial Manufacturing Processes*
The applicant is proposing to utilize energy-efficient LED lighting and supplement artificial lighting with natural lighting. Additionally, energy-efficient dehumidifiers to capture and reuse water are proposed. All Buildings would comply with Title 24 Building Energy Efficiency Standards and the California Building Code. Although the Proposed Project does not propose manufacturing processes, this strategy still applies as an industrial site and as a large commercial project.
- *Goal 4: Decarbonize Electricity Sources*:
The Goal is to support the Redwood Coast Energy Authority’s (RCEA’s) continued improvement and implementation of the RePower+ Plan, available for purchase through PG&E. RCEA is seeking to diversify their renewable energy sources, aiming for 100% of the power mix to be from renewable energy sources by 2025. By opting up to purchase REPower+, at approximately 7.86 MW of

purchased power, the Project would help fund continued energy improvements in the County and would be powered fully by renewable energy sources.

Objective 3.6.1: Energy Efficiency in Large Commercial and Industrial Manufacturing Processes:

The Proposed Project would be powered entirely by renewable energy, through a renewable energy plan purchased through PG&E. The applicant is proposing to utilize energy-efficient LED lighting and supplement artificial lighting with natural lighting. Additionally, energy-efficient dehumidifiers to capture and reuse water are proposed. All Buildings would comply with Title 24 Building Energy Efficiency Standards and the California Building Code.

- *Promote the revitalization of communities in transition due to the decline of resource-based industries (2012 Draft CAP):* This Proposed Project would provide nursery and distribution activities as Community Support Facilities to the Hydesville, Carlotta, Bridgeville areas, and beyond. Additionally, it would employ up to 25 full-time employees and up to 49 seasonal/contract laborers in the area, helping facilitate economic development in rural Humboldt County.

2) Humboldt County General Plan – Air Quality Element (2017)

The Air Quality Element of the Humboldt County General Plan (Chapter 15) describes the County’s policies to reduce greenhouse gas emissions and mitigate climate change. The General Plan provides greenhouse gas-related Goals and Policies for projects to meet, including the following relevant policies:

- *AQ-P1. Reduce Length and Frequency of Vehicle Trips:* See discussion above.
- *AQ-P11. Review of Projects for Greenhouse Gas Emission Reductions,* which states that the County shall evaluate GHG emissions of new large-scale commercial projects for compliance with state regulations and require feasible mitigation measures to reduce GHG emissions. See discussion above.
- *AQ-P15. Energy Efficient Building Design,* which states that the County shall encourage and provide incentives for construction of buildings beyond Title 24 requirements. The Proposed Project would meet Title 24 requirements.

3) Humboldt County Commercial Cannabis Land Use Ordinance (CCLUO, 2018)

The CCLUO requires that all electricity for new commercial cannabis projects be exclusively provided by a “renewable energy source”, defined as generating power without the use of petroleum or other fossil fuels (CCLUO, 2018) The Proposed Project would be powered through a renewable energy plan from RCEA from on-grid PG&E power, and thus complies with the 100% renewable energy Performance Standards of the CCLUO.

4) California Air Resources Board Climate Change Scoping Plan (2022)

The 2022 Climate Change Scoping Plan developed by the California Air Resources Board (CARB) provides context and strategies to help achieve statewide greenhouse gas emission reduction goals. Appendix B of the Scoping Plan includes suggested actions that local governments can take to support the State’s climate goals. The Project is consistent with the following applicable GHG reduction measures related to the industrial/agricultural sector as identified in the Scoping Plan:

- *Decarbonize industrial energy supply; Decarbonize new buildings:* As described above, proposed buildings associated with the project would comply with the California Building Code and California Energy Code and thus would include the required energy features to be consistent with this measure. The Proposed Project would source energy from solar and PG&E. Solar is inherently a renewable energy source, and PG&E currently obtains at least 33% of its power supply from renewable energy sources, which is on track to meet the 60% renewable energy mix by 2030 (PG&E website, Accessed April 2022). If utilizing PG&E, the project would be required to enroll in a PG&E renewable energy program, such as the “100% Solar Choice” plan or the “RePower+” plan (PG&E, 2022).

5) NCUAQMD Particulate Matter Attainment Plan

The NCUAQMD prepared a Particulate Matter Attainment Plan, Draft Report, in May 1995 with the goal of achieving and maintaining state ambient air quality standards for PM₁₀. This report includes a description of the planning area (North Coast Unified Air District), and emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's attainment plan established goals to reduce PM₁₀ emissions and eliminate the number of days in which standards are exceeded. The plan includes three areas of recommended control strategies to meet these goals – transportation, land use and burning. Control measures for these areas are included in the Attainment Plan. Compliance with the control measures in the Particulate Matter Attainment Plan would not only result in a reduction of PM₁₀ emissions but would also result in a reduction of GHG emissions. Control strategies focused on reducing transportation emissions, more efficient land use patterns, and reducing emissions from burning activities would also reduce the amount of GHG emissions. The proposed buildings would be designed to meet all California Building Code and Title 24 Standards.

Therefore, the Proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation Measures

None.

2.2.9. HAZARDS AND HAZARDOUS MATERIALS

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project involves indoor cannabis cultivation, processing, and distribution activities. Agricultural chemicals, including fertilizers, soil amendments, pesticides, fungicides, and petroleum products, including diesel and gasoline, would be used for agricultural operations. The project site has historically been used for

industrial purposes. A Phase I Environmental Site Assessment (ESA) was completed for the subject property on May 9th, 2022. A Phase II ESA was completed for the subject property on May 25th, 2022. Both reports were conducted by Freshwater Environmental Services and can be found in Appendix 2G and 2H.

The property was previously used for milling and quarry operations and was under ownership of various operators throughout the majority of the 1900s. Two (2) lumber mills were present on the property. The parcels were part of the larger Pacific Lumber Company (PALCO) Carlotta Stud Sawmill, which was in operation from approximately the 1930s/1940s to the 1970s/1980s and beyond. The PALCO sawmill included a log deck, lumber storage yard, conical burners, shipping yard, fueling area, oil house, sawmill equipment, millwright shop, electrician shop, truck shop, equipment boneyard, and a rock processing/crushing area (Appendix 2G). See Figure 20 for a representative image of industrial activities on the site in 1998.



Figure 20: Aerial Imagery of the subject parcels (in yellow) from 1998, showing extent of industrial activity on the Proposed Project Sites (Source: Phase I ESA, Freshwater Environmental Services, 2022)

Three underground storage tanks (USTs), including a 500-gallon gasoline tank and two 500-gallon diesel tanks, were removed from the former Carlotta Stud Mill on APN 204-121-005 in October 1990 (Appendix 2G). Approximately 200 cubic yards of impacted soil was excavated from the site along with the USTs and was used as fill material beneath the Carlotta Mill paved log deck. No additional information regarding the actual location of the excavated material was provided, however, there are no paved log decks within the Proposed Project Area. A remedial Action Completion Certification letter dated June 19th, 1997, was issued by the Humboldt County Division of Environmental Health.

The State Water Resources Control Board (SWRCB) Geotracker website (accessed December 2022) identifies one (1) GeoTracker Leaking Underground Storage Tank (LUST) Site associated with the above-described USTs titled the “PALCO Carlotta Mill LUST Cleanup Site” (T0602300253). The case is listed as “Completed – Case Closed as of 6/19/1997” (State Water Resources Control Board Geotracker, 2022). See Figure 21 for the approximate location of the LUST site.

The Pacific Lumber Company Carlotta Mill Cleanup Program Site (T0602393482) is a cleanup program located on the property to the east of the subject parcel (Figure 21). The former operations at the mill site included the use of pentachlorophenol and copper-based compounds to treat lumber, and dioxins have been identified onsite. A major excavation in 2007 appears to have removed a majority of the pentachlorophenol-contaminated soils from the site. Remaining concerns at the site included petroleum soil contamination. A land use covenant has been recorded for APNs 204-121-004, 205-251-010, and 206-351-004, which comprise one legal parcel to restrict the property industrial uses and ground disturbance (Figure 21). A Soil and Groundwater Management Plan is in place for ongoing monitoring. The Proposed Project area proposed for development is not subject to any Land Use Covenants or Soil and Groundwater Management Plans.



Figure 21: LUST Cleanup Sites and Cleanup Program Sites on Subject Property (outlined in red) and adjacent property (outlined in yellow), which combined historically comprised the PALCO Carlotta Stud Sawmill (Source: Geotracker Website, 2023)

The Phase I Environmental Site Assessment identified three Recognized Environmental Conditions (RECs) at the site, including: (1) the former presence of two conical burners on APN 205-251-001, (2) the former presence of a lumber mill green chain where wood-treatment chemicals may have been used on APN 204-251-001, and (3) the former presence of several large electrical transformers that may have contained PCBs on APN 204-121-005 (Appendix 2G). Following these identified RECs, a Phase II Environmental Site Assessment was conducted to further investigate and test the REC areas.

The Phase II Environmental Site Assessment conducted subsurface investigation activities in the REC locations. A total of five (5) shallow test pits were dug, including two test pits near the former conical burners, two test pits near the former lumber mill green chain, and one test pit near the former electrical transformer pad. Soil samples were taken on May 3, 2022. Soil was collected and taken to California ELAP-certified laboratories to test for dioxins/furans, pentachlorophenol (PCP) and tetrachlorophenol (TCP), and polychlorinated bi-phenyls (PCBs) (Appendix 2H).

Soil testing results found presence of dioxins at the two soil sample locations near the former conical burner locations at concentrations of 0.0266 pg/g TEQ and 0.0201 pg/g TEQ. These concentrations are significantly less than the Department of Toxic Substances Control screening level thresholds for commercial and industrial land uses, which range from 220 to 700 pg/g TEQ. No detections of PCP or TCP were identified in the test pits located near the former green chain area, and no PCBs were detected near the former transformer area.

Based on these subsurface soil sample results, no further testing or action related to the onsite RECs was recommended.

The Proposed Project site has a CalEnviroScreen score between 20-25% (CalEnviroScreen 3.0, accessed December 2022). The CalEnviroScreen mapping tool helps identify California communities that are most affected by sources of pollution, and where people are often especially vulnerable to pollution effects. The scores are mapped so that different communities can be compared. Scores range between 1-100%. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. The low score of 20-25% indicates that the subject parcel is not likely to be recognized as a highly disadvantaged area from environmental pollution.

The closest schools are Hydesville Elementary School, located approximately 1.3 air-miles northwest of the Proposed Project, and Cuddeback Union Elementary School, located approximately 1.4 air-miles east of the Proposed Project (Google Earth, 2022). The project site is not located within two (2) miles of a public airport or public use airport. The closest airport is Rohnerville Airport, located over three (3) air miles from the Proposed Project area. According to the Humboldt County WebGIS, the Proposed Project site is located in a Moderate Fire Hazards Severity Zone. No portion of the subject property is located within a FEMA Flood Zone or a dam failure inundation zone (Humboldt Web GIS, 2022). The project is not located in the Coastal Zone and would not be impacted by a tsunami or sea level rise.

Analysis

- a) **Finding**: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. *Less than significant impact.*

Discussion: The Proposed Project site would be developed for the cultivation and processing of cannabis, which typically uses hazardous materials including fertilizers, herbicides, pesticides, petroleum products, as well as vehicle and equipment fluids and lubricants. These materials would be transported to the site and used within the enclosed facilities. No disposal of hazardous materials would occur as part of the Proposed Project.

The risks associated with the routine transport, use, and storage of these materials during construction and operation are anticipated to be relatively small. With appropriate handling and disposal practices consistent with the SWRCB Cannabis General Policy and General Order WQ 2019-0001-DWQ, as required, there is relatively little potential for accidental release of hazardous materials during construction or operation. Storage and handling of materials would employ BMPs and BPTCs regarding the use of hazardous materials.

Fertilizers, nutrients, and soil amendments anticipated to be used include FloraBloom Advanced Nutrient System, Flora Micro, FloraGRO Advanced Nutrient System, Regalia Fungicide, Earth Juice Rainbow Mix Pro Grow/Bloom, General Hydroponics Grow, oyster shell, gypsum, lime, dolomite, azomite, compost, and worm castings. Other legal fertilizers, nutrients, and soil amendments like the above or allowable under regulations could also be used during operations. Pesticides anticipated to be used include sulfur products, neem oil and other plant oils (e.g., garlic, cottonseed, corn, clove, etc.), AzaGurad, Regalia Biofungicide, and biological controls (Appendix 1 – Cultivation and Operations Manual). Other legal pesticides like the above or allowable under regulations could also be used during operations. Pesticides and fertilizers would be applied directly to plants or fed through the hydroponic fertigation system, and would be applied within the

enclosed buildings, located over 350 feet from the nearest offsite residence. No outdoor application of agricultural chemicals would occur.

Petroleum products, including gasoline and diesel, are currently stored onsite to maintain existing residential and industrial operations (e.g. to power tools, equipment, etc.). Petroleum products associated with the smaller equipment would include gasoline and diesel stored in small-quantity sealed containers (e.g. 5-gallon gas cans).

Up to 1,000 gallons of diesel would be stored onsite to power the backup emergency generator in the event of a power outage. This fuel would be stored in an approved, allowable weather-proof container, covered, and located within secondary containment. As storage of greater than 55 gallons of petroleum products would require compliance with the Humboldt County Certified Unified Program Agency (CUPA), the Project would need to enroll in CUPA and prepare a Hazardous Materials Business Plan, which would need to be approved by Humboldt County prior to construction or operation. The Hazardous Materials Business Plan would detail all hazardous material and wastes that are used, stored, or handled onsite, and would describe applicable measures on how to properly store and handle such materials. Once approved, regular inspections would be conducted periodically by the County to ensure compliance with CUPA.

All petroleum products would be stored within secondary containment. Refueling of small equipment (e.g. weed whacker, tools, generator, etc.) would be conducted onsite over secondary containment and greater than 100 feet from any watercourses. Refueling of larger equipment (e.g., tractor or backhoe) would be conducted offsite at a properly licensed facility.

BMP's and BPTCs outlined in the Cannabis General Order (refer to Attachment A of the Order on the SWRCB website) would be employed when storing, handling, mixing, application and disposal of all fertilizers, pesticides and fungicides. All nutrients, pesticides and fungicides would be in a locked storage room within the indoor facilities, and contained within water-tight, locked and labeled containers in accordance with manufacturers' instructions. No fertilizers, pesticides, fungicides, or other agricultural chemicals would be handled or mixed outside of the buildings; this would occur within the indoor cultivation buildings in an enclosed environment with an impermeable floor. Application rates would be tracked and reported with the end of the year monitoring report if required by the State Water Resources Control Board. Employees responsible for application would be trained to handle, mix, apply or dispose of pesticides/fungicides with proper hand, eye, body, and respiratory protection in accordance with the manufacturer's recommendations.

The SWRCB program and County ordinance have "standard conditions" applicable to cannabis operations that address impacts from the storage and use of hazardous materials which include the following requirements:

- Any pesticide or herbicide product application would be consistent with product labeling and be managed to ensure that they would not enter or be released into surface or groundwater;
- Petroleum products and other liquid chemicals would be stored in containers and under conditions appropriate for the chemical with impervious secondary containment; and
- Implementation of spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.

Under CUPA, A Hazardous Materials Business Plan would be required if the Proposed Project stored greater than 55 gallons, 500 pounds, or 200 cubic feet of hazardous materials for 30 days or more at any time throughout the course of the year. This is the case for this project, as diesel is planned to be stored for the emergency generator use, if needed. In addition, the generation of any hazardous waste would also trigger a Hazardous Materials Business Plan. No Category I or II pesticides, explosives, or extremely hazardous substances would be stored onsite. If required, the Hazardous Materials Business Plan would be developed in

coordination with the Humboldt County Department of Environmental Health, and would include regular Business Plan updates and reporting, per CUPA requirements. This is also a requirement of the CCLUO and would apply to this Project.

With appropriate storage, handling, and application practices that comply with the requirements of the NCRWQCB and Humboldt County, with development and implementation of a Hazardous Materials Business Plan, in addition to the regular inspections conducted by the County to verify compliance with CUPA, it is not anticipated that the use of these materials at the facility would pose a significant hazard. Therefore, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and a less than significant impact would occur.

- b) Finding: The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. *Less than significant impact.*

Discussion: See above discussion. The Proposed Project involves the cultivation and processing of cannabis which is a use that typically uses hazardous materials including fertilizers, herbicides, pesticides, petroleum products, as well as vehicle and equipment fluids and lubricants. As described in subsection a), fertilizers, pesticides, lubricants and oils, and diesel would be stored and used at the site. The fertilizers and pesticides used by the project would primarily be in five-gallon containers and stored within the proposed facility for containment.

The applicant would be required to file a Hazardous Materials Business Plan with the County Division of Environmental Health for the storage and handling of the various materials described above at the site. With appropriate storage, handling, and application practices, it is not anticipated that the use of these materials would pose a significant hazard. In the event of an accidental spill, a materials management spill plan and associated spill kit would be developed and kept onsite.

Therefore, the Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- c) Finding: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. *No impact.*

Discussion: There are no schools located within one-quarter mile of the project site. The nearest schools are both greater than a mile from the Proposed Project. The Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur and no mitigation would be necessary.

- d) Finding: The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. *No impact.*

Discussion: The Proposed Project site was not included on a site which is included on a list of hazardous materials sites, per Government Code Section 65962.5. As described above, the subject property was the site of a historic LUST cleanup, as described above. However, a remedial Action Completion Certification letter dated June 19th, 1997, was issued by the Humboldt County Division of Environmental Health. No further action is required to close this site, and no restrictions are placed on the property. Because the Proposed Project is not listed as a hazardous materials site, implementation of the Proposed Project would not create a significant hazard to the public or the environment. No impact would occur, and no mitigation would be necessary.

- e) Finding: For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area. *No impact.*

Discussion: The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport is Rohnerville Airport, located over 3 miles away. Therefore, the Proposed Project would not result in a safety hazard for people residing or working in the project area. No impact would occur, and no mitigation would be necessary.

- f) Finding: The project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. *Less than significant impact.*

Discussion: The Proposed Project would use a private driveway off of State Highway 36 to access the project site. Highway 36 provides adequate project site access and circulation in the event of emergency. The Proposed Project would be required to comply with the Humboldt County Fire Safe Ordinance 1952, which the California Board of Forestry and Fire Protection has accepted as functionally equivalent to PRC 4290. The County Fire Safe Ordinance provides specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and setback distances for maintaining defensible space (CALFIRE, 2017). The improvement plans for the Proposed Project would be reviewed to verify compliance with the County's Fire Safe Ordinance which would ensure that adequate access for emergency response and evacuation is provided. In addition, the maximum of 105 trips per day (including employees and truck/delivery trips, at peak season), would not substantially interfere with traffic volumes and would not put Highway 36 over traffic road capacity (CalTrans, 2023). As such, this project would not interfere with any emergency response or evacuation plan. Therefore, the Proposed Project would not impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- g) Finding: The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to an urbanized area or where residences are intermixed with wildlands. *Less than significant impact.*

Discussion: The Proposed Project would be required to comply with the Humboldt County Fire Safe Ordinance (County Code Section 31111 et seq), which CalFire has accepted as functionally equivalent to PRC 4290. The County Fire Safe Ordinance provides specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and setback distances for maintaining defensible space. The project site is accessed by State Highway 36, which exceeds Category 4 standards (Road Evaluation, 2021 – Appendix 2C). Improvement plans for the Proposed Project would be subject to approval by the Humboldt County Building Department to verify compliance with the County's Fire Safe Ordinance which would ensure that adequate access for emergency response and evacuation is provided.

Fire protection in Humboldt County is provided by local districts, cities, and CALFIRE. The project site is within the Fortuna Fire Protection District Fire Response Area. CALFIRE identifies fire hazard severity zones in State Responsibility Areas (SRA) throughout California. According to Humboldt County Web GIS mapping, the project area is located in a moderate fire hazard severity zone within the SRA. The County of Humboldt Office of Emergency Services coordinates emergency response in Humboldt County through the Humboldt Operational Area. The Humboldt Operational Area is composed of the County of Humboldt, serving as the lead agency, and all political subdivisions (cities and Special Districts) within the county.

The risk of causing a wildfire would not be significant during construction and operation because the project activities would comply with state and local requirements. Equipment shall be "fire-safe", i.e., operating under a fire safety plan and equipped with spark arrestors. The access road shall be maintained in a state such that it is free of vegetation during times of activity. Additionally, the subject parcel is an existing vacant industrial lot without significant vegetation to fuel a wildfire.

Fueling of vehicles/equipment during construction activities would occur off-site or be transported and dispensed from pick-up trucks equipped for such a purpose. During long-term operation of the project, fuel would be stored on-site for equipment use in containers designed for fuel storage that includes secondary containment.

As required by fire code, all of the existing and proposed buildings, except the greenhouse structures and the drying barn, would be developed with fire suppression systems. In addition, SRA improvements include management of trees and vegetation around existing structures to maintain the required 100-foot defensible space and all structures on the property exceed the 30-foot SRA setback requirement from property lines. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Potential impacts would be less than significant, and no mitigation would be necessary.

Mitigation Measures

None.

2.2.10. HYDROLOGY AND WATER QUALITY

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The parcel is located in the South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803), which is located within the greater Van Duzen River watershed. The South Fork Yager Creek Watershed has a contributing acreage of 30,675 acres. The Van Duzen River is a major tributary to the Eel River and has a drainage area of approximately 429 miles. The confluence of the Van Duzen River is located approximately 14 miles upstream from the mouth of the Eel River at the Pacific Ocean, and it stretches approximately 70 miles into the coastal mountains eastern Humboldt County and western Trinity County (Friends of the Van Duzen River, 2022). The Proposed Project site contains elevations ranging from 115 to 130 feet above sea level and receives an average of 44 inches of precipitation per year, though precipitation can vary widely from year to year (Google Earth, 2022 and PRISM, 2022).

Ward Creek, a perennial (Class I) watercourse flows along the western property boundary toward the Van Duzen River. No other streams are located on the property. Yager Creek, a Class I watercourse and tributary to the Van Duzen River, is located approximately 500 feet east of the eastern property boundary. Mapped wetlands per the National Wetland Inventory were identified within the riparian corridor of Ward Creek, near the western property boundary. No mapped or potential wetlands were identified within the Proposed Project area (Appendix 2B). No stream crossings exist onsite. A Non-jurisdictional Items Notification through the Environmental Permit Information Management System (EPIMS) has been submitted to CDFW for review. All Proposed Project development would be located outside of setbacks from watercourses and riparian buffers.

The Van Duzen River is a designated river under the 1968 Wild and Scenic Rivers Act from the confluence with the Eel River to the Dinsmore Bridge. Under the Wild and Scenic Rivers Act, rivers can be classified as “wild”, “scenic”, or “recreational”, depending on the specific characteristics of the portion of river (National Wild and Scenic Rivers System, 2023). The portion of river closest to the Proposed Project site, approximately 0.5 air miles south, is designated as “Recreational”, meaning that it is a river readily accessible by road with some development along the shoreline (National Wild and Scenic Rivers System, 2023).

The Van Duzen River is listed as an “Impaired” waterbody per section 303(d) of the Clean Water Act, for excessive sediment (State Water Resources Control Board, 2022). Listing a waterbody as impaired for a particular constituent or stressor requires the development of a Total Maximum Daily Load (TMDL), which is a pollution control plan for the waterbody and the associated constituent or stressor. The TMDL identifies the quantity of the constituent that can be safely assimilated by a waterbody without violating water quality standards. Yager Creek is also listed as an “Impaired” waterbody for sediment.

A TMDL for sediment in the Van Duzen River and Yager Creek was adopted by the U.S. Environmental Protection Agency (EPA) on December 16, 1999. The primary purpose of the TMDL for the Van Duzen River and Yager Creek is to protect the health of impaired aquatic ecosystems by ensuring attainment of water quality standards, including beneficial uses (EPA, 1998). The Van Duzen River and Yager Creek TMDL implementation plan was included in Resolution R1-2008-0057, the *Regional Water Board Staff Work Plan to Control Excess Sediment in Sediment-Impaired Watersheds*, adopted by the North Coast Regional Water Quality Control Board in November 2008. The Work Plan includes numeric targets, source analysis, and sediment loading rates within the watershed.

As part of the Sustainable Groundwater Management Act, the California Department of Water Resources (DWR) prioritized 517 groundwater basins and subbasins in California as either high, medium, low, or very low based on eight components to determine which basins are in overdraft and/or require groundwater management. The Project Site is located within the Eel River Valley Groundwater Basin, Basin #1-010, a medium priority basin (DWR, 2021). This basin covers approximately 73,000 acres and nearly 22,000 residents, primarily residing in and around Fortuna, Loleta, Ferndale, Scotia, and Rio Dell (Humboldt County

Department of Public Works, 2021). Just under 500 permitted wells are recorded in the basin (DWR, 2021), with uses including private domestic and agricultural wells, public water systems, and municipal wells. Approximately 13,500 acres of agricultural lands in the basin are irrigated with groundwater, with grazed pastureland and livestock crop production comprising approximately 85% of the use.

The Sustainable Groundwater Management Act applies to groundwater basins ranked as high or medium priorities. The Eel River Valley Groundwater Basin was designated as medium priority in 2015 and 2018. The Eel River Valley Groundwater Sustainability Plan was finalized in January of 2022. Implementation of this plan to achieve basin sustainability is proposed to occur prior to 2042 (Department of Public Works, 2021).

No portion of the property is located within a FEMA Flood Zone or dam failure inundation zone.

Analysis

- a) **Finding:** The project would not violate any water quality standards or waste discharge requirements. *Less than significant impact.*

Discussion: Construction of the Proposed Project would include minor site preparation, storage and use of construction materials, construction of a pond and buildings, and the operation of heavy equipment. Until construction at the site is complete, soil and pavement particulate may become entrained in stormwater resulting in sediment being discharged from the site. In addition, stormwater discharge may include debris, particulate, and petroleum hydrocarbons because of improper storage of construction materials, improper disposal of construction wastes, and spilled petroleum products. No construction would occur in or within 150 feet of Class I (perennial) watercourses, and no other watercourse classification types are located onsite.

There is an existing unpermitted septic system that serves the existing residence, and a new septic system is proposed to accompany the commercial buildings as part of the Proposed Project. A Septic Suitability Survey was conducted by NorthPoint Consulting Group, Inc. which analyzed site soils and found two (2) potential locations suitable adequate to support a safe and effective onsite wastewater treatment system (Appendix 2I). The proposed septic system or systems would be designed and reviewed by a professional engineer with an appropriately sized leach field and septic tank prior to approval from the Humboldt County Department of Environmental Health. Portable toilets and handwashing facilities would be provided onsite and serviced by a licensed provider prior to construction of the processing building.

The site is not located within the MS4 General Permit Boundary, per the Humboldt Low Impact Development (LID) Stormwater Manual (V3.0, August 18, 2021).

Prior to operation of the Proposed Project, the applicant would be required to obtain coverage under the State Water Resources Control Board Cannabis General Order. All cultivation would occur indoors within enclosed structures. Compliance with the SWRCB Cannabis General Order would include ongoing implementation of BPTC Measures throughout the life of the project, including proper storage of all liquid materials in secondary containment, safe storage of site refuse, site winterization activities, and ongoing monitoring of the site. All hazardous materials, including pesticides, fertilizers, soils, spoils piles, and cultivation waste, will be properly stored outside of riparian setbacks to protect water quality.

In coordination with the North Coast Regional Water Quality Control Board, coverage under the Construction Stormwater Program and obtainment of a Construction General Permit may be required for the construction portion of this project. If required to obtain a Construction General Permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed. The SWPPP would document the stormwater dynamics at the site, the Best Management Practices (BMPs), water quality protection measures that are used, and the frequency of inspections. BMPs are activities or measures determined to be practicable, acceptable to the public, and cost

effective in preventing water pollution or reducing the amount of pollution generated by non-point sources. Obtainment of a CGP is also a BPTC Measure for compliance with the SWRCB General Order.

A Conceptual Grading and Erosion Control Plan has been developed for the pond and building construction. Prior to construction, the applicant will be required to obtain a Grading Permit from Humboldt County. A final Erosion Control Plan, complete with BMPs, would be submitted and would require sign-off from the Humboldt County Building Division.

Irrigation of plants would include a closed-loop hydroponic irrigation and fertigation system within enclosed buildings. With the implementation of operating restrictions, BMPs described in the Conceptual Grading and Erosion Control Plan, and compliance with SWRCB Construction General Permit and/or Cannabis General Order, the Proposed Project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant, and no mitigation would be necessary.

- b) Finding: The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. *Less than significant impact.*

Discussion: The Proposed Project is within the Eel River Groundwater Basin and is subject to the Eel River Groundwater Sustainability Plan, the Sustainable Groundwater Management Plan mandated by state law. The Proposed Project is located within the Van Duzen recharge area, meaning that a majority of rainfall that lands onsite flows offsite and into the Van Duzen River (Eel River Groundwater Sustainability Plan, 2022). The existing onsite well is not associated with the Proposed Project, and no groundwater is proposed to be directly used as a result of this project.

Water for irrigation for the Proposed Project, including cultivation and nursery activities, would be provided by rainwater catchment and water reclaimed from dehumidifiers installed within the cultivation buildings. Total irrigation demand is expected to be approximately 4.2 million gallons only (approximately 3.6 million gallons for mature cannabis cultivation and approximately 600,000 gallons annually for the commercial nursery). Evaporation calculations estimate that approximately 1.21 million gallons would evaporate from the pond annually (Appendix 1 – Cultivation and Operations Manual).

Rainwater collection would occur by capturing rainwater from the proposed pond and the proposed buildings, or a total of 385,887 sq. ft. In an average rainfall year of 44 inches, this catchment area has the potential to collect approximately 10,124,000 million gallons of water, based on a rooftop capture efficiency of 95%, which exceeds the approximately 4.2 million gallons of demand (Appendix 1 – Cultivation and Operations Manual). During a drought year, the catchment surfaces have the potential to capture approximately 3.8 million gallons (Appendix 1 – Cultivation and Operations Manual), which is sufficient to meet the proposed demand, even during the driest year on record of the last 120 years of 17 inches in 2013 (PRISM, 2022).

Water for irrigation would also be sourced from dehumidifier units, which would capture condensed water and convey it into the hydroponic system. Dehumidifier units would be Quest Therma-Sar TR 3900 model, or similar, and have the capacity to capture approximately 12 gallons of water per hour, or 3,900 gallons per day. A minimum of 30 units have the potential to capture 1.68-million gallons of water annually. The applicant could increase dehumidifier units as desired. Dehumidifier units are expected to supply approximately 40% of irrigation demand, while rainwater is expected to supply the remaining 60% of irrigation demand (Appendix 1 – Cultivation and Operations Manual).

Per the Cultivation and Operations Manual (Appendix 1), the water demand for the Proposed Project would be met annually with a minimum of 30 dehumidifier units in conjunction with the proposed rainwater collection surfaces and storage. This is true in the event of an extreme drought year, using the lowest rain year on record, multiple consecutive extreme drought years, and accounting for water lost to evaporation.

Non-irrigation water for domestic uses, including drinking, plumbing, and processing (e.g., handwashing, surface and tool cleaning, and toilet flushing) would be sourced from treated rainwater catchment or drinking water brought to the site. Demand for non-irrigation water would total approximately 269,175 gallons annually.

The Proposed Project proposes to capture and store rainwater for irrigation use that may have otherwise recharged the groundwater basin. Approximately 60% of the total irrigation demand, or approximately 2.52 million gallons, would be sourced from rainwater collection and storage. In addition, up to approximately 1.21 million gallons of rainwater would be lost each year due to evaporation from the pond (Appendix 1 – Cultivation and Operations Manual). Note that volumes in excess of the 3.12-million-gallon pond would overflow using the engineered pond outlet and would return to the environment. Therefore, the Proposed Project has the potential to remove approximately 3.73 million gallons of rainwater from the water cycle that may otherwise recharge the groundwater basin.

The approximately 3.73 million gallons of collected rainwater represents approximately 9.7% of the approximately 38.2 million gallons of rainwater that falls on the Proposed Project site in an average rainfall year. Furthermore, it represents less than 0.01% of the estimated 36.6 billion gallons of rainwater that falls within the South Yager Creek watershed during an average rainfall year, and even less of a fraction of a percent of water that falls within the entire Eel River Groundwater Basin. Therefore, the Proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts would be less than significant, and no mitigation would be necessary.

- c. i) Finding: The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off- site. *Less than significant impact.*

Discussion: No alterations or re-routings of watercourses is proposed. All existing stormwater features present onsite from prior industrial activities would be maintained. These include existing ditch relief culverts and existing retention basins, in accordance with the existing site stormwater features.

The Proposed Project would increase the amount of impermeable surface within the project site by approximately 312,392 sq. ft., the total area of the four (4) proposed buildings (307,392 sq. ft.) and two (2) ADA parking spaces and walkways (conservatively estimated at 5,000 sq. ft., for impervious surface area estimations). The rainwater catchment pond is not included in this calculation, as it would capture and store water for the Proposed Project. Rainwater from all proposed impervious surfaces (i.e., the four (4) proposed buildings) would be collected via gutters and conveyed into the rainwater catchment pond and stored for irrigation use, which would not produce runoff or alter the natural drainage of the site. Runoff from the paved walkways and parking spaces would be directed into existing stormwater features, which are proposed to be maintained and/or enhanced in accordance with the final Grading Plan and compliance with applicable Waste Discharge Requirements (SWRCB Construction General Permit and/or Cannabis General Order). Therefore, minimal surface runoff as a result of new impervious surfaces would occur and substantial alterations of the existing drainage pattern would not occur.

With the implementation of operating restrictions, BMPs described in the Conceptual Grading and Erosion Control Plan, and compliance with SWRCB Construction General Permit and/or Cannabis General Order, the Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. No stream crossing upgrades, or stream alterations are proposed. Impacts would be less than significant, and no mitigation would be necessary.

- c. ii) Finding: The project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. *Less than significant impact.*

Discussion: The Proposed Project would increase the amount of impermeable surface within the project site by approximately 312,392 sq. ft., the total area of the four (4) proposed buildings and a conservative estimate for the paved ADA-compliant walkways and parking spaces, described above. Rainwater from the buildings be collected via gutters and conveyed into the rainwater catchment pond and stored for irrigation use. The estimated 5,000-sq. ft. of new paved area represents an approximately 0.35% increase in impervious surface area across the entire subject parcel. This minimal increase would not be expected to cause significant flooding due to surface runoff in a matter that would cause flooding on or off-site.

Additionally, the parcel is located in the South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803), which has a contributing watershed acreage of 30,675 acres. The proposed 8.7 acres of building development represents approximately 27% of the area of the subject property (31.69 acres) and less than 0.03% of the total South Fork Yager, Yager Creek watershed. Furthermore, no surface runoff would be generated from irrigation activities, as all cultivation would occur indoors within a closed-loop system. In addition, a stormwater and drainage plan would be developed as part of the grading plan and in accordance with the existing SWPPP.

With the implementation of operating restrictions, BMPs described in the Conceptual Grading and Erosion Control Plan, and compliance with SWRCB Construction General Permit and/or Cannabis General Order, the Proposed Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The project impacts would be less than significant.

- c. iii) Finding: The project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. *Less than significant impact.*

Discussion: See discussion in c)ii, above. The site is not connected to a municipal storm drainage system. The Proposed Project would increase the amount of impermeable surface within the project site by approximately 312,392 sq. ft., or less than 0.03% of the South Fork Yager Creek Watershed contributing drainage area. Rainwater would be collected off of roofs and conveyed to the catchment pond and stored for irrigation use. The proposed pond and pond overflow would be engineered in the final Grading Plan, and a Building Permit would be obtained from the Humboldt County Building Department. Therefore, the increase in runoff due to the new impermeable surfaces would be minimal and would only include the proposed ADA-compliant parking areas and associated walkways proposed to be paved (conservatively at 5,000 sq. ft. to account for walkways).

Site operations would conform to Best Practicable Treatment or Control Measures from the SWRCB Cannabis Policy and General Order to reduce erosion and sedimentation onsite. With the implementation of operating restrictions, continued maintenance of existing stormwater drainage features, and compliance with SWRCB Construction General Permit and/or Cannabis General Order, in addition to BMPs described in the Conceptual Grading and Erosion Control Plan, the Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant, and no mitigation would be necessary.

- c. iv) Finding: The project would not impede or redirect flood flows. *No impact.*

Discussion: No portion of the property or Proposed Project is located within a FEMA Flood zone. Therefore, the project would not impede or redirect flood flows.

- d) Finding: The project would not in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. *Less than significant impact.*

Discussion: The Proposed Project is not in an area that is at risk from flood hazard, seiche, or tsunami. The proposed 3.12-million-gallon pond would be designed by an engineer and permitted by the Humboldt County Planning and Building Department prior to construction. The project is not located near a large body of water capable of producing a seiche and is not located near the coast in a tsunami inundation area. Therefore, the Proposed Project would not result in inundation by flood hazard, seiche or tsunami, including flooding as a result of the failure of a dam. A less than significant impact would occur.

No other levee or dam construction is associated with the Proposed Project. As noted previously, the Proposed Project would not be located within a 100-year flood zone and would not expose people or structures to any other kind of flooding event. The Proposed Project site is not located within a dam failure inundation area according to the Humboldt County Web GIS system. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

- e) Finding: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. *Less than significant impact.*

Discussion: The Proposed Project is within the Eel River Groundwater Basin and is subject to the Eel River Groundwater Sustainability Plan, the Sustainable Groundwater Management Plan mandated by state law. No groundwater is proposed to be directly used. The rainwater collected by the Proposed Project would represent a miniscule fraction of rainfall that falls within the Eel River Groundwater Basin annually and would likely not significantly impact groundwater recharge. See analysis for b), above. Therefore, the Proposed Project would not conflict with or obstruct the Eel River Groundwater Sustainability Plan's Policy's on groundwater recharge.

There are no conditions associated with the Proposed Project that would result in a conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan beyond what is described in the responses to subsections a) – d) above. The project includes compliance with the State Water Resources Control Board (SWRCB) Construction General Permit (CGP), if required, and enrollment in the State Water Resources Control Board (SWRCB) for coverage under Order No. WQ 2019-0001-DWQ, as required by the North Coast Regional Water Quality Control Board. Therefore, the Proposed Project would not otherwise substantially degrade water quality or conflict with or obstruct a water quality control plan or sustainable groundwater management plan.

Mitigation Measures

None.

2.2.11. LAND USE AND PLANNING

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with the jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project is located off of State Highway 36 in the community of Hydesville within the unincorporated area of Humboldt County. The property is zoned Heavy Industrial (MH/MH-Q) and has a general plan land use designation of Mixed Use (MU). The Proposed Project includes a Conditional Use Permit application for three (3) discretionary activities: 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities.

The MH-Q-zone is a Qualified Combining Zone (“Q-zone”) that applies to a portion of APN 204-251-001 (Figure 4). The Q-Zone was adopted on December 16th, 1986, with the approval of Ordinance No. 1771, which amended Section 313-4 of the Humboldt County Code to restrict principally permitted uses on the property. The Q-zone implemented special restrictions on the property for three purposes: (1) to protect and preserve the property for industrial uses; (2) to protect the neighboring property from inappropriate industrial development; and (3) to provide for public and technical review of the industrial development projects as may be proposed for the property. As described in Ordinance No. 1771, restrictions within the Q-zone include the following:

- (a) *Principal Permitted Use: General Agriculture*
- (b) *Uses Permitted with a Use Permit:*
 - a. *Stores, agencies and services such as carpentry and cabinet-making shops, clothing manufacturers, contractors’ yard, dry cleaning and laundry plants, handicraft manufacture, lumber yards, metal-working shops, wholesale outlet stores, painters’ and decorators’ yards, plumbing shops, printing, and lithographing.*
 - b. *Administrative, business, and professional offices.*
 - c. *Manufacturing of electrical and electronic equipment, of household effects such as lamps, rugs, and fabrics, and research and development laboratories.*
 - d. *Industrial manufacturing uses.*

In addition, a Plan for Adaptive Reuse of Developed Industrial Site Memorandum (“Adaptive Reuse Memorandum) was prepared for the site by NorthPoint Consulting Group, Inc., in February 2022 to describe and analyze how the site could be used by other non-cannabis industrial activities in the future (Appendix 2)),

and how the Proposed Project would comply with the Performance Standards for Adaptive Reuse of Developed Industrial Sites, as outlined in the CCLUO.

Surrounding land uses consist of industrial operations, rural residential housing, agricultural operations, and natural space. The property is zoned Heavy Industrial (MH) and has a General Plan Land Use Designation of Mixed-Use (MU). Surrounding land uses include Heavy Industrial (MH), Agriculture Exclusive (AE), Agricultural General (AG), and Timber Production Zone (TPZ). Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed-Use designations. At least five (5) other existing and proposed cannabis projects are located within one mile of the Proposed Project area, per the County’s Accela website (2022).

Analysis

- a) **Finding:** The project would not physically divide an established community. *No Impact.*

Discussion: The Proposed Project would not substantially alter existing land uses and all work would be completed within existing Heavy Industrial zoning. No residences or businesses would be demolished as part of the Proposed Project. The Proposed Project would conduct commercial activities on the project site. No activities are proposed that would physically divide an established community. No impact would occur as a result of the Proposed Project and no mitigation is required.

- b) **Finding:** The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. *Less than significant impact.*

Discussion: The Proposed Project site is zoned Heavy Industrial (MH) with a Qualified Combining Zone (MH-Q). The Q-zone specifically lists General Agriculture as a principally permitted use. As the Proposed Project consists primarily of cannabis cultivation and ancillary activities, an agricultural project, the project as proposed would not conflict with the Q-zone use restrictions. Additionally, administrative offices for distribution activities and industrial uses are allowed with a Use Permit.

The project site is an industrial site historically used for industrial purposes. Furthermore, the Proposed Project would not conflict with the three purposes of the qualification described above. Per the CCLUO, projects proposed on industrial sites must not preclude the site from a future industrial use. Performance Standards for Adaptive Reuse of Developed Industrial Sites are outlined and described in the CCLUO (Section 55.4.9, 55.4.12.12a, 55.4.12.12b, and 55.4.12.12c). A Plan for Adaptive Reuse of Developed Industrial Site Memorandum (“Adaptive Reuse Memorandum) was prepared for the site by NorthPoint Consulting Group, Inc., in February 2022. The Adaptive Use Memorandum concluded that the Proposed Project would meet all of the Performance Standards for Adaptive Reuse of Developed Industrial Sites. Performance Standards and the Project’s compliance with the Performance Standards and requirements are as follows:

- 55.4.12.12 Performance Standards for Adaptive Reuse of Developed Industrial Site(s)
 - o a) *Development of additional buildings or infrastructure only allowed once existing infrastructure has been fully occupied.*
 - There is one existing 60 x 80’ metal building onsite. The Project proposes to fully occupy all 4,800 sq. ft. of this existing building with 2,400 sq. ft. of distribution activities and 2,400 sq. ft. of processing activities.
 - o b) Interior changes or additions to facilities must not prevent future re-occupancy by new uses which are compatible with the base zoning district or consistent with historic prior operations.
 - The proposed exterior and interior modifications to the existing onsite 60’ x 80’ building or additions to the building would not prevent future re-occupancy by new uses compatible with the Industrial General Zone. The proposed uses in these buildings are commercial uses, which are compatible with the existing Zone. In

- addition, these buildings would be able to be used for a non-cannabis related commercial or industrial use if needed in the future.
- c) Newly constructed *facilities must comply with all development standards of the principal zoning district(s)*.
 - The proposed new buildings (Buildings 1, 2, and 3) would comply with the development standards of the Heavy Industrial (MH) zone. The proposed upgrade to the existing building would enhance the site and would be able to be used by a future industrial or commercial use if cannabis activities ceased onsite.

Therefore, the Project is in compliance with the CCLUO. Development of the Proposed Project would not preclude future industrial uses onsite (Appendix 2O).

Proposed Project is set back greater than 350 feet from the nearest offsite residence. All proposed activities would be housed within structures so as not to produce disturbing noise to neighbors. Lastly, the Conditional Use Permit process allows for public and technical review of the industrial development projects, as proposed. Therefore, the Proposed Project is not in conflict with the purposes of the Qualifying Zone.

The Proposed Project would not result in changes to existing land use, zoning, or specific plans in Humboldt County. The Proposed Project would not conflict with any goals, policies, or objectives in the Humboldt County General Plan intended to mitigate potential environmental impacts. Land uses and zoning would remain unchanged.

The property is currently zoned Heavy Industrial (MH/ MH-Q) and has a General Plan Land Use Designation of Mixed-Use (MU). Humboldt County is currently in the process of implementing zoning map changes that arose with the 2017 General Plan update. Changes include updating amendments to the zoning map, changing combining zones, designating specific zones to all properties zoned “U- Unclassified”, and applying “MU-Mixed-Use” zoning designation to areas with a “MU -Mixed-Use” General Plan Land Use Designations. As the subject parcel has an “MU” Land Use Designation, the zoning of the site is proposed to change to MU in the future. Specifically, the property’s zone is proposed to change to “MU2 – Mixed Use Rural Zone”, a new zone to provide for small-scale mixed-use development (commercial, office, and residential) for smaller population bases.

Although this change has not yet been officially implemented and the zoning of the parcel is still currently Heavy Industrial (MH), it is important to ensure compatibility of the Proposed Project with the proposed future zone. In Attachment 2 of the August 27, 2019, Board of Supervisors Meeting, titled *Draft Board of Supervisors Ordinance – Amending Humboldt County Code Zone Text Amendments to Implement the 2017 General Plan*, the permissible uses and use types for the proposed new MU2 zone are described. Draft principally permitted allowable use types include residential, commercial, civic, industrial, and agricultural use types, including “General Agriculture”. “Heavy Commercial” uses are allowable with a Conditional Use Permit. As the Proposed Project is an agricultural project and a commercial project, the project would be compatible with the use types of the proposed new MU2 zone with the approval of the Conditional Use Permit.

In addition to allowable use types, the document identifies draft Development Standards of the new MU2 zone, front (15 feet), rear (10 feet), interior side (5 feet), and exterior side yard setbacks, minimum yard width (50 feet), the maximum ground coverage (50%) and the maximums structure height (50 feet). The Proposed Project has setbacks more than all yard setbacks (front and rear setbacks of 50 feet and side setbacks of 30 feet). The buildings proposed in the Project would be approximately 22 feet tall, less than the new maximum structure height of 50 feet. Lastly, the proposed onsite disturbance (totaling 8.7acres) would cover approximately 27% of the 31.69-acre property, which is less than the 50% requirement as outlined in the proposed new zone regulations. Therefore, the Project would be compatible with the proposed zone change, even though the zone change has not yet been officially certified. In addition, the CCLUO specifically

identified industrially zoned parcels as sites where cultivation, processing activities, and nursery projects of the size and scope of the Proposed Project would be allowed, subject to the issuance of discretionary permits.

The agricultural use associated with the Proposed Project would be consistent with the allowable land uses under the Humboldt County General Plan and Zoning Ordinance. In addition, the Proposed Project would otherwise not conflict with any applicable goals, objectives, and policies of the Humboldt County General Plan and Zoning Ordinance. As discussed throughout this document, in all instances where potentially significant impacts have been identified, mitigation is provided to reduce each impact to less than significant levels.

The analysis contained in this document addressed the potential conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect including, but not limited to, Humboldt County General Plan and Zoning Ordinances and draft updates, Humboldt County Draft Climate Action Plan (2022), HCAOG 20-Year Regional Transportation Plan (2017 Update), HCAOG Regional Bicycle Plan Update (2018), and NCUQMD Particulate Matter (PM10) Draft Attainment Plan (1995).

Therefore, based on the analysis conducted in this document, it was determined that the project was not in conflict with any adopted land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur as a result of the Proposed Project. No mitigation is required.

Mitigation Measures

None.

2.2.12. MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

According to the Humboldt County General Plan, mineral production within the county is limited to sand, gravel, and rock extraction. Gravel bars and deposits from the large stream and flood plains supply most of the gravel needs of the County. Since costs for these materials are mostly associated with transportation, operations are usually located close to rural and urban development areas and used locally. Production of sand, gravel, and rock are essential for the continued well-being of the County. They are the basis for much of the construction materials for roads, concrete, streambank protection, erosion control, septic systems, and passive solar projects (Humboldt County General Plan, 2017).

A historic gravel and concrete center were located on the western APN, however the property contains no land classified as IR (Industrial Resource), which designates areas for resource-related industrial processing including mineral products. Additionally, there is no surrounding land classified under this designation. No parcels under the Surface Mining and Reclamation Act are located within the project vicinity. Land uses surrounding the parcel are comprised of industrial, agriculture, timber, and scattered rural residences. The property is zoned Heavy Industrial (MH) and has a General Plan Land Use Designation of Mixed-Use (MU). Surrounding land uses include Heavy Industrial (MH), Agriculture Exclusive (AE), Agricultural General (AG), and Timber Production Zone (TPZ). Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed-Use designations.

Analysis

- a) **Finding:** The project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. *No impact.*

Discussion: The Proposed Project site does not include any lands that are classified as MRZ-2 or any known locally important mineral resources. The Proposed Project is not within or adjacent to any mining operations. The Proposed Project is a cultivation operation. Implementation of the Proposed Project would not result in the loss of availability of a known mineral resource, and no impact would occur.

- b) Finding: The Proposed Project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. *No impact.*

Discussion: There are no known mineral deposits of significance on or near the Proposed Project site. Therefore, implementation of the Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

Mitigation Measures

None.

2.2.13. NOISE

Would the Project result in:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Proposed Project is located off of State Highway 36 near the community of Hydesville on an industrial lot. Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed-Use designations.

The Proposed Project is for 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities, in addition to processing, drying, and storage. Three (3) indoor cultivation buildings are proposed (totaling 304,992 sq. ft.) and a 40' x 60' expansion to an existing 60' x 80' metal building is proposed (totaling 7,200 sq. ft.).

With approval of the Proposed Project, noise on the site would increase from construction and operational activities. Noise levels during construction activities would increase temporarily from equipment (e.g., backhoe or bulldozer) used to construct the pond and proposed buildings. Noise from operational activities would include vehicular and delivery truck traffic, employee noise, equipment noise, and the backup generator (if used).

The noise standards in the Humboldt County General Plan are based on the Community Noise Equivalent Level (CNEL), which is a measure that describes average noise exposure over a period of time (Humboldt County General Plan, 2017). Because communities are more sensitive to impacts from nighttime noise, noise descriptors must specifically take this time period into account. Common measures include the CNEL and the Day-Night Average Level (Ldn). Both reflect noise exposure over an average day, with greater weight given to noise occurring during the evening and night. The two descriptors are roughly equivalent but CNEL is used in this Plan for regulating cumulative noise exposure over a 24-hour period.

According to Table 13-C (Land Use/Noise Compatibility Standards) in the Humboldt County General Plan, normally acceptable noise levels go up to 91+ dB in an Agriculture land use category. Per Policy N-S1, the Land Use/Noise Compatibility Standards (Table 13-C) shall be used as a guide to ensure compatibility of land uses. Development may occur in areas identified as “normally unacceptable” if mitigation measures can reduce indoor noise levels to “Maximum Interior Noise Levels” and outdoor noise levels to the maximum “Normally Acceptable” value for the given Land Use Category.

The CCLUO includes Performance Standards for Noise at cultivation sites, requiring that noise from new cultivation activities to not increase decibels of continuous noise above existing ambient noise levels by three (3) decibels at any property line (CCLUO, 2018). A Noise Source Assessment and Mitigation Plan was prepared for the Proposed Project by NorthPoint Consulting Group, Inc. in February 2022 (Appendix 2E). The assessment included 24-hour recording intervals at four (4) monitoring locations located across the property, including a monitoring location at the eastern property boundary (Monitoring Location 1), a monitoring location near the property entrance off of Highway 36 on the northern property boundary (Monitoring Location 2), a monitoring location near the closest offsite residence and riparian vegetation near the western property boundary (Monitoring Location 3), and a monitoring location on the southern property boundary near another off-site residence (Monitoring Location 4). These monitoring locations are in compliance with the required monitoring locations detailed in the CLCUO and were selected to capture ambient noise levels across the industrial site, and to establish ambient noise levels near the closest sensitive receptors (e.g., offsite residences) and potential habitat for wildlife.

Additional Noise Modeling was conducted to calculate the anticipated noise levels from the equipment proposed in the Project. The Humboldt Reserve, LLC Anticipated Noise Modeling Memorandum (NorthPoint Consulting Group, May 3, 2023) is included in Appendix 2F.

Analysis

- a) **Finding:** The project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. *Less than significant impact.*

Discussion: The Proposed Project proposes the cultivation and processing of cannabis in a designated agriculture area. Potential noise sources associated with the Proposed Project would include permanent operational noises, which include greenhouses and accessory facilities, employee vehicle traffic, delivery truck traffic, equipment use (e.g., fans and dehumidifiers), and back-up generators during power outages, as well as temporary noises, including noise from construction.

The Noise Source Assessment and Mitigation Plan took 24-hour noise recording at the four (4) Monitoring Locations described above. Noise recordings were taken using a type 2 digital sound meter mounted to a tripod. Measurements were recorded on September 8th, 2021 (Appendix 2E). Recorded decibel readings in dBA were averaged across the 24-hour recording period to estimate ambient noise levels onsite. Ambient noise levels ranged from 35.3 dBA at Monitoring Location 3, the closest to habitat and the offsite residence, to 52.7 dbA at Monitoring Location 4, the closest to existing industrial activities occurring on the adjacent parcel (Table 7).

Maximum noise levels were also measured at each monitoring location. Maximum noise levels ranged from 63.6 dBA at Monitoring Location 3 to 89.9 at Monitoring Location 4 (Table 7).

Table 7: Summary of Average and Maximum Noise Readings at the four Monitoring Locations onsite (Source: Noise Source Assessment and Mitigation Plan, NorthPoint Consulting Group, Inc., February 2022)

Location	Average Decibel Reading (dBA)	Max Noise Level Measured (dBA)	Presumed Max Noise Level Association Description
#1	37.7	71.1	Truck driving on adjacent parcel
#2	42.5	82.1	Truck driving by on Hwy 36
#3	35.3	63.6	Truck starting on site from business
#4	52.7	89.9	Adjacent Parcel Operation

Activities associated with cultivation, processing, and distribution would generally occur during daylight hours. Noise sources that would be generated by the operation of this project would include equipment within the buildings (e.g., fans and dehumidifiers) employee vehicle traffic, delivery truck traffic, equipment use, and the back-up generators during power outages. Noise from the fans and dehumidifiers would largely be muffled from the building exterior.

Further calculations were conducted for the proposed sound-producing equipment associated with the Project, as detailed in the Humboldt Reserve, LLC Anticipated Noise Modeling Memorandum (Appendix 2F). The additional noise modeling used data from the Noise Source Assessment and Mitigation Plan to demonstrate that equipment (e.g., fans and dehumidifiers) would not increase ambient noise levels onsite by greater than 3 decibels at the property line (Appendix 2E).

Based on an equipment list provided by the applicant, anticipated noise levels directly outside each building were calculated. These noise levels ranged from 65.2 dB to 70 dB, directly outside the buildings. Using these findings, it was calculated that at the expected noise from operations within the buildings at 50 feet, the shortest distance to the nearest property line for all buildings, would be 31.2 dB for Buildings #1 and #2, and 36.0 dB for Building #3 (Appendix 2F).

These sound volumes are either less than or just slightly above the calculated ambient noise calculations determined in the Noise Source Assessment and Mitigation Plan. The closest Monitoring Location to Buildings #1 and #2 was Monitoring Location #1, which averaged 37.7 dB. The projected noise modeling of Buildings #1 and #2 was calculated to be 31.2 at the same Monitoring Location. The closest Monitoring Location to Building #3 was Monitoring Location #2, which averaged 42.5 dB. The projected noise modeling of Building #3 was calculated to be 36.0 dB. Therefore, in all instances, the projected noise volumes from the project would be less than existing ambient noise levels. The Noise Modeling Memorandum concluded that the noise associated with the Proposed Project would not increase ambient noise levels at the property lines by more than 3dB, as required by the CCLUO. In fact, the anticipated noise levels are expected to be less than the measured ambient levels at the property lines (Appendix 2F). And would not increase ambient noise levels onsite by greater than 3 dB.

To ensure that the Proposed Project has back-up power in the case of a power outage during long-term operation, a generator would be kept onsite. The use of the backup generator would only occur during power outages or emergencies. The generator is proposed to be a 150-kW Generac Protector (or similar), which has a maximum sound output of 80 dBA at 23 feet during normal operation. As the nearest residence is greater than 350 feet away, and the use of the backup generator would occur sparingly, the generator is not anticipated to contribute to ambient noise levels onsite. Use of the generator would follow all guidelines set up by Humboldt County and the State of California.

Per Humboldt County General Plan Chapter 13, noise impacts for new development projects should be based on a comparison of the noise compatibility standards provided Table 13-C of the General Plan. The Community Noise Equivalent Level (CNEL) is used as a measure that describes average noise exposure over a period of time. CNEL is used in the General Plan for regulating cumulative noise exposure over a 24-hour period. Clearly acceptable CNEL levels, per Table 13-C of the General Plan, for residential land uses are CNEL of 50 dB. Clearly acceptable noise exposure is defined in the General Plan as “the noise exposure is such that the activities associated with the land use may be carried out with essentially no interference. (Residential areas: both indoor and outdoor noise environments are pleasant).” The maximum short-term day (6:00 AM to 10:00 PM) noise standard for AG land uses is 80 dBA. The maximum short-term night (10:00 PM to 6:00 AM) noise standard for AG land uses is 70 dBA (Figure 22).

SHORT-TERM NOISE STANDARDS (Lmax)		
Zoning Classification	Day (maximum)	Night (maximum)
	6:00 a.m. to 10:00 p.m. dBA	10:00 p.m. to 6:00 a.m. dBA
MG, MC, AE, TPZ, TC, AG, FP, FR, MH	80	70
CN, MB, ML, RRA, CG, CR C-1, C-2, C-3,	75	65
RM, R-3, R-4	65	60
RS, R-1, R-2, NR	65	60

Figure 22: Humboldt County General Plan Short-Term Noise Standards for Zoning Classifications (Source: Humboldt County General Plan Noise Element, 2017)

Given the type of use (i.e., cannabis facility) and the containment of operations within buildings, long-term operation of the Proposed Project is not expected to result in a significant temporary or periodic increase in ambient noise levels exceeding the Humboldt County General Plan Noise Element Standards. Many of the Proposed Project activities would take place within the existing and new buildings which would significantly reduce noise levels.

Construction activities would result in a temporary increase in noise levels in the area. The Proposed Project is expected to be built-out over approximately five (5) years. This noise increase would be relatively short in duration during each year (e.g., not year-round) and would occur during daytime hours. It is anticipated that construction would take up to approximately 10 weeks each year. Activities involved in construction would generate maximum noise levels from heavy equipment, as (Table 8), ranging from approximately 80 to 85 dB at a distance of 50 feet. Due to the size of the parcel (approximately 32 acres), surrounding topography, and distance to neighboring residences (350+ feet), temporary construction noise would likely be reduced beyond the boundaries of the site to acceptable levels.

Table 8. Construction Equipment Noise Levels (Source: Federal Highway Administration Construction Noise Handbook, 2006)

Type of Equipment	Maximum Noise Level (dB at 50 feet)
Dozer	85
Heavy Trucks	85
Backhoe	80
Pneumatic Tools	85

The Proposed Project would be conditioned to comply with the County’s noise regulations which would ensure that impacts from the Proposed Project would be less than significant. The Proposed Project would be located near existing industrial and agricultural uses. The Proposed Project would meet all Noise Performance Standards in the CCLUO to not increase noise levels greater than three (3) decibels over recorded ambient

noise levels. Therefore, the Proposed Project would not expose persons to or result in the generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standard of other agencies, and the impact would be less than significant.

- b) **Finding:** The Proposed Project will not expose persons to or generate excessive groundborne vibration or groundborne noise levels. *Less than significant impact.*

Discussion: Construction of the Proposed Project facilities would result in a temporary increase in noise levels in the area. Groundborne vibrations or groundborne noise levels would be short in duration and would occur during daytime hours. As previously mentioned, the distance to the nearest residence is located approximately 350 feet from the nearest cultivation building. Construction of the pond would be temporary and would only occur during daylight hours. Given the distance of the nearest sensitive noise receptor and the temporary nature of construction, impacts from construction activities are considered less than significant.

Long-term operation of the Proposed Project facilities would not involve the regular use of heavy machinery or ground disturbing activities that would result in excessive groundborne vibration or groundborne noise levels. Therefore, the Proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. The project impacts would be less than significant, and no mitigation would be necessary.

- c) **Finding:** The project would not, for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels. *No impact.*

Discussion: There are no private airstrips in the project area. Therefore, the Proposed Project would not be within the vicinity of a private airstrip, nor result in a safety hazard for people residing or working in the project area and the Proposed Project would not expose people residing or working in the project area to excessive noise levels. The project site is not located within two (2) miles of a public airport or public use airport. The closest airport is the Rohnerville Airport, located over three (3) air miles from the Proposed Project Area. The Proposed Project would not expose workers working or residing on the project site to excessive noise levels from a private airstrip. No impacts would occur, and no mitigation would be necessary.

Mitigation Measures

None.

2.2.14. POPULATION AND HOUSING

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing else- where?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Humboldt County is a rural county with a large land area and low population density. The 2020 Census reported the county’s population to be 136,463, which represents an increase of 1,840 over the population reported in the 2010 census (US Census Bureau, 2022). The Proposed Project is located in the community of Hydesville, a census-designated place in the unincorporated area of Humboldt County. As of the 2020 census, the population of Hydesville is approximately 1,244 (US Census Bureau, 2022). According to the 2021 American Community Survey, the unemployment rate of Hydesville is approximately 55% (US Census Bureau, 2022).

Analysis

- a) Finding: The project would not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). *Less than significant impact.*

Discussion: The Proposed Project would provide employment for 25 full-time employees, year-round. Up to 49 additional laborers may be required during peak seasonal events, such as harvesting or planting, for a total of up to 74 employees. The Proposed Project is a commercial cannabis operation; no housing is proposed as a part of the Proposed Project.

Growth inducing impacts are generally caused by projects that have a direct or indirect effect on economic growth, population growth, or when the project taxes community service facilities which require upgrades beyond the existing remaining capacity. No housing is proposed, and no extension of roads or other infrastructure, including utility lines, is proposed as a part of this project. Providing employment for 25 full-time employees, less than 2% of Hydesville’s population, is not likely to substantially increase population growth in the area. Therefore, the Proposed Project would not induce substantial population growth in the area either directly or indirectly. Impacts would be less than significant in this regard and no mitigation measures would be required.

- b) Finding: The project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. *No Impact.*

Discussion: The Proposed Project would not displace people or existing housing. The existing residence on the Proposed Project site is not associated with the project and would therefore not be impacted by the Proposed Project. Therefore, the Proposed Project would not displace a substantial number of existing housing, necessitating the construction of replacement housing elsewhere. No impacts would occur in this regard and no mitigation measures would be required.

Mitigation Measures

None.

2.2.15. PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project is for 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities, in addition to processing, drying, and storage. Three (3) indoor cultivation buildings are proposed (totaling 304,992 sq. ft.) and a 40’ x 60’ expansion to an existing 60’ x 80’ metal building is proposed (totaling 7,200 sq. ft.).

Fire protection within Humboldt County is provided by local districts and cities (often considered special districts). Areas outside of these special districts and cities are typically served by volunteer fire companies. In addition, much of the County is serviced by the California Department of Forestry and Fire Protection (CalFire) and for the project site is provided by the Humboldt-Del Norte Fire Unit, located in Fortuna, California servicing 3.1 million acres between the Oregon border and Mendocino County (CalFire, 2007). The subject parcel is in a State Responsibility Area (SRA) and has a Moderate Fire Hazard Severity rating (Humboldt Web GIS, 2022). Fire protection services for wildland fires are provided by CalFire. CalFire has responsibility for enforcement of Fire Safe Standards as required by Public Resources Code (PRC) 4290 and 4291. Also, CalFire is the primary command and control dispatch for most local agency fire districts and departments. The Proposed Project is located within the fire response jurisdiction of the Fortuna Fire Protection District, who would be the most likely response team if a fire were to occur onsite. The Hydesville Fire Station is the closest fire station to the Proposed Project, located approximately 1.7 miles, or four (4) driving minutes, away from the proposed parcel.

The Humboldt County Sheriff’s Office is responsible for law enforcement in the unincorporated areas of the County including for the Proposed Project site. The Humboldt County Sheriff’s Office provides a variety of public safety services countywide (court and corrections services) and law enforcement services for the unincorporated areas of the County. The California Highway Patrol is responsible for enforcing traffic laws on roadways within the unincorporated areas and on state highways throughout the County. The Sheriff’s Office Operations Bureau is made up of seven units under the command of the Undersheriff. The most visible of these units is the Patrol Unit. Sheriff’s Deputies assigned to the Patrol Unit are responsible for responding to emergency calls for service, criminal investigations, and crime prevention through neighborhood and beat patrols. According to the Humboldt County General Plan Update Draft EIR, in the more rural areas of the County, like the project area, maximum response times may reach 30 minutes because of longer travel distances, varied topography, available resources, and the location of the Sheriff Deputy on patrol in relation to the incident (Humboldt County, 2017). Police and law enforcement services for the project site are provided by the Humboldt County Sheriff’s Department. The closest police station is located in Fortuna, approximately

10 driving miles from the project and approximately ten minutes from the Proposed Project Area (Google Maps, 2022).

The Proposed Project is located within the Hydesville Elementary School District. Hydesville Elementary School is located approximately 1.3 air-miles northwest of the Proposed Project, and Cuddeback Union Elementary School is located approximately 1.4 air-miles east of the Proposed Project (Google Earth, 2022).

Analysis

- a) **Finding:** The project will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services for fire protection. *Less than significant impact.*

Discussion: During peak operations, the Proposed Project would provide employment for approximately 25 full-time persons and up to 49 contract laborers during peak seasonal events. This would not significantly increase the population in the unincorporated area near Hydesville area as all employees already live and work in Humboldt County, and most would live in the surrounding area.

The Proposed Project would be required to comply with the Humboldt County Fire Safe Ordinance 1952, which the California Board of Forestry and Fire Protection has accepted as functionally equivalent to PRC 4290. The County Fire Safe Ordinance provides specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and set-back distances for maintaining defensible space. The improvement plans for the Proposed Project would be reviewed to verify compliance with the County's Fire Safe Ordinance.

Due to the nature of the proposed cannabis uses and required compliance with fire code requirements, it is not anticipated that the project would result in a significant increase in the number of calls-for-service to which the Fortuna Volunteer Fire District responds. As such, the project would not result in the need for new or physically altered fire protection facilities. Therefore, impacts to fire protection services from the Proposed Project are considered less than significant.

- b) **Finding:** The project will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services for police protection. *Less than significant impact.*

Discussion: Due to the nature of the Proposed Project, there is the potential for security to be an issue and place a greater demand on law enforcement services provided by the County Sheriff's Department. All commercial cannabis facilities would be accessed from a driveway off of State Highway 36, behind a locked gate, and would be securely locked while not staffed or in use. Security lighting would be installed across the property. Implementation of the security plan measures would minimize impacts on local law enforcement. As such, the Proposed Project would not result in the need for new or physically altered law enforcement facilities. Therefore, impacts to law enforcement services from the Proposed Project are considered less than significant.

- c)- e) **Finding:** The project will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services schools, parks, or other public facilities including public health services and library services. *Less than significant impact.*

Discussion: The Proposed Project would not substantially increase the population in the Hydesville area and would thus not create a demand for new schools, housing, parks, libraries, or public health services. Impacts would be less than significant.

Mitigation Measures

None.

2.2.16. RECREATION

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

See Section 2.2.15 Public Services for a discussion of parks and recreational resources in the region.

Analysis

- a) **Finding:** The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *No impact.*

Discussion: The Proposed Project would not include new residences or features that would attract new residents or increase demand on parks and recreational trail systems. The Proposed Project would not directly induce population growth or otherwise result in an increased demand on existing recreational facilities. The Proposed Project would not provide direct access to or increase the use of recreational facilities in the region. No impact would occur in this regard and no mitigation measures would be required.

- b) **Finding:** The project would not include recreational facilities or require the expansion of recreational facilities which might have an adverse effect on the environment. *No impact.*

Discussion: The Proposed Project would not include construction of recreational facilities. The Proposed Project would not directly induce population growth or otherwise result in an increased demand on existing recreational facilities that would require the construction or expansion of recreational facilities. No impact would occur in this regard and no mitigation measures would be required.

Mitigation Measures

None.

2.2.17. TRANSPORTATION

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project site is approximately 31.69 acres in size and is located off of State Highway 36 in a rural area of Humboldt County, near the community of Hydesville. The site is located approximately 6 driving miles from Fortuna, 25 driving miles from Eureka, and 50 driving miles from Garberville. The parcel is utilized for industrial purposes.

To reach the site from US Highway 101, turn off of the Highway on Exit 685 for CA-36 E (in Alton, either just north of Rio Dell or just south of Fortuna). Continue on State Highway 36 through Hydesville. The subject property is on the right after approximately 4.7 miles (Google Maps, 2023).

A Road System Assessment Report was conducted for the project by NorthPoint Consulting Group, Inc. (Appendix 2C). Access to the site is a private driveway off of State Highway 36. Highway 36 is a paved, two-lane road with a painted center-line stripe that exceeds Category 4 Road Standards. Private driveways off of State Highway 36. The primary site access is a private driveway, which has an approximately 48-ft. apron width off of the highway and a 24-ft. wide road to the property. This is the westernmost driveway, which is used as the primary entrance and is proposed for traffic associated with the project. The property also has a secondary access point (the easternmost driveway). This access point is approximately 23-ft. wide and is not proposed for regular site access. The Road System Assessment Report concluded that the primary driveway is functionally equivalent to a Category 4 Road.

Traffic data is available through CALTRANS for all state highways. Caltrans conducted a traffic count in 2020 on State Highway 36, near the Proposed Project site. Caltrans conducted traffic counts at Post Mile (PM) Marker 3.27, located 1.3 miles west of the Proposed Project in Hydesville, and at PM Marker 7.54, located 3 miles east of the Proposed Project in Carlotta. PM Marker 3.27 reflects traffic within the town of Hydesville, which would likely exceed traffic counts at the Proposed Project site. As such, an average of the two datasets (PM 3.27 and PM 7.54) was taken to determine approximate traffic counts at the Proposed Project driveway entrance (Caltrans, 2023).

Traffic data from the 2020 count includes Peak Hour traffic, Annual Average Daily Traffic (ADT), and Peak Monthly ADT. The Peak Hour traffic includes an estimate of “peak hour” traffic, which can help estimate congestion and demonstrate how near to capacity the highway is operating. This typically occurs during “rush hour” traffic times. Annual ADT is the total traffic volumes for the year divided by 365 days, and Peak Monthly ADT, which is the average daily traffic for the month of heaviest traffic flow. Data from Caltrans include traffic flow from both directions: “ahead” traffic counts (north of the location) and “back” traffic counts (south of the location). For the purposes of these calculations, “ahead” and “back” traffic counts were averaged (Caltrans, 2023). See Table 9.

The resulting traffic data estimated approximately 502.5 trips at the Proposed Project site at peak hour, approximately 4,275 annual ADT, and approximately 3,825 monthly ADT. This means that, on average, approximately 4,275 cars are passing by the Proposed Project site in a given day (Table 9; Caltrans, 2023).

Table 9: Average Peak Hour, Annual ADT, and Monthly ADT Traffic Estimated for Proposed Project Site (Source: Caltrans, 2023)

<i>Table 9: Average Peak Hour, Annual ADT, and Monthly ADT Traffic Estimated for Proposed Project Site (Source: Caltrans, 2023)</i>				
<u>PM Marker on Highway 36</u>	<u>Description</u>	<u>Peak Hour Traffic</u>	<u>Peak Annual Average Daily Traffic (Annual ADT)</u>	<u>Peak Monthly Average Daily Traffic</u>
3.27	East Limits Hydesville	700	5,600	5,200
7.540	Carlotta, East	305	2,950	2,450
Estimated Resulting Traffic Counts at Proposed Project Site:		502.5	4,275	3,825

Daily trips generated by the Proposed Project were estimated based on information on employee count, delivery truck trips, etc. from the Cultivation and Operations Manual (Appendix 1):

Construction: Construction is proposed to be phased out over five (5) years. A period of approximately 10 weeks each year is expected for construction activities, on average. It is estimated that 10-15 personnel on average would be needed for construction activities. During this period, it is expected that construction personnel would make two (2) trips per day to the site, resulting in 20-30 trips per day. In addition, six (6) round trips per day from dump trucks or materials delivery trucks (based on 3 deliveries per day) are expected on average for a total of 26 to 36 trips per day during the construction period. Larger equipment would be mobilized once at the beginning of the construction period, and out at the end of the project.

Operation: During operation, at full build-out, the Proposed Project would result in an average of 102 trips per day. This includes an annual average of 99 trips per day from employees. Although daily trips would vary during the time of year, this calculation was based off of the average of two (2) daily trips for each of the 25 employees, year-round, and two (2) daily trips for each of the 49 additional employees, up to six months annually, for the total of 99 trips per day, on average. Distribution activities would result in an average of six (6) deliveries (12 trips) per month, or 1 additional average daily trip. Nursery activities would result in an average of 12 deliveries (24 trips) per month, or two (2) additional average daily trips.

Note that this number reflects full build-out of the Proposed Project, and that traffic volumes within the first five years, prior to full build-out, would be much lower.

The Humboldt County Association of Governments (HCAOG) designates bicycle transportation routes in the County. State Highway 36, which accesses the Proposed Project, is proposed as a Class III Bicycle Facility

(HCAOG, 2023). Class III bicycle facilities included proposed or existing signage to indicate to drivers that bicyclists share the roadway with motor vehicles, and sometimes pedestrians, although this is not recommended. This stretch of highway does not include designated bicycle facilities.

The Redwood Transit System provides public transportation services across Humboldt County. The community of Hydesville has no public transit system (Humboldt Transit Authority Website, 2023), and no route passes by the Proposed Project site or on State Highway 36. The nearest public transportation stop is in Fortuna, at the Redwood Village Shops on the Southern Humboldt Intercity Line (Humboldt Transit Authority Website, 2023).

According to the Humboldt County General Plan Circulation Element, most facilities dedicated to pedestrians are located in urban areas of Humboldt County. There are no existing or proposed pedestrian facilities within the surrounding area of the project site (Humboldt County General Plan, 2017). In addition, the Humboldt County Regional Pedestrian Plan (HCAOG, 2008) did not designate any pedestrian facilities near the Proposed Project site. Although some pedestrians may utilize State Highway 36 for travel, it is not a road designed for pedestrian use. Specifically, the Plan describes State Highway 36 as a high-speed traffic road without consistent shoulders or walking space (HCAOG, 2008).

Analysis

- a) **Finding**: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. *Less than significant impact.*

Discussion: The project site would be accessed by State Highway 36, near the community of Hydesville within the unincorporated area of Humboldt County. Chambers Road, off of Mattole Road in the community of Petrolia. Construction traffic for the Proposed Project would result in a short-term increase in construction-related vehicle trips on the State Highway 36, as well as a likely relatively small increase in traffic on US Highway 101. Construction would result in vehicle trips by construction personnel and haul-truck trips for delivery and disposal of construction materials. Due to their short-term nature and consistency with other agricultural and cannabis projects in the area, construction activities would not result in substantial impacts to State Highway 36 or US Highway 101.

The Road System Assessment conducted by NorthPoint Consulting Group, Inc. (Appendix 2C), certifies that the entire project road system is developed to Category 4 standards. No improvements were recommended in the Assessment (Appendix 2C). Category 4 and Category 4 equivalent roads have been designated as roads that can support new agricultural cannabis projects (CCLUO, 2018). The applicant would maintain the intersection of the private driveway and State Highway 36 as required by the Humboldt County Department of Public Works.

There are no designated pedestrian, bicycle, or transit facilities located within 0.25 miles of the project site, which is typical for the rural location and acceptable for the type of Proposed Project. State Highway 36 has been proposed as a Class III bike facility, which would include signage to alert motorists and bicyclists about sharing the road. The Proposed Project would not impact designated signage or bike facilities. Additionally, the Proposed Project site was historically used as a site for mill operations, with hundreds of trips coming in and out of the site every day (Freshwater Environmental Services, 2022).

Therefore, the Proposed Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, considering all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Impacts would be less than significant, and no mitigation would be required.

- b) **Finding:** The project would not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b). *Less than significant impact.*

Discussion: There is no public transportation available near the Proposed Project, so the majority of employees would need to commute to the site. According to the 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA from the Governor’s Office of Planning and Research, “projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact”, barring inconsistency with a Sustainable Communities Strategy or general plan (OPR, 2018).

Vehicle/truck traffic generated by long-term operation of the Proposed Project is estimated to generate an average of 102 vehicle/truck trips per day during peak operations. These numbers take into consideration cannabis material and supplies being imported to the site and cannabis material being exported from the site. The annual 102 ADT equates to approximately 2.3% of the estimated 4,275 Peak Annual and approximately 2.6% of the estimated 3,825 Peak Monthly ADT along State Highway 36 near the Proposed Project site entrance. These equivalencies do not represent large or substantial increases in traffic compared to existing traffic.

Additionally, if approximately half of the daily trips occurred onsite during peak travel hours (e.g., 7-9 AM and 4-6 PM), the 51 peak hour traffic trips are equivalent to approximately 10% of the total peak hour traffic volumes on the highway. As described above, peak hour traffic can be an indicator of a highway’s capacity for congestion. Caltrans has not designated State Highway 36 as being near or full capacity based on peak hour traffic volumes (Caltrans, 2023). Therefore, substantial traffic volumes on State Highway 36 would not be anticipated.

Additionally, the Proposed Project would also serve as a Community Support Facility for the surrounding Hydesville, Carlotta, and Bridgeville areas for nursery and distribution activities. This project would support nearby farms in more rural areas who could now utilize the nursery and distribution services proposed in this project rather than traveling to a larger metropolis area (e.g., Eureka or Garberville), subsequently reducing vehicle trips. Average daily trips during full operation would be 102, including employee and delivery traffic, which is less than OPR’s threshold. Therefore, it is not expected for the Proposed Project to have a potentially significant level of vehicle miles traveled (VMT) and impacts related to CEQA Guidelines section 15064.3 subdivision (b) would be less than significant.

- c) **Finding:** The project would not substantially increase hazards due to a geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). *Less than significant impact.*

Discussion: The Proposed Project would use a private driveway off of State Highway 36 to access the project site. The Road System Assessment prepared by NorthPoint Consulting Group (Appendix 2C) certifies that the state highway and the private driveway meet Category 4 equivalent standards, or better. No hazardous geometric designs, such as sharp curves, were identified in the Road System Assessment, and clear site visibility exists on either side of the private driveway. The private driveway is not used to access any other properties, and would not increase danger to surrounding residents. Therefore, the Proposed Project would not result in hazards due to incompatible uses and would not substantially incre.g., hazards due to a design feature (e.g. sharp curves or dangerous intersection) or incompatible uses (e.g. farm equipment). A less than significant impact would occur, and no mitigation measures would be necessary.

- d) **Finding:** The project would not result in inadequate emergency access. *Less than significant impact.*

Discussion: The Proposed Project would use a private driveway off of State Highway 36 to access the project site. The Road System Assessment prepared by NorthPoint Consulting Group (Appendix 2C) certifies that the state highway and the private driveway meet Category 4 equivalent standards, or better, which are adequate to serve emergency vehicles. The project design incorporates required turnarounds for emergency

vehicles (Appendix 1 – Site Maps). As an operating standard, the applicant would be required to provide local emergency services with the gate code so as not to impede site access during an emergency.

The Proposed Project would be required to comply with the Humboldt County Fire Safe Ordinance 1952, which the California Board of Forestry and Fire Protection has accepted as functionally equivalent to PRC 4290. The County Fire Safe Ordinance provides specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and set-back distances for maintaining defensible space (CALFIRE, 2017). The improvement plans for the Proposed Project would be reviewed to verify compliance with the County’s Fire Safe Ordinance which would ensure that adequate access for emergency vehicles is provided. Therefore, the Proposed Project would not result in inadequate emergency access. Impacts would be less than significant, and no mitigation measures would be required.

Mitigation Measures

None.

2.2.18. TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
<p>a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p style="margin-left: 40px;">i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p style="margin-left: 40px;">ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision I of Public Resources Code §5024.1. In applying the criteria set forth in subdivision c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project Site (APNs 204-251-001, 204-121-006, and 204-121-005) is an approximately 31.69-acre parcel located off of State Highway 36 near Hydesville, CA. The subject parcel is an industrially zoned parcel historically used for mill and gravel operations. The area was traditionally occupied by the Nongatl Tribe. Descendants of the Nongatl are now typically members of the Bear River Band of the Rohnerville Rancheria and other communities (Appendix 2D).

As detailed in Section 3.2.5, a Cultural Resources Investigation Report was prepared for the property by William Rich, M.A., of William Rich and Associates in April 2022 (Appendix 2D). The Cultural Resources Investigation Report included an examination of archaeological site records and survey reports in the area as identified by the Northwest Information Center (NWIC). No previous surveys in the vicinity have included the Proposed Project area. Two other surveys have been conducted within a quarter mile of the property and identified one cultural resource (a segment of abandoned railroad track approximately 295 feet from the Proposed Project Area).

The Proposed Project area was investigated for the presence of archaeological deposits, historic features, or other cultural resources. The report concluded that no historical resources, as defined in CEQA, Article 4,

Section 15064.5 (a), were identified within the Proposed Project area or within a 600-foot buffer from the Proposed Project area (William Rich and Associates, 2022).

Analysis

- a i-ii) **Finding:** The project will not cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code §5020.1(k). *Less than significant impact.*

Discussion: See analysis in Section 3.2.5, Cultural Resources. The Cultural Resources Investigation Report identified no historical resources as defined by Section 15064.5 within the Proposed Project area or property, nor were there any previous records of historical resources located on the subject property.

As required by AB 52, the County of Humboldt sent requests on March 21, 2023, for formal consultation to the Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria, Big Lagoon Rancheria, Cher-Ae Heights Indian Community of the Trinidad Rancheria, Hoopa Valley Tribe, Karuk Tribe, Round Valley Reservation/ Covelo Indian Community, Shasta Indian Nation, Shasta Nation, Tsnungwe Council, Wiyot Tribe, and Yurok Tribe. As of April 26, 2023, no responses have been received. With the incorporation of proposed Mitigation Measure CUL-1, the impact would be less than significant.

Mitigation Measures

See Mitigation Measure CUL-1 in Section 3.2.5 – Cultural Resources.

2.2.19. UTILITIES AND SERVICE SYSTEMS

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Proposed Project is for 5.39 acres of indoor commercial cannabis cultivation, 1.01 acres of commercial nursery, and 2,400 sq. ft. of distribution activities, in addition to ancillary activities (processing, drying, and storage). Three (3) indoor cultivation buildings are proposed (totaling 304,992 sq. ft.) and a 40' x 60' expansion to an existing 60' x 80' metal building is proposed (totaling 7,200 sq. ft.). Existing site development includes the 60' x 80' metal building, a trailer, shipping containers, and a residence in the southern portion of the property. Existing onsite utilities include electrical service through PG&E, private drinking water through a well, and an unpermitted onsite wastewater treatment system.

Electricity at the project site is currently provided by an existing service from Pacific Gas and Electric Company (PG&E). The Proposed Project would utilize an existing PG&E electrical service through a substation leased by the applicant. The substation is located on APN 204-234-002, approximately 0.25 miles north of the subject property (Figure 17). The substation is owned by Humboldt Redwood Company and leases exclusive power rights to the applicant for the next 20 years. Utility infrastructure to connect to the substation is already in place: power poles with overhead lines already connect the Proposed Project site to the substation. The power pole that connects to the substation is located in the northeast corner of the property (Appendix 1 – Site Maps). No off-site improvements of utility lines, including those that traverse State Highway 36, would need to occur for the Proposed Project.

The Proposed Project would purchase RCEA Repower + Plan (or similar) through PG&E to ensure all power for the Proposed Project was provided by renewable energy. A backup generator would be kept onsite for emergency purposes. Use would be limited to backup and outage events and would follow all guidelines set by Humboldt County and the State of California.

Water for the Proposed Project would be provided by a proposed 3.12-million-gallon rainwater catchment pond and by dehumidifiers. Dehumidifiers would supply a minimum of 35% of irrigation demand. The total irrigation demand is approximately 4.2 million gallons per year, including 600,000 gallons for the commercial nursery and 3.6 million gallons for the proposed indoor cultivation areas (15.32 gallons/sq. ft. of canopy area). Cultivation would occur using an efficient hydroponic system. Employees would utilize treated water for domestic activities. Drinking water may also be imported as needed.

The site is a historic industrial site and complies with the State Water Resources Control Board Construction General Permit requirements, including the development and continued implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP describes onsite stormwater drainage features, including ditch relief culverts and a stormwater retention pond. None of the existing stormwater features are proposed to be changed or impacted by the Proposed Project.

Waste generated from the Proposed Project would either be composted onsite or properly disposed of at a licensed waste management facility. Trash and recycling containers are proposed to be located near the cannabis facilities in a safe enclosed location (Appendix 1, Sheet C1). Per the Cultivation and Operations Manual (Appendix 1), solid waste and recycling would be hauled off-site to the nearest transfer station as-needed, generally bi-weekly during the cultivation season.

Waste generated from the Proposed Project would either be composted onsite or properly disposed of. Plant material would be chipped and composted onsite, as feasible. Refuse containers are proposed to be located near the cannabis facilities in wildlife-proof enclosed bins. Refuse and recycling would be hauled off-site bi-weekly or as needed to the nearest licensed waste management facility, Recology Eel River.

Analysis

- a) **Finding:** The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. *Less than significant impact.*

Discussion: The Proposed Project site is located within an unincorporated area of Humboldt County which does not have a public wastewater treatment system. Properties in this area function off of private systems. The existing residence on the project parcel has an onsite wastewater treatment system, including a septic tank and leach field. No changes, including relocation, are proposed to occur to the existing septic system.

As described above, the Proposed Project would utilize PG&E electrical service through a substation located on APN 204-234-002, approximately 0.25 miles north of the property. Power poles with overhead lines already connect the Proposed Project site to the substation. The power pole that connects to the substation is located in the northeast corner of the property (Appendix 1 – Site Maps). No off-site improvements of utility lines, including those that traverse State Highway 36, would need to occur for the Proposed Project.

The Proposed Project includes construction of three (3) large commercial facilities and the commercial expansion of an existing metal building. Buildings would be required to have ADA-compliant restrooms and onsite wastewater treatment systems, including workable flushable toilets, sinks with hot and cold running water, showers, and an engineered septic tank(s) and leach fields, as required. The location and soils associated with the proposed onsite wastewater treatment system have been determined to be suitable for the Proposed Project's size and scope (Appendix 2I). The final septic system design would be reviewed for compliance with the requirements of the NCRWQCB and the Humboldt County Division of Environmental Health (DEH). Therefore, the Proposed Project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The Proposed Project leach field and septic tank would be located outside the wetland and riparian setbacks (Appendix 1 – Site Maps). These impacts are considered to be part of the project's construction phase and are evaluated throughout this document. Therefore, the Proposed Project would not result in significant environmental effects due to the construction of new wastewater treatment facilities or the expansion of existing facilities.

At full build-out, water for the Proposed Project would be sourced from 3.12-million-gallon rainwater catchment pond and by dehumidifiers. Dehumidifiers would supply a minimum of 35% of irrigation demand, thus ensuring that the Proposed Project would have sufficient water even in an extreme drought. The total irrigation demand is approximately 4.2 million gallons per year. Employees would utilize treated water for domestic activities. Drinking water may also be imported as needed. A grading permit would be obtained from the Humboldt County Building Department prior to pond construction. The grading permit would include an Erosion Control Plan. Pond design and siting would occur outside of all riparian and property setbacks.

The Proposed Project would increase the amount of impermeable surface within the project site by approximately 307,392 sq. ft., or the total size of the four (4) proposed buildings. The rainwater catchment pond is not included in this calculation, as it would capture and store water for the Proposed Project. However, rainwater from all proposed impervious surfaces (i.e., the four (4) proposed buildings) would be collected via gutters and conveyed into the rainwater catchment pond and stored for irrigation use. Irrigation of plants would consist of an efficient hydroponic system to prevent excess water use. The pond overflow would be directed into the existing stormwater system, which has already been designed and constructed to accommodate storm drainage from across the site.

Therefore, impacts would be less than significant, and no mitigation would be required.

- b) Finding: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. *Less than significant impact.*

Discussion: Water for irrigation for the Proposed Project, including cultivation and nursery activities, would be provided by rainwater catchment and water reclaimed from dehumidifiers installed within the cultivation buildings. Total irrigation demand is expected to be approximately 4.2 million gallons only (approximately 3.6 million gallons for mature cannabis cultivation and approximately 600,000 gallons annually for the commercial nursery). Evaporation calculations estimate that approximately 1.21 million gallons would evaporate from the pond annually (Appendix 1 – Cultivation and Operations Manual). No groundwater extraction is proposed.

Rainwater collection would occur by capturing rainwater from the proposed pond and the proposed buildings, or a total of 385,887 sq. ft. In an average rainfall year of 44 inches, this catchment area has the potential to collect approximately 10,124,000 million gallons of water, based on a rooftop capture efficiency of 95%, which exceeds the approximately 4.2 million gallons of demand (Appendix 1 – Cultivation and Operations Manual). During a drought year, the catchment surfaces have the potential to capture approximately 3.8 million gallons (Appendix 1 – Cultivation and Operations Manual), which is sufficient to meet the proposed demand, even during the driest year on record of the last 120 years of 17 inches in 2013 (PRISM, 2022).

Water for irrigation would also be sourced from dehumidifier units, which would capture condensed water and convey it into the hydroponic system. Dehumidifier units would be Quest Therna-Sar TR 3900 model, or similar, and have the capacity to capture approximately 12 gallons of water per hour, or 3,900 gallons per day. A minimum of 30 units has the potential to capture 1.68-million gallons of water annually. The applicant could increase dehumidifier units as desired. Dehumidifier units are expected to supply approximately 40% of irrigation demand, while rainwater is expected to supply the remaining 60% of irrigation demand (Appendix 1).

Per the Cultivation and Operations Manual (Appendix 1), the water demand for the Proposed Project would be met annually with a minimum of 30 dehumidifier units in conjunction with the proposed rainwater collection surfaces and storage. This scenario is true in the event of an extreme drought year, using the lowest rain year on record, multiple consecutive extreme drought years, and accounting for water lost to evaporation.

Non-irrigation water for domestic uses, including drinking, plumbing, and processing (e.g., handwashing, surface and tool cleaning, and toilet flushing) would be sourced from treated rainwater catchment or drinking water brought to the site. Demand for non-irrigation water would total approximately 269,175 gallons annually.

Therefore, it is expected that even during dry years, sufficient water would be available to support the Proposed Project. Additionally, the applicant would utilize water management strategies to conserve onsite use of water and fertilizers. Water would come from rainwater and dehumidifiers, both sustainable supplies of water that would not draw from surrounding surface waters or groundwater aquifers. Therefore, the Proposed Project would have sufficient water supplies available during normal, dry, and multiple dry years.

- c) Finding: The project would not result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments. *No impact.*

Discussion: The project site is located in an unincorporated area of Humboldt County near the community of Hydesville, which does not have a municipal septic system. The proposed onsite wastewater treatment system would be designed by a qualified engineer and would be approved by the Humboldt County Division of Environmental Health (DEH). Site soils have been deemed suitable for an onsite wastewater treatment system (Appendix 2I). Therefore, the Proposed Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

- d-e) Finding: The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and the project would comply with federal, state, and local management and reduction statuses and regulations related to solid waste. *Less than significant impact.*

Discussion: The California Integrated Waste Management Act of 1989 (Public Resources Code Division 30), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to divert waste from landfills (Public Resources Code Section 41780).

Compliance with AB 939 is determined by the Department of Resources, Recycling, and Recovery (Cal Recycle), formerly known as the California Integrated Waste Management Board (CIWMB). Each county is required to prepare and submit an Integrated Waste Management Plan for expected solid waste generation within the county to the CIWMB. In 2010, the State legislature passed AB 341 (Chesbro) which set a statewide recycling goal of 75% by 2020 which is anticipated to be achieved through source reduction, recycling, and continued diversion of materials such as organic wastes. According to the Humboldt County General Plan Update Revised Draft EIR, the 2017 waste diversion rate for the unincorporated area of the county was 74% (Humboldt County General Plan, 2017).

The Proposed Project would comply with all federal, state, and local statutes related to solid waste, including AB 939. This would include compliance with the Humboldt Waste Management Authority's recycling, hazardous waste, and composting programs in the county to comply with AB 939. Solid waste generated by the Proposed Project would include the following: 1) plant material, nutrient supplement and soil containers, etc. generated from the cultivation, nursery, and breeding activities; 2) plant material generated from the processing activities; and 3) typical office and domestic solid waste generated by the employees.

Trash and recycling containers would be located near the cultivation facilities in a safe and enclosed location to prevent animal intrusion. Garbage and recycling would be hauled offsite two times per month or as needed to nearest waste management authority. Items that can be recycled would be separated and recycled. Stalks would be chipped for ground cover and composted. Spent potting soil would be stored in a contained area with environmental measures in place and would be covered during winter months and then amended in pots before further use.

The Humboldt County General Plan Waste Management Section of the Conservation and Open Space Element (2017) includes waste diversion goals. According to the General Plan, in 2012 the County as a whole disposed of 84,145 tons of solid waste in landfills, with approximately 43% or 36,182 tons emanating from the unincorporated areas of Humboldt County. The General Plan encourages implementation of waste reduction programs, including recycling.

According to the Humboldt County General Plan Update Revised Draft EIR, Eel River Disposal manages the transport of self-hauled and non-HWMA member waste, as well as waste received at the Redway Transfer Station. Solid waste is transported for disposal to the Anderson Landfill for disposal by Eel River Disposal, and Alves Inc. also hauls residual waste from its operation to Anderson, California. This landfill is not expected to close until 2036 (Humboldt County, 2021). The Proposed Project would generate waste comprising a miniscule percentage of waste generated by the County. Additionally, the Proposed Project intends to divert waste from landfills where possible by reusing usable products and recycling. Therefore, the Proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, would not produce waste in excess of state or local standards or impair attainment of solid waste goals, and would not violate any federal, state, or local statuses and regulations related to solid waste. Impacts would be less than significant, and no mitigation measures would be necessary.

Mitigation Measures

None.

2.2.20. WILDFIRE

If location near state responsibility areas or lands classified as very high hazard severity zones, would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting:

Fire protection in Humboldt County is provided by local districts and CALFIRE. The site is within a CALFIRE State Responsibility Area and has a Moderate Fire Hazard Severity rating (Humboldt Web GIS, 2022).

The project site is within the Fortuna Fire Protection District. Fortuna Fire Protection District encompasses 26 square miles and serves a population of approximately 15,000 (FortunaFire.com, 2023). Three fire stations are located within the district, in Fortuna, Campton Heights, and Hydesville. The Hydesville Fire Station is the nearest station and emergency response location to the project site, located approximately 1.7 road miles west of the project site (drive time of approximately 2-4 minutes).

The project is located within the Hydesville Firewise Community. In collaboration with CALFIRE and the Fortuna Fire Protection District, Hydesville residents conducted a wildlife hazard assessment and developed an action plan to address safety concerns. The Hydesville Action Plan details actions that the community can take to help reduce the fire risk throughout the community. The subject property is included within the bounds of the Hydesville Firewise Community but is not specifically designated for any action areas.

No historical fires are recorded onsite or within the project vicinity, per Humboldt Web GIS (2022).

The County of Humboldt Office of Emergency Services coordinates emergency response in Humboldt County through the Humboldt Operational Area. The Humboldt Operational Area is composed of the County of Humboldt, serving as the lead agency, and all political subdivisions (cities and Special Districts) within the county.

Analysis

- a-d) **Finding:** The project would not substantially impair an adopted emergency response plan or emergency evacuation plan; would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; would not require the installation or maintenance of associated infrastructure (e.g., roads, fuel breaks, emergency water sources) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; and would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. *Less than significant impact.*

Discussion: According to Humboldt County Web GIS mapping, the project site is located in a moderate fire hazard severity zone within the SRA. The risk of causing a wildfire would not be significant during construction and operation because the project activities would comply with state and local requirements. Equipment would be “fire-safe”, i.e., operating under a fire safety plan and equipped with spark arrestors. The access road shall be maintained in a state such that it is free of vegetation during times of activity. PG&E power is already in existence onsite, and no offsite improvements are proposed. Onsite, power lines from the existing pole connecting to the substation would be trenched underground to each of the proposed buildings. As any new power lines would be trenched, they would not increase the risk of fire onsite.

Fueling of vehicles/equipment during construction activities would occur off-site or be transported and dispensed from pick-up trucks equipped for such a purpose. During long-term operation of the project, fuel would be stored on-site for equipment use in containers designed for fuel storage that includes secondary containment.

As required by fire code, all of the existing and proposed buildings would developed with fire suppression systems. In addition, SRA improvements include a designated SRA tank, management of trees and vegetation around existing structures to maintain the required 100-foot defensible space and all structures on the property meet the 30-foot SRA setback requirement from property lines.

The Proposed Project would be required to comply with the Humboldt County Fire Safe Ordinance (County Code Section 31111 et seq.), which CalFire has accepted as functionally equivalent to PRC 4290. The County Fire Safe Ordinance provides specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and setback distances for maintaining defensible space. The project site is accessed from a private driveway off of State Highway 36, which is capable of supporting emergency vehicle access. Improvement plans for the Proposed Project would be subject to approval by the Humboldt County Building Department to verify compliance with the County’s Fire Safe Ordinance which would ensure that adequate access for emergency response and evacuation is provided. The Proposed Project is located within the Hydesville Firewise Community and would not conflict with the Hydesville Firewise Action Plan. Therefore, a less than significant impact would occur, and no mitigation would be required.

Mitigation Measures

None.

2.2.21. MANDATORY FINDINGS OF SIGNIFICANCE

Would the Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting:

The project information provided for each of the topics above has been reviewed for all actions associated with it; during both temporary construction and long-term operation. Based on the project description and its location, the Proposed Project would not result in any significant impacts with the incorporated operating restrictions, mitigation measures, as well as those standards and requirements of other regulating resource agencies.

Analysis

- a) **Finding:** The Proposed Project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. *Less than significant impact with mitigation incorporated.*

Discussion: All impacts to the environment, including impacts to habitat for fish and wildlife species, fish and wildlife populations, plant and animal communities, rare and endangered plants and animal species, and historical and prehistorical resources were evaluated as part of the analysis in this document. The development site is an existing, disturbed, graveled, industrial site devoid of rich habitat for sensitive species. Where impacts were determined to be potentially significant to sensitive species potentially present onsite, mitigation measures have been imposed to reduce those impacts to less than significant levels. No work within the

Streamside Management Area (SMA), or within any other state setbacks from sensitive habitats (e.g., watercourses) is proposed. No vegetation is proposed to be removed and no direct impacts are anticipated to sensitive species. Mitigation Measures (BIO-1 and BIO-2) have been incorporated to include pre-construction surveys to review the site for potentially sensitive amphibian species or bird species that could be moving through the site at the time of construction. Accordingly, with incorporation of the mitigation measures imposed throughout this document, the Proposed Project would not substantially degrade the quality of the environment and impacts would be less than significant.

- b) Finding: The Proposed Project will not have impacts that are individually limited, but cumulatively considerable. (“Cumulatively considerable” means that the incremental effects of a Proposed Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects). (CEQA Guidelines §§ 15064(h)(1), 15355.) *Less than significant impact with mitigation incorporated.*

Discussion: This mitigated negative declaration documents the project’s design features and clear, specific mitigation measures that eliminate the project’s potential, project-specific impacts on the environment or mitigates its potential impacts to a less-than-significant level. A “lead agency may determine in an initial study that a project’s contribution to a significant cumulative impact would be rendered less than cumulatively considerable and thus is not significant.” (CEQA Guidelines, § 15064(h)(2).)

When making this determination, the lead agency may conclude that the effects of a project under review would not be cumulatively considerable where “there is no evidence of any individual potentially significant effect.” (*Sierra Club v. West Side Irrigation District* (2005) 128 Cal.App.4th 690, 701-702 (*Sierra Club*), citing *Leonoff v. Monterey County Board of Supervisors* (1990) 222 Cal.App.3d 1337, 1358 (*Leonoff*). Importantly, the “mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the Proposed Project’s incremental effects are cumulatively considerable.” (CEQA Guidelines § 15064(h)(4).)

A lead agency’s analysis of cumulative impacts in a mitigated negative declaration is not the same as the analysis required in an EIR. In the mitigated negative declaration context, the lead agency’s obligation is to determine whether the incremental effects of the project under review are “considerable”. (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) 42 Cal.App.4th 608, 624-635 (*San Joaquin Raptor*)). A lead agency’s investigation of this question, further, does not require “some sort of grand statistical analysis” or other detailed inquiry of the type that could be appropriate in an EIR. (*San Joaquin Raptor*, p. 625.) A lead agency, as noted, can correctly conclude that the impacts of a project under review are not cumulatively considerable when there is no substantial evidence that any incremental impacts of the project are potentially significant. (*San Joaquin Raptor*, p. 624, citing *Leonoff*, at p. 1358.)

As discussed throughout this document, implementation of the Proposed Project has the potential to result in impacts to the environment that are individually limited, however, mitigation has been incorporated to reduce any potentially significant impacts that are individually limited to a less than significant level.

The Proposed Project Area is located in the Van Duzen Planning Watershed, which under Resolution 18-43 by the Humboldt County Board of Supervisors is limited to 425 total permits and 146 total acres of commercial cannabis cultivation (Humboldt County Board of Supervisors, 2018). See Figure 23 for a recent map presented at the May 4, 2023 Planning Commission Meeting that shows pending, approved, and enforcement commercial cannabis projects located near the Proposed Project in the Van Duzen Planning Watershed.

As of May 2023, total approved permits in the Van Duzen Planning Watershed were approximately 158 permits and total approved acres were approximately 42.3 acres (Humboldt County Planning Department Staff Report, June 2022). With approval of the Humboldt Reserve, LLC Cannabis Project, and allowing time for additional approvals, total approved permits in the Cape Mendocino Watershed would likely range from 159 – 180 individual permits, well below the 425 total specified under Resolution 18-43. Total cultivation

acreage, with approval of this Project, would likely range from 47.3 to 55 acres, less than half of the 146-acre cap considered and adopted by the Board of Supervisors (2018).

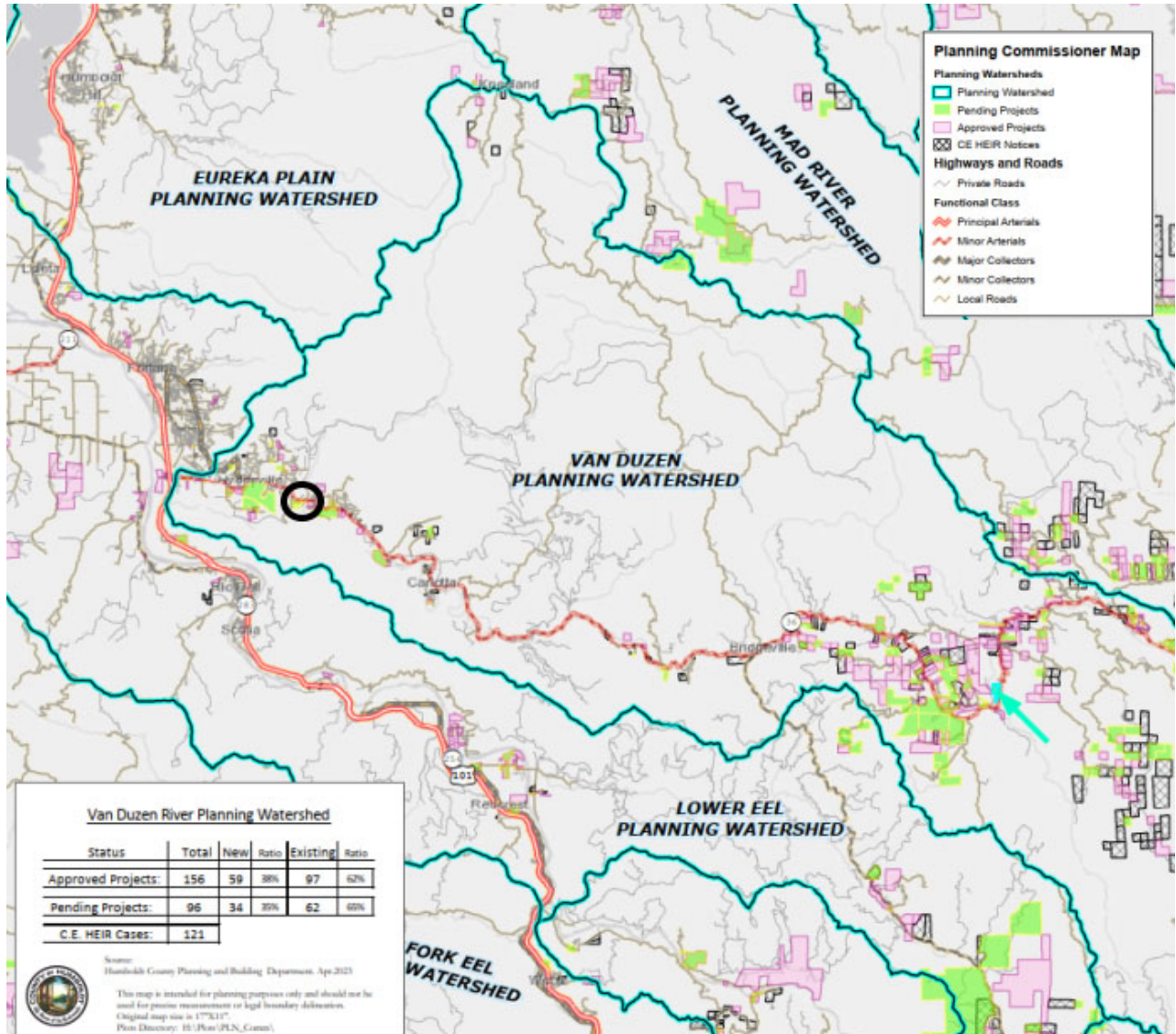


Figure 23: Van Duzen Planning Watershed Planning Commissioner Map of Approved, Pending, and Enforcement Commercial Cannabis Projects (Humboldt County Staff Report, May 2023) (Note: Image taken from a separate project’s Staff Report; disregard the blue arrow. The Project is identified in black.)

It is worth noting that the Board of Supervisors established these watershed caps for new projects, likely to protect natural resources (e.g., natural agriculture and timber land, water resources, existing vegetation, etc.). The Proposed Project is an indoor cannabis cultivation project within structures on a currently under-utilized historic industrial site. All land to be developed is previously disturbed; no vegetation is proposed to be impacted. Water would be sourced from rainwater catchment rather than surface water or groundwater.

The Proposed Project would occur in a contiguous area in the center of the parcel, on existing graveled and disturbed historic industrial land, out of any riparian setbacks or riparian habitat. Approximately 8.7 acres (or 27% of the property) of existing disturbed land would be impacted.

This document includes specific, effective mitigation measures that reduce the Proposed Project’s potential environmental impacts to a less-than-significant level. With regard to biological resources impacts in

particular, the Proposed Project's impacts were analyzed through a site-specific biological study, botanical study, wetlands delineation, and database searches. This document incorporates mitigation measures that require preconstruction surveys and noise and light performance standards, among other measures and Proposed Project design features. These measures reduce the Proposed Project's individual impacts to a less-than-significant level.

With regard to other resource categories, the Proposed Project would not have any impacts that are considered cumulatively considerable. Aesthetically, the Proposed Project would conform to International Dark Sky Standards. The Proposed Project aligns with the Humboldt County Zoning and General Plan land use designations and would follow all requirements in the County's Commercial Cannabis Land Use Ordinance and would therefore have a less than significant impact on Land Use and Agricultural/Forestry resources. The Project is located within the North Coast Air Basin, which is currently in non-attainment for PM10, and would follow all requirements surrounding fugitive dust prevention. The Proposed Project would operate entirely off of renewable energy, would not utilize generators as a primary power source, and would not significantly contribute to increased levels of PM10 or other pollutants, including Greenhouse Gas Emissions. The Proposed Project would require grading in accordance with an approved Grading Permit by Humboldt County. The grading would not significantly lead to geologic instability in the Project area. All proposed buildings would be constructed in conformance with the most recent California Building Code. The Project would follow all regulations surrounding hazardous materials and would be required to enroll in CUPA as a Condition of Approval, per the CCLUO. No mineral resources would be extracted, and significant noise levels would not be generated from the Proposed Project. Rainwater and reclaimed dehumidifier water would both be utilized at less than significant levels. For analysis on impacts to additional resource categories, see discussion in sections 3.2.1-3.2.20, above.

Current practices surrounding the Proposed Project include ranching, agriculture, residential, and commercial cannabis cultivation. The Proposed Project is allowed by the Humboldt County Zoning Code. The Project would not increase the number of permits or acres of cultivation in the Van Duzen Watershed above established limits (per Resolution 18-43). The Proposed Project is consistent with the character of the surrounding neighborhood and would individually or cumulatively significantly contribute to any impact, with mitigation measures incorporated.

The Proposed Project, further, is consistent with the Commercial Cannabis Land Use Ordinance (CCLUO), that Humboldt County adopted in connection with the adoption of the Final Environmental Impact Report for cannabis cultivation in the unincorporated areas of Humboldt County. The FEIR expressly analyzed environmental impacts of commercial cannabis cultivation operations as permitted under the CCLUO. In other words, the County has already analyzed the cumulative impacts of commercial cannabis activities within the project area and determined that projects that are consistent with the CCLUO and the FEIR would not result in significant impacts.

The Proposed Project's consistency with the CCLUO and the County FEIR, and its incorporation of required mitigation measures and conditions of approval, provide another basis for the County to determine that the Proposed Project would not result in cumulatively considerable impacts. In all instances where the project has the potential to contribute to cumulatively considerable impacts to the environment (including the resource categories biological resources and cultural resources) mitigation measures have been imposed to reduce the potential effects to less than significant levels. As such, with incorporation of the mitigation measures imposed throughout this document, the Proposed Project would not contribute to environmental effects that are individually limited, but cumulatively considerable, and impacts would be less than significant with mitigation.

- c) Finding: The Proposed Project will not have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly. *Less than significant impact with mitigation incorporated.*

Discussion: The Proposed Project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this document. In instances where the Proposed Project has the potential to result in direct or indirect adverse effects to human beings, including impacts to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, and Tribal Cultural Resources, mitigation measures have been applied to reduce the impact to below a level of significance. With required implementation of mitigation measures identified in this document, construction and operation of the Proposed Project would not involve any activities that would result in environmental effects which would cause substantial adverse effects on human beings.

Mitigation Measures

Implement Mitigation Measures AQ-1, BIO-1, BIO-2, CUL-1, and GEO-1.

2.2.22. MITIGATION MEASURES, MONITORING, AND REPORTING PROGRAM

The Department found that the project could result in potentially significant adverse impacts unless mitigation measures are required. A list of mitigation that addresses and mitigates potentially significant adverse impacts to a level of non-significance follows.

Mitigation measures were incorporated into conditions of project approval for the project. The following is a list of these measures and a verification form to ensure measures shall be met.

Mitigation Measures

AQ-1. During construction and operation, the following dust control measures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, active graded areas, excavations, and unpaved access roads) shall be watered two times per day in areas of active construction.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All vehicle speeds on unpaved roads shall be limited to 15 mph, unless the unpaved road surface has been treated for dust suppression with water, rock, wood chip mulch, or other dust prevention measures.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes. Clear signage shall be provided for construction workers at all access points.
- All construction and operation equipment shall be maintained and properly tuned in accordance with the manufacturer’s specifications.

Implementation Time Frame	Party Responsible for Implementation	Party Responsible for Verification	Form of Verification	Date of Verification	Verified/ Comments
During construction activity and project operations (ongoing)	Applicant	Humboldt County Planning and Building Department in consultation with North Coast Air Resources Control Board	Inspection Report		

BIO-1. Preconstruction surveys for amphibians and reptile species shall be conducted within 14 days prior to project development or construction. The survey shall cover the entire area proposed for development and shall follow protocols for visual encounter surveys and focus along the edges of the aquatic resource buffers and refuge sites located within the site. If special-status reptiles or amphibians are determined to be present, relocation to other onsite suitable habitat shall occur in coordination with CDFW.

Implementation Time Frame	Party Responsible for Implementation	Party Responsible for Verification	Form of Verification	Date of Verification	Verified/ Comments

No more than two weeks prior to ground disturbing activities	Qualified Biologist	Humboldt County Planning and Building Department in consultation with the California Department of Fish and Wildlife	Qualified Biologist will prepare report		
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BIO-2. For all construction-related activities that take place within the nesting season, accepted as February 1 through August 31, a preconstruction nesting-bird survey for migratory and nesting birds shall be conducted by a qualified biologist no more than two weeks prior to construction within the Proposed Project area and a buffer zone determined by the qualified biologist, depending on the species nesting. The timing of surveys shall be determined in coordination with the CDFW. If active nests are found, a no-disturbance buffer zone shall be established, the size of which the biologist shall determine based on nest location and species. Within this buffer zone, no construction shall take place until the young have fledged or until the biologist determines that the nest is no longer active. For nesting raptors, surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting raptors are detected, the biologist shall establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted.

Implementation Time Frame	Party Responsible for Implementation	Party Responsible for Verification	Form of Verification	Date of Verification	Verified/ Comments
No more than two weeks prior to ground disturbing activities, if occurring between February 1 st and August 31 st	Qualified Biologist	Humboldt County Planning and Building Department in consultation with the California Department of Fish and Wildlife	Qualified Biologist will prepare report		

CUL-1. If cultural resources are encountered during construction activities, all onsite work shall be stopped in the immediate area and within 50-foot buffer of the discovery location. The County, THPOs for the Bear River Band of the Rohnerville Rancheria and Wiyot Tribe, and Archaeologist shall be contacted immediately. No material can be removed from the site until Tribes have agreed to a disposition plan and approval has been granted by County. A qualified archaeologist shall be retained to evaluate and assess the significance of the discovery, and develop and implement an avoidance or mitigation plan, as appropriate. For discoveries known or likely to be associated with Native American heritage (prehistoric sites and select historic period sites), the Tribal Historic Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria and the Wiyot Tribe shall be contacted immediately to evaluate the discovery and, in consultation with the project proponent, the County, and consulting archaeologist, develop a treatment plan in any instance where significant impacts cannot be avoided. Prehistoric materials which could be encountered include obsidian and chert debitage or formal tools, grinding

implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials (see below). Historic archaeological discoveries may include nineteenth century building foundations, structural remains, or concentrations of artifacts made of glass, ceramics, metal or other materials found in buried pits, wells or privies. Work near the archaeological find(s) shall not resume until a professional archaeologist, who meets the Secretary of the Interior’s Standards and Guidelines, has evaluated the materials and offered recommendation for further action.

If human remains are discovered during project construction, work shall be stopped at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner shall be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner shall contact the NAHC. The descendants or most likely descendants of the deceased shall be contacted, and work shall not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. The County, THPOs for the Bear River Band of the Rohnerville Rancheria and Wiyot Tribe, and Archaeologist shall be contacted immediately. No material can be removed from the site until Tribes have agreed to a disposition plan and approval has been granted by County.

Implementation Time Frame	Party Responsible for Implementation	Party Responsible for Verification	Form of Verification	Date of Verification	Verified/ Comments
During construction activity and project operations	Applicant and, if necessary, a qualified professional archaeologist	Humboldt County Planning and Building Department in consultation Tribal governments, if necessary	If needed, the qualified professional archaeologist will prepare a Compliance Report.		

GEO-1. If paleontological resources are encountered during implementation of the Project, ground disturbing activities will be temporarily redirected from the vicinity of the find. A qualified paleontologist shall be retained by the developer to make an evaluation of the find. If a significant paleontological resource(s) is discovered on the property, the qualified paleontologist shall develop a plan of mitigation which shall include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation in the find a local qualified repository, and preparation of a report summarizing the find.

Implementation Time Frame	Party Responsible for Implementation	Party Responsible for Verification	Form of Verification	Date of Verification	Verified/ Comments
During construction activity and	Applicant and, if necessary, a	Humboldt County Planning and Building Department	If needed, the qualified paleontologist		

project operations	qualified paleontologist	in consultation Tribal governments, if necessary	will prepare a Compliance Report		
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3. List of Preparers

COUNTY OF HUMBOLDT

John H. Ford – Director of Planning and Building

Steven Santos – Senior Planner

CONSULTANTS

Annje Dodd, PhD, PE – NorthPoint Consulting Group, Inc.

Lia Nelson – NorthPoint Consulting Group, Inc.

TECHNICAL STUDY PREPARERS

NorthPoint Consulting Group, Inc.

Cultivation Plan and Operations Manual (December 2022)

Site Map and Conceptual Grading and Erosion Plan (May 2023)

CalEEMod Air Quality Analysis (May 2023)

Septic Suitability Survey (December 2022)

Road System Assessment Report (February 2022)

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Limited Scope Geohazard Assessment (May 2023)

Naiad Biological Consulting

Botanical Report of Special Status Native Plant Populations and Natural Communities (September 2022)

Biological Reconnaissance and Project Feasibility Assessment Report (September 2022)

William Rich and Associates

Cultural Resources Investigation Report (April 2022)

Freshwater Environmental Services

Phase I Environmental Site Assessment (May 2022)

Phase II Environmental Site Assessment (May 2022)

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Appendix 1

Site Map and Conceptual Grading and Erosion Control Plan
(NorthPoint Consulting Group, May 2023)

Cultivation and Operations Manual (NorthPoint Consulting
Group, December 2022)

Appendix 2

- A. Botanical Report of Special Status Native Plant Populations and Natural Communities (Naiad Biological Consulting, September 2022)
- B. Biological Reconnaissance and Project Feasibility Assessment Report (Naiad Biological Consulting, September 2022)
- C. Road System Assessment Report (Northpoint Consulting Group, Inc., February 2022)
- D. Cultural Resources Investigation Report for Commercial Cannabis (William Rich and Associates, April 2022) – *listed as reference only, on file with Humboldt County Planning and Building Department*
- E. Noise Source Assessment and Mitigation Plan (NorthPoint Consulting Group, Inc., February 2022)
- F. Humboldt Reserve, LLC - Anticipated Noise Modeling Memorandum (NorthPoint Consulting Group, Inc., May 2023)
- G. Phase I Environmental Site Assessment Report (Freshwater Environmental Services, May 9, 2022)
- H. Phase II Environmental Site Assessment Report (Freshwater Environmental Services, May 25, 2022)
- I. Septic Suitability Survey (NorthPoint Consulting Group, Inc., December 2022)
- J. Humboldt Redwood Company Substation Memo (Jacobson Engineering, December 2022)
- K. Web Soil Survey Type Map (Natural Resources Conservation District, January 2023)
- L. CalEEMod Analysis for Humboldt Reserve Farms, Inc. Cannabis Project (NorthPoint Consulting, May 2023)

- M. Limited Scope Geohazard Assessment (NorthPoint Consulting Group, May 2023)
- N. Existing and Proposed Site Views for the Humboldt Reserve, LLC Cannabis Project (NorthPoint Consulting Group, May 2023)
- O. Plan for Adaptive Reuse of Developed Industrial Site Memorandum (NorthPoint Consulting Group, Inc., February 2022)

HUMBOLDT RESERVE, LLC
APN 204-251-001, 204-121-006, 204-212-005
PLN-2022-17649
CULTIVATION AND OPERATIONS MANUAL
HUMBOLDT COUNTY, CA

COMMERCIAL CANNABIS
CULTIVATION FACILITIES

PREPARED FOR:



December 2022

Commercial Cannabis Cultivation Facilities

APN: 204-251-001, 204-121-006, 204-212-005

Lead Agency:

Humboldt County Planning Department

3015 H Street
Eureka, CA 95501

Prepared By:



1117 Samoa Blvd.
Arcata, CA 95521
(707) 798-6438

In Consultation with:

Humboldt Reserve, LLC
4798 HWY 36
Hydesville, CA 95547

December 2022

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1. PROJECT SUMMARY

1.1. PROJECT OBJECTIVE

Humboldt Reserve, LLC (“Applicant”) is proposing to permit commercial cannabis cultivation activities in accordance with the County of Humboldt’s (County) *Commercial Cannabis Land Use Ordinance* (CCLUO), aka “Ordinance 2.0” on APN 204-251-001, 204-121-006, and 204-121-005, on the historic PALCO Mill site in Carlotta, California.

The project requires a Conditional Use Permit for 235,008 square feet (sq. ft.) of enclosed indoor cannabis cultivation, 44,064 sq. ft. of enclosed commercial nursery, and 2,400 sq. ft. of distribution activities (Table 1). Drying and processing would occur onsite. Activities would occur in three (3) proposed new commercial buildings and one (1) existing onsite building proposed to be modified (Table 1).

All cultivation would operate within fully enclosed buildings with odor control. Water for the proposed project would be sourced from rainwater collected from rooftops and stored in a 3.12-million gallon rainwater catchment pond, and from reclaimed water from dehumidifiers in the proposed buildings. Power would be renewably sourced from an existing PG&E servc and associated substation located on APN 204-231-002. Up to 74 employees would be required during peak seasonal events. The project would conform to all Adaptive Reuse Standards for Industrial Sites.

The project proposal includes permitting of existing and proposed facilities appurtenant to the cultivation, including commercial F-1 buildings for cultivation, processing, and distribution, ADA-compliant restrooms and associated septic system, parking spaces, security facilities, and engineered water storage tanks. The applicant aims to become fully compliant with State and Local cultivation regulations.

<i>Table 1. Proposed Discretionary Cannabis Activities and Associated Locations</i>			
<u>Location</u>	<u>Indoor Cannabis Cultivation (sq. ft.)</u>	<u>Enclosed Commercial Nursery (sq. ft.)</u>	<u>Distribution (sq. ft.)</u>
<p> Building 1 (61,344 sq. ft.)	47,520	8,640	-
<p> Building 2 (62,208 sq. ft.)	47,520	9,504	-
<p> Building 3 (181,440 sq. ft.)	139,968	25,920	-
<e> 60’ x 80’ Processing Building w/ <p> 40’ x 60’ expansion (<e> 4,800 sq. ft., <p> 7,200 sq. ft.)	-	-	2,400
Totals	235,008 sq. ft. (5.39 acres)	44,064 sq. ft. (1.01 acres)	2,400 sq. ft. (0.06 acres)

1.2. SITE DESCRIPTION

The project site is located on APN’s 204-251-001, 204-121-006, and 204-121-005 near the community of Hydesville (40.5362, -124.0712) in the South Fork Yager Creek-Yager Creek watershed (HUC-12 #180101050803). The project site occupies an area of approximately 33-acres, outside the Coastal Zone and within the State Responsibility Area (SRA) for fire protection. The property is located within the Hydesville-Carlotta Community Planning Area.

The parcels were previously used as mills and rock quarries. The PALCO mill operated on this site, which historically consisted of a log deck, lumber storage yard, shipping yard, fueling area, oil house, sawmill

equipment, millwright shop, electrician shop, truck shop, equipment boneyard, and a rock processing/crushing area. A Phase 1 Environmental Site Assessment (ESA) was conducted in 2005 by SHN Consulting Engineers & Geologists, Inc. for the historic PALCO Carlotta Sawmill (submitted with application).

The site is currently developed with a 60'x80' building, a 13'x37' trailer (to be removed), two shipping containers (to be removed), and a residence (unrelated to the proposed cannabis application). An existing, unpermitted well is located near the existing onsite building on APN 204-251-001.

Ward Creek, a Class I watercourse tributary to Yager Creek, flows south along the western parcel boundary, exiting the southern parcel boundary before flowing adjacent to the southwestern boundary and eventually into the Van Duzen River. The proposed project is set back a minimum of 100 feet from the edge of riparian vegetation of this perennial watercourse. No trees are proposed to be removed as a part of this project.

Prime Agricultural Soils are mapped onsite, however the site is an existing graveled/paved disturbed site. All development is proposed on existing graveled or paved area. Prime Agricultural soil requirements do not apply to Industrial sites, per the CCLUO.

1.3. LAND USE

The property is zoned Heavy Industrial (MH/MH-Q) and has a general plan land use designation of Mixed Use (MU). Surrounding zones include Heavy Industrial (MH), Agriculture Exclusive (AE), Agricultural General (AG), and Timber Production Zone (TPZ). Land uses surrounding the parcel are comprised of Agriculture, Timber, and Rural Agriculture, Rural Estates, Industrial General, and Mixed Use designations.

1.4. STATE AND LOCAL COMPLIANCE

1.4.1. CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE – CALCANNABIS

Humboldt Reserve, LLC will obtain Commercial Cannabis Activity Licenses from the Department of Cannabis Control once local authorization has been obtained.

1.4.2. STATE WATER RESOURCES CONTROL BOARD – WATER RIGHTS

The operation will source irrigation water from a proposed 3.12-million gallon rainwater catchment pond. The pond will be plumbed to existing and proposed structures that will serve as catchment surfaces. Rainwater catchment is exempt from the State Water Resources Control Board's (SWRCB) permitting authority over appropriations of water, and no water rights are required.

1.4.3. STATE WATER RESOURCES CONTROL BOARD AND NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD – WATER QUALITY

The applicant will enroll for coverage as a Tier 2, Low Risk under the State Water Resources Control Board (SWRCB) General Order WQ 2019-0001-DWQ *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Dischargers of Waste Associated with Cannabis Cultivation Activities* ("Order"). The purpose of the SWRCB Order is to implement the requirements for waste discharges associated with cannabis cultivation as described in SWRCB's *Cannabis Cultivation Policy – Principles and Guidelines for Cannabis Cultivation* ("Policy"). Once enrolled, a Site Management Plan will be developed for the property to describe how the discharger is complying with the applicable Best Practicable Treatment or Control (BPTC) Measures listed in Attachment A of the Order/Policy.

The Tier 2, Low Risk discharger status reflects current operations that disturb an area greater than one acre. The applicant intends to keep all cultivation activities out of riparian setbacks to maintain Low Risk status with SWRCB.

1.4.4. HUMBOLDT COUNTY BUILDING DEPARTMENT

Upon project approval, all necessary building permits will be obtained from the Humboldt County Building Department for all existing/proposed structures and supporting infrastructure.

1.4.5. CAL FIRE AND FIRE PROTECTION

The subject property is located within a State Responsibility Area (SRA) for fire protection and is within the Fortuna Fire Protection District. Management of the SRA area includes management of trees and vegetation around existing structures to maintain the required 100-foot defensible space. All structures on the property meet or exceed the 30-foot SRA setback requirement from property lines. The site as proposed contains ample room for emergency vehicles to turn around, and two (2) designated turn-around areas can be viewed on the site map. Two (2) 2,500-gallon water tanks proposed to be dedicated to SRA emergency response (Appendix A). Risers to SRA specifications are proposed to be installed for firefighting purposes.

1.4.6. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The applicant will notify the California Department of Fish and Wildlife (CDFW) of the lack of jurisdictional projects on the subject property. There are no stream crossings or points of diversion on the subject property. Mapped wetlands per the National Wetland Inventory exist in the Ward Creek riparian zone. The project is set back a minimum of 100 feet from Ward Creek and wetlands mapped in Ward Creek.

1.4.7. CULTURAL RESOURCES

The applicant is currently in the process of obtaining a Cultural Resources Survey. If buried archaeological or historical resources are encountered during construction or cultivation activities, the applicant or contractor shall call all work in the immediate area to halt temporarily, and a qualified archaeologist is to be contacted to evaluate the materials. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, dietary bone, and human burials. If human burial is found during construction, state law requires that the County Coroner be contacted immediately. If the remains are found to be those of a Native American, the California Native American Heritage Commission will then be contacted by the Coroner to determine appropriate treatment of the remains. The applicant is ultimately responsible for ensuring compliance with this condition.

2. CULTIVATION AND PROCESSING

2.1. ENCLOSED COMMERCIAL (WHOLESALE) NURSERY OPERATION

Humboldt Reserve, LLC is proposing to permit approximately 44,064 sq. ft. of enclosed commercial nursery space to serve as a Canabis Support Facility to surrounding communities. The commercial nursery would also serve onsite cultivation, providing juvenile plants and clones to the proposed indoor operation. The applicants propose to propagate juvenile plants on-site from seeds and mother plants within the proposed 44,064 sq. ft. commercial nursery area, including 8,640 sq. ft. in Building 1, 9,504 sq. ft. in Building 2, and 25,920 sq. ft. in Building 3 (see site map in Appendix A). Mother plants will remain in the vegetative stage solely for propagation. Cuttings will be sampled from the mother plants and rooted into a growing medium (e.g. oasis cubes) to produce clones. The clones will then be

transferred to the vegetative nursery area, and after 2-3 weeks will be transplanted into one-gallon pots or similar. The juvenile plants will be irrigated using hand watering methods, and after three weeks they will be transplanted into their final location where they will continue their vegetative cycle and eventually flower. The applicant expects six (6) cycles per year of propagation for the proposed project.

The commercial nursery would function as a Cannabis Support Facility, providing clone and juvenile plant deliveries and pickups to local cultivators. The commercial nursery would not typically be open to the general public for a storefront-type commercial nursery. Once built-out, 2-3 delivery vehicle trips associated with the nursery would be anticipated per day.

2.2. INDOOR CULTIVATION

Approximately 235,008 sq. ft. (5.39 acres) of indoor cultivation is proposed in three (3), commercial structures:

- Building 1 (180' x 264') would contain 47,520 sq. ft. of indoor canopy
- Building 2 (132' x 360') would contain 47,520 sq. ft. of indoor canopy
- Building 3 (324' x 432') would contain 139,968 sq. ft. of indoor canopy

The area proposed for indoor cultivation building development has been existing 3' aggregate base and no new ground disturbance or clearing of vegetation is proposed. Ground disturbance of existing pavement will be required for building construction of footings, though the applicants intend to minimize ground disturbance as feasible.

Irrigation and fertigation of plants will occur using drip irrigation systems on auto-timers in a closed loop hydroponic system. Indoor cultivation will use artificial light to produce up to six (6) flowering cycles per year, year-round. Lighting will occur at a rate above 25 watts/square foot, and fixtures will be 760-watt LED lights or similar. The Cultivation Schedule in Appendix B details the cultivation activities associated with the operation for a typical year.

2.2.1. PROCESSING PLAN (HARVESTING, DRYING, AND TRIMMING)

Plants that are ready for harvest will have their flowering branches removed and hung in the ancillary dry space. Dry space is primarily proposed in Buildings 1, 2 and 3 (5,184 sq. ft., 5,184 sq. ft., and 15,552 sq. ft., respectively). Trimming will occur onsite in a 4,800-sq. ft. area in the proposed 7,200 sq. ft. onsite Processing Building or at an approved off-site commercial processing facility. Plants will bucked and dried in the adjacent drying facilities, and then moved to the processing building. Bucked plants would be hand-trimmed or trimmed using a trimming machine. In lieu of drying, product may also be fresh-frozen harvested and taken off-site for further processing. The proposed 4,800 sq. ft. of processing area would only serve on-site product. No "off-site" processing is proposed.

Applicable state cultivation licenses will be obtained once local authorization has been granted. All product will be tracked and weighed in accordance with County and State regulations, and all data will be entered into the California Cannabis Track-and-Trace (CCTT) METRC system.

2.3. COMMERCIAL DISTRIBUTION OPERATION

Humboldt Reserve, LLC is proposing to permit distribution activities onsite as a Cannabis Support Facility. Approximately 2,400 sq. ft. of distribution space is proposed in the existing onsite metal building also proposed for processing. Onsite distribution activities will include procurement of cannabis from licensed cultivators, packaging of cannabis products, and/or transportation of product to and from other licenses in the legal cannabis market. Testing and quality assurance are not proposed as a part of this application. The distribution operation would follow all regulations imposed

by the Department of Cannabis Control, including provisions related to security, packaging/labeling, and insurance.

2.4. ODOR CONTROL PLAN

The project is located in the Hydesville-Carlotta Community Planning Area. All proposed cannabis activities would take place within fully enclosed buildings. The buildings would incorporate odor control measures, including Vapor-Phase odor management systems (or similar), as well as standard carbon filters. The proposed odor control measures would mitigate odors released from the cultivation activities and prevent potential smells from reaching nearby sensitive receptors (e.g., residences). The nearest residence is located greater than 300 feet from the proposed operation.

2.5. LIGHT POLLUTION CONTROL PLAN

Indoor cultivation will be located inside a structure, allowing for no light to escape, thus complying with Dark Sky standards and protect surrounding habitat. If structures have transparent roofs, an automated blackout tarp would be employed such that no light could escape between sunrise and sunset. Zero light shall escape all structures between sunset and sunrise. Any proposed security lighting will be downcast and not visible from neighboring properties.

2.6. EMPLOYEE PLAN

The applicant is an “agricultural employer” as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 of Division 2 of the Labor Code), and complies with all applicable federal, state and local laws and regulations governing California Agricultural Employers.

2.6.1. JOB DESCRIPTIONS AND EMPLOYEE SUMMARY

- (5) Year-Round Managers:
 - (1) *Agent in Charge:* Responsible for business oversight and management. Responsibilities include, but are not limited to: inventory and tracking, personnel management, record keeping, budget, and liaison with State and County inspectors as needed. This is a part-time to full-time, seasonal position.
 - (1) *Lead Cultivation Manager:* Oversight and management of the day to day cultivation of commercial cannabis. This is a full-time, year-round position.
 - (1) *Lead Nursery Manager:* Oversight and management of the day to day commercial nursery activities. This is a full-time, year-round position.
 - (1) *Lead Processing Manager:* Oversight and management of the day to day processing activities. This is a full-time, year-round position.
 - (1) *Lead Distribution Manager:* Oversight and management of the day to day distribution activities. This is a full-time, year-round position.
- (18) Year-Round Laborers: provides cultivation, harvesting, drying, nursery, processing, and distribution support. This is a full-time, year-round position.
- (49) Seasonal Laborers: Provides cultivation, harvesting, drying, nursery, processing, and distribution support. This is a part-time to full-time, seasonal position not to exceed six months out of the year.
- (2) Security Personnel: Provides security support to the site. This is a part-time to full-time, year-round position.

2.6.2. STAFFING REQUIREMENTS

As described above, five (5) managers and up to eighteen (18) laborers will be employed as full-time, year-round positions. Up to 49 additional seasonal laborers will be employed as part-time to full-time, seasonal positions up to six months per year, depending on peak seasonal demand. Two (2) security

personnel are also proposed to be employed by the project. In total, during peak operations at full build-out, up to 74 personnel may be working onsite. Seasonal laborers may be hired in the form of contract laborers. The exact number of seasonal laborers at a given time will vary based on the needs of the farm during the cultivation, harvesting, and processing seasons.

2.6.3. EMPLOYEE TRAINING AND SAFETY

On-site cultivation, harvesting and drying will be performed by employees trained on each aspect of the procedure including cultivation/harvesting techniques, use of pruning tools, and proper application/storage of pesticides and fertilizers. All cultivation staff will be provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the on-site cultivation and drying facilities will be limited to authorized and trained staff. All employees will be trained on proper safety procedures including fire safety, use of PPE, proper hand washing guidelines, and emergency protocol. Contact information for the local fire department, Cal Fire, Humboldt County Sheriff and Poison Control as well as the Agent in Charge will be posted at the employee restroom in the proposed processing building. Each employee will be provided with a written copy of emergency procedures and contact information. The material safety data sheets are kept on site and accessible to employees.

No manufacturing (volatile or non-volatile) is proposed in this application.

2.6.4. TOILET AND HANDWASHING FACILITIES

Cultivation employees will be served by ADA restrooms in the proposed commercial processing building and in the indoor cultivation buildings as required. Until the buildings are constructed, portable toilets with anti-bacterial Liquid Soap and paper hand towels will be made available to employees. Restroom and handwashing units will be serviced at regular intervals by a licensed contractor. Work will occur at a distance no greater than 900 feet from the restroom facility.

2.6.5. ON SITE HOUSING

The existing residence at the project site is not proposed to be used in association with cultivation operations. No additional housing is proposed.

2.6.6. PARKING PLAN

Parking is proposed to be located near each of the existing and proposed buildings. A total of 74 parking spaces are proposed, including (2) ADA parking spaces located near the proposed facilities, or as many as required by the Humboldt County Building Department and the California Building Code. A more detailed accessibility plan will be made available during the building permit process, and will need to be approved by the Humboldt County Building Department prior to construction.

2.7. SECURITY

The property is accessed through an entry gate that remains locked at all times. Cultivation facilities (greenhouses, storage buildings, drying/processing facility) will only be accessible through the locked gate. Access to the area is limited to employees and approved personnel including agency staff, consultants, and distributors. A 10'x12' security shed will be stationed at the entrance gate and used by security personnel. Up to two (2) security personnel would be employed by the project.

2.8. HOURS OF OPERATION

Activities associated with cultivation generally occur during daylight hours. All other activities such as harvesting and drying typically occur no earlier than 7 AM and extend no later than 8 PM. Commercial nursery and distribution activities typically occur 7 AM to 6 PM.

2.9. PROPOSED PHASED BUILD-OUT

Proposed grading activities would include grading for the pond and ground preparation for the buildings, septic system, and parking area. The applicant is proposing to build the project out over a four or five-year period, as follows: Construction activities are expected to begin in the spring or summer of 2023 after project approval, with the exact start date dependent on permit timing, dry weather, and suitable soil conditions. Humboldt Reserve, LLC is proposing to stagger construction and build-out over a period of five years, as follows:

- Year 1 (2023):
 - o Construction of the pond (as soon as possible after project approval), and begin construction of half of Building 2 (252' x 132')
- Year 2 (2024)
 - o Finish construction of all of Building 2
 - o Start on construction of Building 1
 - o Start construction of onsite wastewater treatment system
- Year 3 (2025)
 - o Finish construction of all of Building 1
 - o Construct processing building addition
- Year 4 (2026)
 - o Begin Construction of Building 3
- Year 5 (2027)
 - o Finalize construction of building 3, if applicable. Project built-out and fully in operation during this year.

Note that this schedule may change due to supply chain availability, market conditions, financial resources, permit timing, weather, etc.

3. ENVIRONMENT

3.1. WATER SOURCE AND PROJECTED USE

Irrigation water is proposed to be sourced from rainwater catchment and reclaimed water from dehumidifiers installed in the proposed buildings. Captured rainwater would serve as the primary water source, supplying 65% of irrigation demand, and reclaimed water from dehumidifiers would serve to supplement rainwater and supply 35% of irrigation demand (Table 3). Water for domestic use is proposed to be sourced from an existing well, treated rainwater catchment, or delivered to the site. This well was drilled over forty years ago and is unrelated to the proposed project. No diversionary or groundwater sources are proposed for this project.

The total irrigation demand for the proposed project, including approximately 5.39 acres of cultivation and the 44,064 sq. ft. of commercial nursery, is expected to be approximately 4,200,000 gallons per year (Table 2), including 600,000 gallons for the commercial nursery and 3,600,000 gallons for the canopy area. This corresponds to 15.32 gallons/sq. ft. of canopy area and 13.62 gallons/sq. ft. of nursery area, equating to approximately 15 gallons/sq. ft. of cannabis activity.

The estimated irrigation demand for the mature canopy cultivation of 4.2 million gallons corresponds approximately 15 gallons/sq. ft. Mature cannabis plants will be cultivated using a hydroponic system. All water usage will be metered and water usage will reported to applicable agencies.

Table 2: Estimated Annual Irrigation Water Usage (1,000 Gallons)

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Total</u>
<u>Nursery</u>	50	50	50	50	50	50	50	50	50	50	50	50	600
<u>5.39 Acres Cultivation</u>	300	300	300	300	300	300	300	300	300	300	300	300	3,600
<u>Total</u>	350	350	350	350	350	350	350	350	350	350	350	350	4,200

Dehumidifier and air-conditioning unit water recapture from indoor cultivation will provide an additional source of water for irrigation. The dehumidifier units and a/c units will serve a dual purpose of climate control and MHD capturing condensed water. Condensed water will be plumbed to irrigation tanks and then fed through the fertigation system. The applicant is proposing to use approximately 30 dehumidifiers (Quest Therma-Star TR 3900 model or similar). Though actual reclamation volumes vary with humidity, these dehumidifiers have the potential to reclaim approximately 12 gallons of water per hour, or 3,900 gallons per day. Based on operating times supplied by the applicant, the dehumidifiers have the capacity to reclaim approximately 140,000 gallons per month, or approximately 1.68 million gallons annually. This corresponds to 40% of the total irrigation demand (Table 3).

Table 3: Irrigation Demand Breakdown by Water Source

<u>Water Source</u>	<u>Estimated Annual Water Volume from Water Source</u>	<u>Percentage of Irrigation Demand</u>
Rainwater Catchment	2,520,000	60%
Reclaimed Water from Dehumidifiers	1,680,000	40%
Total	4,200,000	100%

3.1.1. RAINWATER CATCHMENT ANALYSIS

Water is proposed to be sourced primarily from rainfall capture and storage as well as from water reclaimed from humidifiers. The following calculations demonstrate the rainfall capture and storage potentials for the project.

Data from PRISM Climate Group was used for calculations (<https://prism.oregonstate.edu/explorer/>). The PRISM Climate Group provides site-specific average monthly and annual rainfall data based on topography and historic precipitation values. Data was sourced from years 2000 – 2021 to get an accurate representation of recent rainfall data and account for lighter rainfall years. The highest precipitation year on record for the project site was 62.32 inches in 2010, the lowest rainfall year was 17.58 inches in 2013, and the average over the last 21 years was 44.64 inches. The 2013 precipitation amount of 17.58 inches is the lowest recorded rainfall on record for the area since 1900. For the purposes of these calculations, the average rainfall year was rounded down to 44 inches and the lowest rainfall year (representative of an extreme drought year) was rounded down to 17 inches.

Existing and proposed onsite buildings will be plumbed to the pond to increase catchment surface area. At full build-out, including all existing and proposed structures total capture area is 385,887 sq. ft. (Tables 4 and 5). The capture efficiency of the rooftops is estimated to be approximately 95% due to potential breaks in the guttering or other unforeseen complications, and the capture efficiency of the pond is estimated to be 100%.

Equation 1.

$$\text{Harvested rainwater (gal)} = \text{catchment area (ft}^2\text{)} \times \text{precipitation (ft.)} \times 7.48 \text{ (gal/ft}^3\text{)} \times \text{capture efficiency (\%)}$$

Due to the changing climate and the current drought, it is important for cultivators to consider that not every year will be an average rainfall year. Using Equation 1, the rainwater catchment pond is expected to easily fill during both an average and a drought year:

Average Rainfall Year: During an average rainfall of 44 inches for the project area, the proposed project surfaces would have the potential to capture approximately 10.1 million gallons of rainwater, in significant excess of the 2.52 gallons of rainwater catchment needed for the project, and in excess of the total project irrigation demand of 4.2 million gallons of water (Table 4).

Drought Rainfall Year: During an extreme drought year of 17 inches the proposed surfaces would have the potential of capturing approximately 3.84 million gallons, in excess of the 2.52 gallons of rainwater catchment needed for the project, and in excess of the total project irrigation demand of 4.2 million gallons (Table 5).

<i>Table 4: Rainwater Catchment Surfaces and Collection Potential during an Average Rainfall Year</i>					
<u>Catchment Surface</u>	<u>Dimensions (ft)</u>	<u>Catchment Area (sf)</u>	<u>Average Annual Rainfall (in)</u>	<u>Collection Potential from each Catchment Surface (gal)</u>	<u>Actual Amount Captured from each Catchment Surface (gal)</u>
<P> Building 1	n/a	61,344	44	1,681,561	1,597,483
<P> Building 2	n/a	62,208	44	1,705,245	1,619,983
<P> Building 3	n/a	181,440	44	4,973,633	4,724,951
<E> 4,800 On-site building and <P> 2,400 addition	60' x 120'	7,200	44	169,954	161,456
<P> 3.12-million gallon rainwater catchment pond	n/a	73,695	44	2,020,127	2,020,127
Total Rainwater Collection Potential during Average Rainfall Year					10,124,000

<i>Table 5: Detail of Rainwater Catchment Surfaces and Collection Potential during a Drought Rainfall Year</i>					
<u>Catchment Surface</u>	<u>Dimensions (ft)</u>	<u>Catchment Area (sf)</u>	<u>Drought Annual Rainfall (in)</u>	<u>Collection Potential from each Catchment Surface (gal)</u>	<u>Total Amount Captured from each Catchment Surface (gal)</u>
<P> Building 1	n/a	61,344	17	649,694	617,209
<P> Building 2	n/a	62,208	17	658,845	625,903
<P> Building 3	n/a	181,440	17	1,921,631	1,825,549
<E> 4,800 On-site building and <P> 2,400 addition	60' x 120'	7,200	17	76,255	72,442
<P> 3.12-million gallon rainwater catchment pond	n/a	73,695	17	698,594	698,594
Total Rainwater Collection Potential during Drought Rainfall Year					3,839,698

Table 6 demonstrates the rainfall captured by month, during average and drought years, at full build-out of the project. PRISM data was used to determine monthly potential rainfall and harvest. For the purposes of this calculation, “Average Monthly Precipitation” was calculated by taking an average of monthly precipitation values from 2000-2021 and “Drought Monthly Precipitation” was calculated using the extreme drought year of 2013, the lowest rainfall on record on the site in the last 120 years. See Appendix D for further details on data and calculations.

<i>Table 6: Potential Captured Rainfall by Month during Average and Drought Years</i>												
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Average Monthly Precipitation (in.)	7.5	6.2	7.4	3.7	1.6	0.7	0.1	0.3	1	3.1	4.7	7.9
Potential Monthly Rainwater Harvest (gal)	1,748,965	1,445,811	1,725,646	862,823	373,112	163,236	23,319	69,958	233,195	722,906	1,096,018	1,842,243
Drought Monthly Precipitation (in.)	3	1.7	3.5	2	1.3	0.5	0	0.2	3.3	0	1.3	0.8
Potential Monthly Rainwater Harvest (gal)	706,798	400,519	824,598	471,199	306,279	117,799	0	47,119	777,478	0	306,279	188,479

3.1.2. EVAPORATION

Evaporation is accounted for in the calculations for available rainwater. Evaporation rates can vary widely by month and are influenced by a variety of factors, including temperature, humidity sun exposure, and wind velocity, thus making exact calculations difficult, however estimations are included in the calculations for available rainwater for irrigation. To estimate evaporation, a Class A Pan evaporation rate was obtained from the Western Regional Climate Center (Evaporation Stations, Western Regional Climate Center, https://wrcc.dri.edu/Climate/comp_table_show.php?stype=pan_evap_avg). These evaporation rates are measured using a four-foot diameter Class A evaporation pan. Pan water level is adjusted when precipitation is measured to obtain the actual evaporation.

No specific Class A Pan evaporation rate was available for the Hydesville area. The closest evaporation rate data locations were Ferndale (31.64 inches of evaporation loss per year) and Willow Creek (38.69 inches of evaporation loss per year). As Hydesville is located between Willow Creek and Ferndale, an estimated Class A Pan Evaporation Rate of 35.18 inches (the average between the two locations) was used to estimate evaporation loss from the pond. As the Class A Pan measurement is a metal pan above ground, the Class A Pan Evaporation rate was then corrected to be representative of a natural surface below ground. To correct the Class A Pan Evaporation Rate for a pond, the evaporation rate was multiplied by .75, as shown in Equation 2.

Equation 2.

$$\text{Corrected Class A Pan Evaporation Rate} = 35.18 \text{ inches} \times .75 \text{ Correction Factor} = 26.39 \text{ inches or } 2.2 \text{ feet}$$

The corrected Class A Pan Evaporation Rate was then converted to feet (2.2 feet), and then multiplied by the pond surface area to obtain the estimated volume of water lost at full capacity (100%), as shown in Equation 3.

Equation 3

$$\text{Projected Evaporation Loss (gal)} = \text{Catchment Area of } 73,695 \text{ (ft}^2\text{)} \times \text{Pond Capacity Subject to Evaporation (\%)} \times \text{Corrected Class A Pan Evaporation Rate of } 2.2 \text{ (ft.)} \times 7.48 \text{ (gal/ft}^3\text{)}$$

Using Equation 3, it is estimated that approximately 1.21 million gallons would be lost from the pond at full capacity via evaporation annually (Table 7).

Table 7: Evaporation Loss from Rainwater Catchment Pond

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Monthly Class A Evaporation Rate (in.)	0.64	1.26	2.04	2.98	4.34	5.44	6.01	5.06	3.69	2	0.9	0.82	35.18
Corrected Class A Evaporation Rate (in.)	0.48	0.95	1.53	2.24	3.26	4.08	4.51	3.80	2.77	1.50	0.68	0.62	26.39
Converted Class A Evaporation Rate (ft.)	0.04	0.08	0.13	0.19	0.27	0.34	0.38	0.32	0.23	0.13	0.06	0.05	2.20
Pond Capacity	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Loss Due to Evaporation from Pond (gal.)	22,050	43,410	70,283	102,668	149,523	187,421	207,059	174,329	127,129	68,905	31,007	28,251	1,212,036

3.1.3. WATER STORAGE AND USE COMPLIANCE PLAN

Water is proposed to be sourced from rainwater catchment and reclaimed water captured by dehumidifiers. This section provides more detail on the operations of the proposed water source, storage, and use, and how the project would operate on a monthly basis at full build-out. Table 8 demonstrate how inputs to storage offset outputs from storage to ensure that the project can function year-round. Outputs to storage are the irrigation demand, and inputs to storage include reclaimed water captured by dehumidifiers and rainwater catchment harvested by catchment surfaces.

Table 8 displays a drought rainfall year, starting from a full pond. **See Appendix D for a detailed description of operation during phased construction (Table a), in addition to compliance tables (Tables b-e) which demonstrate operational compliance during both average and drought rainfall years and various initial pond volumes.**

As displayed in Table 8, and tables a-e in Appendix D, the project will have sufficient water to operate during both average and extreme drought years, including multiple consecutive extreme drought years in a row.

*Table 8: Monthly Water Inputs and Outputs to Water Storage during an **Average** Rainfall Year (gallons) - pond volume at maximum capacity*

<u>Inputs/Outputs to Storage</u>		<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Total Water Stored at the Beginning of the Month		3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	2,885,815	2,492,075	2,177,704	2,073,770	2,517,771	3,120,000
Output	Water Used for Irrigation	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000
	Water Lost to evaporation	22,050	43,410	70,283	102,668	149,523	187,421	207,059	174,329	127,129	68,905	31,007	28,251
Stored Water at the end of the month (without inputs)		2,747,950	2,726,590	2,699,717	2,667,332	2,620,477	2,582,579	2,328,756	1,967,746	1,700,575	1,654,865	2,136,764	2,741,749
Inputs	Reclaimed water from dehumidifiers	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
	Rainwater Input to Storage	1,748,965	1,445,811	1,725,646	862,823	373,112	163,236	23,319	69,958	233,195	722,906	1,096,018	1,842,243
Total Stored water at the end of the month after inputs (capped at 3.12 million gallons)		3,120,000	3,120,000	3,120,000	3,120,000	3,120,000	2,885,815	2,492,075	2,177,704	2,073,770	2,517,771	3,120,000	3,120,000

3.1.4. STORMWATER MANAGEMENT PLAN

The proposed cultivation activities will take place on an existing graveled and paved disturbed industrial site. Approximately 353,574 (8 acres) sq. ft. of impermeable surface is proposed in this project, including the three (3) engineered water tanks, the three (3) proposed new buildings, and the proposed 40’ x 60’ addition to the existing building. Existing stormwater infrastructure includes water conveyance ditches, ditch relief culverts, and a constructed stormwater retention area.

Rainwater will be harvested from all the proposed building roofs, helping to alleviate any potential increase in stormwater that may occur as a result of the building construction.

The site is a historic mill site and was required to create a SWPPP during preparation of the site. The proposed project would not interfere with stormwater measures in the SWPPP, nor would interfere with any existing stormwater infrastructure located onsite. The site has a WDID of 1 12I005223 with the State Water Resources Control Board Industrial General Permit.

Site drainage will also be addressed in the forthcoming Site Management Plan (SMPT). Existing and proposed structures are located over 100-feet from any watercourses, providing a sufficient buffer to prevent potential sediment or nutrient delivery.

3.1.5. EROSION CONTROL

The SMP will include erosion and sediment control best practicable treatment controls (BPTCs) designed to prevent, contain, and reduce sources of sediment. BPTC prescriptions may include rocking roads, maintaining rolling dips/water bars, and unplugging ditch relief culverts.

3.2. WATERSHED AND HABITAT PROTECTION

A Biological Assessment is in the process of being prepared for the site. All proposed cultivation activities will be set back at least 100-ft from any drainages and watercourses on site. These setbacks should provide a suitable buffer between the cultivation operation and habitat. All light shall be attenuated so that it does not create a new source of light or glare that could adversely impact local

wildlife. Adherence to the Site Management Plan will ensure that erosion control and sediment capture BPTC measures are in place to prohibit water quality degradation of the nearby river. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits.

3.3. INVASIVE VEGETATIVE SPECIES CONTROL PLAN

Once proposed cultivation activities commence, the cultivation area will be monitored for invasive species. If invasive species are located, hand tools (shovels, weed wrenches, trowels, or hand saws) may be used to remove them. The exact rate and method of invasive species removal will be determined based on the species identified. The areas of disturbance shall be surveyed and maintained twice each year, at a minimum, as part of the invasive species control plan.

The following is a partial list of websites to be used for proper identification and treatment:

1. <https://calflora.org/>
2. <https://plants.usda.gov/java/>
3. <https://www.cal-ipc.org/>
4. <https://www.cal-ipc.org/solutions/>
5. <http://www.rareplants.cnps.org/>
6. <https://www.wildlife.ca.gov/Conservation/Plants#22064102-california-native-plant-information>
7. <http://ucjeps.berkeley.edu/>
8. http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html
9. <https://www.fws.gov/invasives/partnerships.html>

3.4. MATERIALS MANAGEMENT PLAN

The applicant will use legal agricultural chemicals consistent with cannabis operations, including fertilizers, compost, pesticides, fungicides, and herbicides. Examples of fertilizers and pesticides used onsite include General Hydroponics 3 part base (FloraGro, FloraMicro, and FloraBloom), and Marrone Bio (Regalia, Venerate).

On-site inventory is kept for all chemicals. Agricultural are used and stored based on manufacturer's recommendations and requirements. Any materials required for use of chemicals will be provided to employees. The material safety data sheets (MSDS) are kept on site and accessible to employees.

Petroleum products, including gasoline, diesel, and lubricants, are currently kept on site in small quantities (e.g., 5-gallon containers) for use in small equipment (e.g., weed whacker). Petroleum products will be stored within the proposed buildings and will be kept in secondary containment. No hazardous waste is proposed to be generated onsite; all major equipment fuel changes will occur offsite at a licensed facility. A spill kit with sorbent pads will be accessible onsite in the event of a spill.

Cultivation, harvesting, and drying shall be performed by employees trained on each aspect of the procedure, including cultivation and harvesting techniques, the use of pruning tools, and proper application/storage of pesticides/ and fertilizers. All cultivation and processing staff are provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the onsite cultivation, drying and processing facilities are limited to authorized and trained staff. Mixing of fertilizers in small storage tanks is solely conducted in a designated area where the mix will not enter surface waters. For young plants, the mix is applied via watering wand and mature plants are fertigated at agronomic rates by drip emitters or hand watering methods. Spent soil is amended and

reused as needed. The application of any agricultural chemical products will be conducted according to the manufacturer's recommendation.

Employees are trained on usage and handling procedures of associated equipment and cleaning procedures. Chemicals and hazardous materials are only used with equipment as recommended by manufacturers. Cleaning will occur regularly with instructions based on the manufacturer's recommendations. All cleaning materials will be put away and stored properly within secondary containment when not in use and hazardous containers will be properly disposed of.

All hazardous waste will be stored within secondary containment. Additionally, a log will be kept in order to keep the volume of hazardous waste accounted for. Fertilizers and pesticides are being stored in a separate location from petroleum products. The aforementioned products will be located within secondary containment in the proposed drying facilities. No rodenticides will be used on site. At the end of the season, any unused liquid products are stored in secondary containment and will be applied the following year. Before unused products are stored at the end of the season, an employee will take inventory on the volumes and products. Additionally, all waste will be properly disposed of off-site and the correct facility. All trash, empty product containers, and recycling are hauled off-site bi-weekly to nearest licensed waste management facility, Recology Eel River.

Appropriate BPTC measures are being utilized when storing, handling, mixing, applying, and disposing of all fertilizers, pesticides, herbicides, rodenticides, or any other hazardous materials. Each year an inventory is conducted prior to the beginning of the grow season and necessary products are delivered to the site as needed.

3.5. SOILS MANAGEMENT PLAN

The project proposes a closed loop hydroponics system for the indoor cultivation and commercial nursery, therefore no soil will be imported onto the site.

3.6. HAZARDOUS WASTE STATEMENT

The proposed project is located on a historic mill site with a history of environmental contamination. See the Phase I Environmental Site Assessment (SHN, 2005) for the site. The proposed project would not interfere with any ongoing monitoring related to the historic mill site. An update to the ESA will be provided to the County if requested.

3.7. ENERGY PLAN

PG&E will provide all cultivation energy needs through a nearby substation located on APN 204-231-002, just north of the project. The applicant has a lease agreement with the substation to provide all the energy needs of the site. The "100% Solar Choice" or the "RCEA Power+" plan (or similar) will be utilized through PG&E to ensure all energy required for the project is sourced from renewable energy.

A backup generator is kept onsite for emergency purposes only. The generator is proposed to be a 150 KW Generac Protector (or similar). The generator would only operate during emergencies.

3.8. WASTE MANAGEMENT

3.8.1. CULTIVATION

Drip irrigation methods minimize potential for overwatering plants and subsequent runoff. Waste generated from employee activities is stored in wildlife-proof garbage cans. Organic cultivation-related waste, including root balls, branches, and leaves will be hauled off site to a green waste management facility as needed. Trash and recycling from cannabis operations, including empty soil or fertilizer bags, liquid fertilizer bottles, cultivation supplies, etc., will be taken to the nearest waste

management facility as needed, likely twice a month. The nearest waste management facility is the Humboldt Waste Management Authority in Eureka.

3.8.2. SEWAGE DISPOSAL PLAN

Employees will have access to an ADA-accessible restroom facility located in the proposed processing building expansion. Prior to construction of this restroom, employees will have access to a serviced portable toilet; a wash station will be located adjacent the toilet with antibacterial soap and paper towels. The portable toilet and wash station will be serviced at least once weekly.

4. PRODUCT MANAGEMENT

4.1. PRODUCT TESTING AND LABELING

Samples will be selected from individual harvested cannabis strains and tested by a licensed third-party lab in accordance with State and local standards. The finished product is labeled and will include tracking ID's provided by the California Cannabis Track-and-Trace (CCTT) METRC system.

4.2. PRODUCT INVENTORY AND TRACKING

The applicants will follow all regulations and requirements set by the CCTT-METRC system. After approval of state licenses related to the proposed cultivation, the applicants will request credentials and order unique identifiers (UIDs) which will be assigned to each immature lot, flowering plant, and distinct cannabis product.

4.3. TRANSPORTATION AND DISTRIBUTION

Transportation will be handled by a licensed transporter/distributor in accordance with State and Local regulations. All merchantable product will be distributed through licensed commercial cannabis dispensaries. The CCTT-METRC system will be used for all transactions with distributors or transporters.

APPENDIX A: SITE PLAN

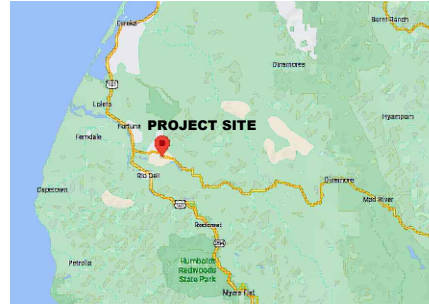
APPENDIX B: CULTIVATION ACTIVITIES SCHEDULE

Item	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Drainage, Runoff, and Erosion Control	Winterization (storage of pots/greenhouse covers)												
	Road maintenance												
Commercial Nursery	Maintenance of Mother Plants												
	Propagation, cutting, and delivery of juvenile plants and clones												
Distribution	Interact with other legal cannabis licenses, transportation, packaging												
Indoor Cultivation and Harvest Schedule	Indoor Cultivation Cycle												
	Harvest activities												
	Drying Activities												
Staffing Presence	Full-time Employees												
	Seasonal Laborers												

APPENDIX C: REFERENCES

- California Code of Regulations. Health and Safety Code Section 11357-11362.9.
<<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=11001-12000&file=11357-11362.9>.>
- California Department of Fish and Wildlife. 2022. *California Natural Diversity Database (CNDDDB)*.
<https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>.
- County of Humboldt. *Commercial Cannabis Land Use Ordinance (CCLUO) – Phase IV, Commercial Cultivation, Processing, Manufacturing and Distribution of Cannabis for Medical Use* (Staff Report to the Board of Supervisors). January 26, 2016. <<https://humboldt.legistar.com/Calendar.aspx>.>
- Google Earth. 2022. <https://www.google.com/earth/>.
- Humboldt County Planning and Building Department. 2018. *Ordinance No. 2599 – Commercial Cannabis Land Use Ordinance*. <https://humboldt.gov/DocumentCenter/View/63734/Ord-No-2599-CCLUO-inland-certified-copy-PDF>.
- Humboldt County. 2022. *Humboldt County Web GIS*. Available at:
<http://webgis.co.humboldt.ca.us/HCEGIS2.0/>.
- Humboldt County. *Streamside Management Area Ordinance*. Title 3: Land Use and Development; Division 1, Planning Zoning Regulations; Chapter 6 – General Provisions and Exceptions; Section 314-51.1.
- North Coast Regional Water Quality Control Board. 2016. *Cannabis Cultivation Waste Discharge Regulatory Program*. http://www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/.
- PRISM Climate Group. 2022. *Oregon State University*. <https://prism.oregonstate.edu/explorer/>.
- State Board of Equalization. Information on the Sales and Registration for Marijuana Sellers. June 2007.
<<http://www.boe.ca.gov/news/pdf/173.pdf>.>
- State of California. Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use. August 2008.
http://www.ag.ca.gov/cms_attachments/press/pdfs/n1601_medicalmarijuanaguidelines.pdf
- State Water Resources Control Board. 2019. SWRCB Cannabis General Order No. 2019-0001 – General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Dischargers of Waste Associated with Cannabis Cultivation Activities. Available at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf
-

**APPENDIX D: ADDITIONAL WATER
CALCULATIONS AND COMPLIANCE
TABLES**



VICINITY MAP
NOT TO SCALE

DIRECTIONS TO SITE:
FROM EUREKA, CA
 - SOUTHBOUND ON US-101 (APPROX. 19.9 MI.)
 - TAKE EXIT 685 FOR CA-36 E (APPROX. 0.3 MI.)
 - TURN LEFT ONTO CA-36 E (APPROX. 4.4 MI.)
 - TURN RIGHT ONTO FERN LANE (APPROX. 0.2 MI.)
 - DESTINATION IS ON THE LEFT

HUMBOLDT RESERVE, LLC

CONDITIONAL USE PERMIT

APN: 204-251-001, 204-121-006, 204-121-005

LEGEND

- - - - - OVERHEAD ELECTRICAL POWERLINE
- +++++ NORTHWEST PACIFIC RAILROAD
- - - - - LITTLE SALMON HISTORIC FAULT ZONE
- [Cross-hatched] STREAMSIDE MANAGEMENT AREA (SMA)
- [Blue hatched] FLOOD ZONE (HUMBOLDT GIS)

PROJECT DESCRIPTION

HUMBOLDT RESERVE, LLC IS PROPOSING TO PERMIT PROPOSED COMMERCIAL CANNABIS ACTIVITIES IN ACCORDANCE WITH THE COUNTY OF HUMBOLDT'S (COUNTY COMMERCIAL CANNABIS LAND USE ORDINANCE (CCLUO)). THE PROPOSED PROJECT INCLUDES 235,008 SF (5.39 ACRES) OF ENCLOSED INDOOR CANNABIS CULTIVATION, 44,064 SF OF ENCLOSED COMMERCIAL NURSERY, AND 2,400 SF OF DISTRIBUTION. WATER WOULD BE SOURCED FROM RAINWATER STORED IN ENGINEERED TANKS PLUMBED TO CATCHMENT SURFACES AND RECLAIMED WATER FROM DEHUMIDIFIERS. POWER WOULD BE RENEWABLY SOURCED FROM AN EXISTING PG&E SERVICE AND SUBSTATION.

PROJECT INFORMATION:

APPLICANT:
 HUMBOLDT RESERVE, LLC
 4798 HWY 36
 HYDESVILLE, CA 95547

PROPERTY OWNER:
 LOST COAST ORGANICS, LLC
 4798 HWY 36
 HYDESVILLE, CA 95547

APPLICANTS AGENT:
 NORTHPOINT CONSULTING GROUP, INC
 1117 SAMOA BLVD.
 ARCATA, CA 95521
 (707) 798-6438

SITE ADDRESS:
 APN: 204-251-001, 204-121-006,
 204-121-005
 4798 HWY 36
 HYDESVILLE, CA 95547

TREES TO BE REMOVED = NONE

WATER = PRIVATE
 SEWER = PRIVATE

PROPERTY SIZE:
 APN: 204-251-001 = ±23.00 ACRES
 APN: 204-121-006 = ±0.44 ACRES
 APN: 204-121-005 = ±9.50 ACRES

ZONING: = MH; MH-Q;
GENERAL PLAN DESIGNATION: = MU

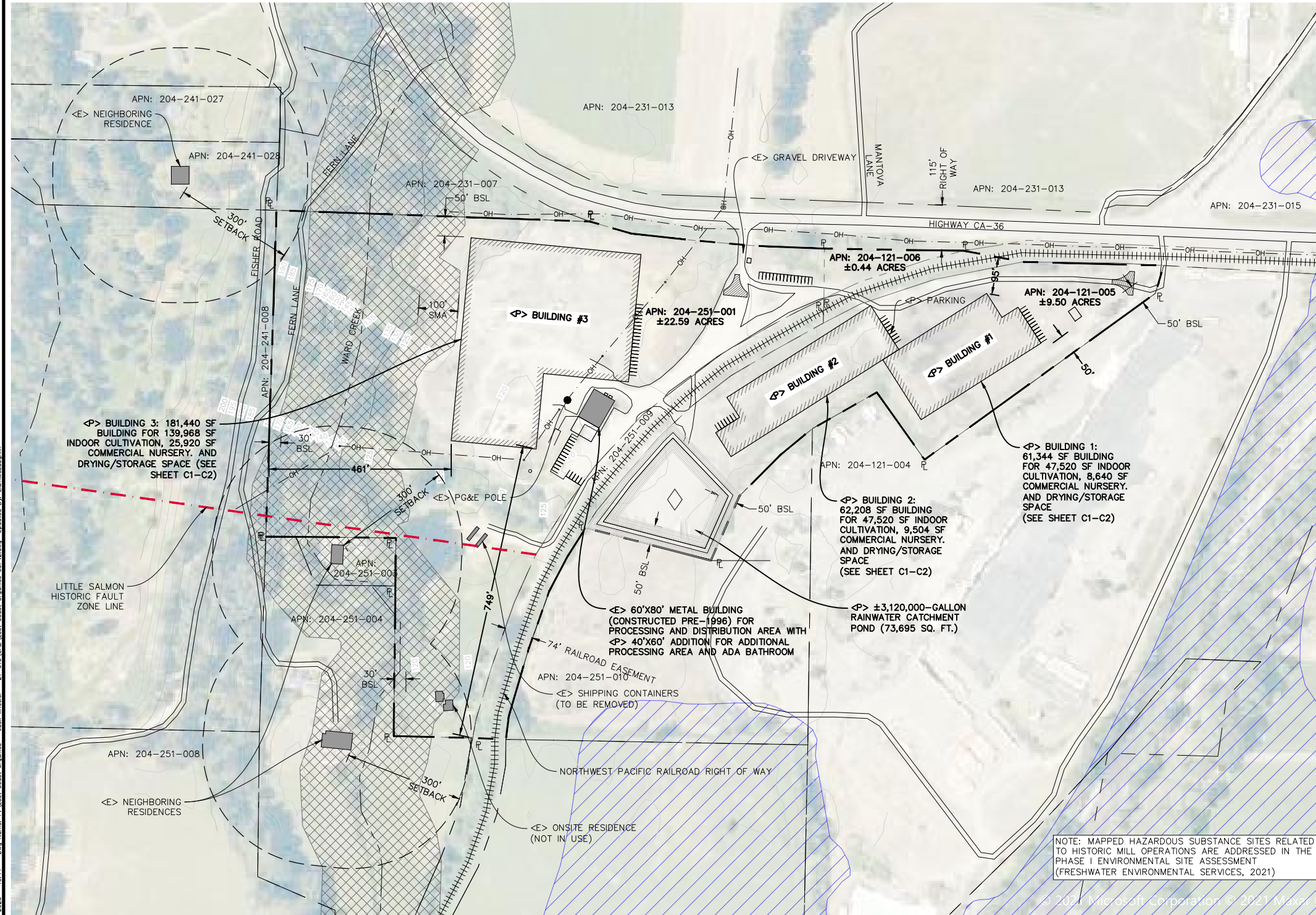
BUILDING SETBACKS:

	MH	SRA
FRONT	50'	30'
SIDE	30'	30'
REAR	50'	30'

SRA AREA: = YES
 IN COASTAL ZONE: = NO
 IN 100 YR FLOOD ZONE: = NO

SHEET INDEX

- C0 - CUP SITE OVERVIEW
- C1 - PROPOSED SITE PLAN
- C2 - BUILDING LAYOUTS
- C3 - PRELIMINARY GRADING PLAN
- C4 - PRELIMINARY GRADING PROFILES
- C5 - EROSION CONTROL NOTES



NOTE: MAPPED HAZARDOUS SUBSTANCE SITES RELATED TO HISTORIC MILL OPERATIONS ARE ADDRESSED IN THE PHASE I ENVIRONMENTAL SITE ASSESSMENT (FRESHWATER ENVIRONMENTAL SERVICES, 2021)

22x34 SHEET: 1"=150'
 11x17 SHEET: 1"=300'



DATE	REVISIONS

NORTHPOINT CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
 4798 HWY 36 HYDESVILLE, CA 95547
 CUP SITE OVERVIEW

PROJ. MGR.: PS
 DRAWN BY: CC
 DATE: 05/03/23
 SCALE: AS SHOWN
 SHEET
C0
 21-013

HUMBOLDT RESERVE, LLC

PROPOSED SITE PLAN

APN: 204-251-001, 204-121-006,
204-121-005

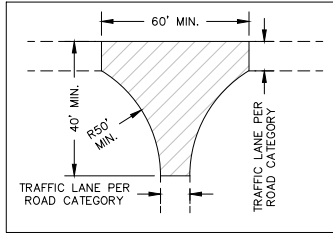
TABLE 1: PROPOSED COMMERCIAL CANNABIS ACTIVITES

BUILDING	CULTIVATION SPACE (SF)	DRYING SPACE (SF)	COMMERCIAL NURSERY (SF)
1	47,520	5,184	8,640
2	47,520	5,184	9,504
3	139,968	15,552	25,920
TOTAL (SF)	235,008	25,920	44,064
TOTAL (ACRES)	5.39	0.60	1.01

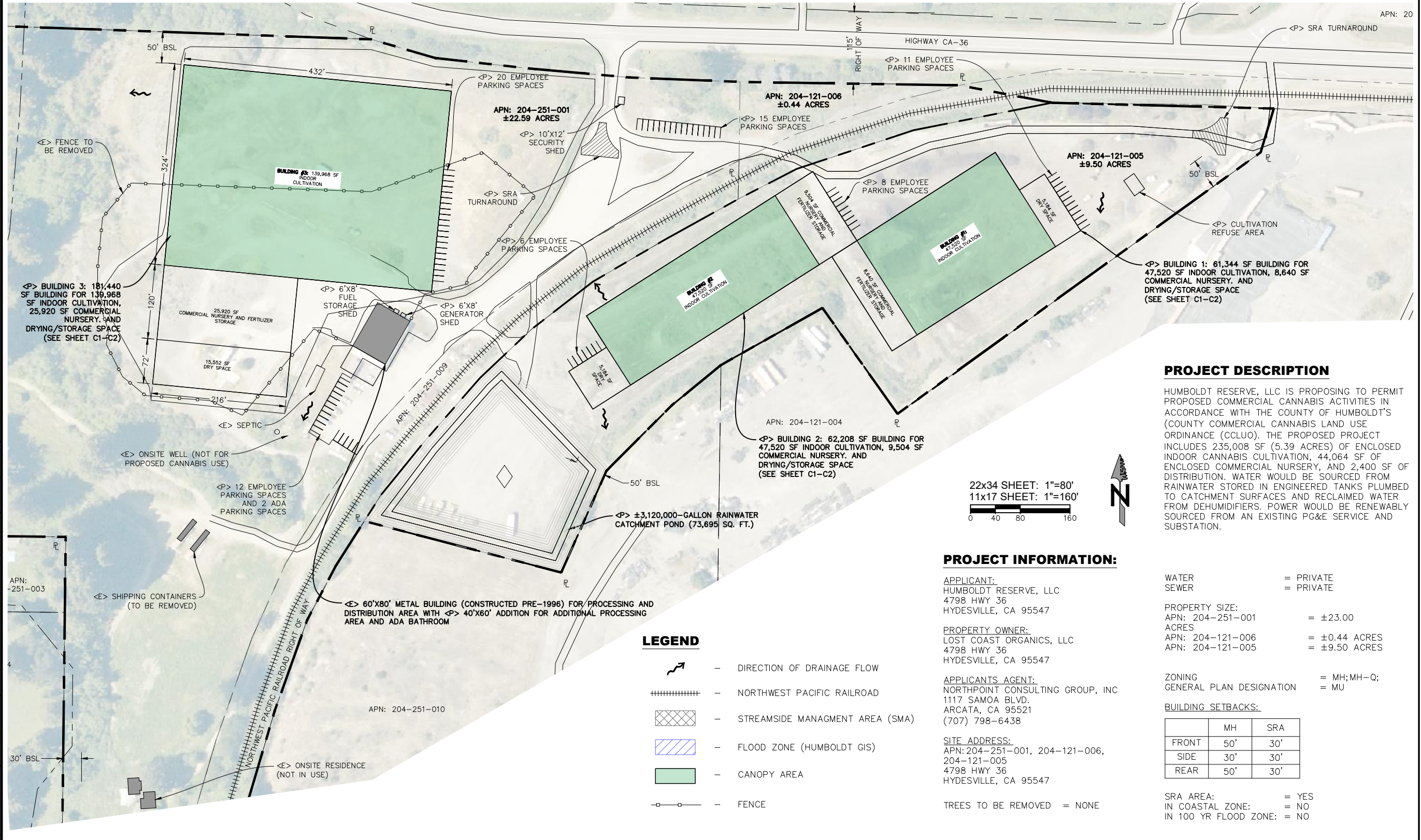
SRA NOTE:

RURAL PROPERTIES WITHIN STATE RESPONSIBILITY AREA (SRA) MUST COMPLY WITH FIRE SAFE REGULATIONS AS OUTLINED IN TITLE III OF THE HUMBOLDT COUNTY LAND USE AND DEVELOPMENT CODE, DIVISION 11. PRIMARY CONDITIONS OF APPROVAL ARE SUMMARIZED BELOW:

- CHAPTER 2 (SECTION 3112) - EMERGENCY ACCESS
- CHAPTER 3 (SECTION 3113) - SIGNING AND BUILDING NUMBERS
- CHAPTER 4 (SECTION 3114) - EMERGENCY WATER STANDARDS
- CHAPTER 5 (SECTION 3115) - FUEL MODIFICATION STANDARDS



SRA HAMMERHEAD T DETAIL (TYPE 1)
NOT TO SCALE



PROJECT DESCRIPTION

HUMBOLDT RESERVE, LLC IS PROPOSING TO PERMIT PROPOSED COMMERCIAL CANNABIS ACTIVITIES IN ACCORDANCE WITH THE COUNTY OF HUMBOLDT'S (COUNTY COMMERCIAL CANNABIS LAND USE ORDINANCE (CCLUO)). THE PROPOSED PROJECT INCLUDES 235,008 SF (5.39 ACRES) OF ENCLOSED INDOOR CANNABIS CULTIVATION, 44,064 SF OF ENCLOSED COMMERCIAL NURSERY, AND 2,400 SF OF DISTRIBUTION. WATER WOULD BE SOURCED FROM RAINWATER STORED IN ENGINEERED TANKS PLUMBED TO CATCHMENT SURFACES AND RECLAIMED WATER FROM DEHUMIDIFIERS. POWER WOULD BE RENEWABLY SOURCED FROM AN EXISTING PG&E SERVICE AND SUBSTATION.

PROJECT INFORMATION:

APPLICANT:
HUMBOLDT RESERVE, LLC
4798 HWY 36
HYDESVILLE, CA 95547

PROPERTY OWNER:
LOST COAST ORGANICS, LLC
4798 HWY 36
HYDESVILLE, CA 95547

APPLICANTS AGENT:
NORTHPOINT CONSULTING GROUP, INC
1117 SAMOA BLVD.
ARCATA, CA 95521
(707) 798-6438

SITE ADDRESS:
APN: 204-251-001, 204-121-006,
204-121-005
4798 HWY 36
HYDESVILLE, CA 95547

TREES TO BE REMOVED = NONE

WATER = PRIVATE
SEWER = PRIVATE

PROPERTY SIZE:
APN: 204-251-001 = ±23.00 ACRES
APN: 204-121-006 = ±0.44 ACRES
APN: 204-121-005 = ±9.50 ACRES

ZONING = MH; MH-Q;
GENERAL PLAN DESIGNATION = MU

BUILDING SETBACKS:

	MH	SRA
FRONT	50'	30'
SIDE	30'	30'
REAR	50'	30'

SRA AREA: = YES
IN COASTAL ZONE: = NO
IN 100 YR FLOOD ZONE: = NO

LEGEND

- DIRECTION OF DRAINAGE FLOW
- NORTHWEST PACIFIC RAILROAD
- STREAMSIDE MANAGEMENT AREA (SMA)
- FLOOD ZONE (HUMBOLDT GIS)
- CANOPY AREA
- FENCE

22x34 SHEET: 1"=80'
11x17 SHEET: 1"=160'



NORTHPOINT CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
4798 HWY 36 HYDESVILLE, CA 95547
PROPOSED SITE PLAN

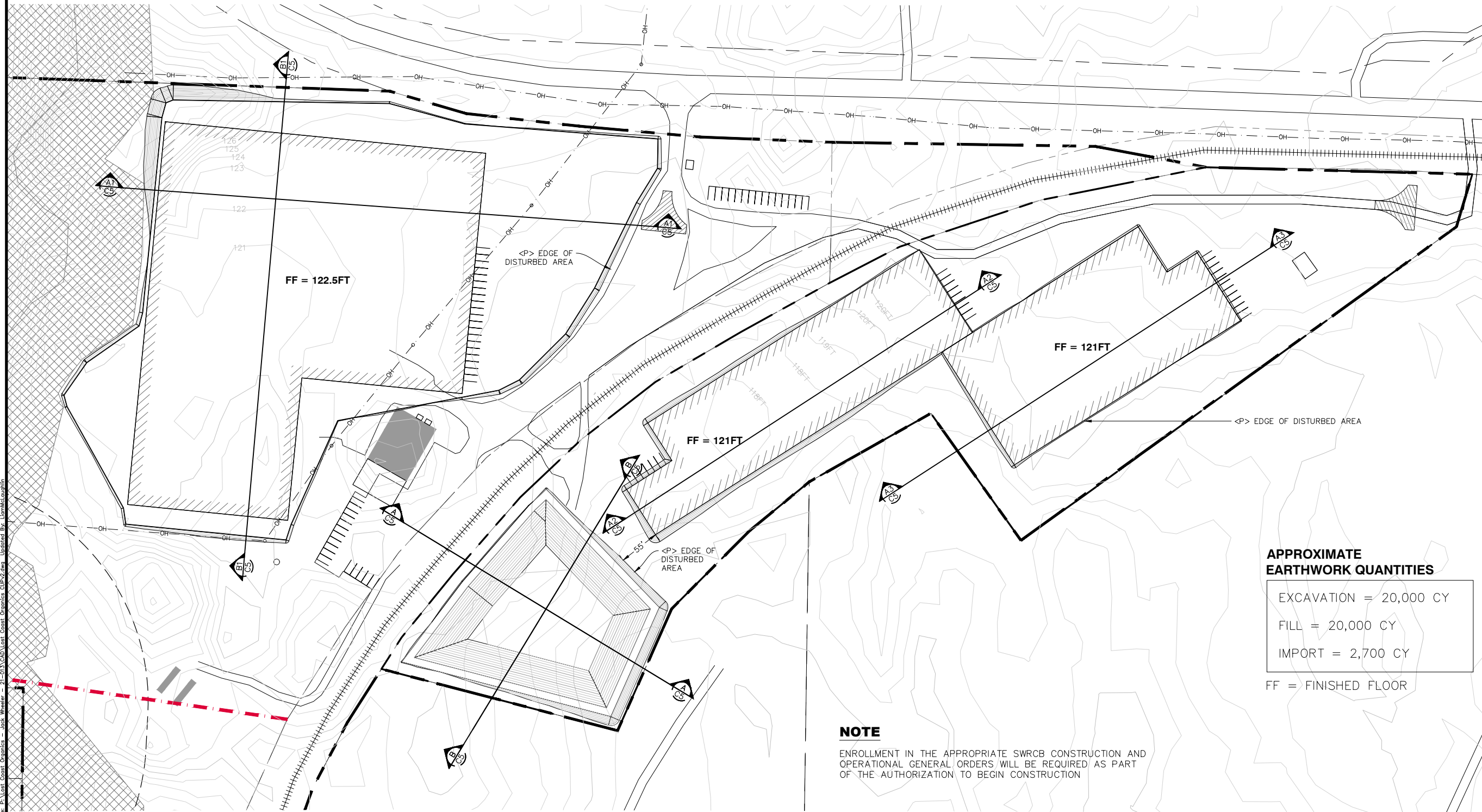
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DATE: 05/03/23
SCALE: AS SHOWN

SHEET
C1
21-013

HUMBOLDT RESERVE, LLC

CONCEPTUAL GRADING AND EROSION CONTROL PLAN

APN: 204-251-001, 204-121-006, 204-121-005



APPROXIMATE EARTHWORK QUANTITIES

EXCAVATION	= 20,000 CY
FILL	= 20,000 CY
IMPORT	= 2,700 CY

FF = FINISHED FLOOR

NOTE
 ENROLLMENT IN THE APPROPRIATE SWRCB CONSTRUCTION AND OPERATIONAL GENERAL ORDERS WILL BE REQUIRED AS PART OF THE AUTHORIZATION TO BEGIN CONSTRUCTION

EXISTING AND PROPOSED SITE PLAN

22x34 SHEET: 1"=70'
 11x17 SHEET: 1"=140'

DATE	
REVISIONS	

NORTHPOINT CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
 4798 HWY 36 HYDESVILLE, CA 95547
 CONCEPTUAL GRADING PLAN

PROJ MGR: PS
 DRAWN BY: LJM
 DATE: 05/02/23
 SCALE: AS SHOWN

SHEET
C3
 21-013

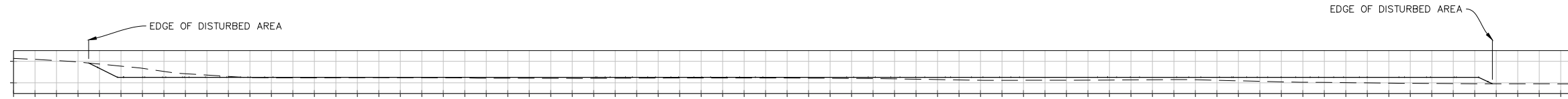
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 User: LJM
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HUMBOLDT RESERVE, LLC

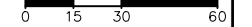
CONCEPTUAL GRADING AND EROSION CONTROL PLAN

APN: 204-251-001, 204-121-006, 204-121-005

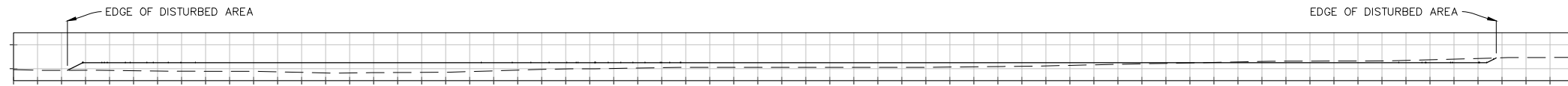
GRADED PAD PROFILE A1-A1



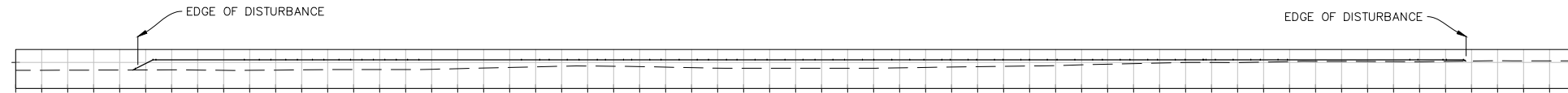
22x34 SHEET: 1"=30'
11x17 SHEET: 1"=60'



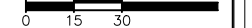
GRADED PAD PROFILE B1-B1



GRADED PAD PROFILE A2-A2



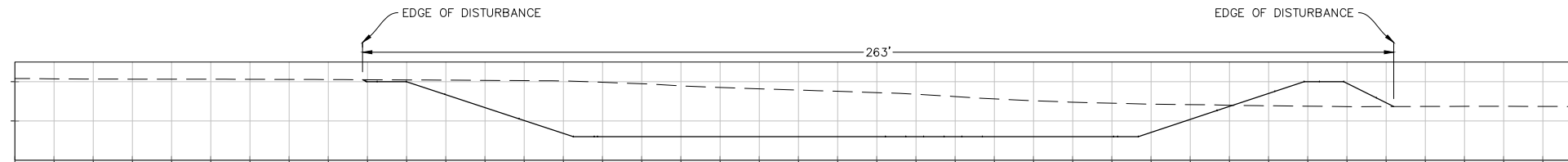
22x34 SHEET: 1"=30'
11x17 SHEET: 1"=60'



GRADED PAD PROFILE A3-A3



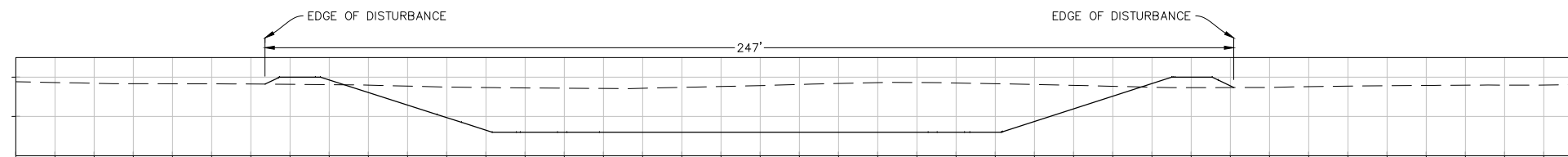
POND PROFILE A-A



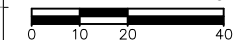
22x34 SHEET: 1"=20'
11x17 SHEET: 1"=40'



POND PROFILE B-B



22x34 SHEET: 1"=20'
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 Updated By: LinnMcLaughlin

DRAWN BY	DATE	REVISIONS

NORTHPOINT
 CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
 4798 HWY 36 HYDESVILLE, CA 95547
 CONCEPTUAL GRADING PROFILES

PROJ MGR.: PS
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 DATE: 05/02/23
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BOTANICAL REPORT OF SPECIAL STATUS NATIVE PLANT POPULATIONS AND NATURAL COMMUNITIES

APN: 204-251-001, 204-121-006 & 204-121-005

4798 HWY 36, Hydesville, Humboldt County, CA

Prepared For:

Humboldt Reserve, LLC

4798 HWY 36
Hydesville, CA 95547

Prepared by:

**Sarah Mason
Consulting Botanist**

1198 P Street, Unit A
Arcata, CA 95521

In Conjunction with:



PO Box 121
Samoa, CA 95564

And:

Mad River Properties Inc.

2660 Clay Road
McKinleyville, CA 95519

Date Prepared:

September 22nd, 2022

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Summary Information

Legal description:	Portion of sections 21,28 of T2N, R1E, H.B.&M.
APN:	204-251-001, 204-121-006, & 204-121-005
USGS 7.5' Quad:	Hydesville (4012451)
Parcel size:	31.69 Acres
Dates of survey:	May 1 st , 2022 and July 15 th , 2022
Surveyed by:	Sarah Mason
Field survey effort:	6 hours
Results:	<u>No CRPR 1 or 2 plants were observed</u>

Introduction, Background, and Project Understanding

Purpose and Need

This botanical survey report was prepared to assess potential impacts to botanical resources and summarizes the results of a survey conducted in Humboldt County in Hydesville, California (APN: 204-251-001, 204-121-006, and 204-121-005). The survey was performed to identify special status plants and sensitive plant communities that could be impacted by cannabis cultivation operations in accordance with the California Environmental Quality Act (CEQA) using the California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

Project Description and Setting

The proposed project is for the development of 216,048 ft² of outdoor cannabis cultivation, 44,064 square feet of enclosed commercial nursery, 2,400 ft² distribution facility, and 900,000 gallons of rainwater catchment tanks. The project is to occur across three parcels totaling to 31.69 acres. The parcels were historically used for logging and milling operations and is a highly disturbed gravel filled flat dominated by several invasive species.

The parcel address is located at 4798 State HWY 36, Hydesville, CA, 95547. The parcels are approximately 10 miles southeast of Fortuna, California, within the Hydesville USGS 7.5-minute quadrangle (Quad code: 4012451), portion of sections 21,28 T2N, R1E, H.B.&M. The center location of the project area is 40°32'1.73" N 124°04'08.88"W at an elevation of 120 feet (36.6 meters) above sea level (Google Earth Pro, 2022).

Soil, Topography, and Hydrology

Data from *Web Soil Survey* for the project area do not indicate any unique soil types that would provide habitat for rare plants such as serpentinite or peat. The parent material consists of alluvium deposits derived from mixed sources.

The project area lies between Barber Creek and Yager Creek, within the Van Duzen River watershed, which drains into the Pacific Ocean via the Eel River. The project area is situated 0.51 miles north of the Van Duzen River. No water courses run within the project area. Refer to Figure 1 (Appendix C) for locator map.

The project area is position on a flat, within the historical floodplain of the Van Duzen River, ranging from ~115 to ~130 feet in elevation.

Definitions

Special Status Plants and Plant Communities

Special status plants include taxa that are listed under the Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) in addition to plants which meet the definition of rare or endangered under the California Environmental Quality Act (CEQA). CDFW recommends that plants on California Rare Plant Ranks (CRPR) Lists 1A (presumed extinct or extirpated), 1B (rare, threatened, or endangered in California and elsewhere), 2A (presumed extirpated) and 2B (rare, threatened, or endangered in California but more common elsewhere), or other species that warrant consideration based on local or biological significance, be addressed during California Environmental Quality Act (CEQA) review of proposed projects. Plants of rank 3 and 4, which are under review and watch lists respectively, are addressed by Naiad Biological Consulting, and may warrant consideration under CEQA if potential or cumulative impacts to the plant exist.

CDFW's natural community rarity rankings follow NatureServe's 2012 *NatureServe Conservation Status Assessment: Methodology for Assigning Ranks*, in which all alliances are listed with a global (G) and (S) rank. NCSC are those natural communities that are ranked S1 to S3 (CDFW, 2020), where 1 is critically imperiled, 2 is imperiled, and 3 is vulnerable. However, they may not warrant protection under CEQA unless they are considered high quality. Human disturbance, invasive species, logging, and grazing are common factors considered when judging whether the stand is high quality and warrants protection.

Methods

Pre-Site Visit Data Compilation and Preparation

Prior to conducting the field surveys, the following database information was reviewed to determine the location and types of botanical resources that possibly exist in the survey area. This pre-field investigation included searches of the California Natural Diversity Database (CNDDDB, 2022) and the California Native Plant Society's *Inventory of Rare and Endangered Plants* (CNPS, 2022). This list includes CRPR (California Rare Plant Rank) 1 and 2 plants that have been observed within a 9-quad search centered on the Hydesville quadrangle. USGS quadrangles within the search area include: Fields Landing (4012462), McWhinney Creek (4012461), Iaqua Buttes (4012368), Fortuna (4012442), Hydesville (4012451), Owl Creek (4012358), Taylor Peak (4012442), Scotia (4012441), and Redcrest (4012348). The results of the project scoping are presented below in Table 1 (Appendix A).

Reference Populations

Reference populations were used to determine the timing of seasonally appropriate surveys. When access to suitable reference populations was unavailable, iNaturalist observations were used. The following reference populations of rare plants were used for this project:

- *Sidalcea malviflora* ssp. *patula* located about 30 miles southwest of the project area, on Mattole Road near Capetown, was observed in bloom on April 16th, 2022.
- *Montia howellii* located 20 miles south of the project area, near the Baxter Environmental Camp in Humboldt Redwood State Park, was observed in bloom April 1st, 2022.

Botanical Field Survey and Habitat Investigation

The botanical field surveys for this project were completed by Sarah Mason. Sarah holds a BS in Botany from Humboldt State University and is currently working towards a MSc in Biology. She is currently employed as a botany and forestry Science Aid for California State Parks, North Coast Redwoods District. Sarah has worked as an assistant botanist and biologist with Caltrans, a botanical technician for the Bitterroot and Klamath National Forests, and studied bumble bee and plant interactions in the Marble Mountains. Sarah has experience in rare plant identification, protection and monitoring of rare plants, and teaching plant taxonomy at the university level.

Surveys were floristic in nature and conducted in a manner consistent with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Plants were identified to the lowest taxonomic level necessary to ensure that they were not a species of concern. Plants not identifiable in the field were identified off site with the use of *The Jepson Manual, Vascular Plants of California*. Other resources used to identify plants can be found in the reference section towards the end of this report.

Botanical surveys were conducted throughout the areas proposed for cultivation operations and the

associated road system. Surveys were conducted in an intuitive meander focused on areas likely to provide habitat for rare plant species and/or potentially affected (directly or indirectly) by cultivation operations. These areas include, but are not limited to, existing permanent and seasonal roads, new road construction, road points and crossings, forest openings (i.e., meadows, landings, and cut banks), springs and watercourses. Refer to Figure 2 (Appendix C) for the survey routes.

Results

Habitats Observed

No special-status vegetation communities or habitats were observed during the botanical survey of the project area. The project area habitat is typical of a disturbed valley grassland, dominated by several invasive grasses. See figures 3, 4, and 5 (Appendix D) for example photos of project area and habitats present.

Species Observed

No CRPR 1 or 2 plants were encountered in the project area. A total of 121 plant taxa were observed in the project area, of which approximately 36% are invasive. Several invasive and non-native species dominate the project area, such as French broom (*Genista monspessulana*), sweet vernal grass (*Anthoxanthum odoratum*), Pampas grass (*Cortaderia jubata*), and tall fescue (*Festuca arundinacea*). Refer to Table 2 (Appendix B) for a list of species observed in the project area.

Conclusion and Discussion

Conclusion

Results of the botanical field survey indicate that negative impacts to sensitive species or sensitive habitats will not occur as a result of the development of cannabis cultivation facilities at the sites surveyed.

Although no listed species were observed during the field survey, it is possible that previous ground disturbances, existing drought conditions, as well as herbivory by deer could have affected the survey results and may alter bloom times and durations.

Recommendations

Due to the low quality of habitat, from prior human disturbances and the high numbers of invasive species present, no sensitive plant species, communities, or habitats were encountered during the botanical field survey. It is not expected that cultivation operations or other ground disturbances will impact habitats further. No further botanical surveys are recommended.

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Appendix A. Results from database search

Table 1. Target special-status plants of the project area

Special-Status Plant Species- Hydesville and surrounding 7.5 min quadrangles

Scientific Name	Common Name	Family	California Rare Plant Rank	CESA	FESA	Bloom Period	Habitat	Micro Habitat	Elevation (m)
<i>Angelica lucida</i>	sea-watch	Apiaceae	4.2	None	None	May-Sep	Coastal bluff scrub, Coastal dunes, Coastal scrub, Marshes and swamps	Coastal salt	0 - 150 meters
<i>Glehnia littoralis ssp. leiocarpa</i>	American glehnia	Apiaceae	4.2	None	None	May-Aug	Coastal dunes	NA	0 - 20 meters
<i>Hemizonia congesta ssp. tracyi</i>	Tracy's tarplant	Asteraceae	4.3	None	None	May-Oct	Coastal prairie; Lower montane coniferous forest; North Coast coniferous forest	Openings, sometimes serpentinite.	120 - 1200 meters
<i>Hesperervax sparsiflora var. brevifolia</i>	short-leaved evax	Asteraceae	1B.2	None	None	Mar-Jun	Coastal bluff scrub. Coastal dunes, costal prairie	sandy	0 - 215 meters
<i>Layia carnosa</i>	beach layia	Asteraceae	1B.1	Endangered	Endangered	Mar-Jul	Coastal dunes, Coastal scrub	sandy	0 - 60 meters
<i>Packera bolanderi var. bolanderi</i>	seacoast ragwort	Asteraceae	2B.2	None	None	May-Jul	Coastal scrub; North Coast coniferous forest	Sometimes roadsides.	30 - 650 meters
<i>Cardamine angulata</i>	seaside bittercress	Brassicaceae	2B.2	None	None	(Jan)Mar-Jul	Lower montane coniferous forest, North Coast coniferous forest	Wet areas, streambanks.	25 - 915 meters
<i>Noccaea fendleri ssp. californica</i>	Kneeland Prairie pennycress	Brassicaceae	1B.1	Endangered	None	May-Jun	Coastal prairie	serpentinite	760 - 815 meters
<i>Downingia willamettensis</i>	Cascade downingia	Campanulaceae	2B.2	None	None	Jun-Jul	Cismontane woodland (lake margins); Valley and foothill grassland (lake margins)	Vernal pools	15 - 1110 meters
<i>Spergularia canadensis var. occidentalis</i>	western sand-spurrey	Caryophyllaceae	2B.1	None	None	Jun-Aug	Marshes and swamps	coastal salt	0 - 3 meters
<i>Carex arcta</i>	northern clustered sedge	Cyperaceae	2B.2	None	None	Jun-Sep	North Coast coniferous forest (mesic)	Bogs and fens	60 - 1400 meters
<i>Carex leptalea</i>	bristle-stalked sedge	Cyperaceae	2B.2	None	None	Mar-Jul	Bogs and fens, Meadows and seeps, Marshes and swamps	mesic	0 - 700 meters
<i>Astragalus rattanii var. rattanii</i>	Rattan's milk-vetch	Fabaceae	4.3	None	None	Apr-Jul	Chaparral; Cismontane woodland; Lower montane coniferous forest	Gravelly streambanks.	30 - 825 meters

<i>Hosackia gracilis</i>	harlequin lotus	Fabaceae	4.2	None	None	Mar-Jul	Broadleafed upland forest; Coastal bluff scrub; Closed-cone coniferous forest; Cismontane woodland; Coastal prairie; Coastal scrub; North Coast coniferous forest; Valley and foothill grassland	Wetlands; Roadsides; Meadows and seeps; Marshes and swamps;	0 - 700 meters
<i>Lathyrus glandulosus</i>	sticky pea	Fabaceae	4.3	None	None	Apr-Jun	Cismontane woodland	NA	300 - 800 meters
<i>Ribes laxiflorum</i>	trailing black currant	Grossulariaceae	4.3	None	None	Mar-Jul(Aug)	North Coast coniferous forest	sometimes roadside.	5 - 1395 meters
<i>Ribes roezlii</i> var. <i>amictum</i>	hoary gooseberry	Grossulariaceae	4.3	None	None	Mar-Apr	Broadleafed upland forest; Cismontane woodland; Lower montane coniferous forest; Upper montane coniferous forest	NA	120 - 2300 meters
<i>Lycopus uniflorus</i>	northern bugleweed	Lamiaceae	4.3	None	None	Jul-Sep	NA	Bogs and fens, Marshes and swamps	5 - 2000 meters
<i>Erythronium oregonum</i>	giant fawn lily	Liliaceae	2B.2	None	None	Mar-Jun	Cismontane woodland	sometimes serpentinite, rocky, openings; Meadows and seeps	100 - 1150 meters
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	2B.2	None	None	Mar-Jul	Broadleafed upland forest; North Coast coniferous forest	Mesic, streambanks; Bogs and fens	0 - 1600 meters
<i>Fritillaria purdyi</i>	Purdy's fritillary	Liliaceae	4.3	None	None	Mar-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest	usually serpentinite.	175 - 2255 meters
<i>Lilium kelloggii</i>	Kellogg's lily	Liliaceae	4.3	None	None	May-Aug	Lower montane coniferous forest; North Coast coniferous forest	Openings, roadsides.	3 - 1300 meters
<i>Lilium occidentale</i>	western lily	Liliaceae	1B.1	Endangered	Endangered	Jun-Jul	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest (openings)	Freshwater. openings	2 - 185 meters
<i>Lilium rubescens</i>	redwood lily	Liliaceae	4.2	None	None	Apr-Aug	Broadleafed upland forest; Chaparral; Lower montane coniferous forest; North Coast coniferous forest; Upper montane coniferous forest	Sometimes serpentinite, sometimes roadsides.	30 - 1910 meters

<i>Lycopodium clavatum</i>	running-pine	Lycopodiaceae	4.1	None	None	Jun-Aug	Lower montane coniferous forest (mesic); North Coast coniferous forest (mesic)	often edges, openings, and roadsides; Marshes and swamps	45 - 1225 meters
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	4.2	None	None	Apr-Aug	Broadleaved upland forest; Coastal prairie; Coastal scrub; North Coast coniferous forest; Riparian woodland	Often in disturbed areas.	0 - 730 meters
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	Malvaceae	1B.2	None	None	May-Aug	Coastal bluff scrub; Coastal prairie; North Coast coniferous forest	Often roadcuts.	15 - 880 meters
<i>Sidalcea oregana ssp. eximia</i>	coast checkerbloom	Malvaceae	1B.2	None	None	Jun-Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	NA	5 - 1340 meters
<i>Pityopus californicus</i>	California pinefoot	Monotropaceae	4.2	None	None	May-Aug	Broadleaved upland forest; Lower montane coniferous forest; North Coast coniferous forest; Upper montane coniferous forest	Mesic.	15 - 2225 meters
<i>Montia howellii</i>	Howell's montia	Montiaceae	2B.2	None	None	Mar-May	North Coast coniferous forest	Vernally mesic, sometimes roadsides; Meadows and seeps; Vernal pools	0 - 835 meters
<i>Abronia umbellata var. breviflora</i>	pink sand-verbena	Nyctaginaceae	1B.1	None	None	Jun-Oct	Coastal dunes	NA	0 - 10 meters
<i>Clarkia amoena ssp. whitneyi</i>	Whitney's farewell-to-spring	Onagraceae	1B.1	None	None	10 - 100 meters	Coastal bluff scrub, Coastal scrub	NA	10 - 100 meters
<i>Epilobium septentrionale</i>	Humboldt County fuchsia	Onagraceae	4.3	None	None	Jul-Sep	Broadleaved upland forest; North Coast coniferous forest	Sandy or rocky.	45 - 1800 meters
<i>Listera cordata</i>	heart-leaved twayblade	Orchidaceae	4.2	None	None	Feb-Jul	Lower montane coniferous forest; North Coast coniferous forest	Bogs and fens	5 - 1370 meters
<i>Piperia candida</i>	white-flowered rein orchid	Orchidaceae	1B.2	None	None	May-Sep	Broadleaved upland forest; Lower montane coniferous forest; North Coast coniferous forest	sometimes serpentinite	30 - 1310 meters
<i>Castilleja ambigua var. ambigua</i>	johnny-nip	Orobanchaceae	4.2	None	None	Mar-Aug	Coastal bluff scrub; Coastal prairie; Coastal scrub; Marshes and swamps; Valley and foothill grassland	Vernal pools margins	0 - 435 meters

<i>Castilleja ambigua</i> <i>var. humboldtensis</i>	Humboldt Bay owl's-clover	Orobanchaceae	1B.2	None	None	Apr-Aug	Marshes and swamps	coastal salt	0 - 3 meters
<i>Castilleja litoralis</i>	Oregon coast paintbrush	Orobanchaceae	2B.2	None	None	Jun-Jul	Coastal bluff scrub, Coastal dunes, Coastal scrub	Sandy	15 - 100 meters
<i>Chloropyron</i> <i>maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's- beak	Orobanchaceae	1B.2	None	None	Jun-Oct	Marshes and swamps	coastal salt	0 - 10 meters
<i>Pleuropogon</i> <i>refractus</i>	nodding semaphore grass	Poaceae	4.2	None	None	Apr-Aug	Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	mesic; riparian forest	0 - 1600 meters
<i>Collomia tracyi</i>	Tracy's collomia	Polemoniaceae	4.3	None	None	Jun-Jul	Broadleaved upland forest; Lower montane coniferous forest	Rocky, sometimes serpentine.	300 - 2100 meters
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Polemoniaceae	1B.2	None	None	Apr-Aug	Coastal bluff scrub; Chaparral (openings); Coastal prairie; Valley and foothill grassland	NA	5 - 1665 meters
<i>Gilia millefoliata</i>	dark-eyed gilia	Polemoniaceae	1B.2	None	None	Apr-Jul	Coastal dunes	NA	2 - 30 meters
<i>Navarretia</i> <i>leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	Polemoniaceae	1B.1	None	None	Apr-Jul	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools	Mesic	5 - 1740 meters
<i>Polemonium</i> <i>carneum</i>	Oregon polemonium	Polemoniaceae	2B.2	None	None	Apr-Sep	Coastal prairie, Coastal scrub, Lower montane coniferous forest	NA	0 - 1830 meters
<i>Coptis laciniata</i>	Oregon goldthread	Ranunculaceae	4.2	None	None	Mar-May	Meadows and seeps; North Coast coniferous forest (streambanks)	Riparian; mesic	0 - 1000 meters
<i>Chrysosplenium</i> <i>glechomifolium</i>	Pacific golden saxifrage	Saxifragaceae	4.3	None	None	Feb- Jun(Jul)	North Coast coniferous forest, Riparian forest	Streambanks, sometimes seeps, sometimes roadsides.	10 - 640 meters
<i>Mitellastra</i> <i>caulescens</i>	leafy-stemmed mitrewort	Saxifragaceae	4.2	None	None	Apr-Oct	Broadleaved upland forest; Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	Mesic, sometimes roadsides.	5 - 1700 meters
<i>Tiarella trifoliata</i> <i>var. trifoliata</i>	trifoliolate laceflower	Plants - Vascular - Saxifragaceae - <i>Tiarella trifoliata</i> <i>var. trifoliata</i>	3.2	None	None	Jun-Aug	Lower montane coniferous forest; North Coast coniferous forest	Edges, moist shady banks, streambanks.	170 - 1500 meters

Appendix B. Plant Species Observed

Table 2. List of plant species encountered during surveys

Botanical Name	Common Name	Origin
Trees		
<i>Abies grandis</i>	grand fir	Native
<i>Alnus rubra</i>	red alder	Native
<i>Eucalyptus globulus</i>	blue gum	Cal-IPC: Limited
<i>Pinus</i> sp.	pine	-
<i>Populus trichocarpa</i>	black cottonwood	Native
<i>Prunus cerasifera</i>	purple leaf plum	Non-native
<i>Prunus</i> sp.	plum	Non-native
<i>Salix lasiolepis</i>	arroyo willow	Native
<i>Salix scouleriana</i>	Scouler's willow	Native
<i>Sequoia sempervirens</i>	coast redwood	Native
Shrubs		
<i>Baccharis pilularis</i>	coyote brush	Native
<i>Genista monspessulana</i>	French broom	Cal-IPC: High
<i>Rubus armeniacus</i>	Himalayan blackberry	Cal IPC: High
<i>Rubus parviflorus</i>	thimble berry	Native
<i>Rubus ursinus</i>	California blackberry	Native
<i>Toxicodendron diversilobum</i>	poison oak	Native
Grasses & Graminoids		
<i>Agrostis capillaris</i>	colonial bentgrass	Non-native
<i>Aira caryophyllea</i>	silver hair grass	Non-native
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Cal-IPC Limited
<i>Avena barbata</i>	slender oat	Cal-IPC Moderate
<i>Briza maxima</i>	rattlesnake grass	Cal-IPC: Limited
<i>Briza minima</i>	small rattlesnake grass	Non-native
<i>Bromus catharticus</i>	rescue grass	
<i>Bromus diandrus</i>	ripgut brome	Cal-IPC: Moderate
<i>Bromus hordeaceus</i>	soft chess	Cal-IPC Limited
<i>Cortaderia jubata</i>	purple pampass grass	Cal-IPC: High
<i>Cynosurus echinatus</i>	bristly dogtail grass	Cal-IPC: Moderate
<i>Cyperus eragrostis</i>	flatsedge	Native
<i>Festuca arundinacea</i>	tall fescue	Cal-IPC Moderate
<i>Festuca myuros</i>	rattail sixweeks grass	Cal-IPC: Moderate
<i>Festuca perennis</i>	rye grass	Cal-IPC Moderate
<i>Holcus lanatus</i>	velvet grass	Cal-IPC: Moderate
<i>Hordeum marinum</i>	Mediterranean barley	Cal-IPC Moderate

<i>Juncus effusus</i> ssp. <i>pacificus</i>	Pacific rush	Native
<i>Juncus patens</i>	spreading rush	Native
<i>Poa annua</i>	annual bluegrass	Non-native
<i>Poa pratensis</i>	Kentucky blue grass	Cal-IPC: Limited
<i>Polypogon monspeliensis</i>	rabbitsfoot grass	Cal-IPC: Limited
Forbs		
<i>Acmispon americanus</i>	American lotus	Native
<i>Acmispon brachycarpus</i>	short podded lotus	Native
<i>Anthemis cotula</i>	mayweed	Non-native
<i>Artemisia douglasiana</i>	California mugwort	Native
<i>Bellis perennis</i>	English daisy	Non-native
<i>Brassica nigra</i>	black mustard	Cal-IPC: Moderate
<i>Cardamine hirsuta</i>	hairy bitter cress	Non-native
<i>Carduus pycnocephalus</i>	Italian thistle	Cal-IPC: Moderate
<i>Cerastium fontanum</i>	common mouse-ear chickweed	Non-native
<i>Cichorium intybus</i>	chicory	Non-native
<i>Cirsium vulgare</i>	bull thistle	Cal-IPC Moderate
<i>Conium maculatum</i>	poison hemlock	Cal-IPC Moderate
<i>Cynara cardunculus</i>	artichoke thistle	Cal-IPC: Moderate
<i>Daucus carota</i>	Queen Anne's lace	Non-native
<i>Dipsacus fullonum</i>	wild teasel	Cal-IPC: Moderate
<i>Epilobium brachycarpum</i>	willowherb	Native
<i>Epilobium ciliatum</i>	slender willowherb	Native
<i>Erodium cicutarium</i>	redstem filaree	Cal-IPC: Limited
<i>Erodium moschatum</i>	greenstem filaree	Non-native
<i>Euphorbia peplus</i>	petty spurge	Non-native
<i>Foeniculum vulgare</i>	fennel	Cal-IPC: Moderate
<i>Galium parisiense</i>	wall bedstraw	Non-native
<i>Geranium dissectum</i>	cut leaf geranium	Cal-IPC: Limited
<i>Geranium molle</i>	geranium	Non-native
<i>Geranium purpureum</i>	herb robert	Cal-IPC: Limited
<i>Helminthotheca echioides</i>	bristly ox tongue	Cal-IPC Limited
<i>Hypericum perforatum</i>	klamathweed	Cal-IPC: Moderate
<i>Hypochaeris glabra</i>	smooth cat's ear	Cal-IPC: Limited
<i>Hypochaeris radicata</i>	rough cat's-ear	Cal-IPC: Moderate
<i>Iris douglasiana</i>	douglas iris	Native
<i>Lactuca serriola</i>	prickly lettuce	Non-native
<i>Lathyrus latifolius</i>	sweet pea	Non-native
<i>Leucanthemum vulgare</i>	ox eye daisy	Cal-IPC: Moderate

<i>Linum bienne</i>	pale flax	Non-native
<i>Logfia gallica</i>	narrowleaf cottonrose	Non-native
<i>Lotus corniculatus</i>	bird's foot trefoil	Non-native
<i>Lupinus bicolor</i>	annual lupine	Native
<i>Lupinus rivularis</i>	riverbank lupine	Native
<i>Lysimachia arvensis</i>	scarlet pimpernel	Non-native
<i>Lythrum hyssopifolia</i>	hyssop loosestrife	Cal-IPC: Limited
<i>Madia gracilis</i>	gumweed	Native
<i>Malva neglecta</i>	dwarf mallow	Non-native
<i>Marah oregana</i>	coast man-root	Native
<i>Matricaria discoidea</i>	pineapple weed	Native
<i>Medicago lupulina</i>	black medick	Non-native
<i>Medicago polymorpha</i>	California burclover	Cal-IPC: Limited
<i>Melilotus albus</i>	Whitesweet clover	Non-native
<i>Mentha pulegium</i>	pennyroyal	Cal-IPC: Moderate
<i>Myosotis discolor</i>	forget me not	Non-native
<i>Navarretia squarrosa</i>	skunkweed	Native
<i>Parentucellia viscosa</i>	yellow parentucellia	Cal-IPC: Limited
<i>Parentucellia viscosa</i>	yellow parentucellia	Cal-IPC: Limited
<i>Petrorhagia dubia</i>	windmill pink	Non-native
<i>Plantago coronopus</i>	cutleaf plantain	Non-native
<i>Plantago lanceolata</i>	English plantain	Cal-IPC: Limited
<i>Plantago major</i>	common plantain	Non-native
<i>Polygonum aviculare</i>	prostrate knotweed	Non-native
<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	Non-native
<i>Raphanus sativus</i>	wild radish	Cal-IPC Limited
<i>Rumex crispus</i>	curly dock	Cal-IPC: Moderate
<i>Senecio vulgaris</i>	common groundsel	Non-native
<i>Silene gallica</i>	common catchfly	Non-native
<i>Silybum marianum</i>	milk thistle	Cal IPC Limited
<i>Sonchus asper</i>	prickly sow thistle	Non-native
<i>Sonchus oleraceus</i>	sow thistle	Non-native
<i>Spergularia rubra</i>	red sand-spurrey	Non-native
<i>Taraxacum officinale</i>	dandelion	Non-native
<i>Torilis arvensis</i>	tall-sock destroyer	Cal-IPC: Moderate
<i>Trifolium angustifolium</i>	narrowleave clover	Non-native
<i>Trifolium arvense</i>	rabbitfoot clover	Non-native
<i>Trifolium campestre</i>	hop clover	Non-native
<i>Trifolium dubium</i>	little hop clover	Non-native

<i>Trifolium fragiferum</i>	strawberry clover	Non-native
<i>Trifolium fucatum</i>	bull clover	Native
<i>Trifolium hirtum</i>	rose clover	Cal-IPC Limited
<i>Trifolium repens</i>	white clover	Non-native
<i>Trifolium subterraneum</i>	subterranean clover	Non-native
<i>Urtica dioica</i>	stinging nettle	Native
<i>Veronica arvensis</i>	speedwell	Non-native
<i>Veronica persica</i>	bird's eye speedwell	Non-native
<i>Vicia benghalensis</i>	purple vetch	Non-native
<i>Vicia hirsuta</i>	hairy vetch	Non-native
<i>Vicia sativa</i>	spring vetch	Non-native
<i>Zeltnera muehlenbergii</i>	Monterey centaury	Native
Ferns		
<i>Equisetum arvense</i>	common horsetail	Native

Appendix C. Maps

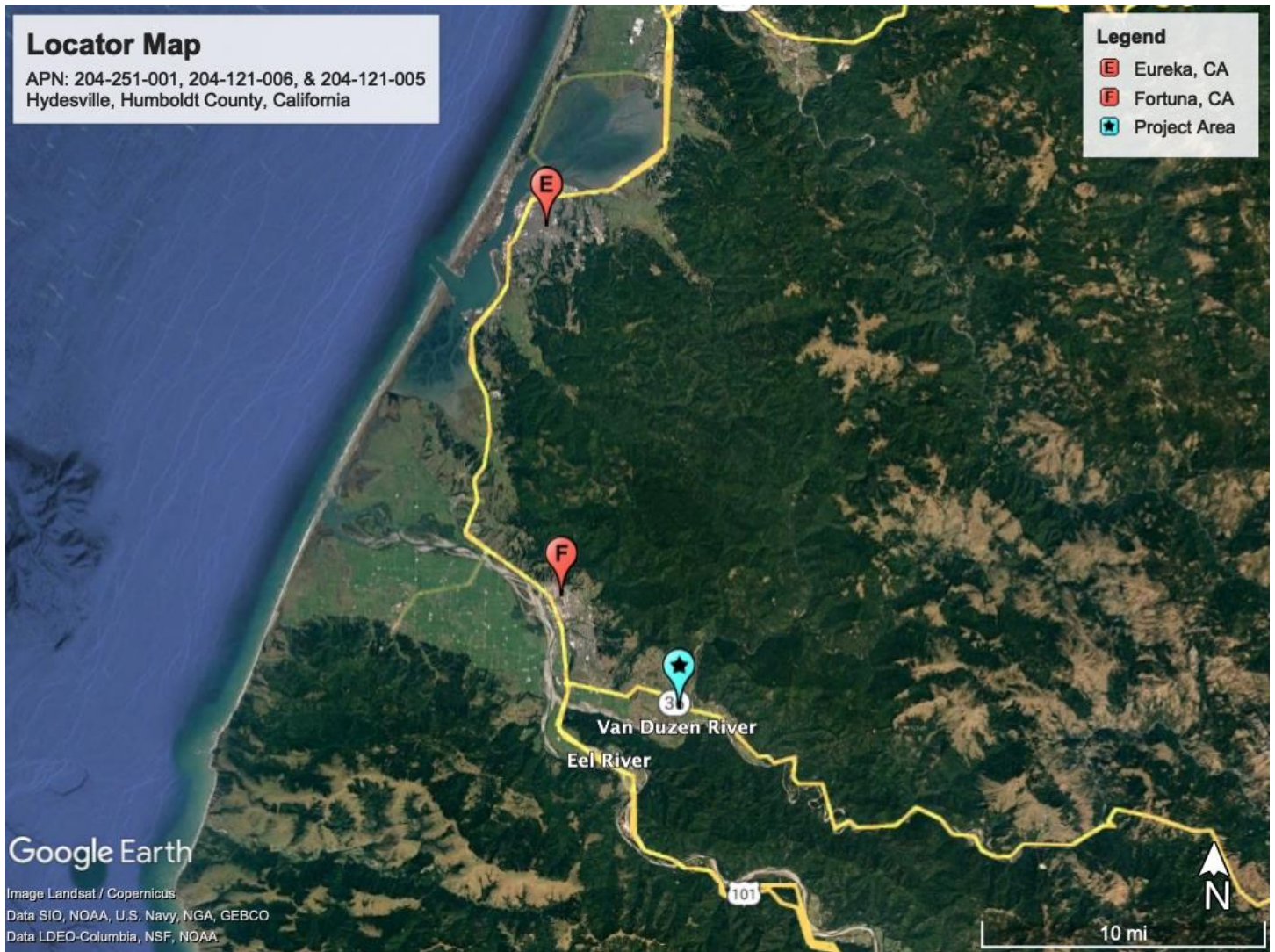


Figure 1. Locator Map of Project Area (blue star) and the nearest town of Fortuna, CA (red 'F').

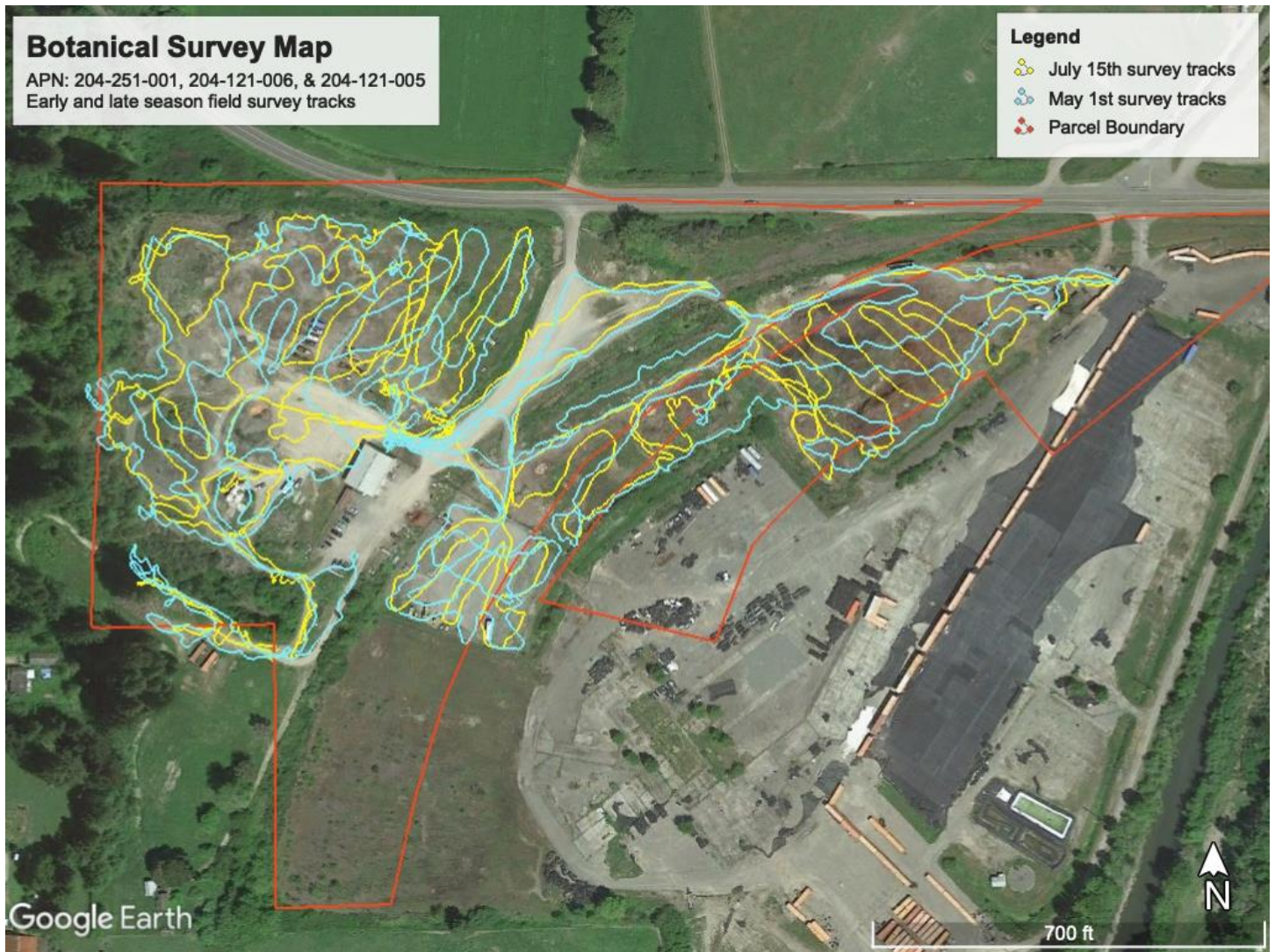


Figure 2. Map of project area and early and late season survey routes.

Appendix D. Project Area and Habitats



Figure 3. Proposed site of indoor cultivation, located in the northwest section of parcel APN: 204-251-001, dominated by several invasive species.



Figure 4. Proposed location of more buildings used indoor cultivation and storage, northeast portion of parcel APN: 204-121-005.



Figure 5. Location of rainwater catchment tanks, in southern portion of parcel APN: 204-121-005.

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Assessor Parcel Number (APN):

204 – 251 – 001, 204 – 121 – 006 & 204 – 121 – 005

Hydesville, Humboldt County, California

Prepared For:

Humboldt Reserve, LLC

4798 HWY 36
Hydesville, CA 95547

Prepared By:

Naiad
Biological
Consulting

www.naiadbiological.com

PO Box 121
Samoa, CA 95564



In Conjunction With:

Mad River Properties Inc.

2660 Clay Road
McKinleyville, CA 95519

Date Prepared:

September 21st, 2022



Certification: I hereby certify that the statements furnished in this report present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

X  _____

Mason London, MSc Biology

Naiad Biological Consulting Principal Biologist

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Section 1 Summary of Findings and Conclusions

A Biological Reconnaissance and Project Feasibility Assessment was completed for Humboldt Reserve, LLC as a preliminary measure to investigate the potential impacts of cannabis cultivation within the established Study Area.

The Study Area defined in this Report is located in Hydesville, California in Humboldt County. Although the seasonal timing of the field visit did not fall within the blooming period of all rare and special-status plant species, the preexisting habitat quality observed within the areas of potential project development, and the habitat observed, suggests it unlikely that special-status plant species, not in bloom during the field survey, are present within the potential proposed site locations, or would be negatively impacted by the project. Regardless of the preexisting habitat quality, since ground disturbance was predetermined to occur in conjunction with the proposed cannabis cultivation project, protocol-level botanical surveys had been recommended, and initiated in March 2022, to be conducted in the 2022 season as a measure to inventory and assess the potential impacts to listed and special-status plant species that may occur within the project area. No special-status vegetation communities or species were observed within the Study Area during the initial reconnaissance site survey. Potential wetland feature occurs within the Study Area, but was assessed and determined to not occur within a proximity of impact to the location of proposed project development.

No listed special-status animal species were observed within the Study Area during the site visit investigation. However, it was determined that some special-status species may utilize the Study Area habitat for portions of their life history. Impacts to these species can be mitigated and a neutral impact can be achieved if the actions proposed for this project development and construction follow the recommendations made in this Report.

With the proposed recommendations observed, the potential development of this project is not anticipated to cause any major direct or indirect impacts to the surrounding wildlife, environment and/or habitats. However, it has been assumed that prior to implementation of this project, protocol-level pre-construction surveys will be conducted to variety field and data-based observations documented in this Report.

Section 2 Introduction, Background, and Project Understanding

2.1 Purpose and Need

This Biological Resource Assessment Report has been prepared by request from the client. This Report describes the findings from a biological assessment, which in the case of this document is a reconnaissance survey to assess potential presence of biological resources and sensitive habitat(s). This Report has been prepared as a measure to investigate the impacts of the expansion of a preexisting cultivation operation occurring within three (3) parcels, referred to throughout this Report as the Study Area. This assessment gives special focus to a predetermined area of known environmental superiority for cultivation, and associated project development, based on terrain, slope, habitat, and historical disturbance, referred to as the Area Assessed for Project Feasibility in Map 2 and Map 4. Even though the potential cultivation areas identified to be feasible for development have preexisting habitat disturbance, all County of Humboldt commercial cannabis cultivation applications, under the Commercial Cannabis Land Use Ordinance (CCLUO) *Application Requirements Cannabis 2.0*, require a “Biological Reconnaissance Survey for Special-Status Species and Sensitive Habitat.”

The biological resource survey for this project is being treated as a biological assessment. A biological assessment, as defined by the United States Fish and Wildlife Service (USFWS), is “information prepared by a qualified biologist to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of a species that are proposed for listing; or (3) adversely modify proposed critical habitat. A biological assessment is a specific document required under Section 7 of the Federal Endangered Species Act (FESA) when project actions have the potential to result in “may affect” determination,” (USFWS: Endangered Species Glossary, 2020).

The assessment aspect of this Report presents on the field survey and findings of the biological resource and habitat quality within the Study Area and proposed cultivation site(s). This Report therefore addresses the status and possible utilization of the project site(s) by special-status plant and animal species found within the region, and assesses the environmental impacts to these resources in association to the cultivation of cannabis within the defined project site location(s). Special-status species, both plant and animal, include all state or federal rare, threatened, and/or endangered species and all species listed in the California Natural Diversity Database (CNDDDB) list of *Special-Status Plants, Animals and Natural Communities*.

The locations and presence of aquatic resources, and other sensitive habitats, within the proximity of the proposed cultivation site within the Study Area assessed in this Report, were identified and mapped in order to determine adequate setbacks for the proposed cannabis cultivation to occur. This was done as a measure to address the environmental impacts of the proposed cultivation and associated infrastructure within the Study Area.

This document has been prepared in accordance with legal requirements set forth under Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c), as well as all other acts and programs outlined in *Section 6 Regulatory Guidelines*. The FESA subsection (c) states that “...based on the best scientific and commercial data available, that such species [which are listed or proposed to be listed] may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which [are] likely to be affected by such action.

Such assessments shall be completed ... before any contract for construction is entered into and before construction is begun with respect to such action.”¹

This document has also been prepared in response to the State Water Resource Control Board’s Cannabis Cultivation Policy requirement and condition, which states in *Section 1 – General Requirements and Prohibitions*, Term #10 that “...[p]rior to commencing any cannabis land development or site expansion activities, the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a no-disturbance buffer to protect identified sensitive plant, wildlife species, and communities. A copy of the report shall be submitted to the appropriate Regional Water Board.”²

Since ground disturbance was predetermined to occur in conjunction with the proposed cannabis cultivation project, protocol-level botanical surveys were recommended at the time of the initial site visit, and will be conducted in conjunction with this biological assessment, as a measure to inventory and assess this projects potential to impact listed and special-status plant species, and sensitive natural communities, that may occur within the proposed project foot print.

This Report summarizes the results of a reconnaissance level biological resource survey which assessed the Study Area for: (1) the potential to support special-status species; and (2) the potential presence of sensitive biological communities such as wetlands, riparian habitats and other sensitive biological resources protected by local, state, and federal laws and regulations.

This Report considers the potentially occurring species and communities that could be affected by cannabis cultivation, and associated infrastructure development, within the Study Area, based on available spatial data, habitat requirements, and observations made during site visits. The project location was targeted within the parcel and evaluated for potential habitat value to protect endangered, threatened, rare, and sensitive species by traversing the Study Area on foot to observe special-status species as well as overall habitat quality and habitat modification.

2.2 Biologist’s Qualifications

The biological assessment for this Report was conducted by Mason London. Mason is the principal biologist at Naiad Biological Consulting. Mason holds an MSc in Biology with a concentration in aquatic ecology from Humboldt State University (HSU). Mason has worked professionally as a wildlife biologist for The Nature Conservancy, a botanist for the Medford, OR district Bureau of Land Management, and an Aquatic Research Scientist for the HSU River Institute. Collectively Mason has over 12 years of experience working professionally as a wildlife biologist, botanist, aquatic ecological research scientist, and has instructed several ecological courses at the university level.

The botanical survey described in this Report is being conducted by Sarah Mason. Sarah holds a BS in Botany from Humboldt State University and is currently working towards receiving her MSc in Biology with a concentration in bumblebee ecology. Sarah has worked as an assistant botanist and biologist with Caltrans, as a Botanical Technician for the Klamath and Bitterroot National Forests and currently as a botanist with the Humboldt Redwoods State Parks. Sarah has experience in rare plant identification,

¹ Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c): <https://www.fws.gov/endangered/laws-policies/section-7.html>

² State Water Resource Control Board: Cannabis Cultivation Policy:
https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

protection and monitoring of rare plants, invasive species removal, and teaching plant taxonomy at the university level

2.3 Project Description

Humboldt Reserve, LLC is proposing to permit proposed commercial cannabis activities in accordance with the County of Humboldt's County Commercial Cannabis Land Use Ordinance (CCLUO). The proposed project includes 216,048 SF (4.96 acres) of enclosed indoor cannabis cultivation, 44,064 SF of enclosed commercial nursery, and 2,400 SF of distribution. Water would be sourced from rainwater stored in engineered tanks plumbed to catchment surfaces and reclaimed water from dehumidifiers. Power would be renewably sourced from an existing PG&E service and substation.³

As a result of the proposed project being in the preliminary planning phase during the biological assessment site visit, the exact locations and extent of each feature was still largely unknown. Because of this, the Area Assessed for Project Feasibility was expanded to include a larger area than the actual footprint of the proposed project (Map 2). This was done to account for the biological assessment still being applicable regardless of any potential changes in the proposed project plan layout.

2.4 Study Area Description and Geographic Setting

The parcels assessed for the feasibility of cannabis cultivation and processing, referred to as the Study Area, in this Report has the Assessor Parcel Number (APN): 204-251-001, 204-121-006, and 204-121-005 (Map 1 & Map 2).

APN: 204-251-001 is 22.59 acres according to the Humboldt WebGIS and 23.00 acres according to the assessed lot size, APN: 204-121-006 is 0.45 acres according to the Humboldt WebGIS and 0.44 acres according to the assessed lot size), and APN: 204-121-005 is 8.65 acres according to the Humboldt WebGIS 9.50 acres according to the assessed lot size.

The Study Area has a high elevation of approximately 165 feet (approx. 50.50 meters) and a low elevation of approximately 115 feet (approx. 35.00 meters) (Google Earth Pro, 2022). The approximate center location of the Study Area is located 1.65 air miles east to southeast of Hydesville, California in Humboldt County (Map 1).

The Study Area occurs within the Hydesville 7.5-minute USGS quadrangle (Quad code: 4012433) within the within the Van Duzen River watershed. The Van Duzen River is a tributary of the Eel River which is a coastal river draining into the Pacific Ocean approximately 15.00 air miles northwest of the center location of the Study Area (CDFW Region: 1). The center location of the Study Area is 40°32'12.6"N 124°04'11.8"W.

All three (3) parcels are zoned as Heavy Industrial (MH), which "...is intended to apply to areas devoted to normal operations of industries subject only to regulations as are needed to control congestion and protect surrounding areas..."⁴ (Humboldt County Code Zoning Regulations: Title III Land Use and Development - Section 314-3.3). The Current General Plan of the parcels are Mixed Use (MU) which "... is intended for lands in central areas of urban communities where the presence of public utilities and a sufficient population base allows the development of pedestrian-oriented, mixed-use (commercial, office, and residential) development..."⁵ (2017 Humboldt County General Plan, 2017).

³ Project Description was provided to Naiad Biological Consulting by Northpoint Consulting Group, Inc. via CUP Project Overview

⁴ Humboldt County Code – Zoning Regulations: <https://humboldt.county.codes/Code/314-3.3>

⁵ Humboldt County General Plan: <https://humboldt.gov/DocumentCenter/View/62021/Section-48-Land-Use-Designations-PDF?bidId=>

Section 3 Methods

3.1 Pre-Site Visit Data Compilation and Preparation

A list of special-status plant and animal species considered to have potential presence within the Study Area was downloaded from the California Department of Fish and Wildlife's California Natural Diversity Database Biogeographic Information and Observation System (CNDDDB BIOS) (CDFW, 2020), the United State Fish and Wildlife Service Information for Planning and Conservation (IPaC, USFWS 2020) and Calflora Project (Calflora, 2020) for the USGS Hydesville 9-quad area. Animals on the CNDDDB list were primarily included based on state or federal listing status or CDFW designation. Native pollinators found in the area were also included based on the state rarity and their potential to be affected by cannabis cultivation.

Aside from the creation of a target list of special-status species, the Regional Dominate Alliances for the Study Area was downloaded, mapped, and assessed from The U.S. Forest Services' Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) (Map 5). The CALVEG system was developed to classify California's existing vegetation communities for use in statewide resource planning considerations. This was originally accomplished with the use of color infrared satellite imagery and field verification of types by current soil-vegetation mapping efforts as well as professional guidance through a network of contacts throughout the state. It is a hierarchical classification originally based on "formation" categories: forest, woodland, chaparral, shrubs and herbaceous in addition to non-vegetated units. They were originally identified by distinctions calculated among canopy reflectance values used in the LANDSAT satellite. Since then, the classification has been expanded from an initial 129 types occurring throughout the eight regions of the state to the current 213 occurring in nine regions, and image resolution has been enhanced.

The special status species in the 7.5-minute USGS Hydesville quadrangle, and the eight (8) adjacent quadrangles, resulted in fifty-nine (59) special-status animal species (5 amphibians, 25 birds, 11 fishes, 2 insect, 12 mammals, 3 mollusks, 1 reptile) (Table 1), fifty-one (51) special-status plant (1 bryophyte, 1 lichen, 49 vascular) (Table 2), and two (2) terrestrial special status habitat communities (Upland Douglas Fir Forest and Northern Coastal Salt Marsh).

For special-status plant species, prior to the site visit and field survey, the list of potentially occurring species was assessed based on evaluation, habitat and micro-habitat requirements. Suitable habitat for some of the species in the generated list were therefore determined to not exist within the project site or surrounding area (Table 2).

For special-status animal species, a majority of the habitats present within and surrounding the Study Area were determined to not meet the criteria to be utilized by certain species. Therefore, a more refined species search was generation for known occurrences of species within 2-miles. This was done by locating the Study Area on the CNDDDB BIOS, and creating a 2-mile point buffer using the Select Feature. The plant species with known occurrences recorded within 2-miles were not investigated more specifically, since a protocol level floristic survey, which identifies all plant species present within the project area, has already been conducted based on the recommendations of this biological assessment. Findings from this floristic survey are presented in the associated Botanical Survey Report for this project. Therefore, the 2-mile focused search rendered eleven (11) special-status animal species (2 amphibians, 4 birds, 4 mammals, 1 reptile) within 2 miles of the Study Area (Table 4; Map 5)

Table 4. The 9 special-status animal species with known occurrences within 2-miles of the Study Area. CDFW Status, Global Rank and State Rank definitions provided in Appendix B.

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank	CDFW Status
Amphibians						
<i>Rana aurora</i>	Northern red-legged frog	None	None	G4	S3	SSC
<i>Rana boylei</i>	foothill yellow-legged frog	None	Endangered	G3	S3	SSC
Birds						
<i>Riparia riparia</i>	bank swallow	None	Threatened	G5	S2	-
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted	G4T4	S3S4	FP
<i>Pandion haliaetus</i>	osprey	None	None	G5	S4	WL
<i>Ardea herodias</i>	great blue heron	None	None	G5	S4	-
Mammals						
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	G3	S3	SSC
<i>Martes caurina humboldtensis</i>	Humboldt marten	Threatened	Endangered	G4G5T1	S1	SSC
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	G4	S2	SSC
<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	None	None	G5TNR	SNR	-
Reptiles						
<i>Emys marmorata</i>	western pond turtle	None	None	G3G4	S3	SSC

3.2 Biological Resource and Habitat Investigation

A biological resource and habitat investigation was conducted within the Study Area between 10:00 AM and 1:00 PM on March 17th, 2022 by Mason London (Map 3).

The goal of the investigation and field survey was to determine suitable habitat for special-status species, and therefore potential impact to these species, within the Study Area and with special focus to the area determined to be feasible for project activities such as the development of cultivation and associated infrastructure. Impact to potentially occurring special-status species was assessed based on the likelihood for the project, and project related activities, to result in take, or incidental take, of the previously mentioned species (Table 1 & 2). The Federal Endangered Species Act (FESA) defines take as any action that will "...[h]arass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C., §1532 (19)⁶). Whereas harass is defined as "[a]n intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns (e.g., breeding, feeding, or sheltering)" (16 U.S.C., §1532 (20); 50 C.F.R. § 17.3⁶) and harm is defined as "[a]n act which actually kills or injures wildlife. May include significant habitat modification or degradation that kills or injures wildlife by significantly impairing essential behavior patterns," (U.S.C., §1532 (20); 50 C.F.R. § 17.3⁶). The Study Area habitat and habitat characteristics were investigated and assessed based on these impact parameters.

As part of the initial reconnaissance of the Study Area's biological resources, suitable habitat for potential species was inspected during the field survey. A meandering, or wandering transect, approach to the

⁶ California Endangered Species Act to the Federal Endangered Species Act Definitions: <https://wildlife.ca.gov/Conservation/CESA/FESA>

survey was implemented in order to cover all habitats that could potentially be utilized by listed species. This survey path was recorded using Avanza Maps™ (Map 3).

An assessment of potential occurrences of special-status animal species was recorded during the meandering survey throughout the Study Area. All major habitats within the Study Area were investigated in order to determine current quality in context of species acquisition. The assessment of animal habitat within the Study Area is not an official protocol-level survey, which may be required for project approval by local, state, or federal agencies. Specific wildlife surveys may be required based on the specific location and timing of project development.

Dominant species in surrounding habitats, presence of sensitive habitats such as riparian areas and potential wetland features, and project site setbacks from watercourses and other aquatic habitats were observed and recorded. These observations were used to determine the most suitable and environmentally superior location(s) to cultivate cannabis and develop the associated infrastructure within the Study Area. A TruPulse 200X laser rangefinder was used to make all of the distance and slope measurements and for determining adequate setbacks in the field. True buffers and setbacks, used in all of the maps associated with this Report were generated with GIS software out of the field.

3.2.1 Floristic Survey

Since ground disturbance was predetermined to occur in conjunction with the proposed cannabis project, protocol-level floristic surveys, referred to as the botanical surveys, were recommended at the time of the site visit and have been conducted during the 2022 bloom season as a measure to inventory and assess the potential impacts to listed and special-status plant species that may occur within the project area.

This botanical field survey followed protocols recommended by CDFW, and are in accordance with the guidelines established by CNPS, from the document *Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Populations and Sensitive Natural Communities*⁷ (CDFW, 2018). Plants were identified onsite and a census of species was recorded. Specimens not readily identifiable were collected and keyed out later with the use of *The Jepson Manual of the California Flora* and other field guides. The survey occurred within an area determined to be impacted by the proposed project within the Study Area. This survey recorded all occurring species within the habitats surveyed, which will be recorded in the associated final Botanical Survey Report.

These surveys are floristic in nature, meaning that all plant taxon encountered during the botanical field survey of the Study Area are identified to the taxonomic level necessary to determine rarity and listing status. The field visits were strategically planned to coincide with the blooming period for the listed species assumed to have a potential to occur within the Study Area, specifically within the boundaries of the proposed project site and immediately surrounding area.

3.2.2 Wetlands, Soils and Streamside Management Areas Assessment and Determination

Prior to the site investigation, the Study Area was assessed for the presence of wetlands utilizing several digital databases and resources including the USFWS National Wetland Inventory (NWI), NRCS Web Soil Survey, USGS topographic maps, and inundation or saturation visible on aerial imagery (Map 4).

⁷ *Specie Status Native Plant Populations and Sensitive Natural Communities*:
file:///C:/Users/Masonslondon/Downloads/2018%20Protocols%2013%20rev1.pdf

Data regarding the Study Area's soil type was obtained from the Natural Resource Conservation (NRCS) Service Web Soil Survey (Map 4; Appendix E).

No soil test pits were dug to determine hydric soils within the Study Area. Wetland indicators such as hydrophytic vegetation and wetland hydrology were visible during the time of the site visit investigation and were utilized for making potential wetland occurrence determinations. The assessment of wetlands within the Study Area, described in this Report, is not an official protocol-level survey, but rather a field assessment to determine the need for further wetland related studies.

Watercourses and their associated classes were determined based on the Forest Practice Rules Water Course and Lake Protection Zone definitions, by use of visual observation when conducting the reconnaissance survey.

3.2.3 Occurrence of Special-Status Species

Each species derived from the previously mentioned databases were evaluated for their potential of occurrence within the project site by the following criteria:

1. **"None."** Species listed as having "none" potential of occurrence are those species for which there is no suitable habitat within the project area (elevation, hydrology, plant community, disturbance regime, etc.)
2. **"Low."** Species listed as having a "low" potential of occurrence are those species for which there is no known occurrence of the species within the project area and there is limited or marginal suitable habitat present at the project area.
3. **"Moderate."** Species listed as having "moderate" potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is suitable habitat present within the project area.
4. **"High."** Species listed as having "high" potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is highly suitable habitat present within the project area.
5. **"Present."** Species listed as having "present" potential of occurrence within the project area are those species for which the species was observed during the field survey.

Species with a 'low' potential of occurrence were not further investigated for likelihood to exist within or utilize the project site habitat. A rank of low was given to species that most likely will not occur, or are highly unlikely for them to occur, based on their habitat requirements. However, there are always exceptions to natural rules and so these species were not given the rank of 'none' because it is not entirely impossible for them to occur, just extremely unlikely.

Section 4 Results and Discussion

4.1 Study Area's Regional Alliances

The Regional Dominate Alliances within the Study Area, according to the CALVEG database, consist of Urban-Related Bare Soils and Redwood Alliance (Map 6). The Regional Dominate Alliances surrounding the Study Area include Grain and Crop Ag., Agriculture, Annual Grasses and Forbs, North Coastal Scrub Alliance, Red Alder Alliance, and Urban or Developed (Map 6). The Alliance definitions below are from CALVEG and do not represent actual observations made, or necessarily species identified during the site visit investigation.

4.1.1 Urban-Related Bare Soils

This category applies to landscapes that are dominated by urban structures, residential units, or other developed land use elements such as highways, city parks, cemeteries and the like. In those cases in which the managed landscapes may have a considerable vegetation component, other land use categories may be more appropriate, such as Ornamental Conifer and hardwood mixtures within city parks.

4.1.2 Redwood Alliance

Redwood (*Sequoia sempervirens*) occurs on alluvial flats, streamside terraces and colluvial slopes, generally within a narrow coastal strip within eleven subsections of the Coast Section and sparsely within two other subsections. In the northern portions of the Coast Franciscan Subsection, however, the type occupies sites further inland but which are still within the maritime influence. Elevations are typically below 2400 feet (732 m). Old-growth Redwood groves are mostly contained in national parks, state parks, and regional or private preserves. Soils underlying these sites are often a result of sediment deposition from continuous river flooding. Redwood Sorrel (*Oxalis oregana*) and Western Sword Fern (*Polysticum munitum*) are typical understory herbs in undisturbed groves. Other common associates are Pacific Douglas-fir (*Pseudotsuga menziesii*), Red Alder (*Alnus rubra*), Salal (*Gaultheria shallon*), Tanoak (*Lithocarpus densiflorus*), Western Hemlock (*Tsuga heterophylla*), California Hazelnut (*Corylus cornuta* var. *californica*) and California Rose-Bay (*Rhododendron macrophyllum*). The Redwood groves are geographically located in the coastal fog belt and are adjacent to Redwood – Douglas-fir, Sitka Spruce - Redwood, and Sitka Spruce forests.

4.1.3 Grain and Crop Ag.

Irrigated or dry crop agriculture is usually harvested in rows as edible herbaceous products such as cereals (wheat, sorghum, oats, millet, corn, rye, etc.) and vegetables (squash, celery, beans, peas, etc.) for stock and human uses. Agricultural crop fields are also occasionally planted for both animal forage and to improve nitrogen levels, as with legumes such as alfalfa and sweet clovers. Certain crops are grown for other multiple uses, such as flax and cotton for seed oils (linseed and cottonseed), fibers and medicinal uses, if any.

4.1.4 Agriculture

Agricultural land is used primarily for the production of food and fiber. High-altitude imagery indicates agricultural activity by distinctive geometric field and road patterns on the landscape and traces produced by mechanized equipment. Agricultural land uses include forest landscapes such as orchards as well as

non-forested land uses such as vineyards and field crops. Land used exclusively for livestock pasture may, however, be mapped as annual grassland in those cases in which land uses are not recognizable.

4.1.5 Annual Grasses and Forbs Alliance

Small areas of dry grasslands are found scattered at moderately low elevations in the western Klamath Mountains, especially on privately owned lands and in the western Trinity Alps area. In the Ranges and Coast Sections, these areas become more extensive on private lands scattered throughout the area and intermix with agriculturally managed sites. Species include introduced and native annual grasses such as Brome (*Bromus spp.*), Bluegrass (*Poa spp.*), Wildoats (*Avena spp.*), Fescue (*Vulpia spp.*), Dogtail (*Cynosurus spp.*), Barley (*Hordeum murinum*), Needlegrass (*Nassella spp.*), Oatgrass (*Danthonia spp.*), and a variety of forbs such as Checker Mallow (*Sidalcea spp.*), Brodiaea (*Brodiaea spp.*), Wild Hyacinth (*Dichelostemma spp.*), Yampah (*Perideridia spp.*) and Mariposa Lily (*Calochortus spp.*). Oregon White Oak (*Quercus garryana*) stands are often found adjacent to some upland annual grasslands.

4.1.6 North Coastal Scrub Alliance

Shrubby coastal areas of northern California having no clear single dominant shrub species are identified in the North Coastal Scrub Alliance. It occurs westward of Redwood (*Sequoia sempervirens*) forests in eleven subsections of the Coast Section, being especially prominent in the Crescent City Plain Subsection. Elevations generally range from sea level to 3600 feet (1098 m). Environmental conditions that separate subsets of this type include proximity to the coast and exposure to winds and salt deposition, depth and texture of soils, topography, and the repeated occurrence of fire. For example, Holland (1986) identifies northern maritime chaparral, northern coastal scrub, northern coastal bluff scrub, northern dune scrub and other coastal shrub types in the general area of this section. Barbour and Major (1988) discuss northern coastal scrub types with an abundance of either Coyote Brush (*Baccharis pilularis*) or species of lupine such as Yellow Bush Lupine (*Lupinus arboreus*). Lupine types are best developed on level terraces close to coastal bluffs from Santa Cruz to Sonoma Counties. Other shrubs common in this type include Blueblossom (*Ceanothus thyrsiflorus*), Coastal Whitethorn (*C. incanus*), Hairy Manzanita (*Arctostaphylos columbiana*), Coffeeberry (*Rhamnus californica*), Salal (*Gaultheria shallon*), California Huckleberry (*Vaccinium ovatum*), California Blackberry (*Rubus ursinus*), Poison Oak (*Toxicodendron diversilobum*), Wax Myrtle (*Myrica californica*) and shorter forms of California Bay (*Umbellularia californica*). Grasses and forbs such as European Beachgrass (*Ammophila arenaria*), which is often planted for dune stabilization, Western Sword Fern (*Polystichum munitum*) and wetland trees and shrubs such as Red Alder (*Alnus rubra*) and Willows (*Salix spp.*), may be more common towards the northern end of this section.

4.1.7 Red Alder Alliance

Seasonally flooded or permanently saturated soils may develop stands dominated by Red Alder (*Alnus rubra*) in alluvial or upland positions of this zone. Red Alder often occurs in dense stands on mesic slopes in Humboldt and Del Norte Counties and further south in nine subsections of the Coast Section. It is found mainly in the Smith, Trinity and Klamath River watersheds to an elevation of about 3000 feet (915 m). These pure stands are intermingled with conifers such as Redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*), Sitka Spruce (*Picea sitchensis*), and Grand Fir (*Abies grandis*). Short-lived Red Alder stands may develop after low-elevation logging operations accompanied by minor amounts of other hardwoods such as Bigleaf Maple (*Acer macrophyllum*) and Oregon Ash (*Fraxinus latifolia*). Shrubs and non-woody species such as Chain Fern (*Woodwardia fimbriata*), Spikenard (*Aralia*

californica), Western Burning Bush (*Euonymus occidentalis*), American Dogwood (*Cornus sericea*), Sitka Alder (*A. viridis*) and Vine Maple (*Acer circinatum*) are occasionally also found. White Alder (*Alnus rhombifolia*) mixes with or replaces Red Alder on inland sites.

4.1.8 Urban or Developed

This category applies to landscapes that are dominated by urban structures, residential units, or other developed land use elements such as highways, city parks, cemeteries and the like. In those cases, in which the managed landscapes may have a considerable vegetation component, other land use categories may be more appropriate, such as Ornamental Conifer and hardwood mixtures within city parks.

4.2 Observed Study Area Habitat, Existing Site Conditions and Project Location Feasibility

During the March 17th, 2022 site visit and reconnaissance level field survey, the weather was overcast, but began to clear up around 11:00 am, with a temperature of 58° F when the survey began. At the Study Area there had been a total of 1.05 inches of precipitation for the entire portion of March 2022 leading up to the site visit (March 1st – March 17th, 2022), 0.54 inches for the entire month of February 2022, and 2.05 inches for the entire month of January 2022 (Prism Climate Group, 2022). These perceptions levels are well below regional average, as a result of the prolonged drought which California is currently experiencing.

The main habitats investigated within the Study Area consist of a heavily disturbed industrial zone, a riparian corridor, and a watercourse. These habitats were assessed based on habitat quality parameters in relationship to previous habitat modification. These habitats were also assessed based on the potential to harbor special-status species. The riparian corridors, watercourses, and any potentially present wetland features, within the Study Area, were investigated and adequately buffered with setbacks to the proposed project area (Map 2).

4.2.1 Study Area Habitat

The heavily disturbed industrial zone is where the entirety of the proposed project will occur, referred to as the Area Assessed for Project Feasibility (Map 2). This area has historically been utilized as log deck (Photo 1). A log deck refers to a place where harvested trees or logs are gathered or staged in or near the forest for handling, sorting, merchandizing, temporary storage, or further transport. It appears that this location is not currently, or within recent history, being utilized for log deck purposes (Photo 2 - 5). However, the result of this land use has left the site highly disturbed and modified from its natural state (Photo 2 - 5).

Due to the seasonal timing of this site visit, the majority of the species within the Area Assessed for Project Feasibility were unidentifiable, however, based on current site conditions from past land practices, it is apparent that this area is dominated by many nonnative and invasive forb and grass species (Photo 6 & 7). Species that were identifiable during the site include: Pampas grass (*Cortaderia selloana*), milk thistle (*Silybum marianum*), fennel (*Foeniculum vulgare*), geranium (*Pelargonium spp.*), common teasle (*Dipsacus fullonum*), field mustard (*Brassica rapa*), rough cat's ear (*Hypochaeris radicata*), scarlet pimpernel (*Lysimachia arvensis*), pineapple weed (*Matricaria discoidea*), English plantain (*Plantago lanceolata*), spring vetch (*Vicia sativa*), dogtail grass (*Cynosurus echinatus*), penny royal (*Mentha pulegium*), sheep sorel (*Rumex acetosella*), curly dock (*Rumex crispus*), mallow (*Malva*

spp.), French broom (*Genista monspessulana*), Himalayan blackberry (*Rubus armeniacus*), willow (*Salix spp.*) and others. Species mentioned here do not represent a protocol-level botanical survey, which is being recommended for this project. Species are mentioned here are to present a general overview of the habitat type and quality of the heavily disturbed industrial zone and the Area Assessed for Project Feasibility located within the Study Area.

The riparian corridor habitat is dominated by coast redwood (*Sequoia sempervirens*), willow (*Salix spp.*), red alder (*Alnus rubra*), Monterey pine (*Pinus radiata*), common nettle (*Urtica dioica*), ceanothus (*Ceanothus spp.*), poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), redwood sorrel (*Oxalis oregana*), common horsetail (*Equisetum arvense*), and others (Photo 8 & 9). Closer to the watercourse which is surrounding by the riparian corridor, dominate species include big leaf maple (*Acer macrophyllum*), California bay laurel (*Umbellularia californica*), skunk cabbage (*Symplocarpus foetidus*), English ivy (*Hedera helix*), sword fern (*Polystichum munitum*), and others (Photo 10 & 11). Species mentioned here do not represent a protocol-level botanical survey, which is being recommended for this project. Species are mentioned here are to present a general overview of the habitat type and quality of the riparian corridor habitat within the Study Area.

4.2.2 Area Assessed for Project Feasibility

The habitat type of the Area Assessed for Project Feasibility is determined to be considered highly degraded from his natural habitat, resulting in low habitat quality in regards to preexisting habitat modification based on the historical and current land uses, as described in Section 4.2.1. Furthermore, based on the results of the aquatic resource setbacks, the Area Assessed for Project Feasibility is suitable for development of cannabis cultivation and associated infrastructure (Photo 9; Map 2). Utilizing the disturbed industrial zone for cannabis cultivation would likely render no negative impact to the environmental or biological resources based on the habitat quality and the location and setback to sensitive habitats. Pre-construction surveys and protocol-level botanical surveys are being recommended as a measure to investigate this determination, and practice due diligence.

Developing a cultivation site within the location determined to be the Area Assessed for Project Feasibility would require no need to clear brushy vegetation, and would require no extensive grading as a result of the level of prolonged disturbance at this site. Therefore, direct habitat alteration is minimal. The particular site location already has drivable access and therefore could easily be accessed with minimal to no disturbance to the surrounding habitats. The parcel is already connected to PG&E grid power, eliminated the need for noise producing generators is power is needed for the cultivation method associated with the proposed project. Mitigation for potential disturbance associated with the cannabis cultivation activities is further discussed in Section 5 Conclusion.

4.3 Watercourses, Aquatic Habitats, and Streamside Management Areas

The watercourse within proximity to the Area Assessed for Project Feasibility (Ward Creek) was determined to be a Class I perennial stream based on observed habitat features and local knowledge of the watershed (Photo 10 & 11). The watercourse had its riparian dripline delineated in the field and its edge of bank delineated using LiDAR. The buffers applied to the aquatic habitat, and presented in Map 4, adhere to both state and county setback requirements (Map 4). These buffers have been established as the Streamside Management Areas (SMA) as per Section 1, Requirement 37 of the California State Water Resource Control Board's *Cannabis Cultivation Policy Attachment A: Definitions and Requirements for Cannabis Cultivation*² (Map 4). The determination of the watercourse classes is based

upon the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulation, title 14, Chapter 4. Forest Practice Rules, Subchapters 4, 5, and 6 forest District Rules, Article 6 Water Course and Lake Protection⁸). Per County of Humboldt setback rules, the watercourse was buffered 150 ft from the edge of the riparian dripline. Per California State Water Resource Control Board's setback rules, the watercourse was buffered 100 ft from the top of bank (Map 2).

Due to the elevation of the Area Assessed for Project Feasibility, and its proximity to the Van Duzen River (south of the Study Area) and Yager Creek (east of the Study Area), a determination of the 100-year flood level was investigated to assess presence within the Study Area. A 100-year flood is defined as “[a] flood having a one percent (1%) chance of being equaled or exceeded in any given year,” (Section 313-141 Humboldt County Zoning Regulations, 2020⁹). The Humboldt County Planning and Building Department has amended the Flood Damage Prevention Regulations Section 335-5 of the Humboldt County Code to allow placement of temporary structure in mapped Flood Hazard Areas for up to 180 days between April 16 through October 15. The GIS assessment determined that the entire Study Area, and therefore the entirety of the Area Assessed for Project Feasibility, is outside of the FEMA 100-year flood zone (Map 4). No further assessment or determinations of the FEMA 100-year flood zone are recommended for this project.

The location within the Study Area that was determined to be feasible for cannabis operations is not anticipated to cause any negative interface with the Van Duzen River, or its tributaries, since the necessary buffered setbacks will be followed. Furthermore, any potential impacts to the aquatic habitats within the Study Area can be minimized if best management practices (BMP) are used during the construction and development of the project site (Appendix F).

There is no anticipated impact to these watercourses, or any aquatic habitat in association with this project, if these buffers and setbacks are adhered to and if the project development and construction follows the recommendations presented in Section 5.1.3.

4.3.1 Wetland Habitats

A protocol-level delineation did not occur in conjunction with the biological reconnaissance survey conducted and described in this Report, and based on the visual assessment of the Study Area, further wetland studies are not recommended for project approval.

With the use of visual observations of the Area Assessed for Project Feasibility, its surrounding habitat, mapped wetland occurrences from the NWI, current/present hydrology, and vegetation communities, a conservative approach was followed when assessing whether or not the extent in which potential wetland features occur (Map 5). Federal regulations define wetlands as “[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil” (33CFR328.3(b)¹⁰). This definition expresses that, under normal conditions, three parameters must be met to classify a site as a jurisdictional wetland, which includes hydrophytic vegetation, hydric soils, and wetland hydrology.

Based on the visual assessment of the Study Area, and use of mapped wetland occurrences, it was determined that no three parameter wetlands occur within the Area Assessed for Project Feasibility, or

⁸ Forest Practice Rules Water Course and Lake Protection Zone definitions: <https://www.law.cornell.edu/regulations/california/title-14/division-1-5/chapter-4/subchapter-6/article-6>

⁹ Humboldt County Zoning Regulations: Chapter 3 – Regulations Inside the Coastal Zone: <https://humboldt.county.codes/Code/313>

¹⁰ Definition of Waters of the United States: <https://www.nap.usace.army.mil/Portals/39/docs/regulatory/regs/33cfr328.pdf>

within any buffered proximity of impact. As a result of past land use practices, the Area Assessed for Project Feasibility has been greatly disturbed, with the majority of its substrate consisting of compacted gravel. It is not recommended that further wetland studies occur in conjunction with this project.

4.3.2 Study Area Soils

The general soil types, presented as Soil Map Units on Map 5, were obtained from the Web Soil Survey and presented in further detail in Appendix E.

The Area Assessed for Project Feasibility occurs entirely within the Soil Map Unit 220 - Ferndale, 0 to 2 percent slopes. The other soil complex that occurs within the Study Area is Soil Map Unit 151 - Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes (Map 5). Full soil type descriptions can be found in Appendix E.

4.4 Special-Status Plant Species and Communities

4.4.1 Definitions

Special-status plants include taxa that are listed under the Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) in addition to plants which meet the definition of rare or endangered under the California Environmental Quality Act (CEQA). CDFW recommends that plants on California Rare Plant Ranks (CRPR) Lists 1A (presumed extinct or extirpated), 1B (rare, threatened, or endangered in California and elsewhere), 2A (presumed extirpated) and 2B (rare, threatened, or endangered in California but more common elsewhere), or other species that warrant consideration based on local or biological significance, be addressed during California Environmental Quality Act (CEQA) review of proposed projects. Plants of rank 3 and 4, which are under review and watch lists respectively, are addressed by Naiad Biological Consulting, and may warrant consideration under CEQA if potential or cumulative impacts to the plant exist.

CDFW's natural community rarity rankings follow NatureServe's 2012 NatureServe Conservation Status Assessment: Methodology for Assigning Ranks, in which all alliances are listed with a global (G) and (S) rank. NCSC are those natural communities that are ranked S1 to S3 (CDFW, 2020), where 1 is critically imperiled, 2 is imperiled, and 3 is vulnerable. However, they may not warrant protection under CEQA unless they are considered high quality. Human disturbance, invasive species, logging, and grazing are common factors considered when judging whether the stand is high quality and warrants protection.

4.4.2 Special-Status Plant Species and Communities Observed

All habitats encountered during this survey were assessed to determine the potential to harbor certain species (Table 2- Potential of Occurrence). The entire Study Area was not surveyed for special-status plant species with equal effort. The habitats investigated for potential presence of special-status plant species consist of the Area Assessed for Project Feasibility, and an approximate 200 ft buffer around its perimeter, since this is the area with the potential to be impacted by proposed project activities. All species derived from the CNDDDB list were assessed for potential occurrence within the Study Area, both within the potential project locations, and within the surrounding habitats (Table 2).

No special-status plant species were encountered during the initial survey site visit, even though this initial site visits occurred outside of the bloom period of listed species with potential to occur within the Study Area. There is a documented occurrence of one (1) special-status plant species with a 1-mile accuracy that occurs within the Study Area boundaries. This species is maple-leaved checkerbloom

(*Sidalcea malachroides* CRPR 4.2) and this occurrence was recorded on June 11th, 1951 (Map 7; Occurrence Report 1). This species was found “[g]rowing with fireweeds in recently logged area,” and was collected from “Yager Creek road on way to Carlotta,” (Occurrence Report 1). This species was not observed within the Study Area on the March 17th 2022 survey.

As previously mentioned, many species observed were unidentifiable during this initial site visit due to the bloom period of the individual species. However, a protocol-level botanical survey is being conducted in conjunction with this project and will be floristic in nature, meaning all species will be identified since the Study Area will be visited during multiple times to capture blooming periods of all special-status species with the potential of occurrence.

If the findings from the protocol-level botanical survey render no special-status species, and the recommendations presented in Section 5.1.3 are followed for the development and utilization of the project site, as well as project construction follows the Best Practicable Treatment or Control (BPTC) and Best Management Practices (BMPs) presented in Appendix F, no further foreseeable impacts to the surrounding vegetative environment, or floristic biological resources, are likely to occur within the Area Assessed for Project Feasibility.

4.5 Special-Status Animals Species

Not all previously mentioned habitats within the Study Area were surveyed for special-status animal species potential utilization with equal effort. The habitats investigated for presence and habitat requirements of special-status animal species consist primarily of the habitats that could be impacted by the project development and its associated activities. It is assumed that disturbance of special-status animal species habitat could result in take, or incidental take, of the species determined to utilize these habitats. Regardless of the habitats investigated, all species derived from the CNDDDB list were assessed for potential occurrence within the Study Area, both within the potential project area (the Area Assessed for Project Feasibility), and within the surrounding habitats (the Study Area) (Table 1).

Wildlife species observed during the initial reconnaissance site survey were: turkey vulture (*Cathartes aura*), song sparrow (*Melospiza melodia*), and barn swallow (*Hirundo rustica*). Species listed here do not represent a protocol-level survey for wildlife.

4.5.1 Special-Status Animals Species with Potential for Occurrence

Five (5) special-status animal species have occurrences reported within the boundaries of the Study Area (Map 7). These species’ occurrences are further discussed below.

All specie’s habitat requirements and their potential to utilize the Study Area is listed in Table 1. Mitigation measures presented in Section 5.3.1 were developed for all species generated from the CNDDDB list that were determined to either have a moderate or high potential of being impacted by the proposed project, based on their utilization of the project area during a portion of their life history (Table 1). Special-status species, not generated from the CNDDDB 9-quad search but may also utilize the Study Area for portions of their life history such as certain migratory nesting birds, were also considered when developing the mitigation measures. Some species that were determined to have a moderate potential of occurrence within the Study Area, but based on life history and habitat utilization, it was determined that the proposed project was not likely to impact or adversely affect these species (Table 1). All mitigation recommendations presented in Section 5.1.3 are presented to mitigate impact to the species that were

determined to potentially occur within the Study Area and may experience direct or indirect impacts from the proposed project.

Impact to both the terrestrial and aquatic species listed in Table 1 can be mitigated if recommendations presented in Section 5.1.3 are followed. Assessments of potential impact for the eleven (11) species previously mentioned to have known occurrences within 2-miles of the Study Area are listed below:

4.5.1.1 Northern Red-legged Frog

Northern red-legged frogs require still waters of ponds, marshes or stream pools which are essential breeding habitat. This species of frog is considered highly oriented to its aquatic habitat, with a clear preference for thickly vegetated shoreline. Adults leave the breeding pond soon after the breeding activity is concluded, and may migrate about one half kilometer to their summer locations, which are likely to be riparian zones. In the northern part of their range, adults may hibernate. Juveniles are slower to leave the breeding ponds, but also tend to find cover in riparian areas, and may readily migrate about one half kilometer by summertime.

Northern red-legged frogs currently have no federal or state listed status, though CDFW has listed them as a Species of Special Concern (SCC). There is suitable habitat for this species within the Study Area, but outside of the Area Assessed for Project Feasibility. The proposed project is not anticipated to cause any harm or take of this species if the required aquatic habitat buffers are implemented in the project construction design. However, it is recommended that preconstruction surveys occur for this species to assure no individuals are located within the project area since this species is capable of half kilometer migration. Wet puddles were observed within the Area Assessed for Project Feasibility that could be used for refuge during overland migration (Photo 4).

4.5.1.2 Foothill Yellow-legged Frog

Foothill yellow-legged frog prefer rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. This species is sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools (Stebbins 2003). Historically, this species occurred in foothill and mountain streams from northern Baja California to southern Oregon west of the Sierra-Cascade crest. Because this species inhabits streams in the foothills of California, a suite of anthropogenic impacts, including river regulation, habitat alteration, aerial drift of pesticides, and invasive species, directly and indirectly affect these frogs. There is a buffered occurrence of this species that includes a portion of the Study Area (Map 7). This occurrence report is unclear about the exact location of the species observation, but points out that it was observed on "Yager Creek near Carlotta," (Occurrence Report 2).

The proposed project is likely to not cause any harm or take of this species if the required aquatic habitat buffers are implemented in the project construction design. However, due to the proximity of the proposed project area to aquatic habitats, pre-constriction surveys for amphibians should take place prior to project development as a measure to assure that no incidental take of any amphibian species occur as a result of the proposed project.

4.5.1.3 Bank Swallow

This species requires vertical banks or cliffs with fine textured or sandy soils near streams and rivers in order to dig their nesting holes. There is a buffered occurrence of this species that includes a portion of the Study Area (Map 7). This occurrence was documented in 1946 and was given an accuracy buffer of

5 miles likely due to the home range of this species. This observation was recorded at the Van Duzen River, yet the exact location of this observation was unknown so the center of the 5-mile buffer was placed at the "...mouth of the Van Duzen River (about 10 air miles) to rook creek," (Occurrence Report 3). However, the report does mention that the observed "...nest [was] located 30 feet above the river in a sandy face," (Occurrence Report 3).

There is no habitat within the Study Area suitable for this species nesting or roosting and therefore would only utilize the Study Area's airspace for flying over. Because of this, it is not anticipated that any activities associated with the development of this proposed project will impact this species in anyway.

4.5.1.4 American Peregrine Falcon

The American peregrine falcon has a wide range, found in a wide variety of open habitats, from tundra to desert mountains. This species is often found near water, especially along coasts, and migrants may fly far out to sea. Nest sites are usually on cliff ledges, sometimes in hollow of broken-off tree snags or in old stick nests of other large birds in trees. In some areas, this species may nest on the ground on hilltops. Limited by availability of nest sites and prey; this species often moves into cities, nesting on building ledges and feeding on pigeons.

There is a buffered occurrence of this species that includes the entire Study Area (Map 7). The occurrence report does not give the exact location of this occurrence, as it is suppressed due to being sensitive information. However, the report describes the nest site as "a broad, deep ledge created by erosion of the cliff face, as are many of the potential ledges, southwest-facing aspect over the Eel River opposite Rio Dell," (Occurrence Report 4).

Habitat for this species does not occur within the Study Area so the impacts associated with the proposed project are limited towards this species life history. However, pre-construction surveys should occur for raptors to confirm or deny nest presence within an established boundary of impact. If these surveys occur prior to project activities to confirm no nesting sites, impact to this species can be avoided.

4.5.1.5 Osprey

Ospreys occupy a wide range of habitats near water, primarily lakes, rivers, and coastal waters with adequate supplies of fish. Their nests are generally built within 6 to 7 miles (9.6-11.2 km) of large lakes or rivers with slow-moving water. Flattened portions of partially broken off snags, trees, rocks, dirt pinnacles, cacti, and numerous man-made structures such as utility poles and duck blinds are used for nests. The area around the nest is generally open, giving the birds clear access when landing.

Ospreys typically nest at the extreme tip of a tree or snag with little or no overhead. They prefer tall snags that provide good visibility and security. Ospreys also prefer to nest over water for protection against climbing predators.

It should be noted that currently ospreys are not listed under state and federal status, but are currently on CDFW's Watch List. Species on CDFW's watch list were previously designated as Species of Special Concern but no longer merit that status, or which do not yet meet Species of Special Concern criteria, but for which there is concern and a need for additional information to clarify status.

Habitat for this species is limited within the Study Area so the impacts associated with the proposed project are limited. However, pre-construction surveys should occur for raptors to confirm or deny nest

presence within an established boundary of impact. If these surveys occur prior to project activities to confirm no nesting sites, impact to this species can be avoided.

4.5.1.6 Great Blue Heron

Great blue heron can be found wading in marshes, swamps, shores and tide flats. They are very adaptable and forage in any kind of calm fresh waters or slow-moving rivers, also in shallow coastal bays. They nest in trees or shrubs near water, and sometimes on ground in areas free of predators.

Habitat for this species is limited within the Study Area and does not occur within the Area Assessed for Project Feasibility. Because of this, there are no anticipated impacts associated with the proposed project. It is not likely this project will cause any harm or result in take of this species.

4.5.1.7 Sonoma Tree Vole

Sonoma tree vole males nest most frequently in a tree nest constructed of fir needles, or, less frequently, in shallow burrows at the base of fir trees, beneath litter. Females to spend most of their lives in trees, constructing large, domed nursery nests of Douglas fir needles, from 2-45 meters (6-150 feet) above the ground.

Sonoma tree vole feed on needles of Douglas-fir and grand fir. Needles and twigs are gathered primarily during the night, and may be consumed where found, or brought to the nest. Needle resin ducts are removed. The remaining part is eaten, and the resin ducts may be used to line the nest cup. Young, tender needles often eaten entirely. Food may be stored. Tender bark of terminal twigs may be eaten as well. Sonoma tree vole home range encompasses several fir trees, with females often living in one tree and males visiting several trees.

Since there is no proposed impact to any trees, or forested habitat, the proposed project is not anticipated to cause harm or result in take of this species in anyway.

4.5.1.8 Humboldt Marten

Humboldt marten only occur in the coastal redwood zone from the Oregon border, south to Sanoma County. Their presence is heavily associated with late-successional coniferous forests, preferable with low, overhead cover.

There is a 1-mile buffered occurrence of this species that includes a portion of Study Area (Map 7). The occurrence was reported in 1913 with location details only described as "Carlotta, Humboldt County," (Occurrence Report 5). The only potential habitat within the Study Area that this species would utilize is outside of the Area Assessed for Project Feasibility and since there is no proposed impact to any trees, or forested habitat, the proposed project is not anticipated to cause harm or result in take of this species in anyway.

4.5.1.9 Townsend's Big-Eared Bat

Townsend's big-eared bat can be found in pine forests and arid desert scrub habitats. These bats can be found throughout the western U.S. from British Columbia down into central Mexico. When roosting they do not tuck themselves into cracks and crevices like many bat species do, but prefer large open areas. Because of this favorability to roosting in the open, hanging from walls and ceilings, roosting sites are limited and they are extremely sensitive to human activities and disturbance. Due to their sensitivity to human disturbance, and the fact the Area Assessed for Project Feasibility has severe

preexisting disturbance, it is highly unlikely this species would utilize the Study Area for any portion of his life history.

There is a 1-mile buffered occurrence of this species that includes a portion of Study Area (Map 7). The occurrence was reported in 1929 with location details only described as “[u]nknown. Mapped generally to provide locality of Carlotta,” (Occurrence Report 6). There is no habitat within the Study Area that this species would utilize and therefore the the proposed project is not anticipated to cause harm or result in take of this species in anyway.

4.5.1.10 Humboldt Mountain Beaver

Humboldt mountain beaver burrows are often located on gentle slopes in moist forests, sometimes near surface water. Burrow entrances are 6-8 inches (15-20 centimeters) in diameter and each mountain beaver's burrow may contain multiple entrances in close proximity, usually somewhat hidden beneath shrubs or other vegetation.

The only potential habitat within the Study Area that this species might utilize is outside of the Area Assessed for Project Feasibility and since there is no proposed impact to any trees, or forested habitat, the proposed project is not anticipated to cause harm or result in take of this species in anyway if mitigation measures listed in Section 5.1.3 are followed.

4.5.1.11 Western Pond Turtle

The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. Turtles bask on land or near water on logs, branches or boulders. Terrestrial habitat may be just as important as aquatic habitat for this turtle.

The proposed project is not anticipated to cause any harm or take of this species if the required aquatic habitat buffers are implemented in the project construction design. However, it is recommended that preconstruction surveys occur for this species to assure no individuals are located within the project area since this species is capable of terrestrial migration.

4.5.2 Other Special-Status Animal Species

The nearest known Northern spotted owl (*Strix occidentalis caurina*) Activity Centers (ACs), according to the most up to date CNDDDB Spotted Owl Viewer, are approximately 1.10 air miles (HUM1110) southeast, approximately 1.20 air miles (HUM0689) northeast, and approximately 1.26 air miles (HUM10370) east of the nearest boundary of Area Assessed for Project Feasibility (Map 8; Occurrence Report 7).

It is stated in the County of Humboldt's 2018 resolution certifying the EIR for the CCLUO, in *Mitigation Measure 3.4-1e: Northern spotted owl preconstruction habitat suitability surveys and determination of presence or absence*¹¹, “[i]f the area of proposed new development activities is within suitable habitat for northern spotted owl (e.g., coniferous forest), and is within 1.3 miles (average species home range) of a known occurrence of northern spotted owl, as determined by a qualified biologist, the following measures shall be followed.

Prior to removal of any trees, or ground-disturbing activities adjacent or within suitable nesting, roosting, or foraging habitat (e.g. forest clearings) for spotted owl, a qualified biologist, familiar with the life history of the northern spotted owl, shall conduct preconstruction surveys for nests within a 1.3-mile buffer

¹¹ County of Humboldt's 2018 resolution certifying the EIR for the CCLUO: <https://humboldt.gov/DocumentCenter/View/63736/Resolution-18-40-Certifying-Final-EIR-PDF>

around the site as described in Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls (USFWS 2012). Surveys shall take place between March 1 and August 31. Three complete surveys spaced at least 7 days apart must be completed by June 30. Six complete surveys over the course of 2 years must be completed to determine presence or absence of northern spotted owl.” The County of Humboldt’s 2018 resolution certifying the EIR for the CCLUO goes on to state that “[i]f northern spotted owls are determined to be absent 1.3 miles from the site, then further mitigation is not required.”

Even though there are known ACs within 1.3 miles from the Study Area, the Area Assessed for Project Feasibility is not considered suitable habitat (e.g., coniferous forest), and therefore a disturbance and habitat modification assessment to determine the presence of the species is not necessary.

Furthermore, northern spotted owl resides in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 meters. They usually nest in trees or snag cavities, or in broken tops of large trees (Polite C. 1990). Roost selection for northern spotted owl is “... related closely to thermoregulatory needs [since they are] intolerant of high temperatures.” Because of this, northern spotted owl “[r]oost in dense overhead canopy on north-facing slopes in the summer,” (Zeiner, D.C. et al, 1988-1990. The Study Area does not exhibit this species’ preferable forest type, due to the size, structure, and species of the trees within the Study Area, and is therefore not likely utilized for nesting, roosting, or foraging/hunting by northern spotted owl (Photo 9 & 10). The Area Assessed for Project Feasibility is entirely flat and open, with no habitat or vegetation for nesting or roosting and all habitat modification associated with this project is determined to have no impact to any aspect of northern spotted owl’s life history. Because of this, the Area Assessed for Project Feasibility would not be utilized by this species for foraging and/or hunting.

Surrounding the Study Area (off site of the parcel), there is moderate suitable habitat for northern spotted owl, but if the recommendations made in *Section 5.1.3* are followed, all potential direct or indirect impacts to this species can be mitigated. The Area Assessed for Project Feasibility is outside of any area of disturbance to potential northern spotted owl residing in this nearby habitat to be affected.

Even though this project will not “...remove or modify spotted owl nesting, roosting or foraging habitat...”, according to the *USFWS Northern Spotted Owl Survey protocol: Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*, the “... protocol should also be applied to activities that disrupt essential breeding activities and to activities that may injure or otherwise harm spotted owl other than through habitat modification (e.g., noise disturbance, smoke from prescribed fire),” (USFWS, 2012). It is noted that in general, noise levels of 70 dB or less, would not generate a significant disturbance unless within very close proximity (<25 m) to an active nest (USFWS 2006). Since all activities associated with the development of the proposed cultivation area will have cultivation methods that will mitigate all noise and light pollution, there is no expected disruptions towards essential breeding activities or any activities that may injure or harm this species, or any other species, related to this project. There will be no need for generators (except perhaps for backup power) since the parcel will be utilizing grid power, and the applicant can avoid light pollution by completely covering greenhouses when artificially lit, if this method of cultivation is to be pursued.

4.6 Special Status Habitat Communities

The two (2) special-status habitat communities identified in the CNDDDB BIOS search in the 7.5-minute USGS Hydesville quadrangle, and the 8 adjacent quadrangles is the Upland Douglas Fir Forest and Northern Coastal Salt Marsh.

All of the occurrence reports that identify Upland Douglas Fir Forest throughout California describe, in the Ecological Comments section, Douglas fir individuals in this community are either “mature” or “old-growth.” No Douglas fir (*Pseudotsuga menziesii*) individuals within the Study Area fit this description. Furthermore, according to the California Native Plant Society (CNPS), a Douglas fir forest is comprised of “*Pseudotsuga menziesii* > 50% relative cover in the tree canopy and reproducing successfully, though hardwoods may dominate or co-dominate in the subcanopy and regeneration layer; *Abies concolor*, *Chamaecyparis lawsoniana*, *Pinus contorta*, *P. ponderosa*, and *Sequoia sempervirens* <20% relative cover; and *Notholithocarpus densiflorus* <10% relative cover in the tree canopy” (Jimerson et al. 1996). This habitat description was not observed on the parcel, since the presence of *Pseudotsuga menziesii* was not over 50% dominance, and given the proposed cultivation methods associated with this project, there are no anticipate impacts to any forested habitat in anyway.

Northern Coastal Salt Marsh is a highly productive plant community dominated by herbaceous, suffrutescent (subshrubby), salt-tolerant hydrophytes (water plants), typically forming a dense mat of vegetation up to three feet high (CNPS, 1998). This plant community only occurs along the coast and is segregated into distinct zones defined by the degree to which they are inundated by the tides. No such plant community occurs within the Study Area and this community will not be impacted by the proposed project in anyway.

Section 5 Conclusion

5.1 Potential Impacts and Recommended Mitigation

5.1.1 Potential Direct Impacts

Direct impacts are considered to be effects that may occur to the environment from direct interface with proposed action. The Biological Reconnaissance and Project Feasibility Assessment, in conjunction with the protocol-level Botanical Survey, conducted within the Study Area resulted in locations that have been determined to be suitable sites for cannabis cultivation based on the preexisting habitat type and quality, observed species, and the locations setbacks from sensitive habitats. These locations have been established as a means to minimize or negate the potential for direct impact to occur to the environment from direct interface with the project development.

If the project related activities occur at the locations defined in Map 2 - 4, there will likely be no negative impacts to sensitive habitats, or severely alter the already disturbed habitat quality of the site, any more than already has been by historic land utilization. Given the preexisting disturbance to this site, and the fact that no sensitive vegetation is to be removed within and surrounding the Study Area, the effects of the project to the environment can be mitigated and no significant adverse effects to biological resources can be achieved if the actions associated with this project follow the recommendations listed in *Section 5.1.3*.

As a result of the abundance of invasive and nonnative species within the Area Assessed for Project Feasibility, the proposed project is capable of assisting in improving the surrounding environment and habitat by removing these invasive species during the project site development process, and ultimately halting their spread. Because of these factors, the activities associated with the cultivation at the proposed sites would only potentially have direct impacts as disturbance-based

Common disturbance-based impacts associated with cannabis cultivation include noise and light pollution. No continuous noise (above 70 dB to the nearest tree line) or light is to be generated in association with this proposed project. These disturbance-based impacts can be mitigated since the project will utilize PG&E grid power, avoiding the need for noise producing generators, and if the cultivation method proposed requires artificially lighting greenhouses, they shall be completely covered when lit to avoid any potential for light pollution. Therefore, there will be no expected disturbance-based impacts to the surrounding wildlife or habitats.

5.1.2 Potential Indirect Impacts

If best management practices are followed, there are no foreseeable indirect impacts associated with this proposed project to the environment, surrounding habitat, or wildlife.

5.1.3 Recommendations

The following recommendations should be followed and/or taken into consideration through the development of the proposed projects and operations:

- The buffers and setbacks identified in this Report, and throughout the associated maps (Map 2), are to be respected when carrying on with the project plan as a measure to protect sensitive habitats and special-status species that may reside within these habitats. If the client proceeds with cultivating cannabis in other locations not defined in this Report, protocol level surveys may

be required in specific locations in order to more accurately establish the project sites required setbacks from watercourse and delineated wetland features.

- During the development and construction of this project, best management practices (BMPs) should be used to prevent sediment, fuels or contaminants from entering the surrounding terrestrial and aquatic environments/habitats. A complete list of BMPs can be found at Humboldt County: Title III – Land Use and Development - Division 3 - Building Regulations (Ch. 7 § 337-13)¹². The implementation of BMPs will be dependent on the project construction methods. Best Practicable Treatment or Control (BPTC) and BMPs have been listed in Appendix F for the client's reference when proceeding with any land development associated with the project assessed in this Report.
 - BMPs for this project should include the installation of waddles, silt fences, and berms to combat and prevent erosion and to eliminated contaminants and sediment movement towards the nearby watercourses, if major ground disturbances is proposed. Construction equipment fueling and greasing should occur within one location at the project site, at least 200 ft away from the river, watercourse, or wetland habitat. This location should be clear of brush, flat and contain fuel mats in case of accidental spillage. Development should only occur during daylight hours. Every morning, and throughout the day, during construction the equipment should be inspected for hydraulic fluid, oil or fuel leaks. If leaks are detected, they should be repaired immediately and before any further work in completed in order to prevent excess spillage entering the watercourse.
- The protocol-level botanical survey, which has been initiated in conjunction with this biological assessment, is required to be completed within, and around, the locations defined as being feasible for project activities to occur within this Report. The survey should follow procedures recommended by CDFW, and are in accordance with the guidelines established by CNPS, from the document *Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Populations and Sensitive Natural Communities*⁷ (CDFW, 2018).
- Migratory bird nesting season occurs between February 1 and August 31. If project construction methods result in a sufficient amount of noise from the use of machinery, it is recommended that this construction occur between September 1 and January 31 in order to avoid disturbance to migratory nesting birds. This is also dependent on the location of project development and the project's proximity to nesting bird habitat, such as the riparian corridors identified within the Study Area. Project development proximity to habitat will is to be determined based upon specific project construction methodology. If construction is proposed to occur within the migratory bird nesting season (February 1 and August 31), it is recommended that a biologist survey for nesting birds within the proximity of the project area within a couple weeks (approximately 14 days) prior to the project construction and prior to any vegetation removal. This should be done as a measure to investigate if any migratory, or nonmigratory, birds have constructed nests in any of the trees within a proximity to the project that may be impacted by noise disturbance.
 - For nesting raptors: If construction occurs between February 1 and August 31, a qualified biologist will conduct surveys for nesting raptors in accordance with established CDFW raptor survey protocols. Surveys will cover a minimum of a 0.5-mile radius around the

¹² Best Management Practices for Humboldt Co. can be located at: <https://humboldt.county.codes/Code/337-13>

construction area. If nesting raptors are detected, the biologist will establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. Buffers around active raptor nests will be 500 feet for non-listed raptors, unless a qualified biologist determines that smaller buffers would be sufficient to avoid impacts to nesting raptors. Factors to be considered for determining buffer size will include: the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival.

- A pre-construction survey, conducted by a qualified biologist, of Area Assessed for Project Feasibility should occur within 14 days prior to project development. This amphibian and reptile species survey should follow the protocols for visual encounter surveys and focus along the edges of the aquatic resource buffers and the refugee sites located within the project area.
- It is recommended that during the time of project site development, the applicant follow the procedures for eradicating the invasive species which will be identified in the projects associated Invasive Species Control Plan document required under the County of Humboldt *Application Requirements Cannabis 2.0*.
- When the cultivation operation is in process, there is to be no cultivation material outside of the project area, and trash within and outside of the project site, will be regularly removed to avoid interfacing with the surrounding habitat, environment and/or wildlife.
- If other water storage methods are proposed, such as rain catchment pond(s), the client will construct this feature adhering to the same resource buffers established for all other project construction. If the client does pursue pond creation, its development should occur within the surveyed Area Assessed for Project Feasibility. If construction of this feature occurs outside of the Area Assessed for Project Feasibility, further surveys may need to occur.
 - If a pond is constructed for water storage within the Area Assessed for Project Feasibility, a Bullfrog Management Plan, that complies with CDFW requirements, should be implemented. The American Bullfrog (*Lithobates catesbeianus*) is an invasive species, which can spread rapidly and cause significant ecological harm outside their native range.
- If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and USFWS can further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the Humboldt County Cannabis Program EIR, CDFW Survey and Monitoring Protocols and Guidelines, which can be located here: <https://www.wildlife.ca.gov/conservation/survey-protocols>

5.2 Statement of Limitation

The data and findings presented in this Report are valid to the extent that they represent habitat analysis and/or actual sightings of the wildlife and special-status species described. These findings outlined in this Report are based on one (1) Biological Assessment site visit and may not be seasonally appropriate for all conclusive results.

Deficiencies in these findings may result from the following:

- The assessment of habitat utilization within the Study Area, by special-status animal species, was based upon the observations made during a single site visit and further studies and surveys may be required for project approval by local, state or federal agencies as well.
- A floristic survey was not conducted at the time of the site visit investigation described in this report and therefore this document does not represent a completed protocol-level survey. Botanical surveys, at the seasonally appropriate times, following the CDFW floristic survey protocol, are required before the survey can be considered complete.
- The parcel boundaries displayed in the maps created for this Report do not represent a boundary survey. Parcel and property lines shown within these maps are approximated and were acquired from Humboldt County Web GIS, and any errors within these boundaries are a result of errors in Humboldt County's GIS database.
- This Report is not intended to be a complete biological survey report for all species generated from the CNDDDB, but rather an initial reconnaissance and feasibility assessment based on present biological conditions.
- It has been assumed that prior to implementation of this project, protocol-level surveys (pre-construction) will be conducted to verify field and data-based observations documented in this Report, if recommendations established in this Report are not followed.
- The biological resource buffers and setbacks defined in this Report, and presented in Map 2 & 4, only represent buffers to biological resources and do not include cultural resources (e.g. historical landmarks and/or cemeteries). Additional buffers and setbacks may be required for cultural resources which may alter the size of the potential cultivation areas defined in this Report.

The opinions, conclusions, and recommendations in this Report are based on assumptions made by Naiad Biological Consulting when undertaking services and preparing the Report. As a result of this Report being an initial biological reconnaissance and scoping assessment, and not a protocol-level survey, Naiad Biological Consulting and Mad River Properties, Inc. expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with any of the assumptions being incorrect.

Section 6 Regulatory Framework

6.1 Regulatory Framework Guidelines

The following regulatory framework is provided as justification for the rules and recommendations presented within this document. Further information may be appropriate for explanation of recommendations or actions expressed in this document and can be presented to the client upon request.

6.1.1 Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally-listed threatened and endangered species under the federal Endangered Species Act (FESA). The USFWS also maintains a list of 'proposed' species and candidate species that are not legally protected under the FESA, but are often included in their review of a project as they may become listed in the near future. The FESA protects listed animal species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as a "take" even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under FESA if they occur on federal lands. Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species (plants and animals) may be present in the project area and determine whether the proposed project may affect such species. Any activities that could result in the take of a federally-listed species will require formal consultation with the USFWS.

6.1.2 California Endangered Species Act

The California Endangered Species Act (CESA) protects any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species (California Fish and Wildlife Code 2070). Take of state-listed species requires a permit from CDFW, which is granted only under strictly limited circumstances. Additionally, the CDFW maintains lists of "species of special concern" that are defined as animal species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed or proposed endangered or threatened species may be present in the project area and determine whether the proposed project may result in a significant impact on such species.

6.1.3 California Environmental Quality Act

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts, if it finds that the species meets the criteria of a threatened or endangered species.

6.1.4 Clean Water Act

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may also be subject to Corps jurisdiction. In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill are sometimes covered by Nationwide Permits, which were established to streamline the permit process for projects with "minimal" impacts on wetlands or other waters of the U.S. An Individual Permit is required for projects that result in more than a minimal impact on jurisdictional areas. The Individual Permit process requires evidence that fill of jurisdictional areas has been minimized to the extent "practicable" and provides an opportunity for public review of the project.

6.1.5 California Water Quality Regulatory Programs

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB sometimes asserts jurisdiction over wetlands that the Corps does not (e.g. certain isolated wetlands) and may impose mitigation requirements even if the Corps does not. The CDFW also exerts jurisdiction over the bed and banks of watercourses and water bodies according to provisions of Section 1601 to 1603 of the Fish and Wildlife Code. The Fish and Wildlife Code requires a Stream Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body.

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Appendix A

PHOTO DOCUMENTATION

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Humboldt Reserve, LLC

4798 HWY 36

Hydesville, CA 95547

Assessor Parcel Number (APN):

204-251-001, 204-121-006, and 204-121-005

August 2022



Photo 1. Ariel image from 2005 showing the Study Area utilized as a log deck. Photo taken from Google Earth Pro, 2022.



Photo 2. Current site conditions. Heavily disturbed and degraded from its natural habitat.



Photo 3. Current site conditions. Heavily disturbed and degraded from its natural habitat.



Photo 4. Current site conditions. Heavily disturbed and degraded from its natural habitat.



Photo 5. Current site conditions. Heavily disturbed and degraded from its natural habitat.



Photo 6. As a result of heavily disturbance and site degraded, the project area is left dominated by invasive species.



Photo 7. As a result of heavily disturbance and site degraded, the project area is left dominated by invasive species.



Photo 8. The riparian corridor habitat.



Photo 9. The riparian corridor habitat.



Photo 10. The riparian corridor habitat closer to the Class I watercourse.



Photo 11. The riparian corridor habitat closer to the Class I watercourse.

Appendix B

TABLES

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Humboldt Reserve, LLC

4798 HWY 36

Hydesville, CA 95547

Assessor Parcel Number (APN):

204-251-001, 204-121-006, and 204-121-005

August 2022

Table 1 - Special Status Animal Species – Hydesville and surrounding 7.5 min quadrangles – August 2022 – APN: 204-251-001, 204-121-006, and 204-121-005

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	Habitats	Potential of Occurrence
Amphibians						
<i>Ascaphus truei</i>	Pacific tailed frog	None	None	SSC	Inhabits cold, clear, permanent rocky streams in wet forests. They do not inhabit ponds or lakes. A rocky streambed is necessary for protective cover for adults, eggs, and larvae. After heavy rains, adults may be found in the woods away from the stream.	None in project site. None in adjacent area.
<i>Plethodon elongatus</i>	Del Norte salamander	None	None	WL	The species occurs in areas of moist talus and rocky substrates in redwood or Douglas fir forests. It is typically encountered among moss-covered rocks or under bark and other forest litter, usually avoiding very wet areas.	None in project site. Low in adjacent area.
<i>Rana aurora</i>	northern red-legged frog	None	None	SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds. Occurs along the Coast Ranges from Del Norte County to Mendocino County, usually below 1200 m (3936 ft).	Low/moderate in project site. Present in adjacent area.
<i>Rana boylei</i>	foothill yellow-legged frog	None	Candidate Threatened	SSC	Found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	Low/Moderate in project site. Present in adjacent area.
<i>Rhyacotriton variegatus</i>	southern torrent salamander	None	None	SSC	This species occurs in cold, well-shaded permanent streams and seepages in shady coastal forests.	None in project site. Moderate in adjacent area.
Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	None	None	WL	A breeding resident throughout most of the wooded portion of the state. Breeds in southern Sierra Nevada foothills, New York Mts., Owens Valley, and other local areas in southern California. Ranges from sea level to above 2700 m (0-9000 ft). Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently.	Moderate project site (not nesting). Moderate adjacent area.
<i>Accipiter gentilis</i>	northern goshawk	None	None	SSC	Prefers middle and higher elevations, and mature, dense conifer forests. Casual in winter along north coast, throughout foothills, and in northern deserts, where it may be found in pinyon-juniper and low- elevation riparian habitats.	Low due to elevation
<i>Accipiter striatus</i>	sharp-shinned hawk	None	None	WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter.	Low/Moderate project site (not nesting). Low/Moderate adjacent area.
<i>Aquila chrysaetos</i>	golden eagle	None	None	FP ; WL	Ranges from sea level up to 3833 m (0-11,500 ft) (Grinnell and Miller 1944). Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert.	Low project site (not nesting). low adjacent area.
<i>Circus hudsonius</i>	northern harrier	None	None	SSC	Marshes, fields, prairies. Found in many kinds of open terrain, both wet and dry habitats, where there is good ground cover. Often found in marshes, especially in nesting season, but sometimes will nest in dry open fields.	Low in project site due to regularly occurring cattle grazing and cultivation disturbance. Moderate fly over and surrounding area.
<i>Haliaeetus leucocephalus</i>	bald eagle	Delisted	Endangered	FP	Permanent resident, and uncommon winter migrant, now restricted to breeding mostly in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity cos. About half of the wintering population is in the Klamath Basin. More common at lower elevations	Moderate project site (not nesting). Moderate adjacent area.
<i>Brachyramphus marmoratus</i>	marbled murrelet	Threatened	Endangered	-	Requires dense, mature forests of redwood and Douglas-fir for breeding (Cogswell 1977, Remsen 1978). In California, probably prefers to nest in tall trees; nest made of moss and lichen. In summer, individuals or pairs commonly seen 1-2 km (0.6 to 1.2 mi) off the coast, and typically 6-8 km (4-5 mi) inland in coniferous forests (Cogswell 1977).	Low project site (not nesting). Low/Moderate adjacent area.

<i>Ardea alba</i>	great egret	None	None	-	Marshes, ponds, shores, mud flats. Usually forages in rather open situations, as along edges of lakes, large marshes, shallow coastal lagoons and estuaries; also along rivers in wooded country. Usually nests in trees or shrubs near water, sometimes in thickets some distance from water, sometimes low in marsh.	Moderate project site (not nesting). Moderate adjacent area.
<i>Ardea herodias</i>	great blue heron	None	None	-	The great blue heron is fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills.	Low project site (flyover). Moderate adjacent area.
<i>Egretta thula</i>	snowy egret	None	None	-	Marshes, swamps, ponds, shores. Widespread in many types of aquatic habitats, including fresh and salt water; in coastal areas, may seek sheltered bays. Inland, favors extensive marshes and other large wetlands. Sometimes forages in dry fields.	Low/moderate project site (flyover). Moderate adjacent area.
<i>Nycticorax nycticorax</i>	black-crowned night heron	None	None	-	Black-crowned Night-Herons are common in wetlands across North America, including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, canals, reservoirs, and wet agricultural fields. They require aquatic habitat for foraging and terrestrial vegetation for cover.	Low in project site. High in adjacent area.
<i>Charadrius montanus</i>	mountain plover	None	None	SSC	Mountain plover nest across the western Great Plains and Rocky Mountain states, from the Canadian border to northern Mexico, and winter in California, southern Arizona, Texas and Mexico. Mountain plovers only nest in areas with sparse vegetation or bare ground, such as prairie dog towns.	Low/none in project site. Low in adjacent area.
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	Threatened	None	SSC	The Pacific coast population of western snowy plovers breeds on coastal beaches from southern Washington to southern Baja California, Mexico. In winter, western snowy plovers are found on nesting beaches, man-made salt ponds, and on estuarine sand and mud flats.	Low in project site. Low in adjacent area.
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted	Delisted	FP	Breeds near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, mounds. Nest is a scrape on a depression or ledge in an open site. Will nest on human-made structures, and occasionally uses tree or snag cavities or old nests of other raptors.	Low project site (flyover). Low/Moderate adjacent area.
<i>Riparia riparia</i>	bank swallow	None	Threatened	-	A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast; an uncommon and very local summer resident. Casual in southern California in winter; a few winter records along central coast to San Mateo Co. (McCaskie et al. 1988). In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes.	High with project site (flyover, not nesting). Present adjacent area.
<i>Agelaius tricolor</i>	tricolored blackbird	None	Threatened	SSC	Historically Tricolored Blackbirds nested in wetlands with cattails, bulrushes, and willows, but as wetlands were converted to agricultural fields, towns, and business parks they started nesting in agricultural fields. Foraging habitats include cultivated fields, feedlots associated with dairy farms, and wetlands.	High in project site (flyover and foraging). Moderate adjacent area.
<i>Icteria virens</i>	yellow-breasted chat	None	None	SSC	Uncommon along coast of northern California east to Cascades and occurs only locally south of Mendocino Co. (McCaskie et al. 1979).	Low project site (flyover). Moderate/high adjacent riparian area.
<i>Pandion haliaetus</i>	osprey	None	None	WL	Riparian forest. Ocean shore, bays, lakes and larger freshwater streams.	Moderate project site (flyover). High adjacent area.
<i>Poecile atricapillus</i>	black-capped chickadee	None	None	WL	Black-capped chickadees are found in deciduous and mixed deciduous-evergreen forests, especially near forest edges. They are commonly found near willows and cottonwoods, and like to make their nests in the snags of alder and birch trees. Feeders and nest boxes can be used to attract chickadees to suburban backyards.	Low project site (flyover). Moderate/high adjacent riparian area.

<i>Setophaga petechia</i>	yellow warbler	None	None	SSC	Breeds in riparian woodlands from coastal and desert lowlands up to 2500 m (8000 ft) in Sierra Nevada. Also breeds in montane chaparral, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush.	Low project site (flyover). Moderate adjacent area.
<i>Ammodramus savannarum</i>	grasshopper sparrow	None	None	SSC	Grasshopper sparrows utilize prairie and cultivated grasslands, weedy fallow fields, and alfalfa fields.	High project site (flyover and foraging). Moderate adjacent area
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted	Delisted	FP	California brown pelicans are aquatic birds and are typically found on rocky, sandy or vegetated offshore islands, beaches, open sea (for feeding), harbors, marinas, estuaries, and breakwaters. Nesting colonies are established on islands without mammalian predators and permanent human habitation.	None in project site. None in adjacent area.
<i>Phalacrocorax auritus</i>	double-crested cormorant	None	None	WL	Coasts, bays, lakes, rivers. Very adaptable, may be found in almost any aquatic habitat, from rocky northern coasts to mangrove swamps to large reservoirs to small inland ponds. Nests in trees near or over water, on sea cliffs, or on ground on islands.	None is project site. Moderate in adjacent area.
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	Threatened	Threatened	-	Northern spotted owls typically nest or roost in multilayered, mature coniferous forest with high canopy closure, large overstory trees, and broken-topped trees or other nesting platforms (USFWS 2012). Confirmed breeding areas are widespread throughout Humboldt County (Hunter et al. 2005). Northern spotted owls may use a broad range of habitats for foraging. Their favored prey, the dusky-footed woodrat (<i>Neotoma fuscipes</i>), typically inhabits the forest edge (Harris 2005).	Low project site (flyover). Moderate/high adjacent area.
<i>Empidonax traillii</i>	willow flycatcher	None	Endangered	-	Often near streams or marshes (especially in southern part of range), but may be found in drier habitats than Alder Flycatcher. Winters around clearings and second growth in the tropics, especially near water.	Low project site (flyover). Moderate/high adjacent riparian area.
Fish						
<i>Acipenser medirostris</i>	green sturgeon	Threatened	None	SSC	A bottom-dwelling species, green sturgeon are mostly seen from inshore waters to 200 feet, primarily in the seawater and mixing zones of bays and estuaries. In estuaries, they concentrate in deep areas with soft bottoms and move into intertidal areas to feed at high tides.	None in project site. None in adjacent area.
<i>Eucyclogobius newberryi</i>	tidewater goby	Endangered	None	-	Tidewater goby are endemic to California, and found primarily in waters of coastal lagoons, estuaries, and marshes. Tidewater gobies are naturally absent from areas where the coastline is steep and streams do not form lagoons or estuaries.	None in project site. None in adjacent area.
<i>Spirinchus thaleichthys</i>	longfin smelt	Candidate	Threatened	-	diverse habitats north of the Bay-Delta such as coastal lagoons, bays, estuaries, sloughs, tidal freshwater streams and offshore (Garwood 2017).	None in project site. Moderate in adjacent area.
<i>Thaleichthys pacificus</i>	eulachon	Threatened	None	-	Eulachon are an anadromous (moving between freshwater and saltwater) smelt in the family Osmeridae. Eulachon are found from northern California to southwest Alaska.	None in project site. Low/moderate in adjacent area.
<i>Entosphenus tridentatus</i>	Pacific lamprey	None	None	SSC	Pacific lampreys spawn in similar habitats to salmon; in gravel bottomed streams, at the upstream end of riffle habitat, typically above suitable young larvae (ammocoete) habitat. Spawning occurs between March and July depending upon location within their range. T	None in project site. High in adjacent area.
<i>Lampetra richardsoni</i>	western brook lamprey	None	None	SSC	Western brook lampreys are found from coastal southeast Alaska to California, which includes inland distribution in the Columbia, Sacramento, and San Joaquin River basins. They have been documented in the Columbia River as far upstream as the Yakima River basin.	None in project site. Low/moderate in adjacent area.
<i>Oncorhynchus clarkii clarkii</i>	coast cutthroat trout	None	None	SSC	Aquatic, klamath northcoast flowing waters	None in project site. High in adjacent area.

<i>Oncorhynchus kisutch</i> pop. 2	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project site. High in adjacent area.
<i>Oncorhynchus mykiss irideus</i> pop. 16	steelhead - northern California DPS	Threatened	None	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project site. High in adjacent area.
<i>Oncorhynchus mykiss irideus</i> pop. 36	summer-run steelhead trout	None	None	SSC	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project site. High in adjacent area.
<i>Oncorhynchus tshawytscha</i> pop. 17	chinook salmon - California coastal ESU	Threatened	None	-	Aquatic, klamath northcoast flowing waters sacramento san joaquin flowing waters swift current gravel bottom	None in project site. High in adjacent area.
Insect						
<i>Bombus caliginosus</i>	obscure bumble bee	None	None	-	Nests underground or above ground in abandoned bird nests. food plants include Baccharis, Cirsium, Lupinus, Lotus, Grindella, Phacella	Low in project site. High in adjacent area.
<i>Bombus occidentalis</i>	western bumble bee	None	None	-	Pollinates a wide variety of flowers, nests in cavities or abandoned burrows.	Moderate in project site. High in adjacent area.
Mammals						
<i>Aplodontia rufa humboldtiana</i>	Humboldt mountain beaver	None	None	-	Mountain beaver burrows are often located on gentle slopes in moist forests, sometimes near surface water.	Low project site. Moderate adjacent area.
<i>Erethizon dorsatum</i>	North American porcupine	None	None	-	broadleaf upland forest, cismontane woodland, lower and upper montane conifer forest	Moderate in project site. Moderate in adjacent area
<i>Arborimus pomo</i>	Sonoma tree vole	None	None	SSC	Occurs in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood- conifer habitats.	Low in project site. Moderate in adjacent area.
<i>Martes caurina humboldtensis</i>	Humboldt marten	None	Candidate Endangered	SSC	Old-growth coastal redwood forests of the U.S. states of California and Oregon. Less than 300 of them survive in both states combined, in three different populations of 100 each	Low in project site. Low in adjacent area.
<i>Pekania pennanti</i>	fisher - West Coast DPS	None	Threatened	SSC	Occurs in intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percent canopy closure (Schempf and White 1977).	Low in project site. Present in adjacent area.
<i>Taxidea taxus</i>	American badger	None	None	SSC	Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog & fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes lone formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh & swamp Meadow & seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper Sonoran scrub Valley & foothill grassland: Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Moderate in project area. Moderate in adjacent area.
<i>Antrozous pallidus</i>	pallid bat	None	None	SSC	Pallid bats occur in semi-arid and arid landscapes in western North America. They are found primarily in grasslands, shrub-steppe, and desert environments with rocky outcrops, but also dry open oak or ponderosa forest, and open farmland.	Moderate project site (flyover). Moderate adjacent area.

<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	SSC	This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range.	Moderate project site (flyover). Moderate adjacent area.
<i>Lasionycteris noctivagans</i>	silver-haired bat	None	None	-	Coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo Co. It also occurs in southern California from Ventura and San Bernardino Cos. south to Mexico and on some of the Channel Islands.	Moderate project site (flyover). Moderate adjacent area.
<i>Lasiurus cinereus</i>	hoary bat	None	None	-	The hoary bat is the most widespread North American bat. May be found at any location in California, although distribution patchy in southeastern deserts.	Moderate project site (flyover). Moderate adjacent area.
<i>Myotis volans</i>	long-legged myotis	None	None	-	Common in woodland and forest habitats above 1200 m (4000 ft). Also forages in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests.	None due to elevation range.
<i>Myotis yumanensis</i>	Yuma myotis	None	None	-	lower and upper montane conifer and riparian forest and woodland	Low in project site (flyover). Moderate in adjacent area.
Mollusks						
<i>Margaritifera falcata</i>	western pearlshell	None	None	-	coastal dunes coastal scrub, riparian redwood forest habitats	None in project site. Low in adjacent area.
<i>Anodonta californiensis</i>	California floater	None	None	-	freshwater lakes and slow-moving streams and rivers	None in project site. Moderate in adjacent area.
<i>Gonidea angulata</i>	western ridged mussel	None	None	-	cold creeks and streams	None in project site. Moderate in adjacent area.
Reptiles						
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	aquatic, flowing waters, standing waters, marsh, swamp, wetland	None in project site. Moderate in adjacent area.

Definitions of CDFW statuses:

FP

Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

SS

Species of Special Concern: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL

Watch List: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Definitions of Federal Statutes (Federal Endangered Species Act):

Endangered species:

As defined in the U.S. Government Code and California Fish and Game Code (16 U.S. Government Code 1532[6] and California Fish and Game Code Section 2062), a native species, subspecies, variety of organism, or distinct population segment that is in serious danger of becoming extinct throughout all or a significant portion of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

Threatened species:

Native species, subspecies, variety, or distinct population segment of an organism that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future throughout all of a significant portion of its range.

Candidate Species:

Not defined or addressed in statute or regulations. Candidate species are those which USFWS has sufficient information on their biological status and threats to propose listing, but for which the development of a proposed listing regulation is precluded by other higher priority listing activities. Candidates receive no protection under the ESA.

Definitions of State Statutes (California Endangered Species Act):

Endangered species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. Fish & G. Code, §2062

Threatened species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Fish & G. Code, §2067

Candidate Species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the Department for listing. Candidates are given full CESA protection. Fish & G. Code, §2068

Table 2 - Special Status Plant Species – Hydesville and surrounding 7.5 min quadrangles – August 2022 – APN: 204-251-001, 204-121-006, and 204-121-005

Scientific Name	Common Name	Family	California Rare Rank	Global Rank	State Rank	CESA	FESA	Bloom Period	Habitat	Micro Habitat	Elevation (m)	Potential of Occurrence
Bryophytes												
<i>Fissidens pauperculus</i>	minute pocket moss	Fissidentaceae	1B.2	G3?	S2	None	None	NA	North Coast coniferous forest	damp coastal soil	10 - 1024 meters	None in project sites, low in surrounding area.
Lichens												
<i>Usnea longissima</i>	Methuselah's beard lichen	Parmeliaceae	4.2	G4	S4	None	None	NA	Broadleafed upland forest; North Coast coniferous forest	On tree branches; usually on old growth hardwoods and conifers.	50 - 1460 meters	None due to elevation.
Vascular												
<i>Angelica lucida</i>	sea-watch	Apiaceae	4.2	G5	S3	None	None	May-Sep	Coastal bluff scrub, Coastal dunes, Coastal scrub, Marshes and swamps	Coastal salt	0 - 150 meters	None due to habitat requirements.
<i>Glehnia littoralis ssp. leiocarpa</i>	American glehnia	Apiaceae	4.2	G5T5	S2S3	None	None	May-Aug	Coastal dunes	NA	0 - 20 meters	None due to habitat requirements.
<i>Hemizonia congesta ssp. tracyi</i>	Tracy's tarplant	Asteraceae	4.3	G5T4	S4	None	None	May-Oct	Coastal prairie; Lower montane coniferous forest; North Coast coniferous forest	Openings, sometimes serpentinite.	120 - 1200 meters	None due to elevation.
<i>Hesperevax sparsiflora var. brevifolia</i>	short-leaved evax	Asteraceae	1B.2	G4T3	S2	None	None	Mar-Jun	Coastal bluff scrub. Coastal dunes, costal prairie	sandy	0 - 215 meters	None due to habitat requirements.
<i>Layia carnososa</i>	beach layia	Asteraceae	1B.1	G2	S2	Endangered	Endangered	Mar-Jul	Coastal dunes, Coastal scrub	sandy	0 - 60 meters	None due to habitat requirements.
<i>Packera bolanderi var. bolanderi</i>	seacoast ragwort	Asteraceae	2B.2	G4T4	S2S3	None	None	May-Jul	Coastal scrub; North Coast coniferous forest	Sometimes roadsides.	30 - 650 meters	Low in project site, moderate in surrounding area,
<i>Cardamine angulata</i>	seaside bittercress	Brassicaceae	2B.2	G4G5	S3	None	None	(Jan)Mar-Jul	Lower montane coniferous forest, North Coast coniferous forest	Wet areas, streambanks.	25 - 915 meters	None is project site, moderate in surrounding area.
<i>Noccaea fendleri ssp. californica</i>	Kneeland Prairie pennycress	Brassicaceae	1B.1	G5?T1	S1	Endangered	None	May-Jun	Coastal prairie	serpentinite	760 - 815 meters	None due to elevation.

<i>Downingia willamettensis</i>	Cascade downingia	Campanulaceae	2B.2	G4	S2	None	None	Jun-Jul	Cismontane woodland (lake margins); Valley and foothill grassland (lake margins)	Vernal pools	15 - 1110 meters	None due to habitat requirements.
<i>Spergularia canadensis</i> var. <i>occidentalis</i>	western sand-spurrey	Caryophyllaceae	2B.1	G5T4	S1	None	None	Jun-Aug	Marshes and swamps	coastal salt	0 - 3 meters	None due to habitat requirements and elevation.
<i>Carex arcta</i>	northern clustered sedge	Cyperaceae	2B.2	G5	S1	None	None	Jun-Sep	North Coast coniferous forest (mesic)	Bogs and fens	60 - 1400 meters	None due to habitat and elevation.
<i>Carex leptalea</i>	bristle-stalked sedge	Cyperaceae	2B.2	G5	S1	None	None	Mar-Jul	Bogs and fens, Meadows and seeps, Marshes and swamps	mesic	0 - 700 meters	None in project site, low in surrounding area
<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	Fabaceae	4.3	G4T4	S4	None	None	Apr-Jul	Chaparral; Cismontane woodland; Lower montane coniferous forest	Gravelly streambanks.	30 - 825 meters	None in project site, moderate in surrounding area
<i>Hosackia gracilis</i>	harlequin lotus	Fabaceae	4.2	G3G4	S3	None	None	Mar-Jul	Broadleafed upland forest; Coastal bluff scrub; Closed-cone coniferous forest; Cismontane woodland; Coastal prairie; Coastal scrub; North Coast coniferous forest; Valley and foothill grassland	Wetlands; Roadsides; Meadows and seeps; Marshes and swamps;	0 - 700 meters	Low in project site, moderate in surrounding area
<i>Lathyrus glandulosus</i>	sticky pea	Fabaceae	4.3	G3	S3	None	None	Apr-Jun	Cismontane woodland	NA	300 - 800 meters	None due to elevation.
<i>Ribes laxiflorum</i>	trailing black currant	Grossulariaceae	4.3	S3	G5?	None	None	Mar-Jul(Aug)	North Coast coniferous forest	sometimes roadside.	5 - 1395 meters	Low in project site, Moderate in surrounding area
<i>Ribes roezlii</i> var. <i>amictum</i>	hoary gooseberry	Grossulariaceae	4.3	G5T4	S4	None	None	Mar-Apr	Broadleafed upland forest; Cismontane woodland; Lower montane coniferous forest; Upper montane coniferous forest	NA	120 - 2300 meters	None due to elevation.
<i>Lycopus uniflorus</i>	northern bugleweed	Lamiaceae	4.3	G5	S4	None	None	Jul-Sep	NA	Bogs and fens, Marshes and swamps	5 - 2000 meters	Low in project site, Moderate in surrounding area
<i>Erythronium oregonum</i>	giant fawn lily	Liliaceae	2B.2	G4G5	S2	None	None	Mar-Jun	Cismontane woodland	sometimes serpentinite, rocky, openings;	100 - 1150 meters	None due to elevation.

										Meadows and seeps		
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	2B.2	G4G5	S3	None	None	Mar-Jul	Broadleaved upland forest; North Coast coniferous forest	Mesic, streambanks; Bogs and fens	0 - 1600 meters	Low in project site, Moderate in surrounding area
<i>Fritillaria purdyi</i>	Purdy's fritillary	Liliaceae	4.3	G4	S4	None	None	Mar-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest	usually serpentinite.	175 - 2255 meters	None due to elevation.
<i>Lilium kelloggii</i>	Kellogg's lily	Liliaceae	4.3	G3	S3	None	None	May-Aug	Lower montane coniferous forest; North Coast coniferous forest	Openings, roadsides.	3 - 1300 meters	Low in project site, Moderate in surrounding area
<i>Lilium occidentale</i>	western lily	Liliaceae	1B.1	G1	S1	Endangered	Endangered	Jun-Jul	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest (openings)	Freshwater. openings	2 - 185 meters	Low in project site, Moderate in surrounding area
<i>Lilium rubescens</i>	redwood lily	Liliaceae	4.2	G3	S3	None	None	Apr-Aug	Broadleaved upland forest; Chaparral; Lower montane coniferous forest; North Coast coniferous forest; Upper montane coniferous forest	Sometimes serpentinite, sometimes roadsides.	30 - 1910 meters	Low in project site, Moderate in surrounding area
<i>Lycopodium clavatum</i>	running-pine	Lycopodiaceae	4.1	G5	S3	None	None	Jun-Aug	Lower montane coniferous forest (mesic); North Coast coniferous forest (mesic)	often edges, openings, and roadsides; Marshes and swamps	45 - 1225 meters	None due to elevation.
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	4.2	G3	S3	None	None	Apr-Aug	Broadleaved upland forest; Coastal prairie; Coastal scrub; North Coast coniferous forest; Riparian woodland	Often in disturbed areas.	0 - 730 meters	High in project site, High in surrounding area.
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	Malvaceae	1B.2	G5T2	S2	None	None	May-Aug	Coastal bluff scrub; Coastal prairie; North Coast coniferous forest	Often roadcuts.	15 - 880 meters	Low in project site, Moderate in surrounding area
<i>Sidalcea oregana ssp. eximia</i>	coast checkerbloom	Malvaceae	1B.2	G5T1	S1	None	None	Jun-Aug	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	NA	5 - 1340 meters	Moderate in project site, Moderate in surrounding area
<i>Pityopus californicus</i>	California pinefoot	Monotropaceae	4.2	G4G5	S4	None	None	May-Aug	Broadleaved upland forest; Lower montane coniferous	Mesic.	15 - 2225 meters	Low in project site, Moderate

									forest; North Coast coniferous forest; Upper montane coniferous forest			in surrounding area
<i>Montia howellii</i>	Howell's montia	Montiaceae	2B.2	G3G4	S2	None	None	Mar-May	North Coast coniferous forest	Vernally mesic, sometimes roadsides; Meadows and seeps; Vernal pools	0 - 835 meters	Low in project site, Low in surrounding area
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	Nyctaginaceae	1B.1	G4G5T2	S2	None	None	Jun-Oct	Coastal dunes	NA	0 - 10 meters	None due to habitat requirements.
<i>Clarkia amoena</i> ssp. <i>whitneyi</i>	Whitney's farewell-to-spring	Onagraceae	1B.1	G5T1	S1	None	None	10 - 100 meters	Coastal bluff scrub, Coastal scrub	NA	10 - 100 meters	None due to habitat requirements.
<i>Epilobium septentrionale</i>	Humboldt County fuchsia	Onagraceae	4.3	G4	S4	None	None	Jul-Sep	Broadleafed upland forest; North Coast coniferous forest	Sandy or rocky.	45 - 1800 meters	Low in project site, Moderate in surrounding area
<i>Listera cordata</i>	heart-leaved twayblade	Orchidaceae	4.2	G5	S4	None	None	Feb-Jul	Lower montane coniferous forest; North Coast coniferous forest	Bogs and fens	5 - 1370 meters	Low in project site, Low in surrounding area
<i>Piperia candida</i>	white-flowered rein orchid	Orchidaceae	1B.2	G3	S3	None	None	May-Sep	Broadleafed upland forest; Lower montane coniferous forest; North Coast coniferous forest	sometimes serpentinite	30 - 1310 meters	Low in project site, Low/Moderate in surrounding area
<i>Castilleja ambigua</i> var. <i>ambigua</i>	johnny-nip	Orobanchaceae	4.2	G4T4	S3S4	None	None	Mar-Aug	Coastal bluff scrub; Coastal prairie; Coastal scrub; Marshes and swamps; Valley and foothill grassland	Vernal pools margins	0 - 435 meters	None in project site, Low in surrounding area
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	Orobanchaceae	1B.2	S2	G4T2	None	None	Apr-Aug	Marshes and swamps	coastal salt	0 - 3 meters	None due to habitat requirements.
<i>Castilleja litoralis</i>	Oregon coast paintbrush	Orobanchaceae	2B.2	G3	S3	None	None	Jun-Jul	Coastal bluff scrub, Coastal dunes, Coastal scrub	Sandy	15 - 100 meters	None due to habitat requirements.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	Point Reyes salty bird's-beak	Orobanchaceae	1B.2	G4?T2	S2	None	None	Jun-Oct	Marshes and swamps	coastal salt	0 - 10 meters	None due to habitat requirements.
<i>Pleuropogon refractus</i>	nodding semaphore grass	Poaceae	4.2	G4	S4	None	None	Apr-Aug	Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	mesic; riparian forest	0 - 1600 meters	Low in project site, Moderate in surrounding area.

<i>Collomia tracyi</i>	Tracy's collomia	Polemoniaceae	4.3	G4	S4	None	None	Jun-Jul	Broadleafed upland forest; Lower montane coniferous forest	Rocky, sometimes serpentinite.	300 - 2100 meters	None due to elevation.
<i>Gilia capitata ssp. pacifica</i>	Pacific gilia	Polemoniaceae	1B.2	G5T3	S2	None	None	Apr-Aug	Coastal bluff scrub; Chaparral (openings); Coastal prairie; Valley and foothill grassland	NA	5 - 1665 meters	Low in project site, Low in surrounding area
<i>Gilia millefoliata</i>	dark-eyed gilia	Polemoniaceae	1B.2	G2	S2	None	None	Apr-Jul	Coastal dunes	NA	2 - 30 meters	None due to habitat.
<i>Navarretia leucocephala ssp. bakeri</i>	Baker's navarretia	Polemoniaceae	1B.1	G4T2	S2	None	None	Apr-Jul	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools	Mesic	5 - 1740 meters	Low in project site, Moderate in surrounding area
<i>Polemonium carneum</i>	Oregon polemonium	Polemoniaceae	2B.2	G3G4	S2	None	None	Apr-Sep	Coastal prairie, Coastal scrub, Lower montane coniferous forest	NA	0 - 1830 meters	Moderate in project site, Moderate in surrounding area
<i>Coptis laciniata</i>	Oregon goldthread	Ranunculaceae	4.2	G4?	S3?	None	None	Mar-May	Meadows and seeps; North Coast coniferous forest (streambanks)	Riparian; mesic	0 - 1000 meters	Low in project site, Moderate in surrounding area
<i>Chrysosplenium glechomifolium</i>	Pacific golden saxifrage	Saxifragaceae	4.3	G5?	S3	None	None	Feb-Jun(Jul)	North Coast coniferous forest, Riparian forest	Streambanks, sometimes seeps, sometimes roadsides.	10 - 640 meters	Low in project site, Moderate in surrounding area
<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	Saxifragaceae	4.2	G5	S4	None	None	Apr-Oct	Broadleafed upland forest; Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest	Mesic, sometimes roadsides.	5 - 1700 meters	Low in project site, Moderate in surrounding area
<i>Tiarella trifoliata var. trifoliata</i>	trifoliolate laceflower	Plants - Vascular - Saxifragaceae - Tiarella trifoliata var. trifoliata	3.2	G5T5	S2S3	None	None	Jun-Aug	Lower montane coniferous forest; North Coast coniferous forest	Edges, moist shady banks, streambanks.	170 - 1500 meters	None due to elevation.

Global Conservation Status Definition

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

G1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

- G2 Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
- G3 Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
- G4 Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 Secure** – Common; widespread and abundant.
- G#G# Range Rank** – A numeric range rank (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Infraspecific Taxon Conservation Status Ranks

- T# Intraspecific Taxon** (trinominal) – The status of infraspecific taxa (subspecies or varieties) are indicated by a “T-rank” following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon’s informal taxonomic status.

Subnational (S) Conservation Status Ranks

- S1 Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.
- S2 Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.
- S3 Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4 Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 Secure** – Common, widespread, and abundant in the jurisdiction.
- S#S# Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

- ? Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status
- Q Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The “Q” modifier is only used at a global level and not at a national or subnational level.

Table 3 - Special Status Communities – Hydesville and surrounding 7.5 min quadrangles – August 2022 – APN: 204-251-001, 204-121-006, and 204-121-005

Community Type	Habitat Community
Terrestrial	Northern Coastal Salt Marsh
Terrestrial	Upland Douglas Fir Forest

Appendix C

MAPS

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Humboldt Reserve, LLC

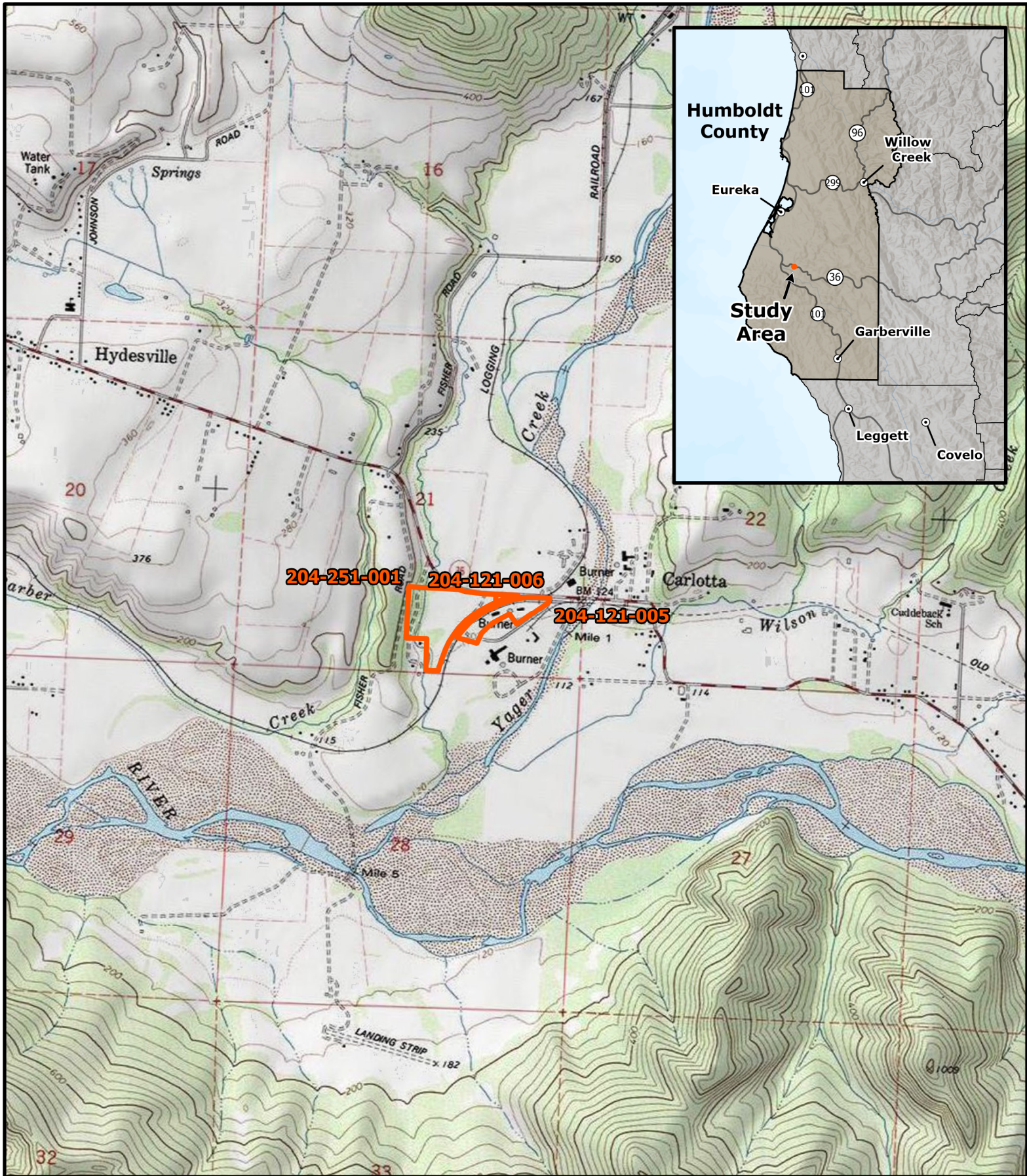
4798 HWY 36

Hydesville, CA 95547

Assessor Parcel Number (APN):

204-251-001, 204-121-006, and 204-121-005


August 2022



Humboldt Reserve, LLC
 4798 HWY 36
 Hydesville, CA
 95547



Map 1: Site Location Map

Scale: 1:24,000  Study Area

0 1,000 2,000 4,000
 Feet

Source: Hydesville 7.5-Minute USGS Quadrangle

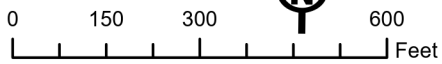
Naiad
 Biological
 Consulting





Map 2: Area Assessed for Project Feasibility

Scale: 1:3,693



- Study Area
- Area Assessed for Project Feasibility

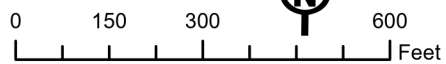
Source: Hydesville 7.5-Minute USGS Quadrangle





Map 3: Biological Survey Path

Scale: 1:3,693



Source: Hydesville 7.5-Minute USGS Quadrangle

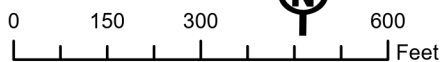
-  Study Area
-  Biological Survey Path (3/17/22)





Map 4: Aquatic Resource and FEMA 100y Flood

Scale: 1:3,693



Source: Hydesville 7.5-Minute USGS Quadrangle

- Study Area
- Area Assessed for Project Feasibility
- County Aquatic Resource
- County Aquatic Resource Buffer
- CA State Aquatic Resource
- CA State Aquatic Resource Buffer
- FEMA 100 Year Flood Zone

Naiad
Biological
Consulting





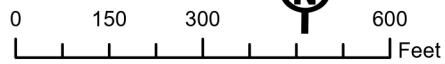
Soil Map Unit Key

220: Ferndale

341: Fiedler-Petellen-Nanningcreek complex

Map 5: Web Soil Survey and NWI

Scale: 1:3,693



Source: Hydesville 7.5-Minute USGS Quadrangle

NRCS Web Soil Survey

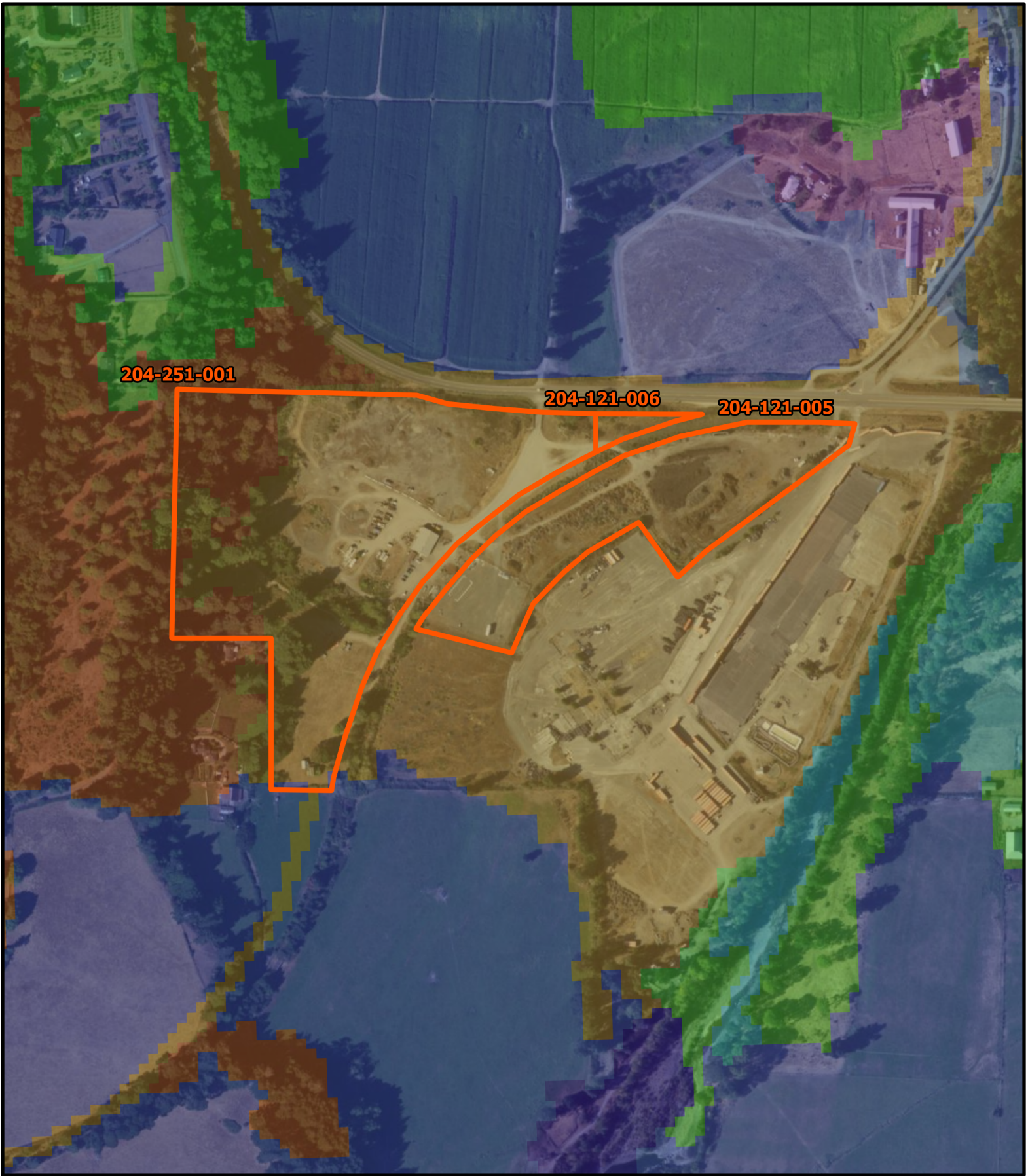
Soil Map Units Within Study Area

USFS National Wetlands Inventory (NWI)

Freshwater Forested/Shrub Wetland

Riverine





Map 6: CalVeg Alliances

Scale: 1:5,000



0 200 400 800 Feet

Source: Hydesville 7.5-Minute USGS Quadrangle

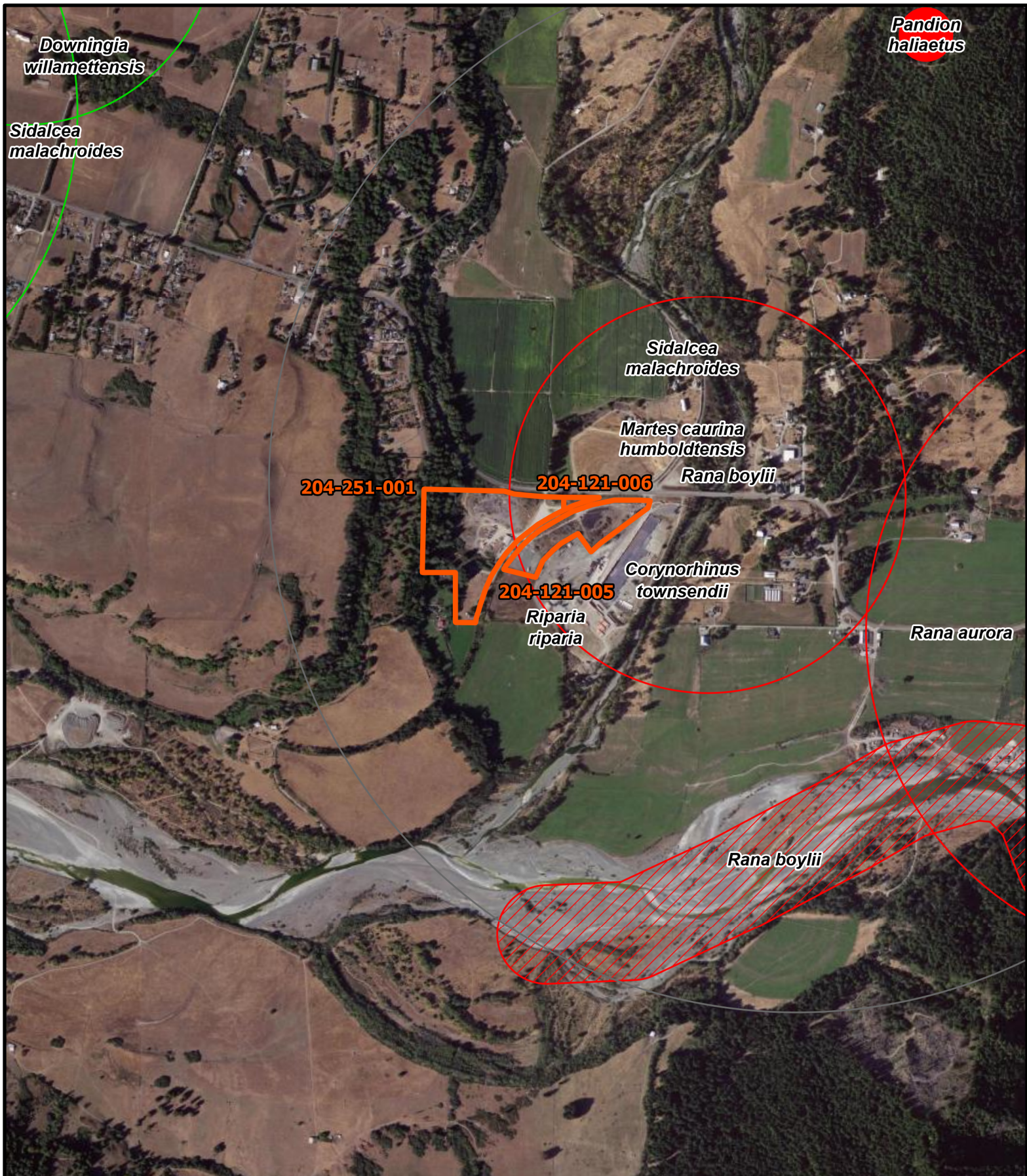
Study Area

Regional Dominant Alliance

- Grain and Crop Ag.
- Agriculture
- Annual Grasses and Forbs
- Urban-Related Bare Soil

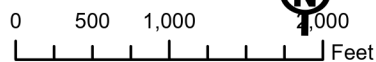
- North Coastal Scrubb Alliance
- Red Alder Alliance
- Redwood Alliance
- Urban or Developed





Map 7: CNDDB Special Status Species

Scale: 1:15,000



Source: Hydesville 7.5-Minute USGS Quadrangle

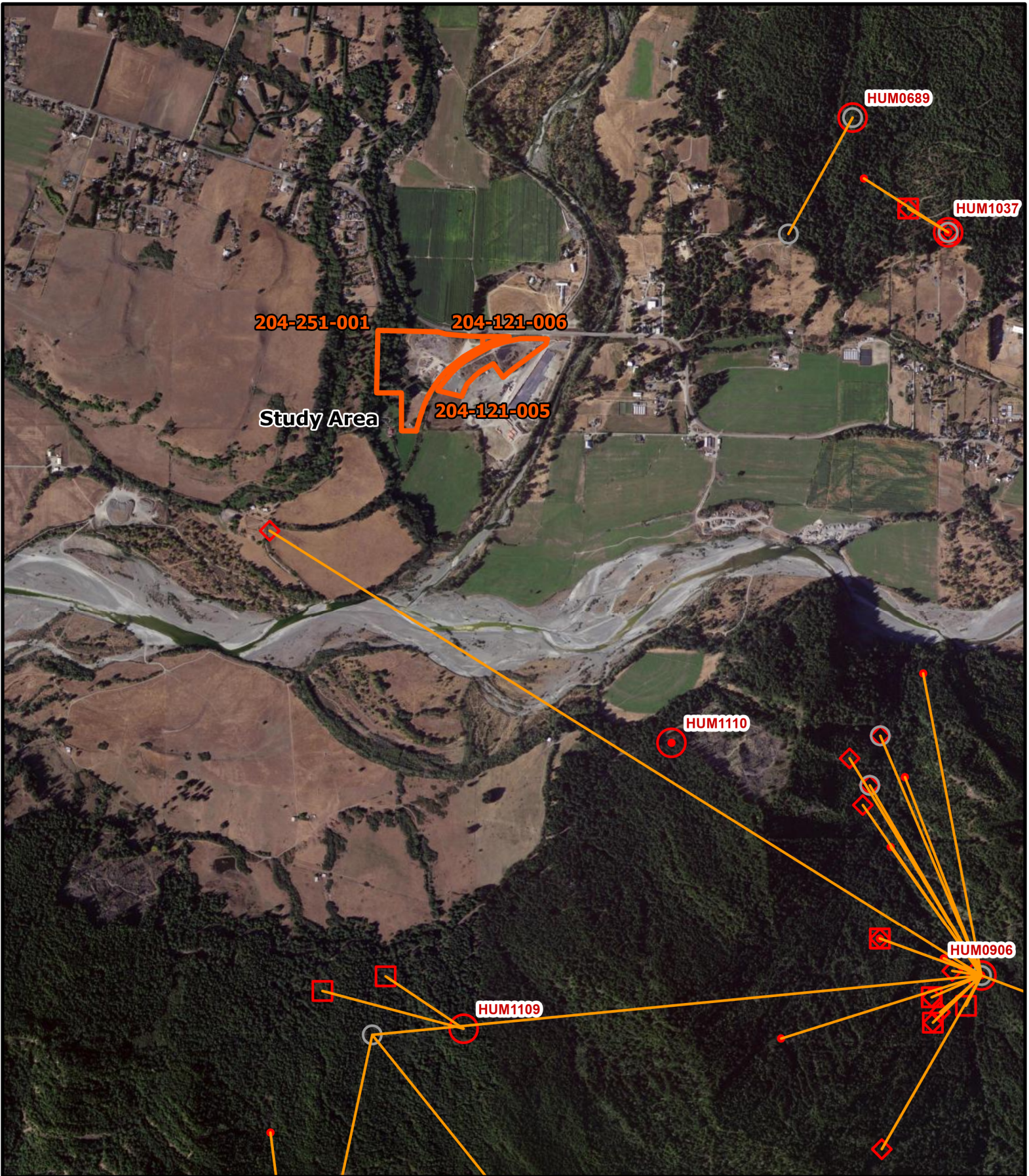
CNDDB Symboly

- Plant (circular)
- Animal (80m)
- Animal (non-specific)
- Animal (circular)
- Multiple (circular)

Study Area

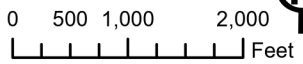
Naiad
Biological
Consulting





Map 8: Spotted Owl Observations

Scale: 1:20,000



Source: Hydesville 7.5-Minute USGS Quadrangle

- Study Area
- Spotted Owl Spider Diagram

- Spotted Owl Observations**
- Nest
 - Pair
 - Other Positive Observation
 - Negative Observation
 - Activity Center



Appendix D

SPECIAL-STATUS SPECIES OCCURRENCE REPORTS

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Humboldt Reserve, LLC

4798 HWY 36

Hydesville, CA 95547

Assessor Parcel Number (APN):

204-251-001, 204-121-006, and 204-121-005

August 2022



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (*Sidalcea malachroides* OR *Corynorhinus townsendii*)

Map Index Number: 55671	EO Index: 144
Key Quad: Hydesville (4012451)	Element Code: PDMAL110E0
Occurrence Number: 26	Occurrence Last Updated: 2007-09-19

Scientific Name: <i>Sidalcea malachroides</i>	Common Name: maple-leaved checkerbloom
Listing Status:	Rare Plant Rank: 4.2
Federal: None	Other Lists:
State: None	
CNDDDB Element Ranks:	
Global: G3	
State: S3	

General Habitat: BROADLEAFED UPLAND FOREST, COASTAL PRAIRIE, COASTAL SCRUB, NORTH COAST CONIFEROUS FOREST, RIPARIAN FOREST.	Micro Habitat: WOODLANDS AND CLEARINGS NEAR COAST; OFTEN IN DISTURBED AREAS. 4-765 M.
---	---

Last Date Observed: 1951-06-11	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1951-06-11	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
VICINITY OF CARLOTTA.
Detailed Location:
COLLECTION FROM "YAGER CREEK ROAD ON WAY TO CARLOTTA" IS ALSO ATTRIBUTED TO THIS SITE.

Ecological:
GROWING WITH FIREWEEDS IN RECENTLY LOGGED AREA; INFREQUENT ELSEWHERE (1938).

Threats:
General:
REPORTED IN TWO COLLECTIONS; TRACY #15938 IN 1938 AND VOLLMER AND BEANE #136 IN 1951.

PLSS: T02N, R01E, Sec. 22 (H)	Accuracy: 1 mile	Area (acres): 0
UTM: Zone-10 N4487986 E410249	Latitude/Longitude: 40.53776 / -124.05978	Elevation (feet): 200

County Summary: Humboldt	Quad Summary: Hydesville (4012451)
------------------------------------	--

Sources:
TRA38S0007 TRACY, J. - TRACY #15938 UC #668136 1938-06-15
VOL51S0004 VOLLMER & BEANE - VOLLMAR #136 DS #335085 1951-06-11



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (Falco peregrinus anatum OR Riparia riparia OR Rana boylei)

Map Index Number: B0132	EO Index: 107391
Key Quad: Hydesville (4012451)	Element Code: AAABH01050
Occurrence Number: 1087	Occurrence Last Updated: 2018-07-25

Scientific Name: <i>Rana boylei</i>	Common Name: foothill yellow-legged frog
Listing Status:	Rare Plant Rank:
Federal: None	
State: Endangered	Other Lists: BLM_S-Sensitive
CNDDDB Element Ranks:	CDFW_SSC-Species of Special Concern
Global: G3	IUCN_NT-Near Threatened
State: S3	USFS_S-Sensitive

General Habitat: PARTLY-SHADED, SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS.	Micro Habitat: NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING. NEEDS AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.
--	--

Last Date Observed: 1924-07-31	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1924-07-31	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
YAGER CREEK, IN VICINITY OF CARLOTTA.

Detailed Location:
EXACT LOCATION UNKNOWN. COLLECTION LOCALITIES DESCRIBED AS "CARLOTTA," AND "YAGER CREEK NEAR CARLOTTA." MAPPED BY CNDDDB TO YAGER CREEK IN VICINITY OF CARLOTTA.

Ecological:

Threats:

General:

COLLECTED IN 1911, 1923, AND 1924.

PLSS: T02N, R01E, Sec. 22, SW (H)	Accuracy: 2/5 mile	Area (acres): 280
UTM: Zone-10 N4487955 E409978	Latitude/Longitude: 40.53745 / -124.06299	Elevation (feet): 122

County Summary: Humboldt	Quad Summary: Hydesville (4012451)
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Sources:

GRI23S0018	GRINNELL, J. - GRINNELL #5775 MVZ #9186 COLLECTED FROM CARLOTTA 1923-07-21
SLE11S0009	SLEVIN, J. - CAS #28963-28973 COLLECTED FROM CARLOTTA 1911-05-1X
STO24S0002	STORER, T. - CAS #218343, 218344 & 218345 COLLECTED FROM YAGER CREEK NEAR CARLOTTA 1924-07-31



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (Falco peregrinus anatum OR Riparia riparia OR Rana boylei)

Map Index Number: 84458	EO Index: 85486
Key Quad: Hydesville (4012451)	Element Code: ABPAU08010
Occurrence Number: 297	Occurrence Last Updated: 2011-12-06

Scientific Name: <i>Riparia riparia</i>	Common Name: bank swallow
Listing Status:	Rare Plant Rank:
Federal: None	
State: Threatened	Other Lists: BLM_S-Sensitive IUCN_LC-Least Concern
CNDDDB Element Ranks:	
Global: G5	
State: S2	

General Habitat: COLONIAL NESTER; NESTS PRIMARILY IN RIPARIAN AND OTHER LOWLAND HABITATS WEST OF THE DESERT.	Micro Habitat: REQUIRES VERTICAL BANKS/CLIFFS WITH FINE-TEXTURED/SANDY SOILS NEAR STREAMS, RIVERS, LAKES, OCEAN TO DIG NESTING HOLE.
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Last Date Observed: 1946-06-21	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1946-06-21	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
VAN DUZEN RIVER.

Detailed Location:
LOCATION STATED AS "VAN DUZEN RIVER." NEST LOCATED 30 FEET ABOVE THE RIVER IN A SANDY FACE. EXACT LOCATION UNKNOWN AND SO LOCATION MAPPED APPROXIMATELY FROM THE MOUTH OF THE VAN DUZEN RIVER UPSTREAM (ABOUT 10 AIR MILES) TO ROOT CREEK.

Ecological:

Threats:

General:

YOUNG AND ADULTS WERE OBSERVED ON 21 JUN 1946.

PLSS: T02N, R01E, Sec. 35 (H)	Accuracy: 5 miles	Area (acres): 0
UTM: Zone-10 N4485406 E412858	Latitude/Longitude: 40.51481 / -124.02862	Elevation (feet): 130

County Summary: Humboldt	Quad Summary: Redcrest (4012348), Owl Creek (4012358), Scotia (4012441), Hydesville (4012451)
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Sources:
TAL47A0001 TALMADGE, R. - THE BANK SWALLOW BREEDING IN HUMBOLDT COUNTY, CALIFORNIA. CONDOR 49(1):38. 1947-XX-XX



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (Falco peregrinus anatum OR Riparia riparia OR Rana boylei)

Map Index Number: B8167	EO Index: 121279
Key Quad: Hydesville (4012451)	Element Code: ABNKD06071
Occurrence Number: 71	Occurrence Last Updated: 2022-06-06

Scientific Name: <i>Falco peregrinus anatum</i>	Common Name: American peregrine falcon
Listing Status: Federal: Delisted	Rare Plant Rank:
* SENSITIVE *	Other Lists: CDF_S-Sensitive
CNDDDB Element Ranks: State: Delisted	CDFW_FP-Fully Protected
Global: G4T4	
State: S3S4	

General Habitat: NEAR WETLANDS, LAKES, RIVERS, OR OTHER WATER; ON CLIFFS, BANKS, DUNES, MOUNDS; ALSO, HUMAN-MADE STRUCTURES.	Micro Habitat: NEST CONSISTS OF A SCRAPE OR A DEPRESSION OR LEDGE IN AN OPEN SITE.
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Last Date Observed: 2021-06-04	Occurrence Type: Natural/Native occurrence
Last Survey Date: 2021-06-04	Occurrence Rank: Excellent
Owner/Manager:	Trend: Stable
Presence: Presumed Extant	

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
CLIFF NEST. REGULARLY USED EYRIE. IN 2013, NEST SITE DESCRIBED AS "A BROAD, DEEP LEGE CREATED BY EROSION OF THE CLIFF FACE, AS ARE MANY OF THE POTENTIAL LEDGES." SW-FACING ASPECT OVER THE EEL RIVER OPPOSITE RIO DELL.

Threats:
POTENTIAL DISTURBANCE FROM RIVER RECREATION.

General:

PLSS:	Accuracy: specific area	Area (acres): 12
UTM:	Latitude/Longitude:	Elevation (feet): 355

County Summary:	Quad Summary:
Humboldt	Hydesville (4012451)



Occurrence Report
California Department of Fish and Wildlife
California Natural Diversity Database



Sources:

DFW19D0004	BATTISTONE, C. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - PEREGRINE FALCON OBSERVATIONS (BIOS DATASET DS2837). 2019-XX-XX
FEL84S0001	FELTON, M. - WFVZ EGGS COLLECTION #149411 COLLECTED AT SCOTIA (NI-46) (ALL 3 EGGS HATCHED IN LAB) 1984-04-13
HRC14R0002	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2013 2014-02-01
HRC15R0005	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2014 2015-02-01
HRC16R0001	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2015 2016-02-01
HRC18R0004	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2017 2018-02-01
HRC19R0002	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2018 2019-02-01
HRC20R0002	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2019 2020-02-01
HRC21R0002	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2020 2021-02-01
HRC22R0002	HUMBOLDT REDWOOD COMPANY - PEREGRINE FALCON ANNUAL REPORT, 2021 2022-02-01
MON83S0001	MONK, G. - WFVZ EGGS COLLECTION #140848 COLLECTED AT SCOTIA (NI-46) (1 EGG HATCHED IN CAPTIVITY; 1 EGG FAILED IN INCUBATOR) 1983-05-10
MOR18U0008	MORATA, E. (HUMBOLDT STATE UNIVERSITY) - SEASONAL HOME RANGE VARIATION AND SPATIAL ECOLOGY OF PEREGRINE FALCONS (FALCO PEREGRINUS) IN COASTAL HUMBOLDT COUNTY, CA. MS THESIS, HUMBOLDT STATE UNIVERSITY. 81PP 2018 -07-XX
PAG87S0002	PAGEL, J. - WFVZ EGGS COLLECTION #156315 COLLECTED AT SCOTIA, SCOTIA BLUFFS (NI-46) (AT LEAST 2 EGGS IN CLUTCH; HATCHED IN WILD) 1987-06-01
PAG88S0002	PAGEL, J. - WFVZ EGGS COLLECTION #157971 COLLECTED AT SCOTIA, SCOTIA BLUFFS (NI-46) (FAILED) 1988-10-01
PAG91S0002	PAGEL, J. - WFVZ EGGS COLLECTION #162838 COLLECTED AT SCOTIA, SCOTIA BLUFFS, NI-46 1991-06-08
WOO85S0001	WOODBIDGE, B. & J. PAGEL - WFVZ EGGS COLLECTION #149386 COLLECTED AT SCOTIA BLUFFS (SITE NI-46) (HATCHED IN WILD PRODUCING THREE YOUNG) [PRESUMABLY "EGGS" ARE POST HATCH FRAGMENTS] 1985-05-11
WOO86S0001	WOODBIDGE, B. - WFVZ EGGS COLLECTION #155008 COLLECTED AT SCOTIA, CLAYSTONE CLIFF (NI-46) (EGGS BROKE IN WILD) 1986-05-26



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (*Martes caurina humboldtensis*)

Map Index Number: 55671	EO Index: 55671
Key Quad: Hydesville (4012451)	Element Code: AMAJF01012
Occurrence Number: 29	Occurrence Last Updated: 2004-05-26

Scientific Name: <i>Martes caurina humboldtensis</i>	Common Name: Humboldt marten
Listing Status:	Rare Plant Rank:
Federal: Threatened	
State: Endangered	Other Lists: CDFW_SSC-Species of Special Concern USFS_S-Sensitive
CNDDDB Element Ranks:	
Global: G4G5T1	
State: S1	

General Habitat: OCCURS ONLY IN THE COASTAL REDWOOD ZONE FROM THE OREGON BORDER SOUTH TO SONOMA COUNTY.	Micro Habitat: ASSOCIATED WITH LATE-SUCCESSIONAL CONIFEROUS FORESTS, PREFER FORESTS WITH LOW, OVERHEAD COVER.
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Last Date Observed: 1913-01-XX	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1913-01-XX	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
CARLOTTA, HUMBOLDT COUNTY.

Detailed Location:
JAN 1913: CARLOTTA (=CUDDEBACK), HUMBOLDT COUNTY.

Ecological:

Threats:

General:

2 SEX UNKNOWN AND 1 MALE COLLECTED JAN 1913 (MVZ 19103-4, 19157) BY H.E. WILDER.

PLSS: T02N, R01E, Sec. 22, SW (H)	Accuracy: 1 mile	Area (acres): 0
UTM: Zone-10 N4487986 E410249	Latitude/Longitude: 40.53776 / -124.05978	Elevation (feet): 140

County Summary: Humboldt	Quad Summary: Hydesville (4012451)
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Sources:

MVZ04S0002 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF MARTES AMERICANA HUMBOLDTENSIS SPECIMENS FOR CALIFORNIA FROM THE MVZ DATABASE. 2004-05-26



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species IS (Sidalcea malachroides OR Corynorhinus townsendii)

Map Index Number: 55671	EO Index: 94295
Key Quad: Hydesville (4012451)	Element Code: AMACC08010
Occurrence Number: 567	Occurrence Last Updated: 2014-07-14

Scientific Name: <i>Corynorhinus townsendii</i>	Common Name: Townsend's big-eared bat
Listing Status:	Rare Plant Rank:
Federal: None	
State: None	Other Lists:
CNDDB Element Ranks:	BLM_S-Sensitive
Global: G4	CDFW_SSC-Species of Special Concern
State: S2	IUCN_LC-Least Concern
	USFS_S-Sensitive
	WBWG_H-High Priority

General Habitat: THROUGHOUT CALIFORNIA IN A WIDE VARIETY OF HABITATS. MOST COMMON IN MESIC SITES.	Micro Habitat: ROOSTS IN THE OPEN, HANGING FROM WALLS AND CEILINGS. ROOSTING SITES LIMITING. EXTREMELY SENSITIVE TO HUMAN DISTURBANCE.
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Last Date Observed: 1929-06-25	Occurrence Type: Natural/Native occurrence
Last Survey Date: 1929-06-25	Occurrence Rank: Unknown
Owner/Manager: UNKNOWN	Trend: Unknown
Presence: Presumed Extant	

Location:
VICINITY OF CARLOTTA, ABOUT 2.4 MI ESE OF HYDESVILLE AND ABOUT 4.6 MI NW OF RIVERSIDE PARK.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED GENERALLY TO PROVIDED LOCALITY OF CARLOTTA.

Ecological:

Threats:

General:

1 MALE COLLECTED ON 16 JUN AND 1 MALE COLLECTED ON 25 JUN 1929 BY H. WILDER.

PLSS: T02N, R01E, Sec. 22 (H)	Accuracy: 1 mile	Area (acres): 0
UTM: Zone-10 N4487986 E410249	Latitude/Longitude: 40.53776 / -124.05978	Elevation (feet): 140

County Summary: Humboldt	Quad Summary: Hydesville (4012451)
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Sources:
WIL29S0001 WILDER, H. - MVZ #36529, 41455 1929-06-25

Data Version Date:
06/29/2020

Report Generation Date:
3/21/2021

Report #2 - Observations Reported

List of observations reported by site.



Meridian, Township, Range, Section (MTRS) searched:

H_02N_01E Sections(21,22,23,24,25,26,27,28,33,34,35,36);

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
Masterowl: HUM0312 Subspecies: NORTHERN											
POS	1990		2	AMAF	Y	Y	2	40.550970	-124.041664	H 02N 01E 14	Contributor
POS	1990-03-11		1	UU				40.551996	-124.040474	H 02N 01E 14	Contributor
POS	1990-07-28		0				1	40.555725	-124.034485	H 02N 01E 14	Section centroid
POS	1990-09-19		1	UU				40.551996	-124.040474	H 02N 01E 14	Contributor
POS	1991		2	UMUF	Y	Y	1	40.550970	-124.041664	H 02N 01E 14	Contributor
POS	1991		2	UMUF	Y	Y		40.550970	-124.041664	H 02N 01E 14	Contributor
POS	1991		2	UMUF	Y	Y		40.550970	-124.041664	H 02N 01E 14	Contributor
POS	1992		2	UMUF	Y	N	0	40.551321	-124.041543	H 02N 01E 14	Contributor
POS	1992-03-08	1948	1	UM				40.552245	-124.048804	H 02N 01E 15	Quarter-section centroid
POS	1992-03-09		2	UMUF	Y			40.551996	-124.040474	H 02N 01E 14	Contributor
POS	1992-03-23	2219	1	UM				40.551898	-124.020147	H 02N 01E 13	Quarter-section centroid
POS	1992-03-24		2	UMUF	Y			40.552197	-124.039213	H 02N 01E 14	Quarter-section centroid
POS	1992-04-02	0143	1	UM				40.544637	-124.020154	H 02N 01E 24	Quarter-section centroid
POS	1992-04-14	2011	1	UM				40.544816	-124.034458	H 02N 01E 23	Half-section centroid
POS	1992-04-24		2	UMUF	Y			40.552197	-124.039213	H 02N 01E 14	Quarter-section centroid
POS	1993		1	SF		N	0	40.550976	-124.041745	H 02N 01E 14	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1994		2	UMUF	Y	N	0	40.551177	-124.041700	H 02N 01E 14	Contributor
POS	1995		2	UMUF	Y	N	0	40.551177	-124.041700	H 02N 01E 14	Contributor
NEG	1996		0					40.551177	-124.041700	H 02N 01E 14	Contributor
NEG	1997		0				0	40.551177	-124.041700	H 02N 01E 14	Contributor
NEG	1998		0					40.551177	-124.041700	H 02N 01E 14	Contributor
NEG	1999		0					40.551176	-124.041700	H 02N 01E 14	Contributor
NEG	2000		0					40.551176	-124.041700	H 02N 01E 14	Contributor
POS	2001		2	UMUF	Y		0	40.550731	-124.034153	H 02N 01E 14	Contributor
NEG	2002		0					40.550731	-124.034153	H 02N 01E 14	Contributor
POS	2003		2	UMUF	Y	N	0	40.550134	-124.031693	H 02N 01E 14	Contributor
POS	2004		2	UMUF	Y	N	0	40.549629	-124.033887	H 02N 01E 14	Contributor
POS	2005		2	UMUF	Y	Y	2	40.549482	-124.033089	H 02N 01E 14	Contributor
POS	2005		2	UMUF	Y	Y	2	40.550860	-124.040575	H 02N 01E 14	Contributor
POS	2006		2	UMUF	Y	N	0	40.550851	-124.040586	H 02N 01E 14	Contributor
POS	2006		2	UMUF	Y	N	0	40.549482	-124.033089	H 02N 01E 14	Contributor
POS	2008		2	UMUF	Y	N	0	40.548318	-124.034299	H 02N 01E 23	Contributor
POS	2009		2	UMUF	Y	Y	0	40.553064	-124.032530	H 02N 01E 14	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2010		1	UM				40.548318	-124.034299	H 02N 01E 23	Contributor
POS	2011		1	UF				40.548318	-124.034299	H 02N 01E 23	Contributor
NEG	2012		0					40.548318	-124.034299	H 02N 01E 23	Contributor
POS	2013		2	UMUF	Y			40.548715	-124.032309	H 02N 01E 14	Contributor
POS	2014-08-20		2	UMUF	Y		0	40.550959	-124.033228	H 02N 01E 14	Contributor
POS	2015-07-27		2	AMAF	Y		0	40.547951	-124.034046	H 02N 01E 23	Activity center
POS	2016		2	AMUF	Y			40.547951	-124.034046	H 02N 01E 23	Activity center
POS	2017		1	UF				40.547951	-124.034046	H 02N 01E 23	Activity center
AC	2018		2	UMUF	Y	Y	2	40.547481	-124.034286	H 02N 01E 23	Contributor
POS	2019		2	AMAF	Y			40.547481	-124.034286	H 02N 01E 23	Contributor
Masterowl: HUM0337 Subspecies: NORTHERN											
POS	1989-08-24		2	UMUF	Y		1	40.543084	-124.006432	H 02N 01E 24	Activity center
POS	1991		2	UMUF	Y	Y	2	40.540610	-124.010617	H 02N 01E 24	Contributor
POS	1991		2	UMUF	Y	Y		40.540610	-124.010617	H 02N 01E 24	Contributor
POS	1991		2	UMUF	Y	Y		40.540610	-124.010617	H 02N 01E 24	Contributor
POS	1991-08-23		1	UU				40.540923	-124.015398	H 02N 01E 24	Section centroid
POS	1992		2	UMUF	Y	Y	0	40.541279	-124.017091	H 02N 01E 24	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1992		2	UMUF	Y			40.540825	-124.010071	H 02N 01E 24	Contributor
POS	1992		2	UMUF	Y			40.540825	-124.010071	H 02N 01E 24	Contributor
POS	1992-03-20		2	UUUU				40.544496	-124.010610	H 02N 01E 24	Quarter-section centroid
POS	1992-04-02	0143	1	UM				40.544637	-124.020154	H 02N 01E 24	Quarter-section centroid
POS	1992-04-03		2	UMUF	Y	Y		40.541279	-124.017091	H 02N 01E 24	Contributor
POS	1992-04-06		2	UMUF	Y	Y		40.541279	-124.017091	H 02N 01E 24	Contributor
POS	1992-04-14	2022	1	UM				40.544760	-124.029698	H 02N 01E 23	Quarter-section centroid
POS	1992-05-15	2100	1	UM				40.540825	-124.010071	H 02N 01E 24	Contributor
POS	1992-05-27	2046	1	UM				40.540825	-124.010071	H 02N 01E 24	Contributor
POS	1993		2	UMUF	Y			40.539941	-124.012138	H 02N 01E 24	Contributor
POS	1994		2	UMUF	Y	Y	0	40.543708	-124.007341	H 02N 01E 24	Contributor
POS	1994-05-05	2201	2	UMUF	Y	Y		40.543708	-124.007341	H 02N 01E 24	Contributor
POS	1995		2	UMUF	Y	Y	0	40.541223	-124.010627	H 02N 01E 24	Contributor
POS	1996		2	UMUF	Y	Y	0	40.541258	-124.010611	H 02N 01E 24	Contributor
AC	1997		2	UMUF	Y	Y	2	40.543084	-124.006432	H 02N 01E 24	Contributor
POS	1997-05-14		2	UMUF	Y		2	40.544496	-124.010610	H 02N 01E 24	Quarter-section centroid
POS	1998		2	AMAF	Y	N	0	40.538641	-124.010811	H 02N 01E 24	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1998-03-09		2	AMAF	Y			40.537235	-124.010607	H 02N 01E 24	Quarter-section centroid
POS	1998-05-05		2	UMUF	Y		0	40.537235	-124.010607	H 02N 01E 24	Quarter-section centroid
POS	1999		2	UMUF	Y		0	40.540274	-124.008767	H 02N 01E 24	Contributor
POS	1999		1	UU				40.537235	-124.010607	H 02N 01E 24	Quarter-section centroid
NEG	2000		0					40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2000		0					40.537235	-124.010607	H 02N 01E 24	Quarter-section centroid
NEG	2001		0					40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2002		0					40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2003		0					40.540274	-124.008767	H 02N 01E 24	Contributor
POS	2003-06-19	2015	2	UMUU				40.540923	-124.015398	H 02N 01E 24	Section centroid
NEG	2004		0					40.540273	-124.008766	H 02N 01E 24	Contributor
NEG	2005		0					40.540273	-124.008766	H 02N 01E 24	Contributor
NEG	2006		0					40.540273	-124.008766	H 02N 01E 24	Contributor
NEG	2009		0					40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2010		0					40.540273	-124.008766	H 02N 01E 24	Contributor
NEG	2011		0					40.540273	-124.008766	H 02N 01E 24	Contributor
NEG	2012		0					40.540273	-124.008766	H 02N 01E 24	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2013		0					40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2014		0				0	40.540274	-124.008767	H 02N 01E 24	Contributor
NEG	2015		0				0	40.540274	-124.008767	H 02N 01E 24	Activity center
NEG	2016		0					40.540274	-124.008767	H 02N 01E 24	Activity center
NEG	2017		0					40.540274	-124.008767	H 02N 01E 24	Activity center
NEG	2018		0					40.540274	-124.008767	H 02N 01E 24	Activity center
NEG	2019		0					40.540274	-124.008767	H 02N 01E 24	Activity center

Masterowl: HUM0621 Subspecies: NORTHERN

POS	1989		1	UU				40.501868	-124.077145	H 01N 01E 04	Activity center
POS	1990		1	UU				40.501868	-124.077145	H 01N 01E 04	Activity center
POS	1994-06-09		2	UMUF	Y			40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
NEG	1996		0					40.497485	-124.072920	H 01N 01E 04	Section centroid
NEG	1998-04-15	1924	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1998-05-11	2011	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	1998-05-15		2	UMUF	Y			40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
NEG	1998-05-20	1956	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	1998-06-22		1	SM				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1998-06-29		1	UF				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
NEG	1999		0					40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
NEG	1999		0					40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
POS	1999		1	UM				40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
NEG	1999-06-01	2032	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	2000		2	UMUF	Y	Y	2	40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
POS	2001		2	UMUF	Y			40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
POS	2001		2	UMUF	Y	Y	1	40.501959	-124.083838	H 01N 01E 05	Contributor
POS	2001-06-01	2133	1	UM				40.508322	-124.077779	H 02N 01E 33	Quarter-section centroid
NEG	2001-06-01	2053	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	2002		0					40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
POS	2003-03-10	1849	1	UU				40.497509	-124.092369	H 01N 01E 05	Section centroid
POS	2003-03-10	1911	1	UU				40.497509	-124.092369	H 01N 01E 05	Section centroid
POS	2003-03-11	0638	2	UMUF	Y			40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
POS	2003-04-01	1859	1	UM				40.497509	-124.092369	H 01N 01E 05	Section centroid
POS	2003-04-30	0835	1	UF	Y			40.493770	-124.078112	H 01N 01E 04	Quarter-section centroid
POS	2003-05-04	2229	1	UM				40.497509	-124.092369	H 01N 01E 05	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2003-08-14	0645	0					40.501868	-124.077145	H 01N 01E 04	Activity center
POS	2003-08-19	2133	1	UM				40.497509	-124.092369	H 01N 01E 05	Section centroid
POS	2004-05-13		1	UU		Y		40.499729	-124.076185	H 01N 01E 04	Contributor
POS	2005		1	UU				40.498635	-124.082875	H 01N 01E 04	Contributor
NEG	2005		0					40.500114	-124.075984	H 01N 01E 04	Contributor
NEG	2005-04-29	1000	0					40.501868	-124.077145	H 01N 01E 04	Activity center
NEG	2005-04-29	1055	0					40.501868	-124.077145	H 01N 01E 04	Activity center
POS	2005-04-29	1055	1	UU				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
POS	2005-05-13	0723	1	UU				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
POS	2005-07-05	0640	1	UU				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
NEG	2005-08-23	0713	0					40.501868	-124.077145	H 01N 01E 04	Activity center
NEG	2005-08-26	0605	0					40.501868	-124.077145	H 01N 01E 04	Activity center
NEG	2006-04-10	0817	0					40.500104	-124.075995	H 01N 01E 04	Contributor
POS	2008		2	UMUF	Y			40.501868	-124.077145	H 01N 01E 04	Contributor
AC	2009		2	UMUF	Y		2	40.499729	-124.076184	H 01N 01E 04	Contributor
POS	2010		2	UMUF	Y			40.499729	-124.076184	H 01N 01E 04	Contributor
NEG	2011		0					40.499730	-124.076178	H 01N 01E 04	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2012		0					40.499729	-124.076184	H 01N 01E 04	Contributor
NEG	2013		0					40.499729	-124.076185	H 01N 01E 04	Activity center
NEG	2014-04-09	1524- 1800	0					40.499729	-124.076185	H 01N 01E 04	Activity center
NEG	2014-05-06	1621- 1910	0					40.499729	-124.076185	H 01N 01E 04	Activity center
POS	2014-06-02	1705- 2002	1	UM				40.501083	-124.077793	H 01N 01E 04	Quarter-section centroid
NEG	2015-08-17	1530- 1810	0					40.499729	-124.076185	H 01N 01E 04	Activity center
POS	2016-08-04	1646- 1920	1	UU				40.501083	-124.077793	H 01N 01E 04	Quarter-section centroid
POS	2017-08-29	1725- 1900	1	UM				40.501083	-124.077793	H 01N 01E 04	Quarter-section centroid
POS	2018-08-06	1647- 1838	1	UF				40.501088	-124.077793	H 01N 01E 04	Quarter-section centroid
NEG	2019		0					40.499729	-124.076185	H 01N 01E 04	Activity center
Masterowl: HUM0626 Subspecies: NORTHERN											
POS	1991		1	UM				40.528140	-123.996752	H 02N 02E 30	Contributor
POS	1993-04-28		1	UU				40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	1994		1	UM				40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
POS	1994-06-23		1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	1994-07-07		1	UU				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	1995		1	UF				40.522058	-124.001053	H 02N 02E 30	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	1995-07-13		2	UMUF	Y			40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
POS	1995-07-15		2	UMUF	Y			40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
POS	1996-06-05		2	UMUF	Y	Y	1	40.526571	-124.002065	H 02N 02E 30	Contributor
POS	1997-05-02		2	UMUF	Y	N		40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	1998-05-07		2	UMUF	Y			40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	1999		2	UMUF	Y			40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
NEG	1999-04-02	1853	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
NEG	1999-04-09	1630	0					40.523146	-124.004351	H 02N 02E 30	Activity center
NEG	1999-05-17	1400	0					40.523146	-124.004351	H 02N 02E 30	Activity center
POS	1999-05-17	2037	1	UM				40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
NEG	1999-05-18	0915	0					40.523146	-124.004351	H 02N 02E 30	Activity center
POS	1999-05-27	2300	1	UU				40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	1999-05-27	2300	1	UU				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	1999-06-03	0650	2	UMUF	Y			40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	1999-06-03	2143	1	UM				40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
NEG	1999-06-03	2048	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
NEG	1999-07-13	2322	0					40.526104	-124.015304	H 02N 01E 25	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	1999-07-19	2354	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
POS	2000		2	UMUF	Y	Y	2	40.531816	-123.999782	H 02N 02E 30	Contributor
POS	2000-03-08	1730	1	UU				40.523146	-124.004351	H 02N 02E 30	Activity center
POS	2000-03-27	2005	1	UU				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2000-04-11	2239	1	UU				40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
POS	2000-05-25	0615	2	UMUF	Y			40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2000-05-30	0855	2	UMUF	Y	Y	1	40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2000-06-10	1007	2	UMUF	Y	Y	2	40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2000-07-13	0927	2	UMUF	Y	Y	2	40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2001		2	UMUF	Y			40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
NEG	2001-03-03	1933	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2001-03-05	1936	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2001-03-12	2255	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
POS	2001-03-16	1810	1	UU				40.522058	-124.001053	H 02N 02E 30	Quarter-section centroid
NEG	2001-03-20	2139	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2001-04-24	0900	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2001-05-10	2201	0					40.525639	-123.996301	H 02N 02E 30	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2001-05-24	0026	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
POS	2001-05-24	2239	1	UF				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-05-25	0745	2	UMUF	Y			40.529794	-124.010590	H 02N 01E 25	Quarter-section centroid
POS	2001-06-04	1011	2	UMUF	Y			40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2001-06-05	0700	2	UMUF	Y			40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2001-07-02	0020	1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2002		2	UMUF	Y			40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
NEG	2002-03-21	0642	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2002-03-28	0705	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2002-05-09	0129	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2002-05-20	0830	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2002-06-03	0122	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2002-06-23	2307	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
POS	2003		2	UMUF	Y			40.527535	-124.006211	H 02N 01E 25	Contributor
POS	2003-03-21	1052	1	UM				40.522058	-124.001053	H 02N 02E 30	Quarter-section centroid
NEG	2003-04-22	0830	0					40.523146	-124.004351	H 02N 02E 30	Activity center
NEG	2003-05-08	0334	0					40.525639	-123.996301	H 02N 02E 30	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2003-05-19	2232	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2003-06-02	0739	0					40.523146	-124.004351	H 02N 02E 30	Activity center
POS	2003-06-05	2233	1	UM				40.525639	-123.996301	H 02N 02E 30	Section centroid
POS	2003-06-06	0600	2	UMUF	Y			40.522058	-124.001053	H 02N 02E 30	Quarter-section centroid
NEG	2003-06-08	0054	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2004-03-22	1025	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2004-03-29	0808	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
NEG	2004-04-26	1207	0					40.525639	-123.996301	H 02N 02E 30	Section centroid
POS	2005		2	UMUF	Y	Y	1	40.525309	-124.005245	H 02N 02E 30	Contributor
NEG	2005-03-10	2350	0					40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
NEG	2005-03-25	0843	0					40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
NEG	2005-06-14	0132	0					40.529463	-124.001057	H 02N 02E 30	Quarter-section centroid
POS	2005-07-07		1	AF				40.523554	-124.004086	H 02N 02E 30	Contributor
POS	2005-07-17		1	AM				40.523554	-124.004086	H 02N 02E 30	Contributor
POS	2005-08-05		0				1	40.523554	-124.004086	H 02N 02E 30	Contributor
AC	2006		2	UMUF	Y			40.523146	-124.004351	H 02N 02E 30	Contributor
NEG	2006-05-16	2048- 2058	0					40.522605	-124.005678	H 02N 02E 30	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2006-05-25	2259-2309	0					40.522605	-124.005678	H 02N 02E 30	Contributor
NEG	2006-06-06	2251-2301	0					40.522605	-124.005678	H 02N 02E 30	Contributor
POS	2019-07-19	0930-1200	2	UMUF	Y			40.524799	-124.003590	H 02N 02E 30	Contributor
Masterowl: HUM0689 Subspecies: NORTHERN											
AC	1993		1	UM				40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	1994		0					40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	1995		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	1996		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	1997		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	1998		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	1999		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	2000		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	2001		0					40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	2001-05-06	0538	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-05-14	0510	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-06-18	0117	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-06-27	2110	0					40.541219	-124.053615	H 02N 01E 22	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2001-07-10	2053	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-07-17	2305	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-08-05	0342	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2001-08-12	2116	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2002		0					40.545467	-124.050620	H 02N 01E 22	Contributor
NEG	2003		0					40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	2003-03-16	2211	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2003-04-08	0511	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2003-04-14	2043	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2004		0					40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	2004-05-11	2235	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2004-05-19	2059	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2004-06-08	2111	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2005		0					40.545467	-124.050621	H 02N 01E 22	Contributor
NEG	2005-04-01	2111	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2005-04-22	2203	0					40.541219	-124.053615	H 02N 01E 22	Section centroid
NEG	2005-05-25	2112	0					40.541219	-124.053615	H 02N 01E 22	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2006		0					40.545467	-124.050620	H 02N 01E 22	Contributor
Masterowl: HUM0828 Subspecies: NORTHERN											
POS	1996-06-13		2	UMUF	Y	Y	1	40.507980	-124.020294	H 02N 01E 36	Quarter-section centroid
POS	1997-06-18	1828	2	UMUF	Y			40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	1998-07-06	1700	1	UU				40.507980	-124.020294	H 02N 01E 36	Quarter-section centroid
POS	1998-08-07	0750	1	UU				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	1999		1	UM				40.507980	-124.020294	H 02N 01E 36	Quarter-section centroid
NEG	1999-07-15	2052	0					40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	1999-07-30	2121	1	UU				40.508110	-124.029892	H 02N 01E 35	Quarter-section centroid
NEG	1999-08-11	2020	0					40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2000		2	UMUF	Y	Y	1	40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
NEG	2000-03-28	1840	0					40.497069	-124.015338	H 01N 01E 01	Section centroid
NEG	2000-04-04	2041	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
NEG	2000-04-04	2104	0					40.497069	-124.015338	H 01N 01E 01	Section centroid
NEG	2000-04-05	0136	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	2000-04-06	0033	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	2000-04-19	0112	0					40.511365	-124.015435	H 02N 01E 36	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2000-04-22	2109	1	UM				40.493533	-124.019863	H 01N 01E 01	Quarter-section centroid
NEG	2000-05-01	2332	0					40.497069	-124.015338	H 01N 01E 01	Section centroid
NEG	2000-05-02	2030	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
NEG	2000-06-20	2201	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
POS	2001		2	UMUF	Y	Y	2	40.503181	-124.018947	H 01N 01E 01	Contributor
POS	2001-05-29		2	AMAF				40.503122	-124.018427	H 01N 01E 01	Activity center
POS	2002		2	UMUF	Y	Y	2	40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2003-05-30	1147	1	UM				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2003-06-03	1045	2	UMUF	Y			40.505486	-124.018073	H 02N 01E 36	Contributor
POS	2003-06-11	2142	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2003-06-12	1100	1	UM				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2003-07-02	0007	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2003-07-07	2125	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2003-07-20	2127	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2003-07-28	2106	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2003-08-21	2045	1	UM				40.497069	-124.015338	H 01N 01E 01	Section centroid
POS	2005		2	UMUF	Y	Y	2	40.501739	-124.018004	H 01N 01E 01	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2005-06-14	0715	2	UMUF	Y	Y	2	40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2005-07-10	1840	1	UU	Y		2	40.508110	-124.029892	H 02N 01E 35	Quarter-section centroid
POS	2005-07-12	0917	2	UMUF	Y	Y	2	40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2005-07-15		0				1	40.499983	-124.016845	H 01N 01E 01	Contributor
POS	2005-07-15	1100	2	UMUF	Y	Y	2	40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2005-07-15		0				1	40.499983	-124.016845	H 01N 01E 01	Contributor
NEG	2005-08-04	0600	0					40.503122	-124.018427	H 01N 01E 01	Activity center
NEG	2005-08-05	0650	0					40.503122	-124.018427	H 01N 01E 01	Activity center
NEG	2005-08-10	0630	0					40.503122	-124.018427	H 01N 01E 01	Activity center
POS	2005-08-24	0640	1	UU	Y		2	40.507980	-124.020294	H 02N 01E 36	Quarter-section centroid
POS	2006		2	UMUF	Y			40.501729	-124.018028	H 01N 01E 01	Contributor
POS	2006-05-17	1740	2	UMUF	Y			40.493309	-124.010525	H 01N 01E 01	Quarter-section centroid
NEG	2006-08-04	1030	0					40.512542	-124.029983	H 02N 01E 35	Contributor
POS	2006-08-28	0732	1	UF	Y			40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2008		2	UMUF	Y	Y	1	40.503122	-124.018427	H 01N 01E 01	Contributor
POS	2009		2	UMUF	Y			40.503094	-124.018398	H 01N 01E 01	Contributor
POS	2010		2	UMUF	Y			40.503094	-124.018397	H 01N 01E 01	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2011		1	UM				40.503091	-124.018403	H 01N 01E 01	Contributor
POS	2012		1	UF				40.503094	-124.018398	H 01N 01E 01	Contributor
POS	2013-07-09	2250- 2307	1	UF				40.500780	-124.020231	H 01N 01E 01	Quarter-section centroid
POS	2013-07-10	1750- 1900	1	UF				40.507983	-124.020296	H 02N 01E 36	Quarter-section centroid
POS	2013-08-15	1850- 2000	1	UF				40.507983	-124.020296	H 02N 01E 36	Quarter-section centroid
POS	2014-05-23	1230- 1340	1	UM				40.500780	-124.020231	H 01N 01E 01	Quarter-section centroid
AC	2014-06-30	1905- 1958	2	UMUF	Y			40.500803	-124.017571	H 01N 01E 01	Contributor
NEG	2014-08-01	0815- 0900	0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2014-08-13	1911- 1950	0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2015-07-01	1520- 1828	0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2015-07-08	1934- 2008	0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2015-07-20	1902- 1953	0					40.500803	-124.017571	H 01N 01E 01	Activity center
POS	2015-07-27	1652- 1907	1	UM				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
NEG	2015-08-06	1440- 1650	0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2016-05-18	1630- 1725	0					40.500803	-124.017571	H 01N 01E 01	Activity center
POS	2016-06-19	1700- 1840	1	UU				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
POS	2016-07-12	1705- 1805	1	UM				40.507980	-124.020294	H 02N 01E 36	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2016-08-17	1620-1915	1	UM				40.500782	-124.020232	H 01N 01E 01	Quarter-section centroid
NEG	2017-05-11	1620-1820	0					40.500803	-124.017571	H 01N 01E 01	Activity center
POS	2017-06-07	0944-1155	1	UM				40.493533	-124.019867	H 01N 01E 01	Quarter-section centroid
POS	2017-07-21	1044-1400	1	UM				40.493533	-124.019867	H 01N 01E 01	Quarter-section centroid
NEG	2018		0					40.500803	-124.017571	H 01N 01E 01	Activity center
NEG	2019		0					40.500803	-124.017571	H 01N 01E 01	Activity center
Masterowl: HUM0854 Subspecies: NORTHERN											
POS	1991		2	UMUF	Y			40.517338	-124.017403	H 02N 01E 36	Contributor
POS	1996-05-20		1	UM				40.515886	-124.018667	H 02N 01E 36	Contributor
POS	1997-04-25		2	UMUF	Y	Y		40.513993	-124.018757	H 02N 01E 36	Contributor
POS	1998-06-10		2	UMUF	Y	Y	1	40.521629	-124.021115	H 02N 01E 25	Contributor
POS	1999		2	UMUF	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	1999-03-15	1040	1	UU				40.514353	-124.018762	H 02N 01E 36	Activity center
POS	1999-03-30	0904	1	UU				40.514353	-124.018762	H 02N 01E 36	Activity center
POS	1999-04-02	2148	1	UU				40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
NEG	1999-04-02	2056	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
POS	1999-04-06	1600	1	UU				40.514353	-124.018762	H 02N 01E 36	Activity center

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	1999-05-09	2309	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
POS	1999-05-17	2342	1	UU				40.514776	-124.010624	H 02N 01E 36	Quarter-section centroid
NEG	1999-05-18	0152	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
NEG	1999-05-24	1605	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	1999-05-27	2324	1	UM				40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
NEG	1999-06-03	2215	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
POS	1999-06-03	0910	2	UMUF	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	1999-06-15	2329	1	UM				40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
NEG	1999-07-15	2147	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	1999-08-11	2041	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	1999-08-18	2325	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
POS	2000		2	UMUF	Y		2	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-03-02	2058	1	UU				40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
NEG	2000-03-17	1040	0					40.514353	-124.018762	H 02N 01E 36	Activity center
NEG	2000-03-27	2144	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
NEG	2000-03-28	1911	0					40.511365	-124.015435	H 02N 01E 36	Section centroid
POS	2000-04-10	1012	2	UMUF	Y			40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2000-04-19	2052	0					40.526104	-124.015304	H 02N 01E 25	Section centroid
POS	2000-04-27	1140	2	UMUF	Y	Y		40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-06-05	1020	2	UMUF	Y	Y	1	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-06-13	0610	2	UMUF	Y	Y	1	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-06-30	0845	2	UMUF	Y	Y	2	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-07-05	0724	2	UMUF	Y	Y	1	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-08-16		1	AM				40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2000-08-17	0630	2	UMUF	Y	Y	2	40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2000-08-22	0530	1	UM	Y	Y	2	40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
POS	2000-08-22		0				1	40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2000-08-25	0650	2	UMUF	Y	Y	2	40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2000-10-11		1	AF				40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2001		1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
AC	2001		2	UMUF	Y	Y	2	40.514353	-124.018762	H 02N 01E 36	Contributor
NEG	2001-03-13	1716	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2001-03-20	0920	2	UMUF	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-03-26	1228	2	UMUF	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2001-04-04	1100	2	UMUF	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-04-16	1007	2	UMUF	Y	Y		40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-04-21	1210	2	UMUF	Y	Y		40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-04-29	0740	2	UMUF	Y	Y		40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-06-12	1400	1	UM	Y			40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
POS	2001-06-21	0938	1	UM	Y	Y		40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
NEG	2001-07-06	0830	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2001-07-15	2357	1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-07-16	0945	1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-07-26	2331	1	UF				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-07-26	0900	2	UMUF	Y		2	40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2001-07-27	0645	2	UMUF	Y		2	40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-08-02	1010	1	UM				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-08-07	0650	2	UMUF	Y		2	40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
POS	2001-08-07	0035	1	UU				40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid
NEG	2002		0					40.515160	-124.020179	H 02N 01E 36	Quarter-section centroid
NEG	2002		0					40.522182	-124.010593	H 02N 01E 25	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2003		0					40.521453	-124.009485	H 02N 01E 25	Contributor
NEG	2003		0					40.516176	-124.017444	H 02N 01E 36	Contributor
POS	2003		2	UMUF	Y	N		40.512201	-124.029367	H 02N 01E 35	Contributor
POS	2003-06-19	0042	1	UM				40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	2003-06-20	0520	0					40.514353	-124.018762	H 02N 01E 36	Activity center
NEG	2003-06-27	0630	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2003-07-01		1	UM				40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	2003-07-02	0953	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2003-07-07	2352	1	UU				40.511365	-124.015435	H 02N 01E 36	Section centroid
NEG	2003-08-12	1843	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2004		2	UMUF	Y	N		40.512200	-124.029366	H 02N 01E 35	Contributor
POS	2005		2	UMUF	Y	N		40.512201	-124.029367	H 02N 01E 35	Contributor
NEG	2005		0					40.519561	-124.009480	H 02N 01E 25	Contributor
NEG	2005-03-18	0740	0					40.514353	-124.018762	H 02N 01E 36	Activity center
NEG	2005-07-12	0610	0					40.514353	-124.018762	H 02N 01E 36	Activity center
NEG	2005-08-09	0935	0					40.514353	-124.018762	H 02N 01E 36	Activity center
NEG	2006-06-19	1600	0					40.514353	-124.018762	H 02N 01E 36	Activity center

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2006-06-20	0838	0					40.514353	-124.018762	H 02N 01E 36	Activity center
POS	2007		1	UM				40.512201	-124.029367	H 02N 01E 35	Contributor
NEG	2008		0					40.512578	-124.030008	H 02N 01E 35	Contributor
POS	2010		2	UMUF	Y			40.521174	-124.019331	H 02N 01E 25	Contributor
POS	2011		1	UU				40.521173	-124.019326	H 02N 01E 25	Contributor
POS	2012		1	UU				40.512549	-124.029983	H 02N 01E 35	Contributor
POS	2012		2	UMUF	Y			40.523169	-124.020004	H 02N 01E 25	Contributor
POS	2015-08-12	1535- 1754	1	UF				40.513591	-124.013466	H 02N 01E 36	Contributor
NEG	2016		0					40.513591	-124.013466	H 02N 01E 36	Activity center
NEG	2017-04-04	1810- 1844	0					40.523002	-124.019431	H 02N 01E 25	Activity center
NEG	2017-05-31	1625- 1800	0					40.523002	-124.019431	H 02N 01E 25	Activity center
NEG	2017-06-22	1915- 2000	0					40.513591	-124.013466	H 02N 01E 36	Activity center
POS	2017-07-24	1517- 2133	1	UM				40.522487	-124.020108	H 02N 01E 25	Quarter-section centroid
NEG	2017-07-25	1010- 1230	0					40.523002	-124.019431	H 02N 01E 25	Activity center
POS	2017-08-03	1830- 2027	1	UU				40.522487	-124.020108	H 02N 01E 25	Quarter-section centroid
POS	2017-08-17	1830- 1924	2	UMUF	Y		1	40.522487	-124.020108	H 02N 01E 25	Quarter-section centroid
POS	2017-08-24	0915- 1105	2	UMUF	Y		1	40.522487	-124.020108	H 02N 01E 25	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2018-03-22	1655-1805	0					40.523002	-124.019431	H 02N 01E 25	Activity center
POS	2018-06-01	1030-1157	1	UF				40.514777	-124.010629	H 02N 01E 36	Quarter-section centroid
NEG	2018-06-05	1715-1825	0					40.523002	-124.019431	H 02N 01E 25	Activity center
NEG	2018-06-11	1220-1255	0					40.513591	-124.013466	H 02N 01E 36	Activity center
NEG	2018-06-27	1400-1440	0					40.513591	-124.013466	H 02N 01E 36	Activity center
NEG	2018-07-27	0948-1145	0					40.523002	-124.019431	H 02N 01E 25	Activity center
POS	2018-08-20	1630-1735	1	UU				40.522485	-124.020113	H 02N 01E 25	Quarter-section centroid
NEG	2018-08-24	1335-1430	0					40.523002	-124.019431	H 02N 01E 25	Activity center
NEG	2019		0					40.513591	-124.013466	H 02N 01E 36	Activity center
POS	2019-04-04	1525-1600	1	UU				40.523273	-124.019760	H 02N 01E 25	Contributor
NEG	2019-05-22	1549-1716	0					40.523002	-124.019431	H 02N 01E 25	Activity center
POS	2019-07-17	1645-1800	1	UU				40.523308	-124.019835	H 02N 01E 25	Contributor
Masterowl: HUM0875 Subspecies: NORTHERN											
POS	1997-06-19	1835	2	UMUF	Y		1	40.499790	-124.035535	H 01N 01E 02	Contributor
POS	1998-07-06		2	UMUF	Y	Y	1	40.503369	-124.038305	H 01N 01E 02	Contributor
POS	1999		1	UM				40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
NEG	1999-06-22	2053	0					40.497071	-124.034302	H 01N 01E 02	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	1999-07-15	2052	0					40.497071	-124.034302	H 01N 01E 02	Section centroid
NEG	1999-08-11	2020	0					40.497071	-124.034302	H 01N 01E 02	Section centroid
NEG	2000		0					40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
NEG	2000-04-04	1804	0					40.497071	-124.034302	H 01N 01E 02	Section centroid
NEG	2000-05-02	2147	0					40.497071	-124.034302	H 01N 01E 02	Section centroid
POS	2001		2	UMUF	Y			40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2002		1	UF				40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
NEG	2003-05-30	0932	0					40.499802	-124.037247	H 01N 01E 02	Activity center
POS	2003-06-12	0620	1	UM				40.503584	-124.039382	H 01N 01E 02	Contributor
POS	2003-06-26	2307	1	UM				40.497071	-124.034302	H 01N 01E 02	Section centroid
NEG	2003-06-27	0628	0					40.499802	-124.037247	H 01N 01E 02	Activity center
NEG	2003-07-02	0638	0					40.499802	-124.037247	H 01N 01E 02	Activity center
POS	2003-07-07	2134	1	UM				40.500815	-124.029733	H 01N 01E 02	Quarter-section centroid
AC	2005		2	UMUF	Y	Y	2	40.499802	-124.037247	H 01N 01E 02	Contributor
POS	2005-06-14	1130	2	UMUF	Y	Y	1	40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2005-07-10	1900	2	UMUF	Y	Y	2	40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2005-08-04	0630	1	UM	Y	Y	2	40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2005-08-12	0640	1	UM	Y	Y	2	40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2005-08-15	0630	2	UMUF	Y	Y	2	40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2005-08-15		2	AMAF	Y		1	40.498046	-124.036087	H 01N 01E 02	Contributor
POS	2006-05-09	1212	1	UF				40.500815	-124.029733	H 01N 01E 02	Quarter-section centroid
POS	2006-05-17	1950	2	UMUF	Y			40.500170	-124.035399	H 01N 01E 02	Contributor
NEG	2006-06-01	1650	0					40.499802	-124.037247	H 01N 01E 02	Activity center
POS	2006-07-28	0840	2	UMUF	Y			40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
POS	2008		2	UMUF	Y			40.500214	-124.035412	H 01N 01E 02	Contributor
POS	2009		2	UMUF	Y		2	40.500182	-124.037514	H 01N 01E 02	Contributor
NEG	2010		0					40.500181	-124.037514	H 01N 01E 02	Contributor
NEG	2011		0					40.500182	-124.037513	H 01N 01E 02	Contributor
NEG	2012		0					40.500182	-124.037514	H 01N 01E 02	Contributor
POS	2014-06-30	1745- 1850	1	UM				40.500561	-124.039260	H 01N 01E 02	Quarter-section centroid
POS	2014-08-01	0905- 1200	1	UF				40.508107	-124.029893	H 02N 01E 35	Quarter-section centroid
POS	2014-08-13	2000- 2059	1	UF				40.508107	-124.029893	H 02N 01E 35	Quarter-section centroid
NEG	2015-07-01	1612- 1818	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2015-07-08	1654- 1914	1	UF				40.508110	-124.029892	H 02N 01E 35	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
NEG	2015-07-27	1920-2008	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2015-08-06	1700-1850	2	UMUF	Y			40.505506	-124.032222	H 02N 01E 35	Contributor
NEG	2016-05-18	1755-1855	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2016-06-19	1700-1830	1	UM				40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
NEG	2016-07-21	1740-1906	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2016-08-17	1619-1740	1	UM				40.500558	-124.039265	H 01N 01E 02	Quarter-section centroid
NEG	2017-06-08	1715-1925	0					40.505506	-124.032222	H 02N 01E 35	Activity center
NEG	2017-07-10	1625-1843	0					40.505506	-124.032222	H 02N 01E 35	Activity center
NEG	2017-07-21	1040-1400	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2017-08-07	0615-1745	1	UM				40.500561	-124.039260	H 01N 01E 02	Quarter-section centroid
POS	2018-05-16	1630-1910	1	UM				40.500815	-124.029733	H 01N 01E 02	Quarter-section centroid
POS	2018-06-04	1728-1826	1	UM				40.500815	-124.029733	H 01N 01E 02	Quarter-section centroid
NEG	2018-07-03	1555-1730	0					40.505506	-124.032222	H 02N 01E 35	Activity center
NEG	2018-08-08	1616-1746	0					40.505506	-124.032222	H 02N 01E 35	Activity center
POS	2018-08-15	1730-1850	2	UMUF	Y			40.507983	-124.020296	H 02N 01E 36	Quarter-section centroid
NEG	2018-08-20	1556-1758	0					40.505506	-124.032222	H 02N 01E 35	Activity center
NEG	2019		0					40.505506	-124.032222	H 02N 01E 35	Activity center

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
Masterowl: HUM0906 Subspecies: NORTHERN											
POS			2	UMUF	Y	N		40.522177	-124.050401	H 02N 01E 27	Contributor
POS	1998		2	AMAF	Y			40.521205	-124.049422	H 02N 01E 27	Contributor
NEG	1998-04-15	1924	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	1998-05-05		2	AMAF	Y			40.523010	-124.048950	H 02N 01E 27	Quarter-section centroid
NEG	1998-05-11	2011	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1998-05-20	1956	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1999		0					40.521205	-124.049422	H 02N 01E 27	Contributor
NEG	1999-06-01	2032	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1999-06-24	0034	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
NEG	1999-07-01	2259	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
NEG	1999-07-12	2259	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
NEG	1999-07-15	2220	0					40.511770	-124.034705	H 02N 01E 35	Section centroid
POS	2000		2	UMUF	Y		0	40.520485	-124.049744	H 02N 01E 27	Contributor
POS	2001		2	UMUF	Y	Y	2	40.515624	-124.048858	H 02N 01E 34	Quarter-section centroid
POS	2001		1	UU				40.521520	-124.047751	H 02N 01E 27	Contributor
POS	2002		2	UMUF	Y	Y	2	40.513220	-124.044713	H 02N 01E 34	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2002		2	UMUF	Y			40.530209	-124.078166	H 02N 01E 28	Quarter-section centroid
POS	2003-06-26	2226	1	UU				40.511951	-124.053499	H 02N 01E 34	Section centroid
POS	2003-06-27	0803	1	UF				40.514931	-124.045802	H 02N 01E 34	Contributor
NEG	2003-07-31	0938	0					40.523010	-124.048950	H 02N 01E 27	Quarter-section centroid
POS	2004		2	UMUF	Y	N		40.514479	-124.045389	H 02N 01E 34	Contributor
POS	2005		2	UMUF	Y			40.512975	-124.045949	H 02N 01E 34	Contributor
POS	2005		2	UMUF	Y	N		40.514479	-124.045390	H 02N 01E 34	Contributor
POS	2005-06-14	1000	2	UMUF	Y			40.507987	-124.048645	H 02N 01E 34	Quarter-section centroid
POS	2005-07-19	0935	1	UF	Y			40.507987	-124.048645	H 02N 01E 34	Quarter-section centroid
POS	2006		2	UMUF	Y	Y	2	40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2006-05-17	1832	2	UMUF	Y	Y		40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2006-06-28	1830	1	UF	Y	Y	2	40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2007		2	UMUF	Y	N		40.513513	-124.046352	H 02N 01E 34	Contributor
POS	2008		2	UMUF	Y	Y	2	40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2008		2	UMUF	Y	Y	2	40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2009		2	UMUF	Y	N	0	40.513514	-124.046353	H 02N 01E 34	Contributor
POS	2009		2	UMUF	Y			40.512593	-124.046283	H 02N 01E 34	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2010		2	UMUF	Y	Y	1	40.513517	-124.046347	H 02N 01E 34	Contributor
POS	2011		2	UMUF	Y	Y	1	40.512594	-124.046283	H 02N 01E 34	Contributor
POS	2012		2	UMUF	Y	N	0	40.512594	-124.046283	H 02N 01E 34	Contributor
AC	2013		2	UMUF	Y	Y	0	40.514324	-124.043992	H 02N 01E 35	Contributor
POS	2013-05-17	1110- 1210	2	UMUF	Y	Y		40.515620	-124.048854	H 02N 01E 34	Quarter-section centroid
POS	2013-06-25	1745- 1920	2	UMUF	Y		0	40.515620	-124.048854	H 02N 01E 34	Quarter-section centroid
POS	2013-07-09	1800- 1900	2	UMUF	Y		0	40.507982	-124.048643	H 02N 01E 34	Quarter-section centroid
POS	2014-05-28		2	UMUF	Y	N	0	40.515620	-124.048854	H 02N 01E 34	Quarter-section centroid
POS	2015-05-05		1	UF		N	0	40.514331	-124.043999	H 02N 01E 35	Contributor
POS	2016		1	UU				40.525295	-124.046943	H 02N 01E 27	Activity center
NEG	2016-07-25	1800- 1920	0					40.514324	-124.043992	H 02N 01E 35	Activity center
POS	2017-06-29	1557- 1714	2	UMUF	Y			40.515620	-124.048854	H 02N 01E 34	Quarter-section centroid
NEG	2018-05-24	1613- 1845	0					40.514324	-124.043992	H 02N 01E 35	Activity center
NEG	2018-07-19	1701- 1936	0					40.514324	-124.043992	H 02N 01E 35	Activity center
POS	2018-08-07	1559- 1803	1	UU				40.515620	-124.048854	H 02N 01E 34	Quarter-section centroid
NEG	2019-07-10	1700- 1950	0					40.514324	-124.043992	H 02N 01E 35	Activity center
POS	2019-08-01	1710- 1934	1	UU				40.518971	-124.048389	H 02N 01E 34	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
Masterowl: HUM0914 Subspecies: NORTHERN											
NEG	1998-04-15	1924	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1998-05-11	2011	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
NEG	1998-05-20	1956	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	1998-06-11		2	UMUF	Y			40.501804	-124.061766	H 01N 01E 03	Contributor
POS	1999		2	UMUF	Y		1	40.499825	-124.061381	H 01N 01E 03	Contributor
NEG	1999-06-01	2032	0					40.511907	-124.072985	H 02N 01E 33	Section centroid
POS	2000		2	UMUF	Y			40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid
POS	2001		2	UMUF	Y			40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid
POS	2002		1	UM				40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid
POS	2003		2	UMUF	Y			40.501782	-124.060184	H 01N 01E 03	Contributor
POS	2003-03-12	0820	2	UMUF	Y			40.501039	-124.067513	H 01N 01E 04	Quarter-section centroid
NEG	2003-07-17	0845	0					40.499965	-124.061914	H 01N 01E 03	Activity center
POS	2005		1	UM				40.499882	-124.060178	H 01N 01E 03	Contributor
NEG	2005-04-19	0835	0					40.499965	-124.061914	H 01N 01E 03	Activity center
POS	2005-05-23	1110	1	UM				40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid
POS	2005-06-27	0815	1	UU				40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2006-04-28	0808	2	UMUF	Y			40.500813	-124.057797	H 01N 01E 03	Quarter-section centroid
POS	2006-06-21	1550	2	UMUF	Y	Y	1	40.499965	-124.061914	H 01N 01E 03	Contributor
NEG	2006-08-17	1000	0					40.499965	-124.061914	H 01N 01E 03	Activity center
POS	2008		2	UMUF	Y			40.500010	-124.061915	H 01N 01E 03	Contributor
POS	2009		1	UU				40.499975	-124.061896	H 01N 01E 03	Contributor
POS	2010		1	UF				40.500386	-124.061713	H 01N 01E 03	Contributor
POS	2011		1	UF				40.500386	-124.061709	H 01N 01E 03	Contributor
POS	2012		2	UMUF	Y	Y	0	40.501892	-124.061891	H 01N 01E 03	Contributor
POS	2013		2	UMUF	Y	Y	2	40.504875	-124.060393	H 02N 01E 34	Contributor
POS	2013-04-22	1630- 2030	2	UMUF	Y			40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2013-05-20	1812- 1853	2	UMUF	Y			40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2013-07-01	1830- 1940	2	UMUF	Y		2	40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2014-04-16	1700- 1835	2	UMUF	Y			40.501035	-124.067510	H 01N 01E 04	Quarter-section centroid
POS	2014-05-21	1630- 1734	2	UMUF	Y			40.501035	-124.067510	H 01N 01E 04	Quarter-section centroid
POS	2014-07-01	1640- 1840	2	UMUF	Y			40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2015-03-30	1535- 1720	1	UM				40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2015-04-21	1525- 1900	2	UMUF	Y	Y		40.501688	-124.061771	H 01N 01E 03	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2015-06-12	0820-1050	2	UMUF	Y	Y		40.501688	-124.061771	H 01N 01E 03	Contributor
POS	2015-07-17	1015-1224	2	UMUF	Y	Y		40.501688	-124.061771	H 01N 01E 03	Contributor
POS	2016-04-11	1610-1737	1	UM				40.501039	-124.067513	H 01N 01E 04	Quarter-section centroid
POS	2016-06-05	1704-1825	2	UMUF	Y	Y	1	40.500567	-124.063487	H 01N 01E 04	Contributor
POS	2016-06-21	1719-1840	2	UMUF	Y		2	40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
NEG	2017-05-02	1706-1820	0					40.500567	-124.063487	H 01N 01E 04	Activity center
POS	2017-06-13	1715-1831	1	UF				40.501035	-124.067510	H 01N 01E 04	Quarter-section centroid
POS	2017-08-01	1605-1943	1	UF				40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2017-08-23	1625-1850	2	UMUF	Y			40.500815	-124.057795	H 01N 01E 03	Quarter-section centroid
POS	2018-04-04	1635-1741	2	UMUF	Y			40.501035	-124.067510	H 01N 01E 04	Quarter-section centroid
AC	2018-05-03	1630-1750	2	UMUF	Y	Y		40.502544	-124.062858	H 01N 01E 04	Contributor
POS	2018-06-14	1722-1840	2	AMUF	Y		1	40.501035	-124.067510	H 01N 01E 04	Quarter-section centroid
NEG	2018-07-03	1600-1733	0					40.502544	-124.062858	H 01N 01E 04	Activity center
NEG	2019		0					40.502544	-124.062858	H 01N 01E 04	Activity center
Masterowl: HUM1037 Subspecies: NORTHERN											
POS	2011		2	UMUF	Y	Y	1	40.542194	-124.047920	H 02N 01E 22	Contributor
POS	2012		2	UMUF	Y	N	0	40.542194	-124.047920	H 02N 01E 22	Contributor

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
POS	2013		2	UMUF	Y	N	0	40.542194	-124.047920	H 02N 01E 22	Contributor
POS	2014-04-23		2	UMUF	Y	Y	0	40.541348	-124.046001	H 02N 01E 22	Contributor
AC	2014-06-10		2	UMUF	Y	Y	2	40.541348	-124.046001	H 02N 01E 22	Contributor
POS	2015		2	AMUF	Y		0	40.541348	-124.046001	H 02N 01E 22	Activity center
POS	2016		1	UF				40.541348	-124.046001	H 02N 01E 22	Activity center
POS	2017		1	UU				40.541348	-124.046001	H 02N 01E 22	Activity center
NEG	2018		0					40.541348	-124.046001	H 02N 01E 22	Activity center
POS	2019		1	UU				40.543267	-124.050046	H 02N 01E 22	Contributor
Masterowl: HUM1039 Subspecies: NORTHERN											
POS	2011		2	UMUF	Y		0	40.533881	-124.021986	H 02N 01E 24	Contributor
POS	2012		2	UMUF	Y		0	40.535174	-124.029929	H 02N 01E 23	Contributor
POS	2013		2	UMUF	Y		0	40.531500	-124.023072	H 02N 01E 25	Contributor
POS	2014-06-16		2	UMUF	Y		0	40.532915	-124.025065	H 02N 01E 26	Contributor
POS	2015-05-23		2	UMSF	Y	N	0	40.533193	-124.024172	H 02N 01E 25	Activity center
POS	2016		2	UMAF	Y	Y	1	40.533625	-124.026269	H 02N 01E 26	Contributor
POS	2017		2	UMUF	Y	Y	2	40.533742	-124.026294	H 02N 01E 23	Contributor
AC	2018		2	UMUF	Y	Y	2	40.533098	-124.025777	H 02N 01E 26	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2019		2	UMUF	Y		0	40.533098	-124.025777	H 02N 01E 26	Activity center
Masterowl: HUM1109 Subspecies: NORTHERN											
POS	2016		2	UMAF	Y	Y	2	40.513476	-124.075383	H 02N 01E 33	Contributor
POS	2017		2	UMUF	Y	Y	1	40.514035	-124.072382	H 02N 01E 33	Contributor
AC	2018		2	UMUF	Y	Y	2	40.512169	-124.068635	H 02N 01E 33	Contributor
Masterowl: HUM1110 Subspecies: NORTHERN											
AC	2016		2	UMUF	Y			40.522664	-124.058897	H 02N 01E 27	Contributor
POS	2017		1	UU				40.522664	-124.058897	H 02N 01E 27	Activity center
Positive Spotted Owl detections not associated with a known Activity Center Subspecies: NORTHERN											
POS	2015-07-23	1441- 1532	1	UU				40.525523	-124.018723	H 02N 01E 25	Contributor
Additional surveys within the search area with no Spotted Owls detected											
NEG	2015-07-28	1900- 2015	0					40.525523	-124.018723	H 02N 01E 25	Activity center
NEG	2016-08-03	1038- 1220	0					40.525523	-124.018723	H 02N 01E 25	Activity center

Appendix E

WEB SOIL SURVEY REPORTS

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Humboldt Reserve, LLC

4798 HWY 36

Hydesville, CA 95547

Assessor Parcel Number (APN):

204-251-001, 204-121-006, and 204-121-005

August 2022

Humboldt County, Central Part, California

220—Ferndale, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2112t
Elevation: 10 to 160 feet
Mean annual precipitation: 35 to 80 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 275 to 330 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Ferndale and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ferndale

Setting

Landform: Flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from mixed sources

Typical profile

Ap - 0 to 11 inches: silt loam
C1 - 11 to 16 inches: silt loam
C2 - 16 to 21 inches: silt loam
C3 - 21 to 50 inches: silt loam
C4 - 50 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 48 to 60 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B

Ecological site: F004BI100CA - Fluventic, salt-affected, rarely flooded, alluvial floodplains
Hydric soil rating: No

Minor Components

Swainslough

Percent of map unit: 4 percent
Landform: Backswamps, depressions, flood-plain steps, salt marshes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: Yes

Worswick

Percent of map unit: 4 percent
Landform: Natural levees, flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Russ

Percent of map unit: 3 percent
Landform: Natural levees
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Madriver

Percent of map unit: 2 percent
Landform: Natural levees
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Arlynda

Percent of map unit: 2 percent
Landform: Meander scars, backswamps, depressions, flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Humboldt County, Central Part, California
Survey Area Data: Version 7, Sep 6, 2021

Humboldt County, Central Part, California

341—Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes

Map Unit Setting

National map unit symbol: 1j78r
Elevation: 80 to 1,480 feet
Mean annual precipitation: 45 to 62 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 240 to 300 days
Farmland classification: Not prime farmland

Map Unit Composition

Fiedler and similar soils: 32 percent
Petellen and similar soils: 28 percent
Nanningcreek and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fiedler

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from conglomerate and/or residuum weathered from conglomerate

Typical profile

A - 0 to 11 inches: silt loam
ABt - 11 to 22 inches: silt loam
Bt1 - 22 to 31 inches: silt loam
Bt2 - 31 to 46 inches: silt loam
Bt3 - 46 to 55 inches: loam
Bt4 - 55 to 79 inches: clay loam

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Very high (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Ecological site: F004B1103CA - Fog-influenced, cool, wet, low elevation mountain slopes and terraces

Hydric soil rating: No

Description of Petellen

Setting

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Mountainflank

Down-slope shape: Convex

Across-slope shape: Concave

Parent material: Colluvium derived from conglomerate and/or residuum weathered from conglomerate

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

A - 2 to 6 inches: gravelly loam

Bt1 - 6 to 14 inches: very gravelly sandy clay loam

Bt2 - 14 to 22 inches: very gravelly sandy clay loam

Bt3 - 22 to 32 inches: very gravelly sandy clay loam

Bt4 - 32 to 37 inches: very gravelly sandy clay loam

Cd - 37 to 64 inches: extremely gravelly loam

Properties and qualities

Slope: 30 to 50 percent

Depth to restrictive feature: 30 to 79 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.40 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C

Ecological site: F004B1101CA - Low elevation marine and floodplain terraces

Hydric soil rating: No

Description of Nanningcreek

Setting

Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from sandstone and/or residuum weathered from sandstone

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 11 inches: loam
Bt1 - 11 to 22 inches: loam
Bt2 - 22 to 31 inches: clay loam
Bt3 - 31 to 60 inches: loam

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 20 to 39 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C/D
Ecological site: F004B1104CA - Fog-influenced, upper elevation mountain slopes
Hydric soil rating: No

Minor Components

Salmoncreek

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex, linear
Hydric soil rating: Yes

Rootcreek

Percent of map unit: 5 percent
Landform: Mountain slopes

Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Center third of
mountainflank
Down-slope shape: Convex
Across-slope shape: Concave
Hydric soil rating: No

Data Source Information

Soil Survey Area: Humboldt County, Central Part, California
Survey Area Data: Version 7, Sep 6, 2021

Appendix F

BEST PRACTICABLE TREATMENT OR CONTROL
BEST MANAGEMENT PRACTICES

**BIOLOGICAL RECONNAISSANCE AND
PROJECT FEASIBILITY ASSESSMENT REPORT**

Humboldt Reserve, LLC

4798 HWY 36
Hydesville, CA 95547

**Assessor Parcel Number (APN):
204-251-001, 204-121-006, and 204-121-005**

August 2022

Cannabis Cultivation

Best Practicable Treatment or Control (BPTC) and Best Management Practices (BMP)

Adapted from

State Water Resources Control Board Cannabis General Order WQ 2017-0023-DWQ Attachment A

BPTCs and BMPs are designed to prevent, minimize, and control the discharge of waste and pollutants associated with site operations and maintenance for the aforementioned project. Many of these BMPs are considered enforceable conditions under State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

No.	TERM
Land Development and Maintenance, Erosion Control, and Drainage Features	
Limitations on Earthmoving	
1.	Landowners shall not conduct grading activities for land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, or agriculture; whichever is more stringent shall apply. The grading prohibition on slopes exceeding 50 percent does not apply to site mitigation or remediation if the landowner is issued separate WDRs or an enforcement order for the activity by the Regional Water Board Executive Officer.
2.	Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent and should conform to the natural pre-grade slope whenever possible.
3.	Landowners shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized under 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board. This requirement does not prohibit driving on established, maintained access roads that are in compliance with this various agency standards.
4.	Land development and access road construction shall be designed by qualified professionals. Landowners shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat.
5.	The landowner shall control all dust related to operation activities to ensure dust does not produce sediment-laden runoff. The landowner shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Landowners shall grade access roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction, or when needed use a water truck to control dust and soil moisture.
Construction Equipment Use and Limitations	
6.	Landowners shall employ spill control and containment practices to prevent the discharge of fuels, oils, solvents and other chemicals to soils and waters of the state.

7.	<p>Landowners shall stage and store equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials in locations that minimize the potential for discharge to waters of the state. At a minimum, the following measures shall be implemented:</p> <ol style="list-style-type: none"> 1. Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Landowner shall not conduct any maintenance activity or refuel equipment in any location where the petroleum products or other pollutants may enter waters of the state as per Fish and Game Code section 5650 (a)(1). 2. Frequently inspect equipment and vehicles for leaks. 3. Immediately clean up leaks, drips, and spills. Except for emergency repairs that are necessary for safe transport of equipment or vehicles to an appropriate repair facility, equipment or vehicle repairs, maintenance, and washing onsite is prohibited. 4. If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled off-site. 5. Properly dispose of all construction debris off-site. 6. Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. Sweep up, contain, and properly dispose of spilled dry materials.
Erosion Control	
8.	<p>The landowner shall use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground.</p>
9.	<p>The landowner shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Invasive Pest Plant Council's database, available at: www.cal-ipc.org/paf/. Locally native, non-invasive, and non-persistent grass species may be used for temporary erosion control benefits to stabilize disturbed land and prevent exposure of disturbed land to rainfall.</p>
10.	<p>Landowners shall incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of the project activities. The erosion prevention and sediment capture measures shall be effective in protecting water quality.</p> <ul style="list-style-type: none"> • Interim erosion prevention and sediment capture measures shall be implemented within seven days of completion of grading and land disturbance activities, and shall consist of erosion prevention measures and sediment capture measures including: <ul style="list-style-type: none"> ○ Erosion prevention measures are required for any earthwork that uses heavy equipment (e.g., bulldozer, compactor, excavator, etc.). Erosion prevention measures may include surface contouring, slope roughening, and upslope storm water diversion. Other types of erosion prevention measures may include mulching, hydroseeding, tarp placement, revegetation, and rock slope protection. ○ Sediment capture measures include the implementation of measures such as gravel bag berms, fiber rolls, straw bale barriers, properly installed silt fences, and sediment settling basins. • Long-term erosion prevention and sediment capture measures shall be implemented as soon as possible and prior to the onset of fall and winter precipitation. Long-term measures may include the use of heavy equipment to reconfigure access roads or improve access road drainage, installation of properly-sized culverts, gravel placement on steeper grades, and stabilization of previously disturbed land. • Maintenance of all erosion protection and sediment capture measures is required year round. Early monitoring allows for identification of problem areas or underperforming erosion or sediment control measures. Verification of the effectiveness of all erosion prevention and sediment capture measures is required as part of winterization activities.
11.	<p>Landowners shall only use geotextiles, fiber rolls, and other erosion control measures made of loose-weave mesh (e.g., jute, coconut (coir) fiber, or from other products without welded weaves). To minimize the risk of ensnaring and strangling wildlife, Landowners shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control for any project activities. This prohibition includes photo- or bio-degradable plastic netting.</p>

12.	Cultivation sites constructed on or near slopes with a slope greater than or equal to 30 percent shall be inspected for indications of instability. Indications of instability include the occurrence of slope failures at nearby similar sites, weak soil layers, geologic bedding parallel to slope surface, hillside creep (trees, fence posts, etc. leaning downslope), tension cracks in the slope surface, bulging soil at the base of the slope, and groundwater discharge from the slope. If indicators of instability are present, the landowner shall consult with a qualified professional to design measures to stabilize the slope to prevent sediment discharge to surface waters.
13.	For areas outside of riparian setbacks or for upland areas, Landowners shall ensure that rock placed for slope protection is the minimum amount necessary and is part of a design that provides for native plant revegetation. If retaining walls or other structures are required to provide slope stability, they shall be designed by a qualified professional.
14.	Landowners shall monitor erosion control measures during and after each storm event that produces at least 0.5 in/day or 1.0 inch/7 days of precipitation, and repair or replace, as needed, ineffective erosion control measures immediately.
Access Road/Land Development and Drainage	
15.	Access roads shall be constructed consistent with the requirements of California Code of Regulations Title 14, Chapter 4. The Road Handbook describes how to implement the regulations and is available at < http://www.pacificwatershed.com/PWA-publications-library >. Existing access roads shall be upgraded to comply with the Road Handbook.
16.	Landowners shall obtain all required permits and approvals prior to the construction of any access road constructed for project activities. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits.
17.	Landowners shall ensure that all access roads are hydrologically disconnected to receiving waters to the extent possible by installing disconnecting drainage features, increasing the frequency of (inside) ditch drain relief as needed, constructing out-sloped roads, constructing energy dissipating structures, avoiding concentrating flows in unstable areas, and performing inspection and maintenance as needed to optimize the access road performance.
18.	New access road alignments should be constructed with grades (slopes) of 3- to 8- percent, or less, wherever possible. Forest access roads should generally be kept below 12-percent except for short pitches of 500 feet or less where road slopes may go up to 20- percent. These steeper access road slopes should be paved or rock surfaced and equipped with adequate drainage. Existing access roads that do not comply with these limits shall be inspected by a qualified professional to determine if improvements are needed.
19.	Landowners shall decommission or relocate existing roads away from riparian setbacks whenever possible. Roads that are proposed for decommissioning shall be abandoned and left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls. Abandoned roads shall be blocked to prevent unauthorized vehicle traffic.
20.	If site conditions prohibit drainage structures (including rolling dips and ditch-relief culverts) at adequate intervals to avoid erosion, the landowner shall use bioengineering techniques ¹² as the preferred measure to minimize erosion (e.g., live fascines). If bioengineering cannot be used, then engineering fixes such as armoring (e.g., rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g., gravel-filled "pillows" in an inside ditch to trap sediment) may be used for problem sites. The maximum distance between water breaks shall not exceed those defined in the Road Handbook.
21.	Landowners shall have a qualified professional design the optimal access road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures.
22.	Landowners shall ensure that access road surfacing, especially within a segment leading to a waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize access road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All access roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper access road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited.
23.	Landowners shall install erosion control measures on all access road approaches to surface water diversion sites to reduce the generation and transport of sediment to streams.

24.	Landowners shall ensure that access roads are out-sloped whenever possible to promote even drainage of the access road surface, prevent the concentration of storm water flow within an inboard or inside ditch, and to minimize disruption of the natural sheet flow pattern off a hill slope to a stream.
25.	If unable to eliminate inboard or inside ditches, the landowner shall ensure adequate ditch relief culverts to prevent down-cutting of the ditch and to reduce water runoff concentration, velocity, and erosion. Ditches shall be designed and maintained as recommended by a qualified professional. To avoid point-source discharges, inboard ditches and ditch relief culverts shall be discharged onto vegetated or armored slopes that are designed to dissipate and prevent runoff channelization. Inboard ditches and ditch relief culverts shall be designed to ensure discharges into natural stream channels or watercourses are prevented.
26.	Landowners shall ensure that access roads are not allowed to develop or show evidence of significant surface rutting or gullying. Landowners shall use water bars and rolling dips as designed by a qualified professional to minimize access road surface erosion and dissipate runoff.
27.	Landowners shall only grade ditches when necessary to prevent erosion of the ditch, undermining of the banks, or exposure of the toe of the cut slope to erosion. Landowners shall not remove more vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment.
28.	Access road storm water drainage structures shall not discharge onto unstable slopes, earthen fills, or directly to a waterbody. Drainage structures shall discharge onto stable areas with straw bales, slash, vegetation, and/or rock riprap.
29.	Sediment control devices (e.g., check dams, sand/gravel bag barriers, etc.) shall be used when it is not practical to disperse storm water before discharge to a waterbody. Where potential discharge to a wetland or waterbody exists (e.g., within 200 feet of a waterbody) access road surface drainage shall be filtered through vegetation, slash, other appropriate material, or settled into a depression with an outlet with adequate drainage. Sediment basins shall be engineered and properly sized to allow sediment settling, spillway stability, and maintenance activities.
Drainage Culverts (See also Watercourse Crossings)	
30.	Landowners shall regularly inspect ditch-relief culverts and clear them of any debris or sediment. To reduce ditch-relief culvert plugging by debris, Landowners shall use 15- to 24-inch diameter pipes, at minimum. In forested areas with a potential for woody debris, a minimum 18-inch diameter pipe shall be used to reduce clogging. Ditch relief culverts shall be designed by a qualified professional based on site-specific conditions.
31.	Landowners shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a qualified professional.
Cleanup, Restoration, and Mitigation	
32.	Landowners shall limit disturbance to existing grades and vegetation to the actual site of the cleanup or remediation and any necessary access routes.
33.	Landowners shall avoid damage to native riparian vegetation. All exposed or disturbed land and access points within the stream and riparian setback with damaged vegetation shall be restored with regional native vegetation of similar native species. Riparian trees over four inches diameter at breast height shall be replaced by similar native species at a ratio of three to one (3:1). Restored areas must be mulched, using at least 2 to 4 inches of weed-free, clean straw or similar biodegradable mulch over the seeded area. Mulching shall be completed within 30 days after land disturbance activities in the areas cease. Revegetation planting shall occur at a seasonally appropriate time until vegetation is restored to pre-operation or pre-Legacy condition or better. Landowners shall stabilize and restore any temporary work areas with native vegetation to pre-operation or pre-Legacy conditions or better. Vegetation shall be planted at an adequate density and variety to control surface erosion and re-generate a diverse composition of regional native vegetation of similar native species.
34.	Landowners shall avoid damage to oak woodlands. Landowner shall plant three oak trees for every one oak tree damaged or removed. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to the local county.

35.	<p>Landowners shall develop a revegetation plan for:</p> <ul style="list-style-type: none"> • All exposed or disturbed riparian vegetation areas, • any oak trees that are damaged or removed, and • temporary work areas. <p>Landowners shall develop a monitoring plan that evaluates the revegetation plan for five years. Landowners shall maintain annual inspections for the purpose of assessing an 85 percent survival and growth of revegetated areas within a five-year period. The presence of exposed soil shall be documented for three years following revegetation work. If the revegetation results in less than an 85 percent success rate, the unsuccessful vegetation areas shall be replanted. Landowners shall identify the location and extent of exposed soil associated with the site; pre- and post-revegetation work photos; diagram of all areas revegetated, the planting methods, and plants used; and an assessment of the success of the revegetation program. Landowners shall maintain a copy of the revegetation plan and monitoring results onsite and make them available, upon request, to Water Boards staff or authorized representatives. An electronic copy of monitoring results is acceptable in Portable Document Format (PDF).</p>
36.	<p>Landowners shall revegetate soil exposed as a result of project activities with native vegetation by live planting, seed casting, or hydroseeding within seven days of exposure.</p>
37.	<p>Landowners shall prevent the spread or introduction of exotic plant species to the maximum extent possible by cleaning equipment before delivery to the Site and before removal, restoring land disturbance with appropriate native species, and post-project activities monitoring and control of exotic species.</p>

Stream Crossing Installation and Maintenance

Limitations on Work in Watercourses and Permanently Poned Areas

38.	<p>Landowners shall obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), and a CDFW LSA Agreement.</p>
39.	<p>Landowners shall avoid or minimize temporary stream crossings. When necessary, temporary stream crossings shall be located in areas where erosion potential and damage to the existing habitat is low. Landowners shall avoid areas where runoff from access roadway side slopes and natural hillsides will drain and flow into the temporary crossing. Temporary stream crossings that impede fish passage are strictly prohibited on permanent or seasonal fish-bearing streams.</p>
40.	<p>Landowners shall avoid or minimize use of heavy equipment¹³ in a watercourse. If use is unavoidable, heavy equipment may only travel or work in a waterbody with a rocky or cobbled channel. Wood, rubber, or clean native rock temporary work pads shall be used on the channel bottom prior to use of heavy equipment to protect channel bed and preserve channel morphology. Temporary work pads and other channel protection shall be removed as soon as possible once the use of heavy equipment is complete.</p>
41.	<p>Landowners shall avoid or minimize work in or near a stream, creek, river, lake, pond, or other waterbody. If work in a waterbody cannot be avoided, activities and associated workspace shall be isolated from flowing water by directing the water around the work site. If water is present, then the landowner shall develop a site-specific plan prepared by a qualified professional. The plan shall consider partial or full stream diversion and dewatering. The plan shall consider the use of coffer dams upstream and downstream of the work site and the diversion of all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe with intake screens that protect and prevent impacts to fish and wildlife. Project activities and associated work shall be performed outside the waterbody from the top of the bank to the maximum extent possible.</p>

Temporary Watercourse Diversion and Dewatering: All Live Watercourses

42.	<p>Landowners shall ensure that coffer dams are constructed prior to commencing work and as close as practicable upstream and downstream of the work area. Cofferdam construction using offsite materials, such as clean gravel bags or inflatable dams, is preferred. Thick plastic may be used to minimize leakage but shall be completely removed and properly disposed of upon work completion. If the coffer dams or stream diversion fail, the landowner shall repair them immediately.</p>
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43.	When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the landowner shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937.
44.	If possible, gravity flow is the preferred method of water diversion. If a pump is used, the landowner shall ensure that the pump is operated at the rate of flow that passes through the site. Pumping rates shall not dewater or impound water on the upstream side of the coffer dam. When diversion pipe is used it shall be protected from project activities and maintained to prevent debris blockage.
45.	Landowners shall only divert water such that water does not scour the channel bed or banks at the downstream end. Landowner shall divert flow in a manner that prevents turbidity, siltation, and pollution and provides flows to downstream reaches. Landowners shall provide flows to downstream reaches during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Block netting and intake screens shall be sized to protect and prevent impacts to fish and wildlife.
46.	Once water has been diverted around the work area, Landowners may dewater the site to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, or upland area, or to another location approved by CDFW or the appropriate Regional Water Board Executive Officer prior to re-entering the watercourse.
47.	Upon completion of work, Landowners shall immediately remove the flow diversion structure in a manner that allows flow to resume with a minimum of disturbance to the channel substrate and that minimizes the generation of turbidity.
Watercourse Crossings	
48.	Landowners shall ensure that watercourse crossings are designed by a qualified professional.
49.	Landowners shall ensure that all access road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Consult CAL FIRE 100-year Watercourse Crossings document for examples and design calculations, available at: http://calfire.ca.gov/resource_mgt/downloads/100%20yr%20revised%208-08-17%20(final-a).pdf .
50.	Landowners shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any access road crossing structure on watercourses that supports fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines: <ul style="list-style-type: none"> • CDFW's <i>Culvert Criteria for Fish Passage</i>; • CDFW's <i>Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings</i>; and • National Marine Fisheries Service, <i>Southwest Region Guidelines for Salmonid Passage at Stream Crossings</i>.
51.	Landowners shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris. Refer to California Board of Forestry Technical Rule No. 5 available at: http://www.calforests.org/wp-content/uploads/2013/10/Adopted-TRA5.pdf .
52.	Landowners shall only use rock fords for temporary seasonal crossings on small watercourses where aquatic life passage is not required during the time period of use. Rock fords shall be oriented perpendicular to the flow of the watercourse and designed to maintain the range of surface flows that occur in the watercourse. When constructed, rock shall be sized to withstand the range of flow events that occur at the crossing and rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion. Rock must extend on either side of the ford up to the break in slope. The use of rock fords as watercourse crossings for all-weather access road use is prohibited.
53.	Landowners shall ensure that culverts used at watercourse crossings are designed to direct flow and debris toward the inlet (e.g., use of wing-walls, pipe beveling, rock armoring, etc.) to prevent erosion of road fill, debris blocking the culvert, and watercourses from eroding a new channel.

54.	<p>Landowners shall regularly inspect and maintain the condition of access roads, access road drainage features, and watercourse crossings. At a minimum, Landowners shall perform inspections prior to the onset of fall and winter precipitation and following storm events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation. Landowners are required to perform all of the following maintenance:</p> <ul style="list-style-type: none"> • Remove any wood debris that may restrict flow in a culvert. • Remove sediment that impacts access road or drainage feature performance. • Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment. • Maintain records of access road and drainage feature maintenance and consider redesigning the access road to improve performance and reduce maintenance needs.
55.	<p>Landowners shall compact access road crossing approaches and fill slopes during installation and shall stabilize them with rock or other appropriate surface protection to minimize surface erosion. When possible, Landowners shall ensure that access roads over culverts are equipped with a critical dip to ensure that, if the culvert becomes blocked or plugged, water can flow over the access road surface without washing away the fill prism. Access road crossings where specific conditions do not allow for a critical dip or in areas with potential for significant debris accumulation, shall include additional measures such as emergency overflow culverts or oversized culverts that are designed by a qualified professional.</p>
56.	<p>Landowners shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) embedded or installed at the same level and gradient of the streambed in which they are being placed to prevent erosion.</p>

Soil Disposal and Spoils Management

57.	<p>Landowners shall store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability.</p>
58.	<p>Landowners shall separate large organic material (e.g., roots, woody debris, etc.) from soil materials. Landowners shall either place the large organic material in long-term, upland storage sites, or properly dispose of these materials offsite.</p>
59.	<p>Landowners shall store erodible soil, soil amendments, and spoil piles to prevent sediment discharges in storm water. Storage practices may include use of tarps, upslope land contouring to divert surface flow around the material, or use of sediment control devices (e.g., silt fences, straw wattles, etc.).</p>
60.	<p>Landowners shall contour and stabilize stored spoils to mimic natural slope contours and drainage patterns (as appropriate) to reduce the potential for fill saturation and slope failure.</p>
61.	<p>For soil disposal sites Landowners shall:</p> <ul style="list-style-type: none"> • revegetate soil disposal sites with a mix of native plant species, • cover the seeded and planted areas with mulched straw at a rate of two tons per acre, and • apply non-synthetic netting or similar erosion control fabric (e.g., jute) on slopes greater than 2:1 if the site is erodible.
62.	<p>Landowners shall haul away and properly dispose of excess soil and other debris as needed to prevent discharge to waters of the state.</p>

Riparian and Wetland Protection and Management

63.	<p>Landowners shall not disturb aquatic or riparian habitat, such as pools, spawning sites, large wood, or shading vegetation unless authorized under a CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), or a CDFW LSA Agreement.</p>
64.	<p>Landowners shall maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharge.</p>

Water Storage and Use

Water Supply, Diversion, and Storage

65.	Landowners shall only install, maintain, and destroy wells in compliance with county, city, and local ordinances and with California Well Standards as stipulated in California Department of Water Resources Bulletins 74-90 and 74-81.
66.	All water diversions for project activities from a surface stream, subterranean stream flowing through a known and definite channel (e.g., groundwater well diversions from subsurface stream flows), or other surface waterbody are subject to the surface water Numeric and Narrative Instream Flow Requirements. This includes lakes, ponds, and springs (unless the spring is deemed exempt by the Deputy Director). See Section 3. Numeric and Narrative Instream Flow Requirements of this Attachment A for more information.
67.	Groundwater diversions may be subject to additional requirements, such as a forbearance period, if the State Water Board determines those requirements are reasonably necessary.
68.	Landowners are encouraged to use appropriate rainwater catchment systems to collect from impermeable surfaces (e.g., roof tops, etc.) during the wet season and store storm water in tanks, bladders, or off-stream engineered reservoirs to reduce the need for surface water or groundwater diversions.
69.	Landowners shall not divert surface water unless it is diverted in accordance with an existing water right that specifies, as appropriate, the source, location of the point of diversion, purpose of use, place of use, and quantity and season of diversion. Landowners shall maintain documentation of the water right at the project site. Documentation of the water right shall be available for review and inspection by the Water Boards, CDFW, and any other authorized representatives of the Water Boards or CDFW.
70.	Landowners shall ensure that all water diversion facilities are designed, constructed, and maintained so they do not prevent, impede, or tend to prevent the passing of fish, as defined by Fish and Game Code section 45, upstream or downstream, as required by Fish and Game Code section 5901. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream aquatic life movement and migration. Landowners shall allow sufficient water at all times to pass past the point of diversion to keep in good condition any fish that may be planted or exist below the point of diversion as defined by Fish and Game Code section 5937. Landowners shall not divert water in a manner contrary to or inconsistent with these Requirements.
71.	Landowners issued an SIUR by the State Water Board shall not divert surface water unless in compliance with all additional SIUR conditions required by CDFW.
72.	Water diversion facilities shall include satisfactory means for bypassing water to satisfy downstream prior rights and any requirements of policies for water quality control, water quality control plans, water quality certifications, waste discharge requirements, or other local, state or federal instream flow requirements. Landowners shall not divert in a manner that results in injury to holders of legal downstream senior rights. Landowners may be required to curtail diversions should diversion result in injury to holders of legal downstream senior water rights or interfere with maintenance of downstream instream flow requirements.
73.	Fuel powered (e.g., gas, diesel, etc.) diversion pumps shall be located in a stable and secure location outside of the riparian setbacks unless authorized under a 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board. Use of non-fuel powered diversion pumps (solar, electric, gravity, etc.) is encouraged. In all cases, all pumps shall: <ol style="list-style-type: none"> 1. be properly maintained, 2. have suitable containment to ensure any spills or leaks do not enter surface waterbodies or groundwater, and 3. have sufficient overhead cover to prevent exposure of equipment to precipitation.
74.	No water shall be diverted unless the landowner is operating the water diversion facility with a CDFW-approved water-intake screen (e.g. fish screen). The water intake screen shall be designed and maintained in accordance with screening criteria approved by CDFW. The screen shall prevent wildlife from entering the diversion intake and becoming entrapped. The landowner shall contact the regional CDFW Office, LSA Program for information on screening criteria for diversion(s). ¹⁵ The landowner shall provide evidence that demonstrates that the water intake screen is in good condition whenever requested by the Water Boards or CDFW. Points of re-diversion from off-stream storage facilities that are open to the environment shall have a water intake screen, as required by CDFW.
75.	Landowners shall inspect, maintain, and clean water intake screens and bypass appurtenances as directed by CDFW to ensure proper operation for the protection of fish and wildlife.

76.	Landowners shall not obstruct, alter, dam, or divert all or any portion of a natural watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board.
77.	Landowners shall plug, block, cap, disconnect, or remove the diversion intake associated with project activities during the surface water forbearance period, unless the diversion intake is used for other beneficial uses, to ensure no water is diverted during that time.
78.	Landowners shall not divert from a surface water or from a subterranean stream for the project site at a rate more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right.
82.	<p>Onstream storage reservoirs are prohibited unless either:</p> <ul style="list-style-type: none"> · The landowner has an existing water right with irrigation as a designated use, issued prior to October 31, 2017, that authorizes the onstream storage reservoir, or · The landowner obtains an appropriative water right permit with irrigation as a designated use prior to diverting water from an onstream storage reservoir for the project site. Landowners with a pending application or an unpermitted onstream storage reservoir shall not divert for project activities until the landowner has obtain a valid water right.
83.	Landowners are encouraged to install separate storage systems for water diverted for irrigation and water diverted for any other beneficial uses, ¹⁶ or otherwise shall install separate measuring devices to quantify diversion to and from each storage facility, including the quantity of water diverted and the quantity, place, and purpose of use (e.g., crop irrigation, domestic, etc.) for the stored water.
84.	<p>The landowner shall install and maintain a measuring device(s) for surface water or subterranean stream diversions. The measuring device shall be, at a minimum equivalent to the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.7. The measuring device(s) shall be located as close to the point of diversion as reasonable. Landowners shall maintain daily diversion records for water diverted. Landowners shall maintain separate records that document the amount of water used for project activities separated out from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Landowners shall maintain daily diversion records at the site and shall make the records available for review or by request by the Water Boards CDFW, or any other authorized representatives of the Water Boards or CDFW. Daily diversion records shall be retained for a minimum of five years. Compliance with this term is required for any surface water diversion, even those under 10 acre-feet per year.</p>
85.	The State Water Board intends to develop and implement a basin-wide program for real- time electronic monitoring and reporting of diversions, withdrawals, releases and streamflow in a standardized format if and when resources become available. Such real- time reporting will be required upon a showing by the State Water Board that the program and the infrastructure are in place to accept real-time electronic reports. Implementation of the reporting requirements shall not necessitate amendment to this Requirement.
86.	Landowners shall not use off-stream storage reservoirs and ponds to store water for irrigation unless they are sited and designed or approved by a qualified professional in compliance with Division of Safety of Dams (DSOD), county, and/or city requirements, as applicable. If the DSOD, county, and/or city do not have established requirements they shall be designed consistent with the Natural Resource Conservation Service National Engineering Manual. Reservoirs shall be designed with an adequate overflow outlet that is protected and promotes the dispersal and infiltration of flow and prevents channelization. All off-stream storage reservoirs and ponds shall be designed, managed, and maintained to accommodate average annual winter period precipitation and storm water inputs to reduce the potential for overflow. Landowners shall plant native vegetation along the perimeter of the reservoir in locations where it does not impact the structural integrity of the reservoir berm or spillway. The landowner shall control vegetation around the reservoir berm and spillway to allow for visual inspection of berm and spillway condition and control burrowing animals as necessary.

87.	Landowners shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented under the direction of a qualified biologist, if appropriate after consultation with CDFW (pursuant to Fish and Game Code section 6400). Eradication methods can be direct or indirect. Direct methods may include hand- held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by CDFW.
88.	Water storage bladders are not encouraged for long-term use. If bladders are used, the landowner shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the landowner shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Landowners shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed.
89.	Landowners shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 110 percent of bladder's capacity). Secondary containment systems shall be of sufficient strength and stability to withstand the forces of released contents in the event of catastrophic bladder failure. In addition, secondary containment systems that are open to the environment shall be designed and maintained with sufficient capacity to accommodate precipitation and storm water inputs from a 25-year, 24-hour storm event.
90.	Landowners shall not cause or allow any overflow from off-stream water storage facilities that are closed to the environment (e.g., tanks and bladders) if the off-stream facilities are served by a diversion from surface water or groundwater. Landowners shall regularly inspect for and repair all leaks of the diversion and storage system.
91.	Water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment shall not be located in a riparian setback or next to equipment that generates heat. Landowners shall place water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment in areas that allow for ease of installation, access, maintenance, and minimize road development.
92.	Landowners shall install vertical and horizontal tanks according to manufacturer's specifications and shall place tanks on properly compacted soil that is free of rocks and sharp objects and capable of bearing the weight of the tank and its maximum contents with minimal settlement. Tanks shall not be located in areas of slope instability. Landowners shall install water storage tanks capable of containing more than 8,000 gallons only on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten) per the recommendations of a qualified professional.
93.	To prevent rupture or overflow and runoff, Landowners shall only use water storage tanks and bladders equipped with a float valve, or equivalent device, to shut off diversion when storage systems are full. Landowners shall install any other measures necessary to prevent overflow of storage systems to prevent runoff and the diversion of more water than can be used and/or stored.
94.	Landowners shall ensure that all vents and other openings on water storage tanks are designed to prevent the entry and/or entrapment of wildlife.
95.	Landowners shall retain, for a minimum of five years, appropriate documentation for any hauled water ¹⁸ used for irrigation. Documentation for hauled water shall include, for each delivery, all of the following: <ol style="list-style-type: none"> 1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler, 2. A copy of the Water Hauler's License (California Health and Safety Code section 111120), 3. A copy of proof of the Water Hauler's water right, groundwater well, or other authorization to take water, and the location of the water source, and 4. The quantity of water delivered or picked up from a water source, in gallons. Documentation shall be made available, upon request, to Water Boards or CDFW staff and any other authorized representatives of the Water Boards or CDFW.

Water Conservation and Use	
96.	Landowners shall regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.
97.	Landowners shall use weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.
98.	Landowners shall implement water conserving irrigation methods (e.g., drip or trickle irrigation, micro-spray, or hydroponics).
99.	Landowners shall maintain daily records of all water used for irrigation. Daily records may be calculated by the use of a measuring device or, if known, by calculating the irrigation system rates and duration of time watered (e.g., irrigating for one hour twice per day using 50 half-gallon drips equates to 50 gallons per day (1*2*50*0.5) of water used for irrigation). Landowners shall retain, for a minimum of 5 years, irrigation records at the site and shall make all irrigation records available for review by the Water Boards, CDFW and any other authorized representatives of the Water Boards or CDFW.
Irrigation Runoff	
100.	Landowners shall regularly inspect for leaks in mainlines ¹⁹ , laterals ²⁰ , in irrigation connections, sprinkler heads, or at the ends of drip tape and feeder lines and immediately repair any leaks found upon detection.
101.	The irrigation system shall be designed to include redundancy (e.g., safety valves) in the event that leaks occur, so that waste of water and runoff is prevented and minimized.
102.	Landowners shall regularly replace worn, outdated, or inefficient irrigation system components and equipment to ensure a properly functioning, leak-free irrigation system at all times.
103.	Landowners shall minimize irrigation deep percolation ²¹ by applying irrigation water at agronomic rates.
Fertilizers, Pesticides, and Petroleum Products	
104.	Landowners shall not mix, prepare, over apply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides, and other chemicals as defined in the applicable water quality control plan) in any location where they could enter the riparian setback or waters of the state. The use of agricultural chemicals inconsistently with product labeling, storage instructions, or DPR requirements for pesticide applications is prohibited. Disposal of unused product and containers shall be consistent with labels.
105.	Landowners shall keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, hazardous materials, and other substances which may degrade waters of the state. The landowner shall immediately notify the California Office of Emergency Services at 1-800-852-7550 and immediately initiate cleanup activities for all spills that could enter a waterbody or degrade groundwater.
106.	Landowners shall establish and use a separate storage area for pesticides, and fertilizers, and another storage area for petroleum or other liquid chemicals (including diesel, gasoline, oils, etc.). All such storage areas shall comply with the riparian setback Requirements, be in a secured location in compliance with label instructions, outside of areas of known slope instability, and be protected from accidental ignition, weather, and wildlife. All storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Storage tanks and containers must be of suitable material and construction to be compatible with the substances stored and conditions of storage, such as pressure and temperature.
107.	Throughout the wet season, Landowners shall ensure that any temporary storage areas have a permanent cover and side-wind protection or be covered during non-working days and prior to and during rain events.
108.	Landowners shall only use hazardous materials in a manner consistent with the product's label.
109.	Landowners shall only keep hazardous materials in their original containers with labels intact and shall store hazardous materials to prevent exposure to sunlight, excessive heat, and precipitation. Landowners shall provide secondary containment for hazardous materials to prevent possible exposure to the environment. Disposal of unused hazardous materials and containers shall be consistent with the label.

110.	Landowners shall only mix, prepare, apply, or load hazardous materials outside of the riparian setbacks.
111.	Landowners shall not apply agricultural chemicals within 48 hours of a predicted rainfall event of 0.25 inches or greater with a probability greater than 50-percent. In the Lake Tahoe Hydrologic Unit, Landowners shall not apply agricultural chemicals within 48 hours of any weather pattern that is forecast to have a 30 percent or greater chance of precipitation greater than 0.1 inch per 24 hours. This requirement may be updated based on amendments to the Lahontan Regional Water Board construction storm water general order.
Fertilizers and Soils	
112.	To minimize infiltration and water quality degradation, Landowners shall irrigate and apply fertilizer to consistent with the crop need (i.e., agronomic rate).
113.	When used, Landowners shall apply nitrogen to cultivation areas consistent with crop need (i.e., agronomic rate). Landowners shall not apply nitrogen at a rate that may result in a discharge to surface water or groundwater that causes or contributes to exceedance of water quality objectives, and no greater than 319 pounds/acre/year unless plant tissue analysis performed by a qualified individual demonstrates the need for additional nitrogen application. The analysis shall be performed by an agricultural laboratory certified by the State Water Board's Environmental Laboratory Accreditation Program.
114.	Landowners shall ensure that potting soil or soil amendments, when not in use, are placed and stored with covers, when needed, to protect from rainfall and erosion, to prevent discharge to waters of the state, and to minimize leaching of waste constituents into groundwater.
Pesticides and Herbicides	
115.	Landowners shall not apply restricted materials, including restricted pesticides, or allow restricted materials to be stored at the site.
116.	Landowners shall implement integrated pest management strategies where possible to reduce the need and use of pesticides and the potential for discharges to waters of the state.
Petroleum Products and Other Chemicals	
117.	Landowners shall only refuel vehicles or equipment outside of riparian setbacks. Landowners shall inspect all equipment using oil, hydraulic fluid, or petroleum products for leaks prior to use and shall monitor equipment for leakage. Stationary equipment (e.g., motors, pumps, generators, etc.) and vehicles not in use shall be located outside of riparian setbacks. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be stored onsite at all locations where equipment is used or staged.
118.	Landowners shall store petroleum, petroleum products, and similar fluids in a manner that provides chemical compatibility, provides secondary containment, and protection from accidental ignition, the sun, wind, and rain.
119.	Use of an underground storage tank(s) for the storage of petroleum products is allowed if compliant with all applicable federal, state, and local laws; regulations; and permitting requirements.
Cultivation-Related Waste	
120.	Landowners shall contain and regularly remove all debris and trash associated with cultivation activities from the cultivation site. Landowners shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Landowners shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Plant material may be disposed of onsite in compliance with any applicable CDFA license conditions.
121.	Landowners shall only dispose or reuse spent growth medium (e.g., soil and other organic media) in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or waters of the state. Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse. Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants. Landowners shall use erosion control techniques, as needed, for any reused or stored spent growth medium to prevent polluted runoff.

Refuse and Domestic Waste			
122.	Landowners shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (includes food sources) does not contaminate soil or enter the riparian setback or waters of the state.		
123.	Landowners shall not dispose of domestic wastewater unless it meets applicable local agency and/or Regional Water Board requirements. Landowners shall ensure that human or animal waste is disposed of properly. Landowners shall ensure onsite wastewater treatment systems (e.g., septic system) are permitted by the local agency or applicable Regional Water Board.		
124.	If used, chemical toilets or holding tanks shall be maintained in a manner appropriate for the frequency and conditions of usage, sited in stable locations, and comply with the riparian setback Requirements.		
Winterization			
125.	Landowners shall implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by the onset of the winter period.		
126.	Landowners shall block or otherwise close any temporary access roads to all motorized vehicles no later than the onset of the winter period each year.		
127.	Landowners shall not operate heavy equipment of any kind at the site during the winter period, unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction.		
128.	Landowners shall apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length at the frequency specified below.		
		Slope (percent)	Sheet Flow Length Not to Exceed (feet)
		0 – 25	20
		25 – 50	15
		>50	10
129.	Landowners shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation to determine if maintenance or cleaning is required.		
130.	Landowners shall stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance.		
131.	Landowners shall cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being used as needed to prevent erosion by storm water. The landowner shall have adequate cover and berm materials available onsite if the weather forecast indicates a probability of precipitation.		
132.	Landowners shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to waters of the state.		
133.	As part of the winterization plan approval process, the Regional Water Board may require Landowners to implement additional site-specific erosion and sediment control requirements if the implementation of the Requirements in this section do not adequately protect water quality.		



Humboldt Reserve, LLC

Road System Assessment Report

APN: 204-251-001, 204-121-005, and 204-121-006

Humboldt county, CA

February 2022

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Attachments

Appendix A: Road System Map

Appendix B: Road System Photographs

Introduction

This Road Assessment contains a detailed overview of the road system that is used to access the subject parcel, APN: 204-251-001 and premises on which commercial cannabis activities occur on. The assessment describes how the road system meets the Performance Standard set forth in Section 55.4.12.1.8 – Road Systems in Humboldt County Ordinance No. 2599, Commercial Cannabis Land Use Ordinance. The road system that is used to access the subject parcel is comprised of a private driveway, which is located directly off Highway 36. The private drive is approximately 550 feet in total length. The attached Road System Map depicts each of the roads that comprise the route.

This report includes a separate section for each of the Performance Standards in section 55.4.12.1.8. Each section describes how the road system meets each Performance Standard.

Road Points

Road Points (RPs) were located along the route leading to the subject parcel. RPs are defined as interest points along the subject roads; locations of pinch points, locations of sight distance restrictions, intersections, gates, turnouts, typical road sections, stream crossings or drainage features (inboard ditches, culverts, etc.). RPs can contain multiple features, such as a pinch point along with a stream crossing. The road widths were measured, photos were taken, and recommendations were prescribed at each RP. The recommendations are based on whether the RPs pose a site-specific problem or pose a threat to water quality or biological resources.

Table 1 below contains a description of the Road Points, Latitude and Longitude, and the measure road width of each RP. The table also describe if there is a turnout present within appropriate distance to the RPs, and the recommended prescription for each RP. See the attached Road System Map for more details of the location of each road segment. See the attached Road System Photographs for photos of each RP.

Table 1: All Road Points along entire Road System.

RP #	Figure(s)	Lat., Long.	Description	Recommendation
1	1-4	40.53744°, -124.06882°	Intersection of Highway 36 and Private Drive. Gate 23' in road width. No sight distance restrictions.	Maintain existing roadway width, gate width and sight distance.
2	5-6	40.53672°, -124.06913°	Typical section of roadway.	Maintain existing roadway width, gate width and sight distance.
3	8-9	40.53631°, -124.06991°	End of road assessment. No sight distance restrictions.	Maintain existing roadway width, gate width and sight distance.

Standard 1 – Dead End Road Length

Project shall not be located more than 2-mile (driving distance) from the nearest intersection with a Category 4 road or secondary access for emergency vehicles and personnel, including wildland fire equipment.

The project site is located approximately 550 feet from the intersection of Private Drive and Highway 36 (State Road No.: 3G155). Highway 36 is a paved, two-lane road with a painted center-line stripe. See the attached Road System Map for more details of the location of the road segment.

Table 2: Roads included in the Road System.

Road Name	Length (ft)	Start Road Point	End Road Point
Private Drive	550	1	4

Standard 2 – Functional Capacity

Roads providing access to the parcel or premises must meet or exceed the Category 4 road standard (or same practical effect).

The entire road system that is associated with the parcel and premises has been determined to be functionally equivalent to a Category 4 Road standard. The Private Drive is graveled from Highway 36 to the gate, approximately 550 feet in total length. The Private Drive has two gates, the first gate from Highway 36 is 24 feet in road width with a total apron width of 48 feet. The second gate at the end of the assessed Private Drive is 23 feet in road width.

The road system serves the three (3) parcels. The average daily traffic (ADT) for the entire road system is 15. This is calculated by multiplying the number of parcels served by the road system by 5 (Humboldt County Code - Design Standards for Roadway Category).

Standard 3 – Private Road Systems – Protection for Water Quality and Biological Resources

Private road systems and driveways providing access to parcel shall be designed, maintained, or retrofitted in accordance with the “Five Counties Salmonid Conservation Roads Maintenance Manual.” This includes measures to protect water quality using best management practices so that:

- *Impacts from point source and non-point source pollutants are prevented or minimized.*
- *Design and construction of culverts, stream crossings, and related drainage features shall remove barriers to passage and use by adult and juvenile fish, amphibians, reptiles and aquatic invertebrates.*

There is one Road Point (RPs) that is associated with water quality and biological resources located along the driveway. There are no surface water crossings along the road system. The site is relatively flat with the closest water course, an un-named tributary to Van Duzen river, 700 feet west of the Private Drive.

Table 3: Road Points associated with Water Quality and Biological Resources.

RP #	Figure	Lat., Long.	Description	Recommendation
3	7	40.53642°, -124.06959°	Inboard ditch and location of lead-out ditch. Lead-out ditch discharges into man-made basin.	Maintain inboard ditch

Overall, the subject road system is designed and constructed in accordance with the “Five Counties Salmonid Conservation Roads Maintenance Manual.” The road system is adequately sloped to allow water to runoff the road surface, minimizing riling and sediment mobilization. Impacts from point source and non-point source pollution are prevented or minimized including discharge of sediment or other pollutants that constitute a threat to water quality

Recommendations for the RP which includes maintaining inboard ditches and a drainage relive culvert to allow the conveyance of stormwater and to minimize sediment transport. These recommendations are further described in Table 3. There are no road related landslides, slope failures or major erosion issues within the road system.

Conclusion

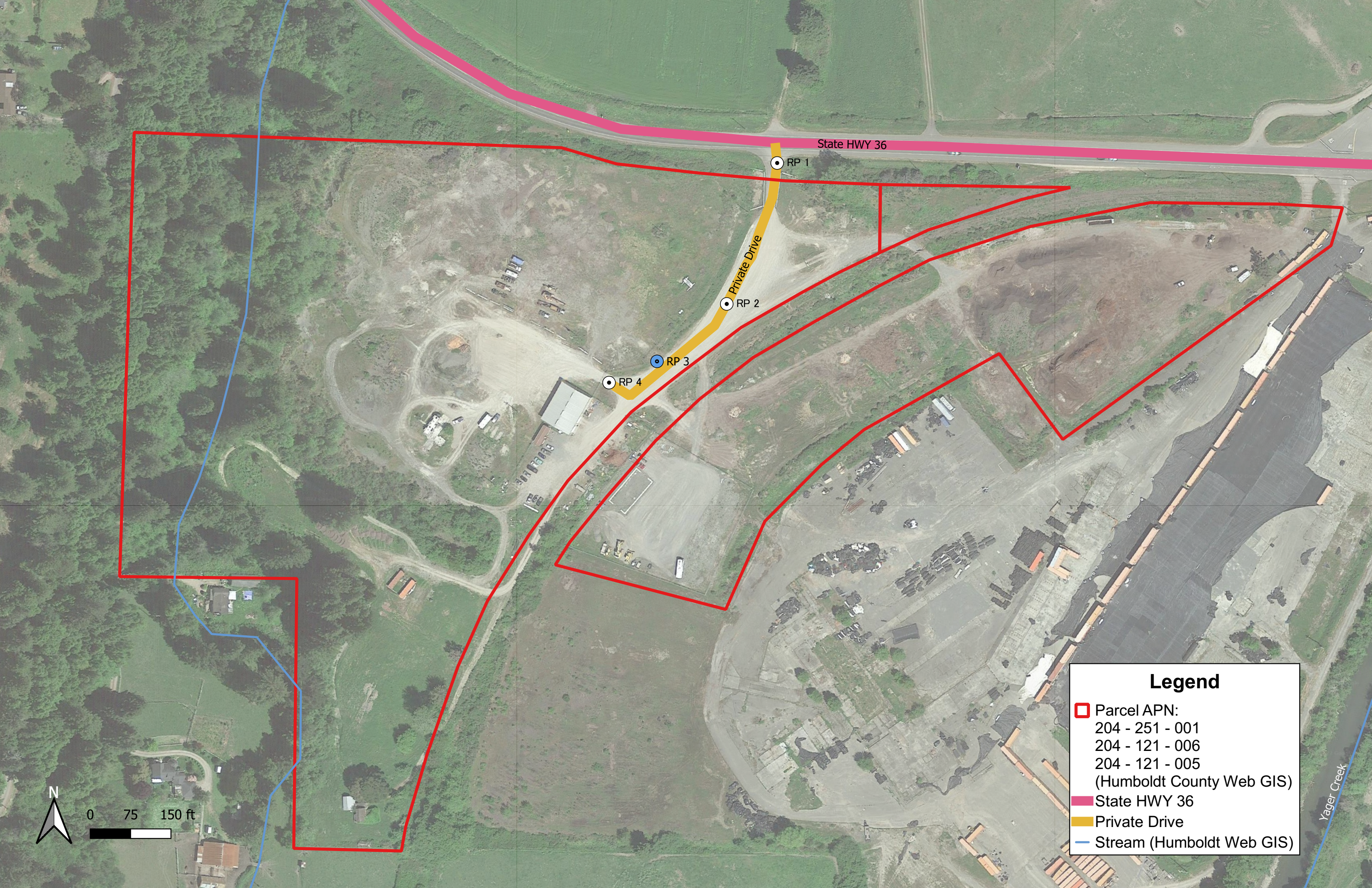
In conclusion, the Road System used to access the subject parcel has been determined to be within conformance of Humboldt County Code Section 55.4.12.1.8 – Road Systems in Humboldt County Ordinance No. 2599. There are no recommended improvements.

This Road System Assessment Report is solely a guiding document for information of the location, attributes and condition of all the road features (Road Points). All recommendations set forth in this report shall be reviewed by all involved parties/agencies, prior to any construction. All construction to the road system shall be done in accordance with the “Five Counties Salmonid Conservation Roads Maintenance Manual.” Furthermore, prior to any construction activities, a pre-construction meeting shall be held between the Applicant, Contractors, and any members of a potential future Road Maintenance Association.

References

1. Commercial Cannabis Land Use Ordinance (CCLUO). Adopted by the Board of Supervisors on May 8, 2018
2. Humboldt County WebGIS. Humboldt County Planning and Building Department. Retrieved from <http://webgis.co.humboldt.ca.us/HCEGIS2.0/>
3. Humboldt County Code - A Codification of the General Ordinances of Humboldt County, California - Passed May 5, 2020.
4. A Water Quality and Stream Habitat Protection Manual For County Road Maintenance in Northwestern California Watersheds - *“Five Counties Salmonid Conservation Roads Maintenance Manual”*

Appendix A: Road System Map



State HWY 36

RP 1

RP 2

RP 3

RP 4

Private Drive

Legend

- Parcel APN:
204 - 251 - 001
204 - 121 - 006
204 - 121 - 005
(Humboldt County Web GIS)
- State HWY 36
- Private Drive
- Stream (Humboldt Web GIS)

N

0 75 150 ft

Yager Creek

Appendix B: Road System Photographs



Figure 1: RP 1. Gate 24' in road width. Image taken at Highway 36 facing south toward gate entrance.

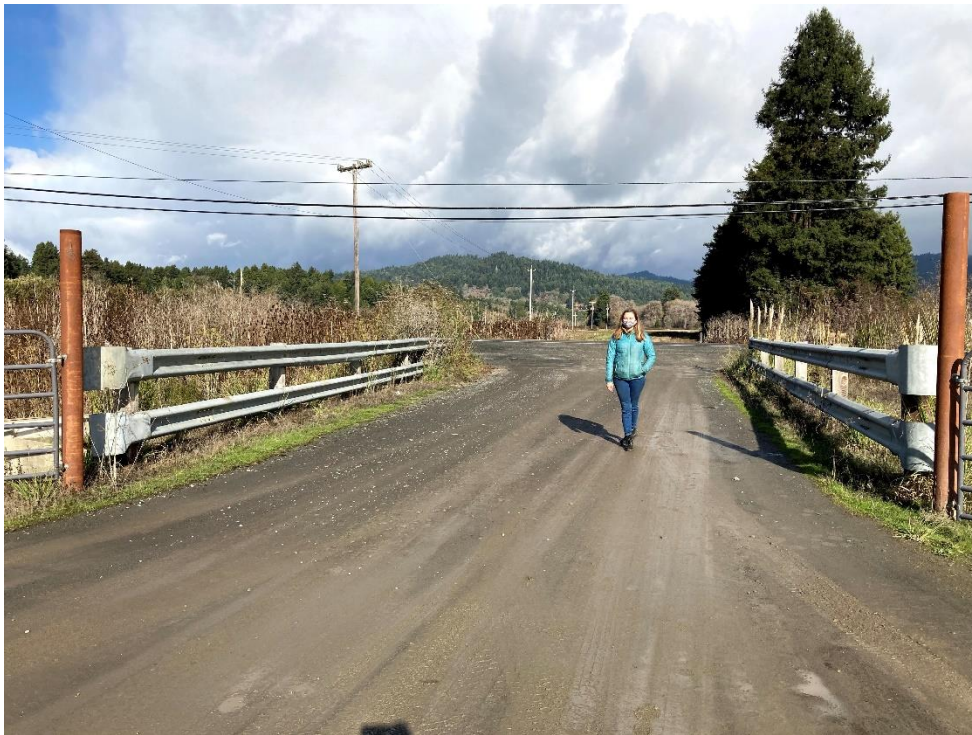


Figure 2: RP 1. Gate 24' in road width. Image taken at gate facing north toward Highway 36.



Figure 3: RP 1. Intersection of Private driveway and Highway 36. Image shown facing west toward Highway 36.



Figure 4: RP 1. Intersection of Private driveway and Highway 36. Image shown facing east toward Highway 36.



Figure 5: RP 2. 48' Graveled road width. Image shown facing southwest.



Figure 6: RP 2. 48' Graveled road width. Image shown northwest.



Figure 7: Culvert entrance from in-board ditch. Image taken facing south.



Figure 8: RP 3. Gate 23' in road width. Image taken facing west.



Figure 9: RP 3. Gate 23' in road width. Image facing east.



Humboldt Reserve, LLC

Noise Source Assessment and Mitigation Plan

APN: 204-251-001, 204-121-005, & 204-121-006

Humboldt County, CA

February 22, 2022

Contents

Objective	3
Proposed Project Overview	3
Site Description and Sensitive Receptors	4
Analysis of Existing Ambient Noise Levels	5
Noise Sources Associated with Proposed Project.....	6
Anticipated Noise Levels and Proposed Noise Attenuation Measures	6
Monitoring	7
Conclusion.....	7

Appendices:

A: Site Map

B: Equipment Specifications

Multifan Circulation Fan

Quest Climate

Generac



Objective

The purpose of this Noise Source Assessment and Mitigation Plan is to evaluate the potential impacts from the proposed project and describe how the project will conform with the Performance Standard set forth in Section 55.4.12.6 – Performance Standard for Noise at Cultivation Sites in the Humboldt County Ordinance No. 2599, Commercial Cannabis Land Use Ordinance (CCLUO). Evaluation of potential noise impacts included the establishment of onsite ambient and maximum noise levels, identification of proposed project noise sources, and modeling of proposed project noise sources in relation to current onsite noise.

Proposed Project Overview

Humboldt Reserve, LLC (“Applicant”) is proposing to permit commercial cannabis cultivation activities in accordance with the County of Humboldt’s (County) Commercial Cannabis Land Use Ordinance (CCLUO), aka “Ordinance 2.0” on APN 204-251-001, 204-121-006, and 204-121-005, on the historic PALCO Mill site in Carlotta, California.

The project requires a Conditional Use Permit for 216,048 square feet (sq. ft.) of enclosed indoor cannabis cultivation, 44,064 sq. ft. of enclosed commercial nursery, and 2,400 sq. ft. of distribution activities (Table 1). Drying and processing would occur onsite.

Water for the proposed project would be sourced from rainwater stored in engineered rainwater catchment tanks plumbed to surfaces, and from reclaimed water from dehumidifiers in the proposed buildings. Power would be renewably sourced from an existing PG&E Service and associated substation. Drying and processing would occur onsite. The project will conform to all Adaptive Reuse Standards for Industrial Sites.

The project proposal includes permitting of existing and proposed facilities appurtenant to the cultivation, including commercial F-1 buildings for cultivation, processing, and distribution, ADA-compliant restrooms and associated septic system, parking spaces, security facilities, and engineered water storage tanks. The applicant aims to become fully compliant with State and Local cultivation regulations.

Table 1: Summary of Proposed Cannabis Activities and Associated Locations

<i>Proposed Cannabis Activities and Associated Locations</i>			
Type of Building	Indoor Cannabis Cultivation (sq. ft.)	Enclosed Commercial Nursery (sq. ft.)	Distribution (sq. ft.)
<P> Building 1 (61,344 sq. ft.)	42,240	8,640	-
<P> Building 2 (62,208 sq. ft.)	40,320	9,504	-
<P> Building 3 (181,440 sq. ft.)	133,488	25,920	-
<E> 60' x 80' Metal Building with <P> 40' x 60' expansion (<E> 4,800 sq. ft., <P> 7,200 sq. ft.)	-	-	2,400
Totals	216,048 sq. ft. (4.96 acres)	44,064 sq. ft.	2,400 sq. ft.



Water for the proposed project would be sourced from rainwater stored in engineered rainwater catchment tanks plumbed to surfaces, and from reclaimed water from dehumidifiers in the proposed buildings. Power would be renewably sourced from an existing PG&E Service and associated substation. The project proposal includes permitting of existing and proposed facilities appurtenant to the cultivation, including commercial F-1 buildings for cultivation, processing, and distribution, ADA-compliant restrooms and associated septic system, parking spaces, security facilities, and engineered water storage tanks. The applicant aims to become fully compliant with State and Local cultivation regulations.

Site Description and Sensitive Receptors

The project site is located on 4798 ST CA-36 (APN 204-251-001) near the community of Hydesville (lat/long 40.5366, -124.0703). The property has flat terrain. The site has General Plan Land Use Designation of Mixed Use (MU) and is zoned Heavy Industrial (MH; MH-Q). Land uses surrounding the parcel are comprised of industrial, agriculture, and rural residential agriculture.

There are several neighboring residences surrounding the project site. The closest neighboring residence is located approximately 600 feet from the nearest proposed cultivation activity. The surrounding neighboring residences are shown on the attached site map Appendix A.



Analysis of Existing Ambient Noise Levels

This section summarizes the data collection procedures that were taken in order to analyze the existing ambient noise levels within the project site. The *existing ambient noise level* is defined as the baseline of sound pressure experienced in an area prior to the proposed cannabis cultivation activities. Existing ambient noise levels included natural and human-induced noise.

Four (4) Monitoring Locations were established throughout the parcel to establish noise levels at property lines (closest to sensitive receptors such as neighboring houses) and habitat areas (closest to sensitive receptors such as wildlife). Table 2 below describes the Monitoring Locations in more detail and the locations are shown on the site map attached in Appendix A.

Table 2: Detail Summary of the Monitoring Locations

Monitoring Location	Recording Interval (hours)	Lat., Long.	Description & Notes	Impact Potential
#1	24 (Monitored)	40.5361°, -124.0669°	Adjacent to east property boundary and neighboring parcel	Adjacent parcel and Habitat
#2	24 (Monitored)	40.5371°, -124.0690°	Adjacent to north property boundary and Hwy 36	Habitat
#3	24 (Monitored)	40.5353°, -124.0715°	Adjacent to south property boundary and neighboring residence	Adjacent parcel, Neighboring residence, and Habitat
#4	24 (Monitored)	40.5339°, -124.0691°	Adjacent to southern most property boundary and neighboring residence	Adjacent parcel, Neighboring residence, and Habitat

The sound pressure level was measured in decibels using a type 2 digital sound meter which utilizes an A-weighted filter network (dB(A)). The digital sound meter was mounted to a tripod, allowing it to be positioned approximately 2 feet above the ground to minimize ground noise and maximize unobstructed sound readings. Measurements were taken on September 8th, 2021, which was a warm, sunny day, with a light breeze.

Measurement readings of 24-hours were taken at all Monitoring Locations. During the readings, data was collected on the noise levels and detailed notes were taken whenever the noise level increased from outside activity. Examples of outside activity may include traffic, animals, and operations on adjacent property. During the measurements, precautions were taken to minimize noise disturbance from the operator. Recordings of noise levels began once all rustling from the operator was not interfering the meter. The collected data was then analyzed to determine the existing ambient noise levels. The resulting analysis are presented in Table 3. Table 3 summarizes the monitoring Location, the average decibel reading, the maximum decibel measured, and the Presumed outside noise associated with the maximum decibel reading.



Table 3: Summary of the Onsite Noise Analysis Result per Location

Location	Average Decibel Reading (dBA)	Max Noise Level Measured (dBA)	Presumed Max Noise Level Association Description
#1	37.7	71.1	Truck driving on adjacent parcel
#2	42.5	82.1	Truck driving by on Hwy 36
#3	35.3	63.6	Truck starting on site from business
#4	52.7	89.9	Adjacent Parcel Operation

In general, the existing average noise levels range from approximately 35.3 dBA to 52.7 dBA. Vehicles driving on Highway 36 and on the adjacent site were determined to be the presumed loudest outside noise sources.

Noise Sources Associated with Proposed Project

Noise sources associated with the proposed project will include air circulation from fans, and dehumidifiers. The three proposed cultivation buildings (Buildings 1, 2, & 3) will utilize several dehumidifiers and fans for the proposed indoor cultivation. Building 1, 2, & 3 are equipped with 6, 6, and 18 dehumidifiers, respectively, and 144, 144, and 432 fans, respectively. The sound pressure associated with each proposed cultivation equipment specifications from the equipment manual (See extracted equipment manuals in Appendix B) are summarized in Table 4 below and specific equipment brands are subject to change.

Table 4: Summary of Noise-Producing Cultivation Equipment Specifications per manual

Type of Equipment	Brand*	Model	Sound Pressure Level (dBA)
Air circulation (20" Fan)	Multifan Circulation Fans	T4D50K1M81100	55
Dehumidifier	Quest Climate	TR 3900	<82 without ducting
Generator (backup only)	Generac	150 KW Protector	80

*Specific equipment brands subject to change

A backup generator is kept onsite for emergency purposes only. The generator is proposed to be a 150 KW Generac Protector (or similar), which has a maximum sound output of 80 dBA at 23 feet during normal operation. The generator would only operate during emergencies and would not contribute to ambient noise levels on the site.

Other noise sources associated with the project include traffic and noise produced by employees, however, these are not likely to exceed existing noise levels currently from the adjacent highway.

Anticipated Noise Levels and Proposed Noise Attenuation Measures

The proposed noise attenuation measures to ensure the daily operations comply with the CCULO will consist of manual controls and monitoring. The cannabis-related activities are proposed within enclosed structures, which the structural walls would dampen the anticipated projected sound pressure level. The components of the proposed cultivation buildings will be constructed of materials that have



appropriate Sound Transmission Class (STC) Ratings to reduce generated noise to 50 decibels (dBA maximum at the property and habitat lines.

Furthermore, within each of the Multifan Circulation Fans will be equipped with a variable speed controller, allowing for precise adjustment of the fan speed (fan speed directly correlates to fan sound pressure). Measuring of noise levels will continue on a regular basis following the proposed activities. If the noise levels are measured to be higher than the anticipated levels, the fans will be adjusted, reducing the noise output from the fans, and reducing the noise impact at the subject monitoring location.

Noise from the proposed cultivation activities is not anticipated to result in an increase of more than three (3) decibels of continuous noise above existing ambient noise levels, which range from 35.3 to 52.7 dBA.

Monitoring

Measuring of noise levels will continue on a regular basis following the proposed activities. If the noise levels are measured to be higher than the anticipated levels, further measures will be implemented to reduce the noise output from the project's activity.

Off-site noise includes, but is not limited to, neighboring or adjacent resident activity, nearby vehicle traffic and all other activities not related to the proposed project or parcel.

In order to ensure that cultivation activities comply with the Performance Standards, future noise measurements will be taken at the same monitoring locations to ensure no disturbance is occurring to habitat or to neighboring residences.

Conclusion

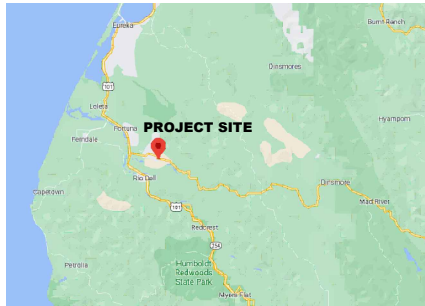
The existing ambient noise levels range from approximately 35 to 52 dBA. Maximum noise levels ranged from 63.6 to 89.9 dBA. Noise from the proposed cultivation activities is not anticipated to result in an increase of more than three (3) decibels of continuous noise above existing ambient noise levels.

Lost Coast Organics aims to meet the noise levels and mitigations set forth in this report. Following the recommendations set forth in this report, the proposed noise sources from the project are not expected to increase onsite ambient noise levels and compliance with Performance Standard 55.4.12.6 will be met. Noise from the proposed cultivation activities is not anticipated to result in an increase of more than three (3) decibels of continuous noise above existing ambient noise levels.



APPENDIX A: Site Map





VICINITY MAP
NOT TO SCALE

DIRECTIONS TO SITE:
FROM EUREKA, CA
 - SOUTHBOUND ON US-101 (APPROX. 19.9 MI.)
 - TAKE EXIT 685 FOR CA-36 E (APPROX. 0.3 MI.)
 - TURN LEFT ONTO CA-36 E (APPROX. 4.4 MI.)
 - TURN RIGHT ONTO FERN LANE (APPROX. 0.2 MI.)
 - DESTINATION IS ON THE LEFT

HUMBOLDT RESERVE, LLC

NOISE SOURCE ASSESSMENT AND MITIGATION PLAN

APN: 204-251-001, 204-121-006, 204-121-005

LEGEND

- OVERHEAD ELECTRICAL POWERLINE
- NORTHWEST PACIFIC RAILROAD
- STREAMSIDE MANAGEMENT AREA (SMA)
- FLOOD ZONE (HUMBOLDT GIS)
- NOISE MONITORING LOCATION

PROJECT DESCRIPTION

HUMBOLDT RESERVE, LLC IS PROPOSING TO PERMIT PROPOSED COMMERCIAL CANNABIS ACTIVITIES IN ACCORDANCE WITH THE COUNTY OF HUMBOLDT'S (COUNTY COMMERCIAL CANNABIS LAND USE ORDINANCE (CCLUO)). THE PROPOSED PROJECT INCLUDES 216,048 SF (4.96 ACRES) OF ENCLOSED INDOOR CANNABIS CULTIVATION, 44,064 SF OF ENCLOSED COMMERCIAL NURSERY, AND 2,400 SF OF DISTRIBUTION. WATER WOULD BE SOURCED FROM RAINWATER STORED IN ENGINEERED TANKS PLUMBED TO CATCHMENT SURFACES AND RECLAIMED WATER FROM DEHUMIDIFIERS. POWER WOULD BE RENEWABLY SOURCED FROM AN EXISTING PG&E SERVICE AND SUBSTATION.

PROJECT INFORMATION:

APPLICANT:
 HUMBOLDT RESERVE, LLC
 4798 HWY 36
 HYDESVILLE, CA 95547

PROPERTY OWNER:
 LOST COAST ORGANICS, LLC
 4798 HWY 36
 HYDESVILLE, CA 95547

APPLICANT'S AGENT:
 NORTHPOINT CONSULTING GROUP, INC
 1117 SAMOA BLVD.
 ARCATA, CA 95521
 (707) 798-6438

SITE ADDRESS:
 APN: 204-251-001, 204-121-006,
 204-121-005
 4798 HWY 36
 HYDESVILLE, CA 95547

TREES TO BE REMOVED = NONE
 WATER = PRIVATE
 SEWER = PRIVATE

PROPERTY SIZE:
 APN: 204-251-001 = ±23.00 ACRES
 APN: 204-121-006 = ±0.44 ACRES
 APN: 204-121-005 = ±9.50 ACRES

ZONING: = MH; MH-Q;
GENERAL PLAN DESIGNATION: = MU

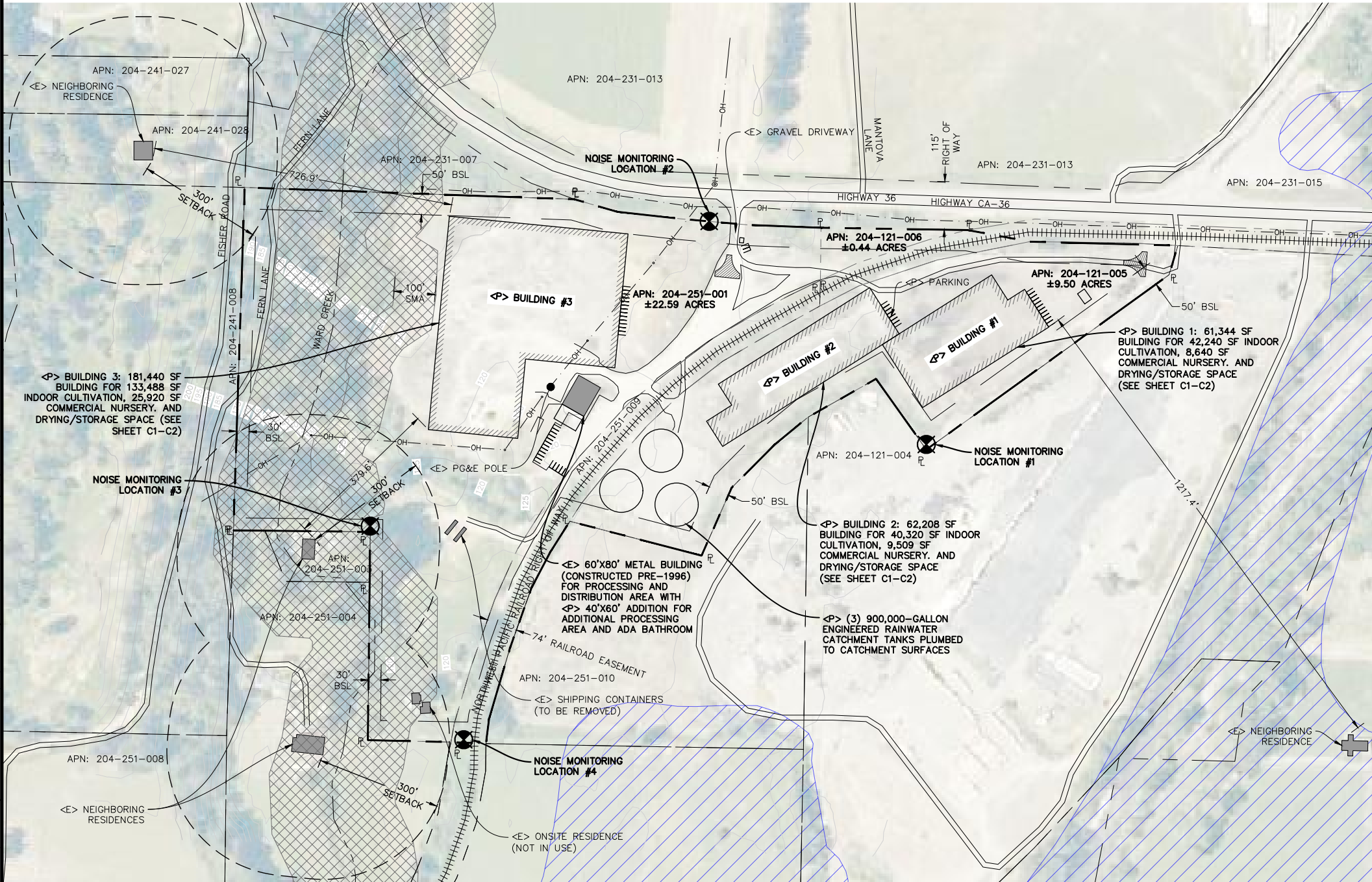
BUILDING SETBACKS:

	MH	SRA
FRONT	50'	30'
SIDE	30'	30'
REAR	50'	30'

SRA AREA: = YES
 IN COASTAL ZONE: = NO
 IN 100 YR FLOOD ZONE: = NO

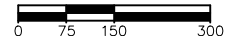
SHEET INDEX

C0 - NOISE SOURCE ASSESSMENT AND MITIGATION PLAN



EXISTING AND PROPOSED SITE PLAN

22x34 SHEET: 1"=150'
 11x17 SHEET: 1"=300'



DATE	REVISIONS

NORTHPOINT CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
 4798 HWY 36 HYDESVILLE, CA 95547
 NOISE SOURCE ASSESSMENT AND MITIGATION PLAN

PROJ MGR.: PS
 DRAWN BY: C-JG
 DATE: 02/23/22
 SCALE: AS SHOWN

SHEET
C0
 21-013

February 23, 2022 - 14:02 Dan Name: P:\Lost Coast Organics - Nick Wheeler - 21-013\CAD\Lost Coast Organics - Noise Study\Drawn - Updated By: C-JG

APPENDIX B: Equipment Specifications

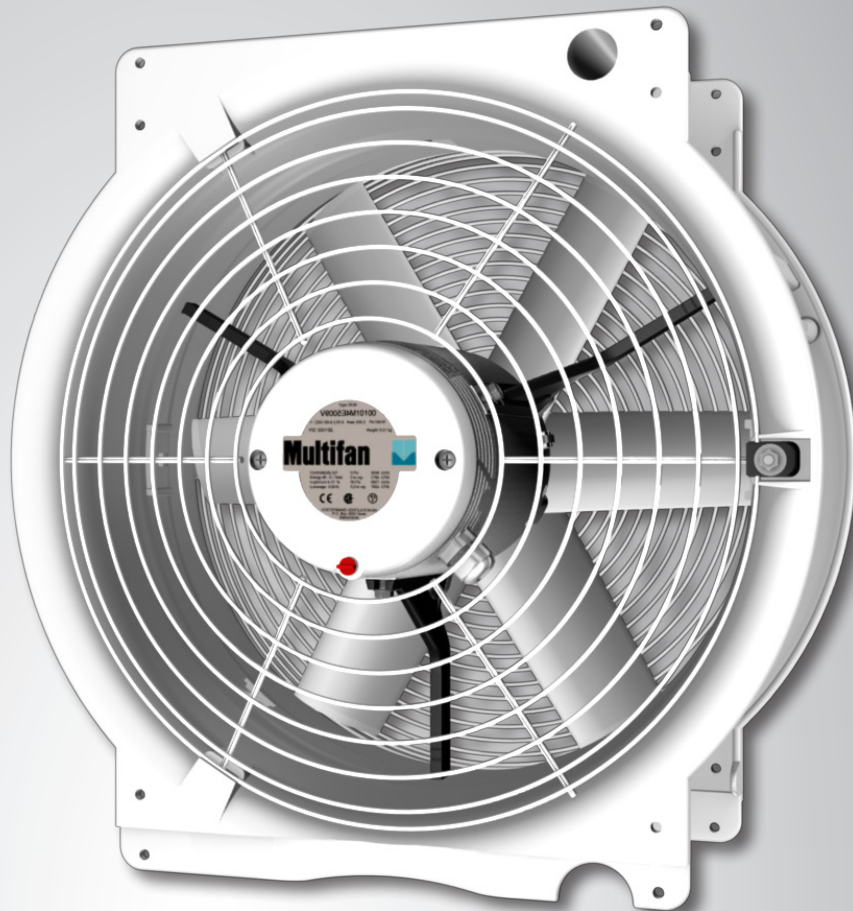


Multifan



Recirculation fans

The next level of greenhouse energy efficiency



VOSTERMANS
VENTILATION

YOUR SPECIALIST IN AIR

The next level of energy efficiency

The EU-Ecodesign directives for fans (Energy Related Product – ErP) and for motors (IE2/3/4) are leading in our development of new motors and fans for greenhouses. Before the year 2020 the Kyoto protocol targets 20% less energy consumption, 20% less CO₂ emission and 20% more sustainable energy.

A grower wants to optimize productivity, next to reducing carbon footprint. Active climate control guarantees growers uniform climate conditions resulting in less temperature differences (avoiding cold spots), better distribution and absorption of CO₂ and lowering the risk of humidity related diseases (botrytis). A crucial part of active climate control is the specific selection of the right fan, always based on your greenhouse conditions.



Why choose this fan:

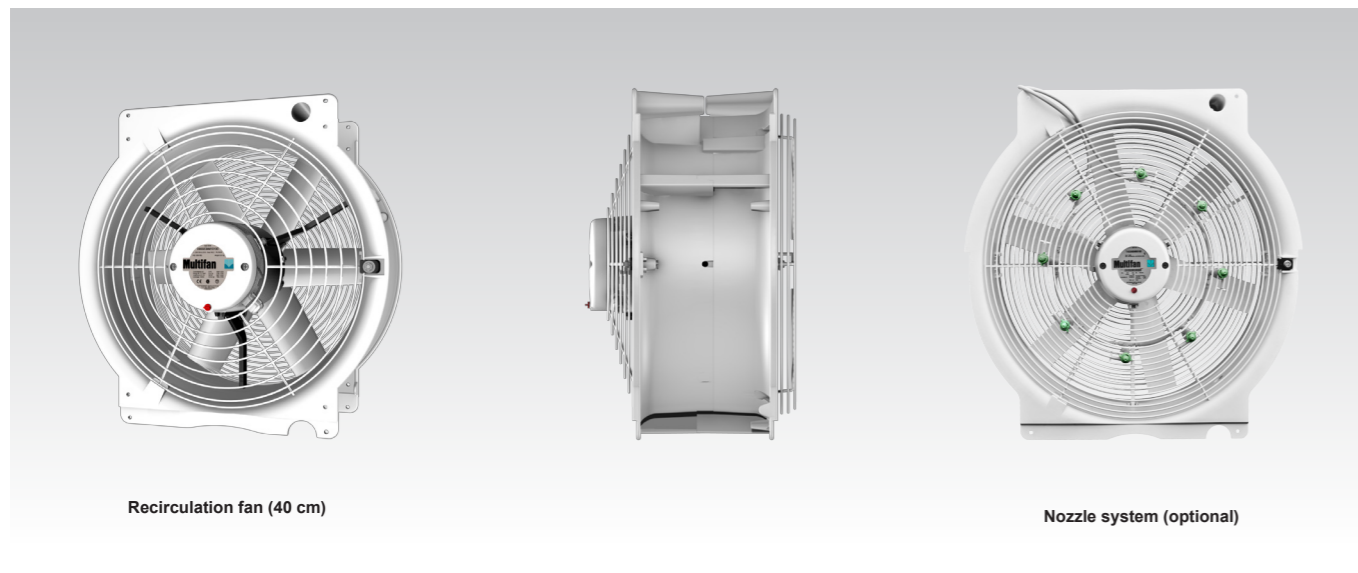
- Considerable increase in energy efficiency compared to previous versions
- To be ready for ErP2020 (check the data on next page)
- Easy to mount/remove wire guards
- Easy to maintain motor/impeller construction
- 3-year warranty

Options:

- Motors for different voltages and 50Hz or 60Hz.
- Three phase motor suitable for frequency control
- Cable + Plug (5 meters) for 230 V
- Built-in thermal protection for three phase
- Nozzle system set for 50 cm Recirculation fan
 - 8 Nozzles with hoses
 - Wire guard
 - Easy to install
 - Requested 4 bar water pressure

Features:

- Aerodynamic inlet radius for optimized air distribution
- High insulation class F / IP55
- Built-in thermal protection for single phase
- Housing suitable for suspension with profiles or chains
- Wire guards in accordance with CE-standards
- Serial- or parallel ventilation systems
- Reflecting white color for usage in greenhouses
- Compact design for less shadow



Recirculation fan (40 cm)

Nozzle system (optional)

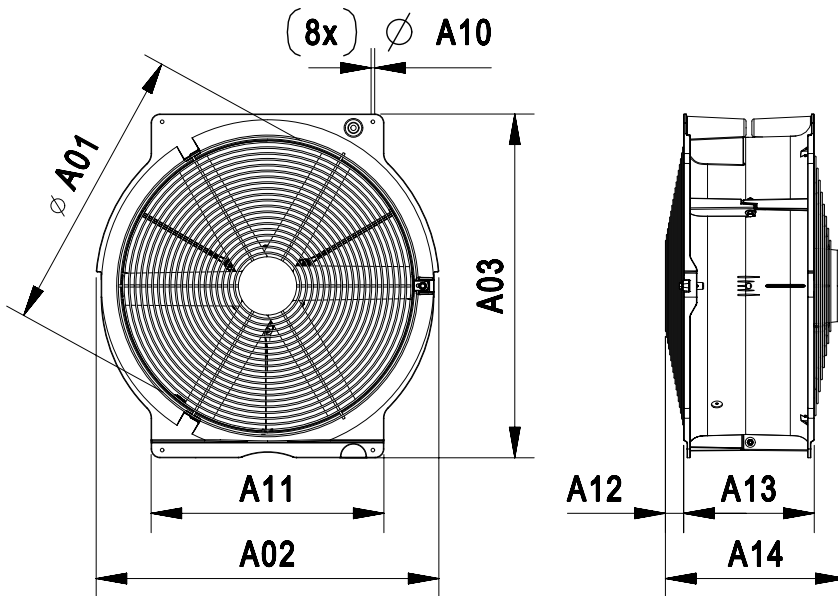
Technical data

Power supply*****	ø (mm)	RPM	Type	Item	Pe (W)	I (A) nom	m3/h @ 0 Pa	dB(A) @ 7m*	Controllability**	ErP***	Throw (0,5m/s)****
1~ 230V 50Hz	420	1400	CIR 4E40	T4E40A6M80100	240	1,3	5350	56	T/E	2015	51m
3~ 230V/400V 50Hz	420	1395	CIR 4D40	T4D40A8M80100	230	1,1/0,6	5300	56	T/F	2015	51m
1~ 230V 50Hz	520	935	CIR 6E50	T6E50A1M80100	220	1,1	6600	53	T/E	2015	49m
1~ 230V 50Hz	520	1380	CIR 4E50	T4E50AAM80100	390	1,8	8950	55	T/E	2020	66m
3~ 230V/400V 50Hz	520	935	CIR 6D50	T6D50A4M80100	210	0,9/0,6	6600	53	T/F	2015	49m
3~ 230V/400V 50Hz	520	1400	CIR 4D50	T4D50AAM80100	410	1,80 / 1,1	9200	55	T/F	2020	68m
3~ 240V 60Hz	420	1600	CIR 4E40	T4E40K2M80100	270	1,2	5450	56	T/E	N.A.	49m
1~ 120V 60Hz	520	1140	CIR 6E50	T6E50K3M80100	200	1,9	6500	53	T/E	2015	48m
1~ 240V 60Hz	520	1140	CIR 6E50	T6E50KAM80100	190	0,8	6400	53	T/E	2020	47m
3~ 240V/420V 60Hz	520	1140	CIR 6D50	T6D50KBM80100	176	0,8/0,5	6400	53	T/F	2020	47m

* Sound pressure level measured at 7 meter blowing distance
 ** Controllable Electronically (E), by Transformer (T) or by option Frequency drive (F).
 *** Compliance with either ErP2015 or ErP2020 directives
 **** Throw is the distance at which the peak velocity has fallen to 0,5 m/s (measured in an infinite room without obstructions)
 ***** For any other request please contact our sales team



Technical data



Dimensions (mm)								
ø mm	A01	A02	A03	A10	A11	A12	A13	A14
420	420	515	520	6,5	365	26	216	309
520	520	620	620	6,5	420	33	236	327

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Our future proof approach, which combines energy efficiency solutions with robust quality and rigorous testing, is based on a genuine commitment to serve as a trusted partner.

Vostermans Ventilation is a global developer and manufacturer of sustainable axial fans for the agricultural and industrial market. Sustainability is key for Vostermans. Their premium brandlines Multifan and EMI are showcasing the drive for advanced energy efficient fans. The company applies continuous innovation and research in their own motor production facility and in house state of the art R&D department. Vostermans Ventilation, part of Vostermans Companies founded in 1952, is based in Venlo, the Netherlands and operates in USA, China and Malaysia.



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Venlo - The Netherlands
Tel. +31 (0)77 389 32 32
ventilation@vostermans.com

Bloomington - USA
Tel. +1 309 827-9798
ventilation@vostermansusa.com

Tmn Klang Jaya - Malaysia
Tel. +60 (0)3 3324 3638
ventilation@vostermansasia.com

Shanghai - China
Tel. +86 21 5290 2889/2899
ventilation@vostermanschina.com

TR 2900 / TR 3500 / TR 3900

Installation, Operation and Maintenance Instructions

– Read and Save These Instructions –

This manual is provided to acquaint you with the dehumidifier so that installation, operation and maintenance can proceed successfully. Ultimate satisfaction depends on the quality of installation and a thorough understanding of this equipment. The dehumidifier is built around tested engineering principles and has passed a thorough inspection for quality of workmanship and function.



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Madison, WI 53704
www.QuestClimate.com

Toll-Free 1-877-420-1330
info@QuestClimate.com

TR 2900 / TR 3500 / TR 3900

Technical data		TR2900	TR3500	TR3900
dehum. Capacity	lbs/day*	2900	3500	3900
dry air max.	CFM	6180	7357	8650
dry air nom.	CFM	5770	6950	7830
pressure	IWG	1.2	1.2	1.6
regeration air nom.	CFM	1160	1400	1570
pressure	IWG	1.2	1.2	.8
operation range airflows	---	-4°F to 104°F 0-100%rh	-4°F to 104°F 0-100%rh	-4°F to 104°F 0-100%rh
operation range electrics	---	-4°F to 104°F 0-95%rh	-4°F to 104°F 0-95%rh	-4°F to 104°F 0-95%rh
heater regeneration air (electr.)	kW	36.0	45.0	57.0
motors	kW	4.0	5.5	7.5
connect. Power	kW	40.0	50.5	63.8
voltage	V/Hz	3PH/pe 380-480V 50-60Hz	3PH/pe 380-480V 50-60Hz	3PH/pe 380-480V 50-60Hz
current	A @400V	58.4	73.1	93.4
current connection	A	63	100	125
sound pressure level (without ducting)	Lp (dB)**	< 82**	< 82**	< 82**
weight	lbs	1985	2250	2430
series		GEH9720	GEH9720	GEH9720

* @68°F/60%rh

** distance 3ft. (@ max. fan speed), without piping

Protector® Series

PROTECTOR® SERIES Standby Generators Liquid-Cooled Gaseous Engine

INCLUDES:

- Two-Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/Portuguese)
- Isochronous Electronic Governor
- Sound Attenuated Enclosure
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- Voltage and Frequency Regulation Designed for Sensitive Electronics
- 5 Year Limited Warranty
- UL 2200 Listed

Standby Power Rating

- Model RG10090 (Aluminum - Bisque) - 100 kW 60 Hz
- Model RG13090 (Aluminum - Bisque) - 130 kW 60 Hz
- Model RG15090 (Aluminum - Bisque) - 150 kW 60 Hz



*Assembled in the USA using domestic and foreign parts

QUIET-TEST



Meets EPA Emission Regulations
CA / MA Emission Compliant

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**
 - ✓ **PROTOTYPE TESTED**
 - ✓ **SYSTEM TORSIONAL TESTED**
 - ✓ **NEMA MG1-22 EVALUATION**
 - ✓ **MOTOR STARTING ABILITY**
- **MOBILE LINK® CONNECTIVITY:** Free with select Protector Series standby generator sets, Mobile Link Wi-Fi allows users to monitor the generator set status from anywhere in the world using a smartphone, tablet, or PC. Easily access information such as the current operating status and maintenance alerts. Users can connect an account to an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.

100 / 130 / 150 kW

ENGINE COOLING

	100 kW	130 kW	150 kW
Air Flow (Fan Air Flow Across Radiator) - Open Set scfm (m ³ / min)	6,589 (186)	5,415 (153.3)	5,598 (158.5)
System Coolant Capacity (gal / liters)	5.5 (20.8)	6.3 (24.0)	6.3 (24.0)
Heat Rejection to Coolant (BTU per hr / MJ per hr)	Contact Factory	Contact Factory	Contact Factory
Maximum Operation Air Temperature on Radiator (°F / °C)	Contact Factory	Contact Factory	Contact Factory
Maximum Ambient Temperature (°F / °C)	122 (50)	122 (50)	122 (50)

COMBUSTION REQUIREMENTS

Flow at Rated Power scfm (m ³ /min)	230 (6.5)	371 (10.5)	343 (9.7)
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SOUND EMISSIONS

Sound Output in dB(A) at 23 ft (7 m) With Generator*	71 db	75 db	80 db
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*In normal operation

EXHAUST

Exhaust Flow at Rated Output scfm (m ³ /min)	771 (21.8)	1,198 (34.0)	1,206 (34.1)
Exhaust Temperature (Rated Output) °F (°C)	1,350 (732)	1,285 (696)	1,440 (782)

ENGINE PARAMETERS

Rated Engine Speed (RPM)	1,800	1,800	1,800
--------------------------	-------	-------	-------

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration RG10090 / RG13090 on NG & LP	77°F before derate	3.3% per 10°F above 77°F
Temperature Deration RG15090 on NG	77°F before derate	8% per 5°F above 77°F
Temperature Deration RG15090 on LP	77°F before derate	11% per 5°F above 77°F
Altitude Deration (100 kW / 130kW)	3% for every 1,000 ft above 600 ft	
Altitude Deration (150 kW)	2.1% for every 1,000 ft above 600 ft	

CONTROLLER FEATURES

Two-Line Plain Text LCD Display	Simple user interface for ease of operation.
Mode Switch: AUTO	Automatic Start on Utility failure. 7 day exerciser.
OFF	Stops unit. Power is removed. Control and charger still operate.
MANUAL	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable Start Delay Between 10-30 Seconds	10 sec standard
Engine Start Sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration)
Engine Warm-up	5 sec
Engine Cool-Down	1 min
Starter Lock-Out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger	Standard
Automatic Voltage Regulation With Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure Shutdown	Standard
Overspeed Shutdown	Standard, 72 Hz
High Temperature Shutdown	Standard
Overcrank Protection	Standard
Safety Fused	Standard
Failure to Transfer Protection	Standard
Low Battery Protection	Standard
50 Event Run Log	Standard
Future Set Capable Exerciser	Standard
Incorrect Wiring Protection	Standard
Internal Fault Protection	Standard
Common External Fault Capability	Standard
Governor Failure Protection	Standard



MEMORANDUM

FROM: Derek Roelle, E.I.T.
NorthPoint Consulting Group, Inc.

TO: Humboldt County Planning and Building Department

RE: Humboldt Reserve, LLC - Anticipated Noise Modeling

DATE: May 3, 2023

The intent of this memo is to provide a description of the modeling of the anticipated noise associated with Humboldt Reserve, LLC's proposed cannabis cultivation project (Project). This memo outlines the assumptions and assumptions that were used to determine the anticipated noise levels associated with the proposed Project.

On September 8th, 2023, NorthPoint Consulting Group completed onsite noise monitoring to determine the existing ambient noise levels. This process and results are outlined in a Noise Source Assessment and Mitigation Plan dated 9/22/2023. The *existing ambient noise levels* were determined at four locations within the project site. The *existing ambient noise level* is defined as the baseline of sound pressure experienced in an area prior to the proposed cannabis cultivation activities.

The Project proposal includes indoor cannabis cultivation to occur in three buildings, Building #1, #2 and #3. Each of the cultivation buildings will be equipped with circulation fans and dehumidifiers. Circulation fans and dehumidifiers have been identified as equipment that has potential to contribute to increased noise levels. Each building will be constructed from pre-manufactured metal building assemblies. The buildings will be constructed from aluminum and steel and will be equipped with typical R19 insulation. The Site Map in Attachment A shows the location of the proposed buildings.

The first step of this analysis was to calculate the anticipated noise inside the buildings. Each of the buildings to be utilized for indoor cultivation will be equipped with numerous circulation fans and several dehumidifiers. Table 1 below contains the number and types of equipment proposed for each building. The operating noise levels for the fans and dehumidifiers are listed in the manufacture spec sheets (Attachment B).



Table 1: Proposed equipment schedule

Building #	# Circulation Fans	# Dehumidifiers
Building #1	144	6
Building #2	144	6
Building #3	432	18

The following equation was used to determine the *inside* anticipated noise levels from the operating fans and dehumidifiers, for each building.

EQN 1: Logarithmic Addition of Sound Levels

$$ANL_{total} = 10 \times \log_{10} \left(10^{\frac{L_1}{10}} + 10^{\frac{L_2}{10}} + \dots + 10^{\frac{L_n}{10}} \right) dB$$

Where:

ANL_{total} = calculated *inside* anticipated noise levels for each building (dB)

L_1, L_2, L_n = sound pressure levels of separate sources (operating fans & dehumidifiers)

Each building will be constructed from pre-manufactured metal building assemblies. The buildings will be constructed from aluminum and steel and be equipped with typical R19 insulation. The noise reduction from the pre-manufactured metal buildings (roofs and walls) is 13dB (NAIMA). The noise reduction from the buildings was included to estimate the anticipated *outside* noise for each of the buildings.

Table 2 below contains the calculated anticipated *inside* noise levels for each of the proposed buildings, along with the anticipated *outside* noise level for each building.



Table 2: Anticipated inside noise levels and anticipated outside noise levels.

Building	Calculated Anticipated Noise Level (ANL_{total} (dB))	Anticipated Outside Noise Level (dB)
Building #1	78.2 dB	65.2
Building #2	78.2 dB	65.2
Building #3	83.0 dB	70.0

The anticipated *outside* noise levels were then used to determine what the noise levels are expected at the closest property line for each building. The closest property line is 50 feet for all buildings. The following equation was used to determine what the anticipated noise levels will be at the closest property line for each building.

EQN 2: Inverse Square Law

$$dL = L_{p2} - L_{p1}$$

$$dL = 10 \log \left(\frac{R_2}{R_1} \right)^2$$

$$dL = 20 \log \left(\frac{R_2}{R_1} \right)$$

Where:

dL = difference in sound pressure level (dBA)

L_{p1} = sound pressure level at location 1 (anticipated *outside* noise level)

L_{p2} = sound pressure at location 2 (expected noise at property line)

R_1 = distance from source to location 1 (ft) (distance from *outside* noise levels. Assumed to be 1 foot)

R_2 = distance from source to location 2 (ft) (closest distance to property line is 50 feet for all buildings)



Isolating the sound pressure at the property line, L_{p2} yields the following equation:

EQN 3: Inverse Square Law solved for L_{p2}

$$L_{p2} = L_{p1} - 20 \log \left(\frac{R_2}{R_1} \right)$$

Table 3 below contains the expected noise levels at the property lines for each of the buildings. The Site Map in Attachment A shows the location of each proposed building and the associated expected noise levels at the closest property line. The closest property line is 50 feet for all buildings.

Table 3: Expected noise levels at closest property line to each building.

Building	Expected Noise at Closest Property Line
Building #1	31.2
Building #2	31.2
Building #3	36.0

In conclusion, the noise associated with the proposed project will not increase ambient noise levels at the property lines more than 3 dB. In fact, the anticipated noise levels are expected to be less than the measured ambient levels at the property lines.

If you have any questions regarding this matter, please contact our office at (707) 798-6438.

Sincerely,

Derek Roelle, EIT



Attachments:

- A – Anticipated Noise Modeling Site Map
- B – Fan & Dehumidifier Manufacturer Spec Sheets

References:

(NAIMA). *Insulation Facts #58*. The Facts About the Acoustical Performance of Metal Building Insulation. Retrieved May 3, 2023, from https://bayinsulation.com/application/files/1416/0028/2268/MBI_Acoustical_Data.pdf





Attachment A: Anticipated Noise Modeling Site Map



HUMBOLDT RESERVE, LLC

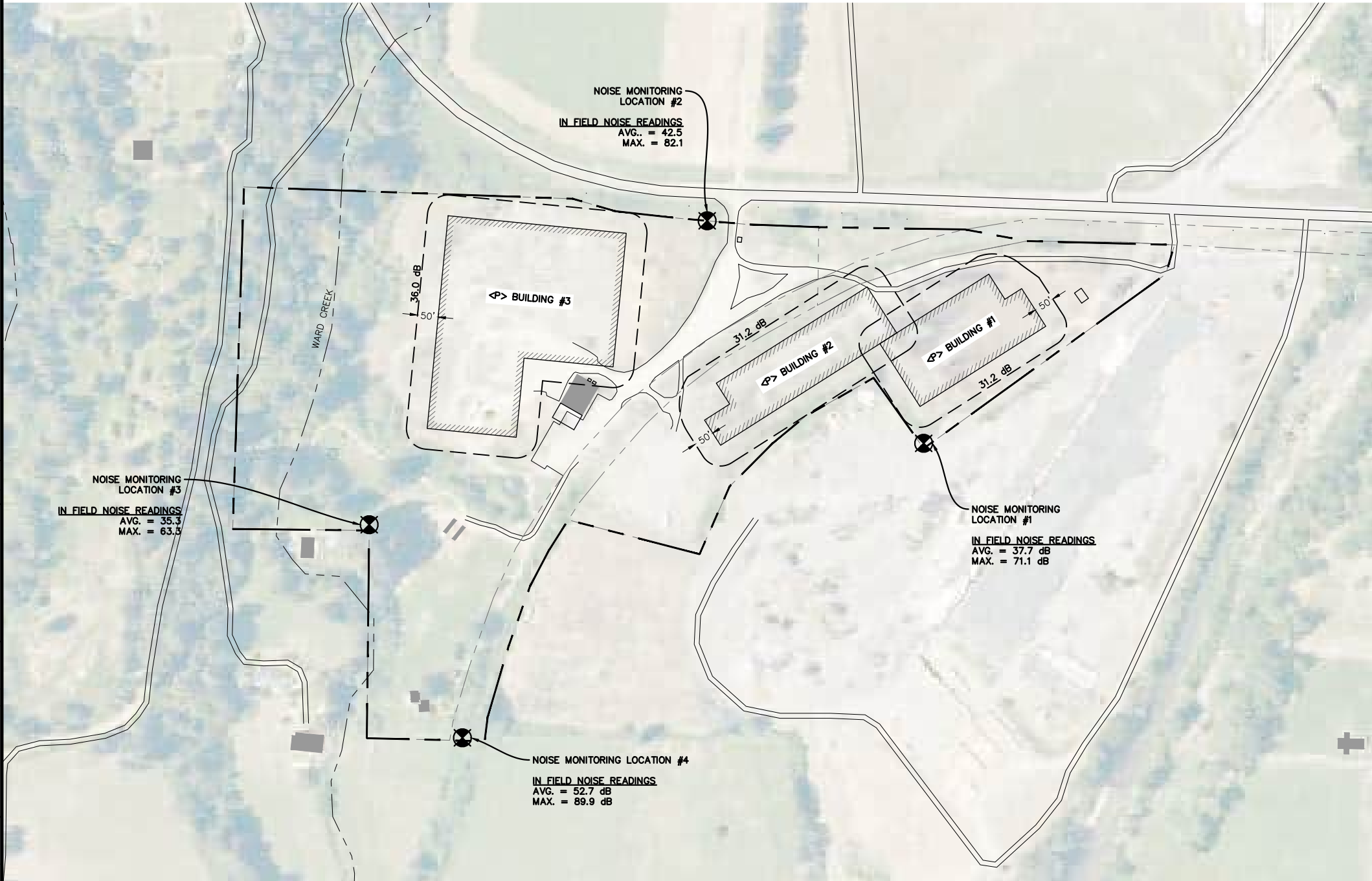
ANTICIPATED NOISE MODELING

SITE MAP

APN: 204-251-001, 204-121-006, 204-121-005

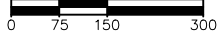
LEGEND

 - NOISE MONITORING LOCATION



**EXISTING AND PROPOSED
SITE PLAN**

22x34 SHEET: 1"=150'
 11x17 SHEET: 1"=300'



DATE	REVISIONS

NORTHPOINT

CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC
 4798 HWY 36 HYDESVILLE, CA 95547
 NOISE SOURCE ASSESSMENT AND MITIGATION PLAN

PROJ MGR.: PS
 DRAWN BY: CJG
 DATE: 02/23/22
 SCALE: AS SHOWN

SHEET
C0

21-013

May 3, 2023 - 16:27 Des: Name: P:\Test Coast Organics - Josh Wheeler - 21-013\CAD\Test Coast Organics - ANTICIPATED NOISE MODELING.dwg Updated By: Derek Realle



Attachment B: Fan & Dehumidifier Manufacturers Spec Sheets

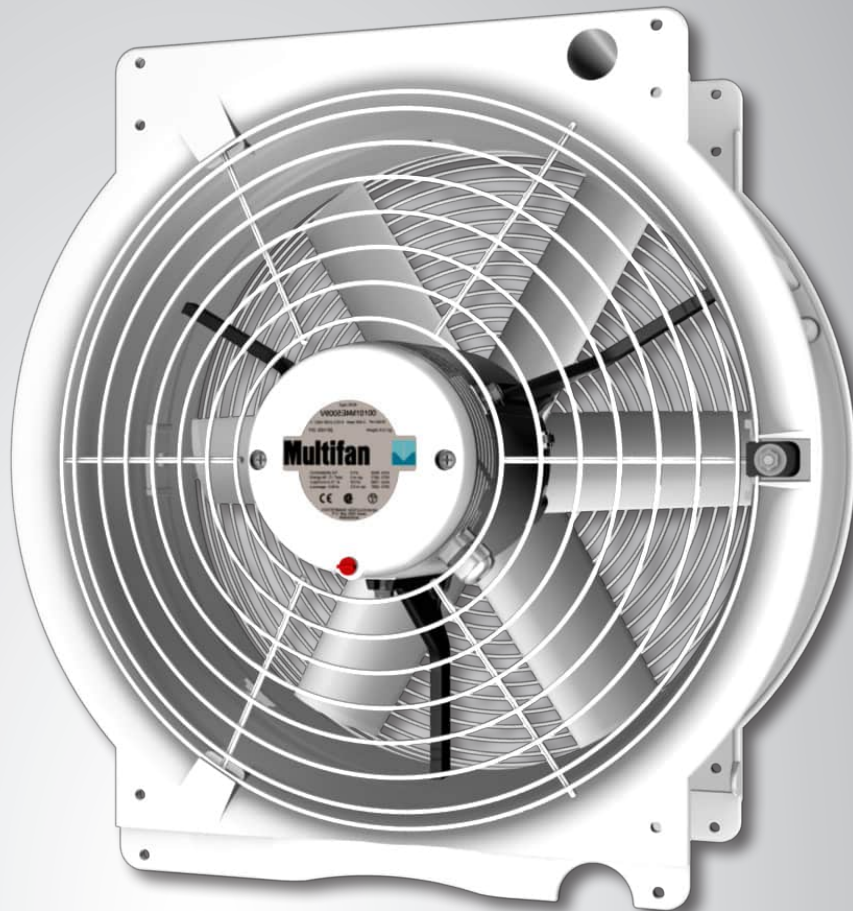


Multifan



Recirculation fans

The next level of greenhouse energy efficiency



VOSTERMANS
VENTILATION

YOUR SPECIALIST IN AIR

The next level of energy efficiency

The EU-Ecodesign directives for fans (Energy Related Product – ErP) and for motors (IE2/3/4) are leading in our development of new motors and fans for greenhouses. Before the year 2020 the Kyoto protocol targets 20% less energy consumption, 20% less CO₂ emission and 20% more sustainable energy.

A grower wants to optimize productivity, next to reducing carbon footprint. Active climate control guarantees growers uniform climate conditions resulting in less temperature differences (avoiding cold spots), better distribution and absorption of CO₂ and lowering the risk of humidity related diseases (botrytis). A crucial part of active climate control is the specific selection of the right fan, always based on your greenhouse conditions.



Why choose this fan:

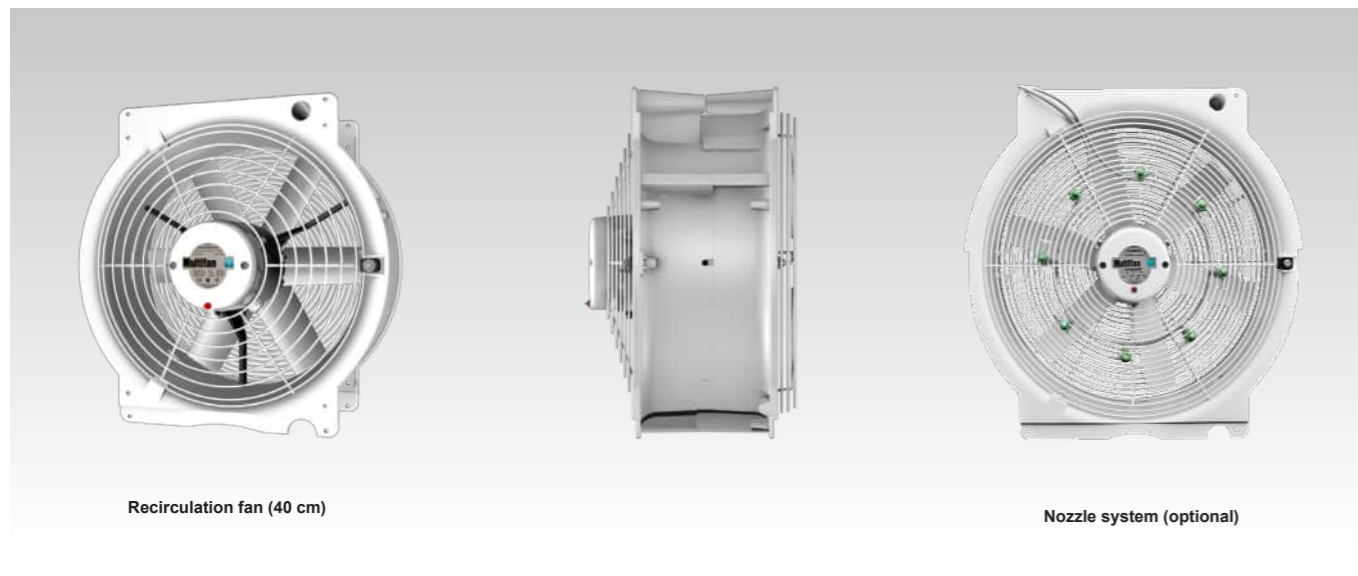
- Considerable increase in energy efficiency compared to previous versions
- To be ready for ErP2020 (check the data on next page)
- Easy to mount/remove wire guards
- Easy to maintain motor/impeller construction
- 3-year warranty

Options:

- Motors for different voltages and 50Hz or 60Hz.
- Three phase motor suitable for frequency control
- Cable + Plug (5 meters) for 230 V
- Built-in thermal protection for three phase
- Nozzle system set for 50 cm Recirculation fan
 - 8 Nozzles with hoses
 - Wire guard
 - Easy to install
 - Requested 4 bar water pressure

Features:

- Aerodynamic inlet radius for optimized air distribution
- High insulation class F / IP55
- Built-in thermal protection for single phase
- Housing suitable for suspension with profiles or chains
- Wire guards in accordance with CE-standards
- Serial- or parallel ventilation systems
- Reflecting white color for usage in greenhouses
- Compact design for less shadow



Recirculation fan (40 cm)

Nozzle system (optional)

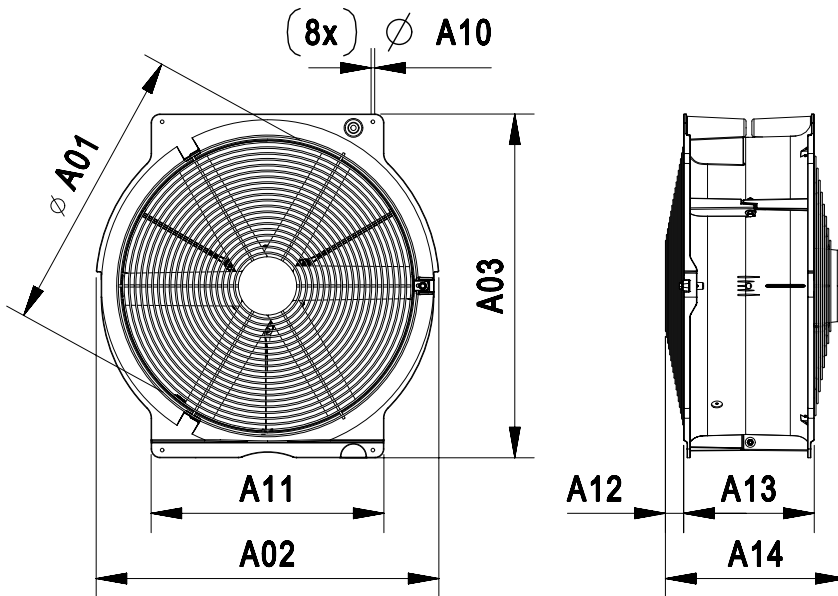
Technical data

Power supply*****	ø (mm)	RPM	Type	Item	Pe (W)	I (A) nom	m3/h @ 0 Pa	dB(A) @ 7m*	Controllability**	ErP***	Throw (0,5m/s)****
1~ 230V 50Hz	420	1400	CIR 4E40	T4E40A6M80100	240	1,3	5350	56	T/E	2015	51m
3~ 230V/400V 50Hz	420	1395	CIR 4D40	T4D40A8M80100	230	1,1/0,6	5300	56	T/F	2015	51m
1~ 230V 50Hz	520	935	CIR 6E50	T6E50A1M80100	220	1,1	6600	53	T/E	2015	49m
1~ 230V 50Hz	520	1380	CIR 4E50	T4E50AAM80100	390	1,8	8950	55	T/E	2020	66m
3~ 230V/400V 50Hz	520	935	CIR 6D50	T6D50A4M80100	210	0,9/0,6	6600	53	T/F	2015	49m
3~ 230V/400V 50Hz	520	1400	CIR 4D50	T4D50AAM80100	410	1,80 / 1,1	9200	55	T/F	2020	68m
3~ 240V 60Hz	420	1600	CIR 4E40	T4E40K2M80100	270	1,2	5450	56	T/E	N.A.	49m
1~ 120V 60Hz	520	1140	CIR 6E50	T6E50K3M80100	200	1,9	6500	53	T/E	2015	48m
1~ 240V 60Hz	520	1140	CIR 6E50	T6E50KAM80100	190	0,8	6400	53	T/E	2020	47m
3~ 240V/420V 60Hz	520	1140	CIR 6D50	T6D50KBM80100	176	0,8/0,5	6400	53	T/F	2020	47m

* Sound pressure level measured at 7 meter blowing distance
 ** Controllable Electronically (E), by Transformer (T) or by option Frequency drive (F).
 *** Compliance with either ErP2015 or ErP2020 directives
 **** Throw is the distance at which the peak velocity has fallen to 0,5 m/s (measured in an infinite room without obstructions)
 ***** For any other request please contact our sales team



Technical data



Dimensions (mm)								
ø mm	A01	A02	A03	A10	A11	A12	A13	A14
420	420	515	520	6,5	365	26	216	309
520	520	620	620	6,5	420	33	236	327

Why choose Vostermans Ventilation:

LOYAL TO YOU

We care for your specific needs based on our long expertise. In close cooperation with you we secure your business outcomes.

RELIABLE

Since our foundation in the Netherlands in 1952, we maintain our reputation as reliable partner. Our carefully selected global network of independent distributors strive to deliver you dedicated service and expertise.

FUTURE PROOF

Our future proof approach, which combines energy efficiency solutions with robust quality and rigorous testing, is based on a genuine commitment to serve as a trusted partner.

Vostermans Ventilation is a global developer and manufacturer of sustainable axial fans for the agricultural and industrial market. Sustainability is key for Vostermans. Their premium brandlines Multifan and EMI are showcasing the drive for advanced energy efficient fans. The company applies continuous innovation and research in their own motor production facility and in house state of the art R&D department. Vostermans Ventilation, part of Vostermans Companies founded in 1952, is based in Venlo, the Netherlands and operates in USA, China and Malaysia.



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ventilation@vostermans.com

Bloomington - USA
Tel. +1 309 827-9798
ventilation@vostermansusa.com

Tmn Klang Jaya - Malaysia
Tel. +60 (0)3 3324 3638
ventilation@vostermansasia.com

Shanghai - China
Tel. +86 21 5290 2889/2899
ventilation@vostermanschina.com

TR 2900 / TR 3500 / TR 3900

Installation, Operation and Maintenance Instructions

– Read and Save These Instructions –

This manual is provided to acquaint you with the dehumidifier so that installation, operation and maintenance can proceed successfully. Ultimate satisfaction depends on the quality of installation and a thorough understanding of this equipment. The dehumidifier is built around tested engineering principles and has passed a thorough inspection for quality of workmanship and function.



4201 Lien Rd
Madison, WI 53704
www.QuestClimate.com

Toll-Free 1-877-420-1330
info@QuestClimate.com

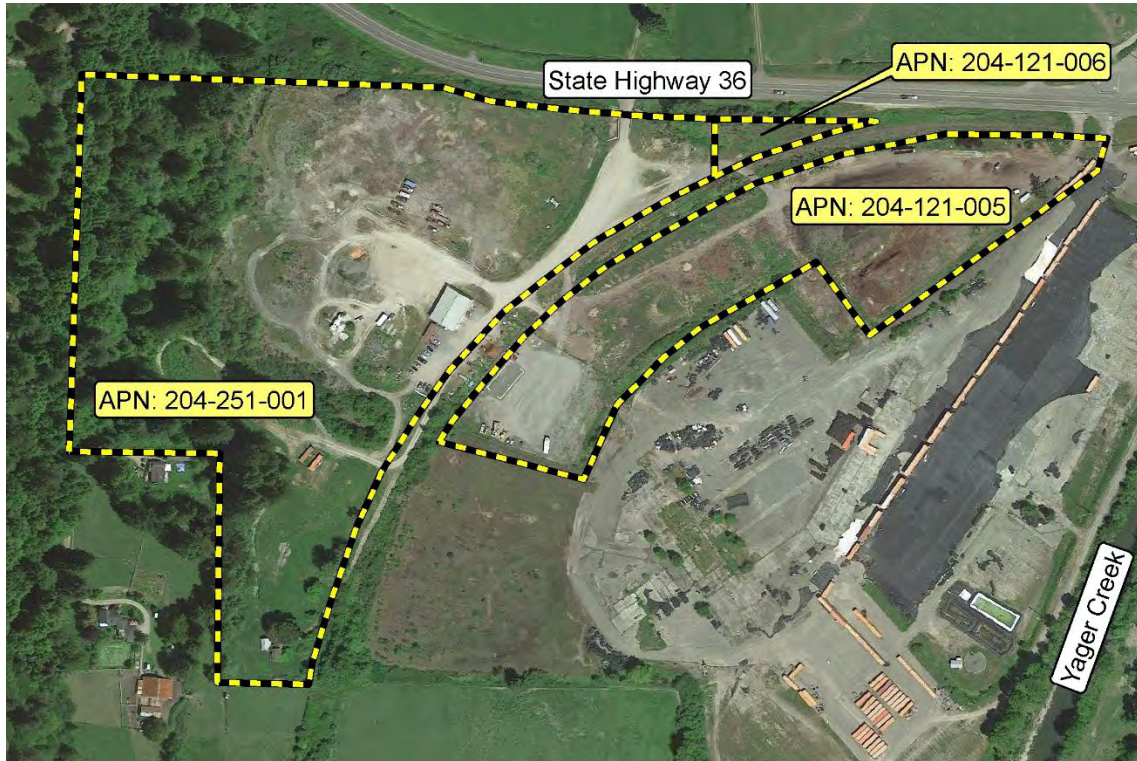
TR 2900 / TR 3500 / TR 3900

Technical data		TR2900	TR3500	TR3900
dehum. Capacity	lbs/day*	2900	3500	3900
dry air max.	CFM	6180	7357	8650
dry air nom.	CFM	5770	6950	7830
pressure	IWG	1.2	1.2	1.6
regeration air nom.	CFM	1160	1400	1570
pressure	IWG	1.2	1.2	.8
operation range airflows	---	-4°F to 104°F 0-100%rh	-4°F to 104°F 0-100%rh	-4°F to 104°F 0-100%rh
operation range electrics	---	-4°F to 104°F 0-95%rh	-4°F to 104°F 0-95%rh	-4°F to 104°F 0-95%rh
heater regeneration air (electr.)	kW	36.0	45.0	57.0
motors	kW	4.0	5.5	7.5
connect. Power	kW	40.0	50.5	63.8
voltage	V/Hz	3PH/pe 380-480V 50-60Hz	3PH/pe 380-480V 50-60Hz	3PH/pe 380-480V 50-60Hz
current	A @400V	58.4	73.1	93.4
current connection	A	63	100	125
sound pressure level (without ducting)	Lp (dB)**	< 82**	< 82**	< 82**
weight	lbs	1985	2250	2430
series		GEH9720	GEH9720	GEH9720

* @68°F/60%rh

** distance 3ft. (@ max. fan speed), without piping

**PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
4798 HIGHWAY 36, HYDESVILLE, CA 95547
APNS: 204-251-001, 204-121-005, 204-121-006**



Prepared for:

Jack Wheeler
Humboldt Reserve, LLC
4798 Hwy 36
Hydesville, CA 95547

May 9, 2022

Prepared by:
Scott Ferriman and Stan Thiesen
of



Freshwater Environmental Services

78 Sunny Brae Center
Arcata, California 95521
Phone (707) 839-0091

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. The qualifications of the Environmental Professionals are included in Appendix A.

Freshwater Environmental Services



Scott Ferriman
Project Scientist



Stan Thiesen, PG
Geologist

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1.0 INTRODUCTION

Freshwater Environmental Services (FES) has prepared this Phase I Environmental Site Assessment (Phase I ESA) for the property located at 4798 Highway 36 near the unincorporated Humboldt County community of Carlotta, CA (Subject Property) as shown on Figures 1 through 4. The Subject Property covers an area of approximately 31.69 acres and includes the following parcels:

- 204-121-005
- 204-121-006
- 204-251-001

This Phase I ESA was prepared for the exclusive use and benefit of Mr. Jack Wheeler, CEO of Humboldt Reserve, LLC, and for regulatory agencies.

This Phase I ESA conforms to American Society for Testing and Materials (ASTM) E1527-21 “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” (ASTM, 2021). This report is organized as recommended in ASTM E1527-21.

Figures 1 through 5 show the Subject Property location, topographic map, 2020 aerial photo, and the findings of the Phase I ESA. Photographs 1 through 15 show the perimeter of the Subject Property, the exterior of the structures, and other important features.

1.1 Purpose

The purpose of this Phase I ESA is to identify Recognized Environmental Conditions (RECs) associated with the Subject Property. The term REC means (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

This report will include listing of historical RECs and controlled RECs if applicable. A historical REC is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A past release that qualified as a historical recognized environmental condition may no longer qualify as a historical recognized environmental condition if new conditions or information have been identified such as, among other things, a change in regulatory criteria or a subsequently identified migration pathway that was not previously known or evaluated.

A controlled REC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority),

with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

RECs do not include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be subject to any enforcement action if brought to the attention of appropriate government agencies.

1.2 Detailed Scope of Work

This Phase I ESA conforms to the work described in ASTM E1527–21.

1.3 Significant Assumptions

We assumed that the text and figures in the documents that were provided accurately stated the laboratory results.

1.4 Limitations and Exceptions

We did not receive complete documents describing previous investigations at the Subject Property. We based this Phase I ESA on the text and figures from previous reports but were not provided the tables or laboratory reports. There were also references to reports in the Phase II ESA that we were not provided.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of ASTM E1527-21 is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and the practice recognizes reasonable limits of time and cost.

1.5 Special Terms and Conditions

No special terms or conditions are related to this investigation.

1.6 User Reliance

This Phase I ESA was prepared for the exclusive use and benefit of Jack Wheeler, CEO of Humboldt Reserve, LLC, and for regulatory agencies.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Subject Property is located within Humboldt County California between the unincorporated communities of Hydesville to the west and Carlotta to the east.

The Subject Property is bordered to the north by California State Highway 36 and agricultural properties. Forested and residential properties are present to the west of the Subject Property. Properties to the south include residential and agricultural uses. The property to the east includes a former lumber mill site. A railroad right-of-way is present between the two northwestern parcels and the southeastern parcel.

The Subject Property is relatively flat with an elevation of approximately 130 feet above mean sea level. The Subject Property location is shown on Figures 1 through 4.

2.2 Site and Vicinity General Characteristics

The Subject Property consists of three parcels listed in the table below.

Assessor's Parcel Number	Physical Addresses	Area (acres)	Status
204-121-005	No address listed	8.65	This parcel is mostly vacant with a packed gravel surface. The weighmaster's building, truck scale, and truck reload are present in the northeast portion. There is a fenced area in the southwest portion. Several bark piles are present.
204-121-006	No address listed	0.45	Vacant with a low area adjacent to Highway 36.
204-251-001	4798 Highway 36, Hydesville, CA.	22.59	The western portion of this parcel is forested. The eastern portion is mostly packed gravel with a metal building, equipment, and some bark stockpiles present. A well is present southwest of the metal building.

2.3 Current Use of the Property

Portions of the Subject Property are currently being used for a landscaping business. There are some bark stockpiles present.

2.4 Description of Structures, Roads, Other Improvements on the Site

There is one newer metal building with rollup doors present on APN 204-251-001. An abandoned house is present in the southwestern corner of the Subject Property. The Subject Property can be accessed through two gates along Highway 36. There are several unpaved driveways present at various locations.

2.5 Current Uses of Adjoining Properties

Adjacent property uses are listed in the table below.

Direction from the Site	Activity
West	Rural residential.
North	Agricultural.
East	A business operation involved with temporary water-filled barriers (AquaDam).
South	Agricultural.

2.6 Site Background

The Subject Property is located on a former river terrace that was likely used for agriculture until lumber mills were developed in the 1940's. There were two lumber mills present on the Subject Property. The former Carlotta Stud Mill owned by the Orban Lumber Company operated on APN 204-121-005 from the late 1940's until the 1970's or 1980's. A conical burner, green chain, and several transformers are shown on the 1952 oblique aerial photograph (Figure 8).

Three underground storage tanks (USTs) were removed from the former Carlotta Stud Mill (APN 204-121-005) in October 1990. The USTs removed included one 500-gallon gasoline UST and two 500-gallon diesel USTs. Approximately 200 cubic yards of impacted soil was excavated in the vicinity of the UST. The Case Closure Summary stated that the excavated material was "*reused as fill beneath Carlotta Mill paved log deck*". There was no additional information regarding the actual location of the excavated material and it may or may not be present on the Subject Property. A Remedial Action Completion Certification letter dated June 19, 1997 was issued by the Humboldt County Division of Environmental Health (HCDEH).

A second lumber mill was present on APN 204-251-001 from the late 1940's to the 1950's. There were two conical burners present and a green chain as shown on the 1952 oblique aerial photograph. We did not find any records of soil or groundwater investigations at the former mill location on APN 204-251-001.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

A preliminary title report was not provided for this report.

3.2 Environmental Liens or Activity and Use Limitations

Mr. Jack Wheeler (current owner) was not aware of any environmental liens or activity and use limitations.

3.3 Specialized Knowledge

Mr. Jack Wheeler (current owner) did not have specialized knowledge regarding the Subject Property.

3.4 Commonly Known or Reasonably Ascertainable Information

Mr. Jack Wheeler (current owner) was aware that environmental cleanups had occurred on the Subject Property.

3.5 Valuation Reduction for Environmental Issues

Mr. Jack Wheeler (current owner) indicated that the Subject Property is being offered for sale at a fair market value without value reduction for environmental issues.

3.6 Owner, Property Manager and Occupant Information

The current owner of the Subject Property is listed as Lost Coast Organics, LLC Co based on data downloaded from Parcel Quest on May 2, 2022.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

FES contracted with Environmental Data Resources (EDR), a company specializing in the acquisition and compilation of local, state, and federal environmental records, to acquire the ASTM required records. EDR has provided a Radius Map Report which is provided in Appendix G. EDR searched the Subject Property and surrounding area for standard environmental records as required by ASTM E1527-21. The search radius for each database complies with ASTM E1527-21. A complete listing of the databases searched, abbreviations and the radius searched are included in the EDR Radius map report.

The Subject Property (4798 Highway 36) is not listed in any of the environmental databases provided in the EDR report.

Adjacent and nearby sites are listed on one or more environmental databases provided by the EDR report as indicated below:

511 Highway 36 – PALCO Carlotta Mill

This site on APN 204-121-005 on the Subject Property was formerly occupied by the Carlotta Stud Mill owned by the Orban Lumber Company which operated from the late 1940's until the 1970's or 1980's. Three underground storage tanks (USTs) were removed in October 1990. The USTs removed included one 500-gallon gasoline UST and two 500-gallon diesel USTs. Approximately 200 cubic yards of impacted soil was excavated in the vicinity of the UST. The excavated material was reportedly "*reused as fill beneath Carlotta Mill paved log deck*" which may or may not be on the Subject Property. A Remedial Action Completion Certification letter dated June 19, 1997 was issued by the Humboldt County Division of Environmental Health (HCDEH).

511 Highway 36 – Pacific Lumber Company

This former sawmill is located on the southeast-adjacent parcel and used chemicals containing pentachlorophenol (PCP) and tetrachlorophenol (TCP) to treat lumber. Dioxins have also been detected in soil and groundwater. In 2007 approximately 2,321 tons of soil and concrete impacted with PCP/TCP and dioxins were excavated in the area of the former planer building.

There were also underground storage tanks (USTs) used at the site. In 2011, approximately 800 cubic yards of soil was excavated in the vicinity of the former Mill Wrights Shop. The soil was remediated onsite by aeration and approximately 240 cubic yards with higher concentrations were disposed offsite. A Soil and Groundwater Management Plan dated May 29, 2015 was prepared. The North Coast Regional Water Quality Control Board has indicated that the remaining impacted soil and groundwater can remain onsite if a land use covenant is recorded for the impacted areas. The groundwater gradient has typically been to the southwest as shown on Figure 8.

Additional sites within 1/8 mile from the Subject Property were reviewed and are not anticipated to have had a negative environmental impact on the Site based on distance and environmental activities reported.

A list of sites that are unmappable due to an improper address is included in the EDR report. FES reviewed the list of unmappable sites and has determined that it is not anticipated that any of these sites has had a negative environmental impact on the Subject Property due to environmental activity and location.

Other sites listed in the EDR Radius Map report are unlikely to have had a negative impact on the Subject Property due to distance from the Subject Property, groundwater flow direction, and the reported environmental activities.

4.2 Additional Environmental Record Sources

The State of California GeoTracker database was reviewed to identify additional potentially contaminated properties near the Subject Property. No additional sites were found that are likely to have had a negative impact on the Subject Property due to distance from the Subject Property, groundwater flow direction, and the reported environmental activities

4.3 Physical Setting Sources

The United States Geologic Survey (USGS) 7.5-minute topographic map entitled Hydesville, California, including the Subject Property and surrounding area was reviewed and is included as Figure 2. The Subject Property is relatively level with an elevation of approximately 120 feet above mean sea level (MSL).

4.4 Historical Use Information on the Property

Information in this section of the report is based on acquisition and review of various historical sources including historical aerial photographs, historical topographic maps, previous reports, and previous reports.

Based on a review of historical data sources, the oldest documentation is a 1933 topographic map that shows the railroad along the southeastern boundary of the Subject Property and the railroad along the western boundary. Two buildings are shown on the map in the northern and southern portions of the Subject Property.

4.4.1 Historical Aerial Photographs

Aerial photographs from 1942, 1948, 1952, 1956, 1965, 1972, 1983, 1993, 1998, 2005, 2009, 2012, 2016, 2019 and 2020 were obtained from EDR and other sources as noted on the figures. The EDR aerial photographs are include in Appendix C.

The aerial photographs were reviewed, and the following observations were made.

Historical Aerial Photographs	
1942 (Figure 6)	The 1942 photo appears to show small areas of development but the resolution is poor. Most of the western parcel (APN 204-251-001) is undeveloped.

1948 (Figure 7)	The 1948 photo appears to show a small lumber mill on APN 204-251-001 which is clearly visible on the 1952 oblique aerial photo.
1952 (Figure 8)	The 1952 oblique aerial photo shows a small lumber mill on APN 204-251-001 with two conical burners and a green chain.
1956 (Figure 9)	The 1956 photos show that a lumber mill is present on APN 204-121-005. The large mill is now present on the southeast-adjacent property. The western parcel remains mostly undeveloped.
1965 (Figure 10)	The 1965 photo shows that the lumber mill on APN 204-121-005 includes a conical burner and that buildings and lumber stacks cover most of the parcel. The western parcel remains mostly undeveloped.
1972 (Figure 11)	The 1972 photo shows that both of the lumber mills are in operation. The northern portion of the western parcel is being used for log and lumber storage.
1983 (Figure 12)	The 1983 photo appears similar to the 1972 photo.
1993 (Figure 13)	The 1993 photo has insufficient resolution to interpret.
1998 (Figure 14)	The 1998 photo shows that all of the mill buildings on the Subject Property are no longer present. The western parcel has multiple stockpiles and the currently existing metal building is present. Logs and lumber stacks are present on APN 204-121-005 and are likely from the mill on the southeast-adjacent property.
2005 (Figure 15)	The 2005 photo shows that APN 204-121-005 is vacant. Stockpiles are present on the western parcel. The mill on the southeast-adjacent property is no longer operating.
2009 (Figure 16)	The 2009 photo appears similar to the 2005 photo except that the mill on the southeast-adjacent property has been demolished.
2012 (Figure 17)	The 2012 photo appears similar to the 2009 photo.
2016 (Figure 18)	The 2016 photo appears similar to the 2012 photo except that there are larger stockpiles on the western parcel.
2019 (Figure 19)	The 2019 photo appears similar to the 2016 photo except there are no longer stockpiles on the western parcel and there are no small stockpiles on APN 204-121-005.
2020 (Figure 20)	The 2020 photo appears similar to the 2016 photo except that vehicles are visible around the truck shop.

4.4.2 Historical Topographic Maps

Historical topographic maps from 1944, 1959, 1979, 2012, 2015, and 2018 of the Subject Property and surrounding area were provided by EDR. Copies of the maps are provided in Appendix D. The historical topographic maps were reviewed, and the following observations were made.

Historical Topographic Maps	
1944	The 1944 map shows the railroad and an access road to a likely residence in the southwestern corner of the Subject Property.
1959	The 1959 map shows additional railroad spurs and a small building on APN 204-121-005.
1979	The 1979 map shows two buildings and a burner between on APN 204-121-005.
2012	The 2012 map shows a single access road on the Subject Property.
2015	The 2015 map only shows the railroad.
2018	The 2018 map shows the railroad and an access road.

4.4.3 Historical City Directories

Historical City Directory data from 1992 through 2017 was provided by EDR and is included in Appendix E. There were no listings for the Subject Property address of 4798 Highway 36.

4.4.4 Sanborn Fire Insurance Maps

Historical Sanborn Fire Insurance Maps do not cover the Subject Property.

4.5 Historical Use Information on Adjoining Properties

North-adjacent Property

Based on a review of aerial photos, the adjacent property to the north has been used for agriculture.

East-adjacent Property

Based on a review of aerial photos, the adjacent property to the east was developed as a sawmill in the late 1940's or early 1950's.

West-adjacent Property

Based on a review of aerial photos, most of the adjacent property to the west has remained forested with a few residences.

South-adjacent Property

Based on a review of aerial photos, the adjacent property to the south has been used for agriculture.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The Subject Property was inspected by Scott Ferriman of FES on March 7, 2022. Photos of the Subject Property were obtained on May 3, 2022. Photographs from the site reconnaissance are included in this report as Photographs 1 through 15.

5.2 General Site Setting

The Subject Property includes an area of approximately 31.69 acres. The northwestern portion of the Subject Property is covered with brush and trees. The developed area of the Subject Property is relatively flat with several drainage ditches and stormwater conveyance infrastructure that controls stormwater discharges. Portions of APN 204-121-006 have been excavated possibly for storm water retention.

5.3 Exterior Observations

There are three buildings on the Subject Property. The exterior conditions are described below.

Building Name	Current Use	Building Type	Exterior Comments
Metal Building (~4,800 sq. ft.)	Unknown	Metal with two rollup doors.	The exterior is in good condition.
Abandoned residence (~300 sq. ft)	Vacant	Wood frame with two stove pipes and no heater.	Poor condition.
Former weighmaster building (~144 sq. ft)	Vacant	Wood frame.	This building is in fair condition.

There is a fenced area (~60,000 sq. ft.) in the southwest corner of APN 204-121-005. An active well is present approximately 200 feet southwest of the metal building on APN 204-251-001. Some areas of the Subject Property are being used by a landscaping business. There were several bark stockpiles present on the Subject Property.

5.4 Interior Observations

The interior conditions of the buildings are described below.

Building Name	Current Use	Interior Comments
Metal Building	Unknown	No access was provided to the metal building.
Abandoned residence	Vacant	Poor condition.
Former weighmaster building	Vacant	Mostly free of debris.

No access was provided to the metal building.

6.0 INTERVIEWS

6.1 Interview with Owner

The Subject Property is owned by Lost Coast Organics, LLC. Mr. Jack Wheeler (owner) completed an environmental questionnaire on March 5, 2022. Mr. Meyer was aware that cleanups had occurred on the Subject Property.

6.2 Interview with Site Manager

No Site Manager was available for interview.

6.3 Interviews with Occupants

No Occupants were available for interview.

6.4 Interviews with Local Government Officials

FES contacted Mr. Norm Crawford of the Humboldt County Environmental Health Division on March 8, 2022 regarding the Subject Property.

7.0 FINDINGS AND OPINIONS

The findings listed below are shown on Figure 5.

1. **Finding:** There were two lumber mills present on the Subject Property. The former Carlotta Stud Mill owned by the Orban Lumber Company operated on APN 204-121-005 from the late 1940's until the 1970's or 1980's. An investigation which included soil and groundwater sampling on APN 204-121-005 by SHN Consulting Engineers & Geologists in 2006 (SHN, 2007) found relatively low levels of petroleum hydrocarbons in soil (up to 4,000 mg/kg motor oil from OL-109) and groundwater (up to 380 µg/L motor oil from OL-105). The laboratory reportedly performed a silica gel cleanup on the soil samples but it does not appear that silica gel was used on the groundwater samples. Thirteen soil samples and 12 groundwater samples were analyzed for pentachlorophenol (PCP) and tetrachlorophenol (TCP). There were no detections of PCP or TCP in the soil and groundwater samples.

Dioxins/furans were detected in soil at concentrations up to 11.595 picograms per gram TEQ in sample DD-102 from a drainage ditch near the southeastern boundary of the Subject Property. Dioxins/furans were initially detected in groundwater at a single location (TB-100) at a concentration of 0.094 pg/L TEQ. This groundwater sample reportedly contained "excessive sediment" and was reanalyzed after filtration. There were no detections of dioxins/furans in the filtered sample. The highest arsenic concentration in soil was 7 mg/kg which is within the range of background concentrations.

The 1952 aerial photo appears to show several transformers north of the conical burner on APN 204-121-005 which could have contained Polychlorinated Biphenyls (PCBs). PCBs were domestically manufactured from 1929 until manufacturing was banned in 1979. Leaks from the transformers could have discharged PCBs onto the Site.

Opinion: The soils and groundwater on APN 204-121-005 have been impacted by relatively low levels of petroleum hydrocarbons. The concentrations in soil are less than commercial/industrial environmental screening levels established by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB, 2019). The former presence of transformers on APN 204-121-005 is considered a REC.

2. **Finding:** A second lumber mill was present on APN 204-251-001 from the late 1940's to the 1950's. There were two conical burners present and a green chain building. The ash from conical burners can contain dioxins/furans at concentrations exceeding environmental screening levels. The mill on the southeast-adjacent property used wood-treatment chemicals containing PCP and TCP to prevent staining on milled lumber.

Opinion: The former presence of conical burners on APN 204-251-001 could have impacted soil with dioxins/furans at concentrations exceeding environmental screening levels. The possible use of wood-treatment chemicals in the vicinity of the green chain on APN 204-251-001 could have impacted the soil. We were not provided any reports of soil and/or groundwater investigations

for this parcel. The former presence of conical burners and a green chain are considered RECs.

- 3. Finding:** Three underground storage tanks (USTs) were removed from the Subject Property (APN 204-121-005) in October 1990. The USTs removed included one 500-gallon gasoline UST and two 500-gallon diesel USTs. Approximately 200 cubic yards of impacted soil was excavated in the vicinity of the UST. SHN prepared a report dated July 26, 1995 describing the results of the sampling of several stockpiles of excavated materials. Most of the soil samples contained low concentrations of gasoline, diesel, benzene, toluene, ethylbenzene, xylenes, and lead. The concentrations were all less than the Tier 1 environmental screening levels established by the SFBRWQCB (2019).

The Case Closure Summary stated that the excavated material was “reused as fill beneath Carlotta Mill paved log deck”. There was no additional information regarding the actual location of the excavated material and it may or may not be present on the Subject Property.

Opinion: A Remedial Action Completion Certification letter dated June 19, 1997 was issued by the Humboldt County Division of Environmental Health (HCDEH). The former presence of three USTs on the Subject Property and the possible presence of soil excavated during the removal of the USTs on the Subject Property are not considered a RECs.

- 4. Finding:** The northern portion of the western parcel (APN 204-251-001) was previously used for gravel processing and a concrete batch plant beginning in the 1990’s and continuing through the early 2000’s. A 500-gallon aboveground storage tank (AST) containing diesel was used to fuel equipment. SHN found a document from the HCDEH dated July 27, 1999 and addressed to the NCRWQCB regarding a diesel spill in the gravel plant area. A letter to the NCRWQCB by PALCO (former site owner) dated August 19, 1999 described the spill and cleanup. The NCRWQCB responded with a letter dated October 28, 1999 that reportedly indicated that the NCRWQCB was satisfied with the cleanup and did not require additional action.

SHN collected four soil samples in the gravel plant area of the western parcel in 2006. The only reported detection of petroleum hydrocarbons was toluene at a concentration of 0.0073 mg/kg.

Opinion: The NCRWQCB accepted the cleanup of the diesel spill in the gravel plant area of the western parcel. The concentration of toluene detected in the soil was significantly less than the environmental screening level. The former presence of a diesel AST and gravel plant operations on the western parcel is not considered a REC.

- 5. Finding:** A sawmill that was previously located on the southeast-adjacent property used chemicals containing pentachlorophenol (PCP) and tetrachlorophenol (TCP) to treat lumber. Dioxins have also been detected in soil and groundwater. In 2007 approximately 2,321 tons of soil and concrete impacted with PCP/TCP and dioxins was excavated in the area of the former planer building. There were also underground storage tanks (USTs) used at the

site. In 2011, approximately 800 cubic yards of soil was excavated in the vicinity of the former Mill Wrights Shop. The soil was remediated onsite by aeration and approximately 240 cubic yards with higher concentrations were disposed offsite. A Soil and Groundwater Management Plan dated May 29, 2015 was prepared. The North Coast Regional Water Quality Control Board has indicated that the remaining impacted soil and groundwater can remain onsite if a land use covenant is recorded for the impacted areas. The groundwater gradient has typically been to the southwest.

Opinion: The southeast-adjacent property has been impacted by wood-treatment chemicals, dioxins/furans, and petroleum hydrocarbons. Based on previous soil and groundwater investigations, the NCRWQCB responses, and the typical groundwater gradient direction, it does not appear that the impact extends onto the Subject Property. The impacted soil and groundwater on the southeast-adjacent property is not considered a REC.

8.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations for the property located at 4798 Highway 36 near Carlotta, CA. Any exceptions to, or deletions from, this practice are described in Section 9.0 of this report.

This assessment has revealed the presence of the following Recognized Environmental Conditions on the Subject Property listed below.

- The former presence of two conical burners which could have created dioxin/furans in ash on APN 204-251-001 is considered a REC.
- The former presence of a green chain where wood-treatment chemicals containing PCP and/or TCP may have been applied to lumber on APN 204-251-001 is considered a REC.
- The former presence of several large transformers on APN 204-121-005 which may have contained PCBs is considered a REC.

9.0 DEVIATIONS

There were no deviations from ASTM E1527-21.

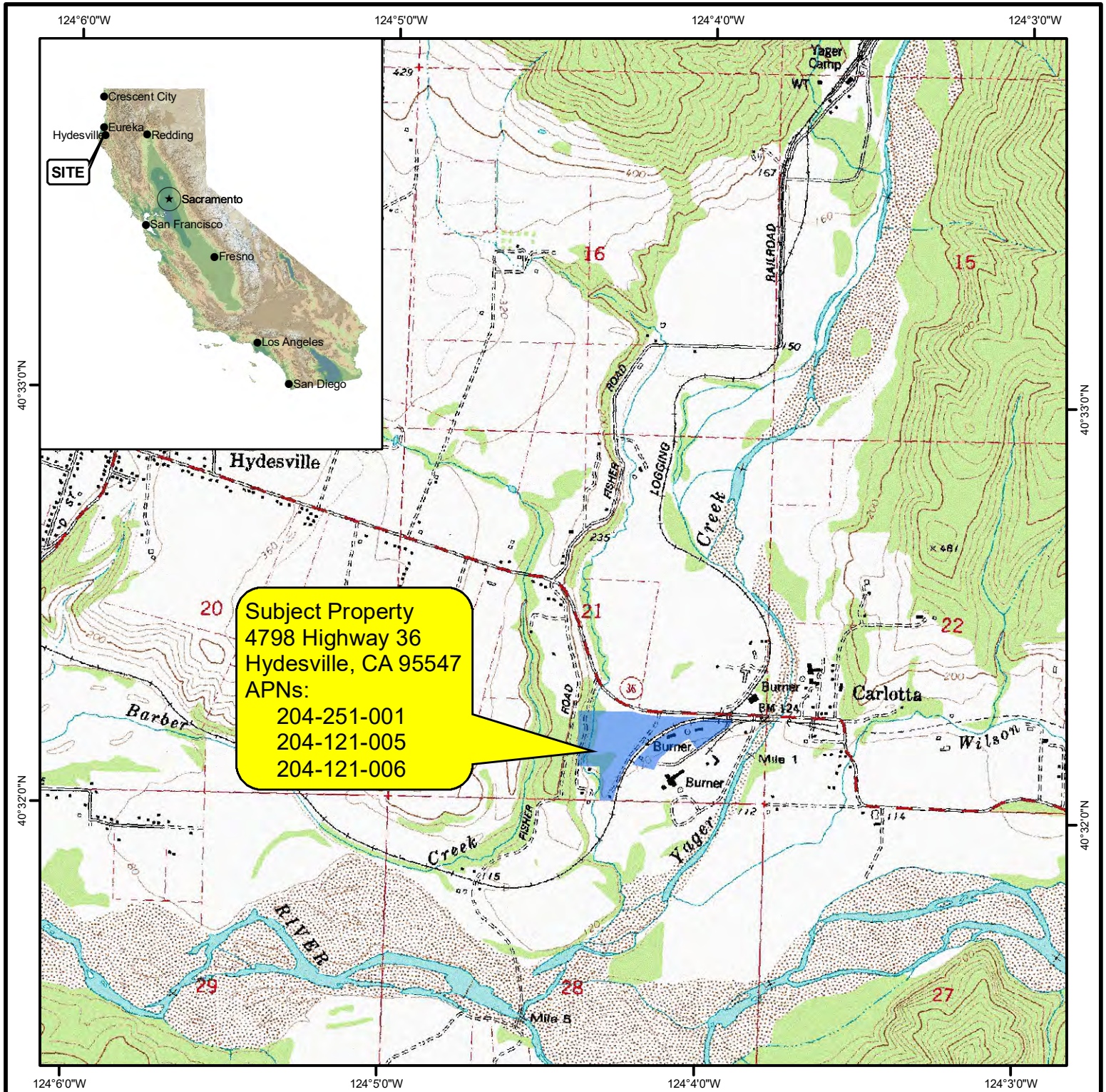
10.0 ADDITIONAL SERVICES

No additional services were provided for this Phase I ESA.

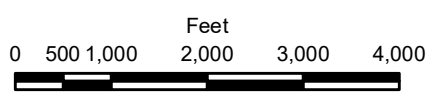
11.0 REFERENCES

- ASTM, 2021. E1527-21 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.
- Environmental Data Resources (EDR), 2022 *Aerial Photograph Decade Package*.
- Environmental Data Resources (EDR), 2022 *Certified Sanborn Maps*.
- Environmental Data Resources (EDR), 2022 *City Directory Report*.
- Environmental Data Resources (EDR), 2022 *Historic Topographic Maps*.
- Environmental Data Resources (EDR), 2022 *Radius Map Report*.
- GHD, May 29, 2015. *Soil and Groundwater Management Plan For the UST Area near the Former Mill Wrights Shop and The Planer Area at the Former Planer Building, Louisiana-Pacific Corp., Former Carlotta Sawmill, 511 Highway 36, Carlotta, CA*.
- Humboldt County Division of Environmental Health, June 19, 1997. *Remedial Action Completion Certification, Carlotta Stud Mill, 511 Highway 36, Carlotta, California, LOP #12332*.
- SHN, July 26, 1995. *Report of Findings for Stockpiled Soil Sampling Conducted at PALCO's Carlotta Stud Mill (LOP #12332)*.
- SHN, February 2005. *Phase I Environmental Site Assessment, PALCO Carlotta Sawmill, Carlotta, CA*.
- SHN, July 2007. *Phase II Environmental Site Assessment, PALCO Carlotta Sawmill, Carlotta, CA*.
- United States Geological Survey, 2018, *Hydesville, CA 7.5 Minute Quadrangle*.

FIGURES



Subject Property
 4798 Highway 36
 Hydesville, CA 95547
 APNs:
 204-251-001
 204-121-005
 204-121-006



LEGEND

■ Approximate boundary of Subject Property

Base Image Data Source:
 1:24,000 Digital Raster Graph Mosaic of
 Humboldt County, California

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
 4798 Highway 36, Hydesville, CA

Figure 1
Subject Property Location Map
 4798 Highway 36
 Hydesville, California

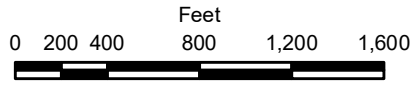
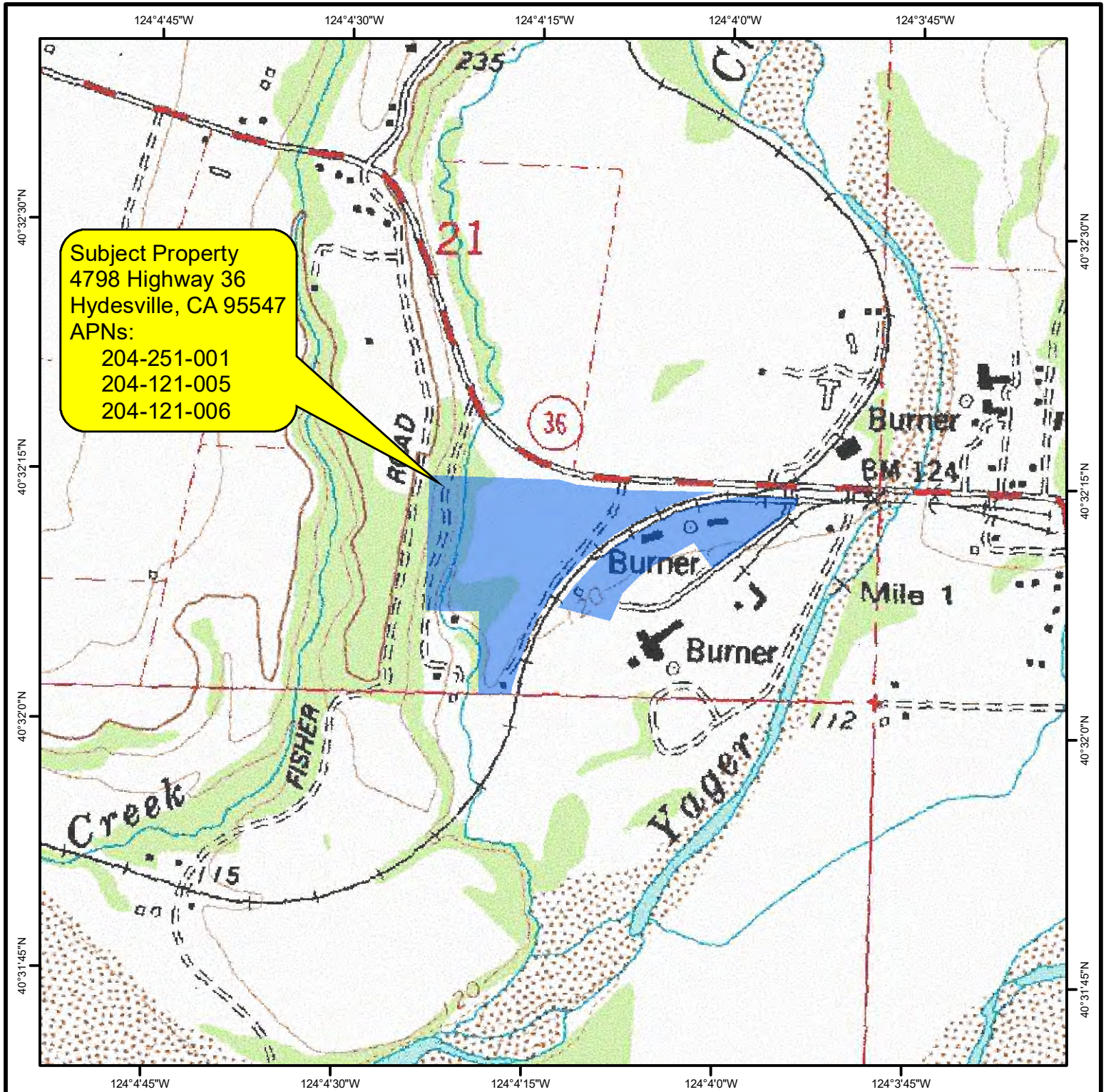


Freshwater Environmental Services

Project No.
 FES-105

Figure Date
 3-5-22

By
 SJT



LEGEND

■ Approximate boundary of Subject Property

Base Image Data Source:
 1:24,000 Digital Raster Graph Mosaic of
 Humboldt County, California

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
 4798 Highway 36, Hydesville, CA

Figure 2
 USGS Topographic Map

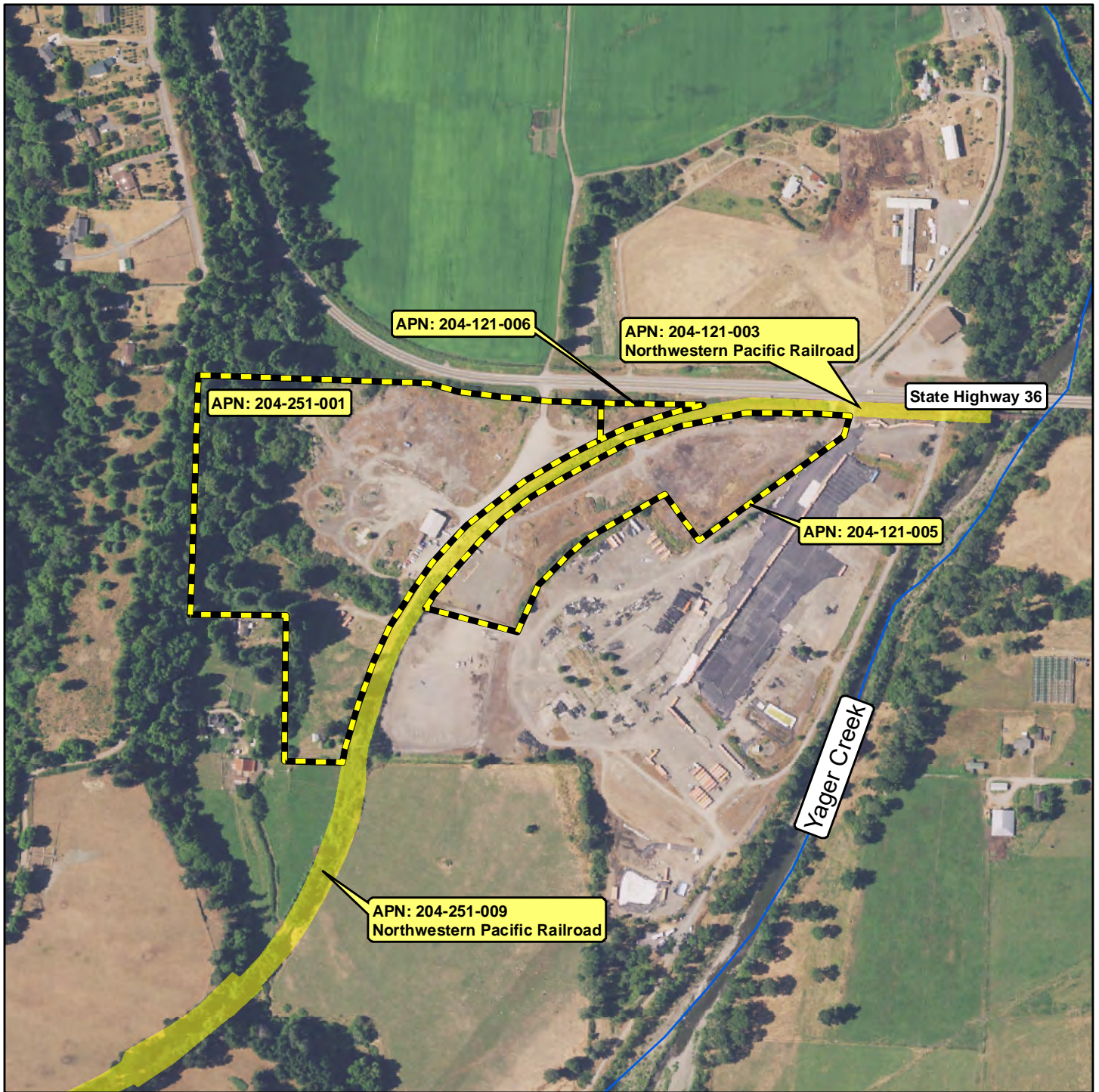


Freshwater Environmental Services

Project No.
 FES-105

Figure Date
 3-5-22

By
 SJT





Feet

0 100 200 400 600 800 1,000



LEGEND

 Approximate boundary of Subject Property

 Railroad Parcels

Base Image Data Source:
USDA NAIP: 7-14-20

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 3
2020 Aerial Photograph

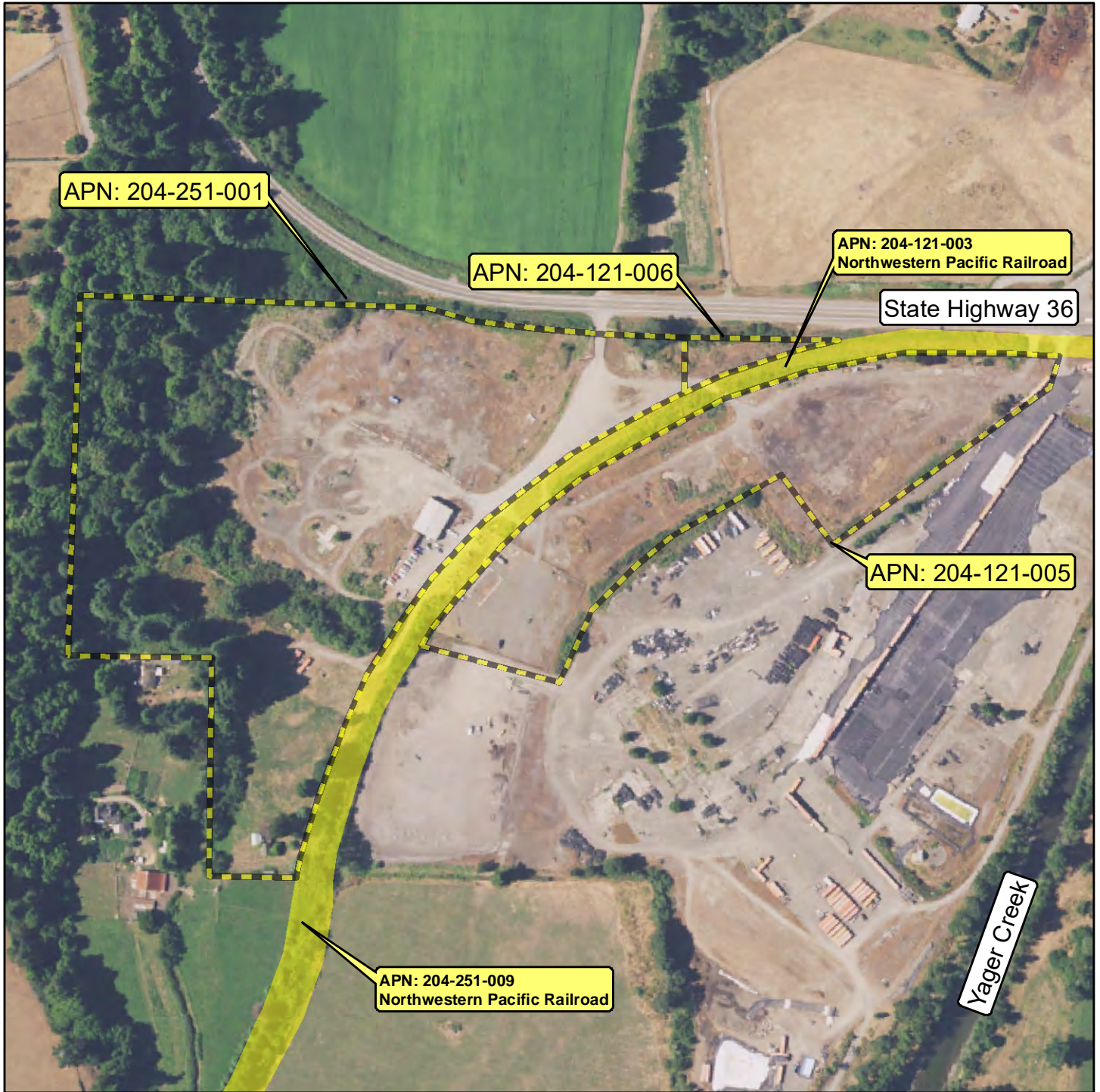


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22

By
SJT



Feet



LEGEND

Approximate boundary of Subject Property

Railroad Parcels

Base Image Data Source:
USDA NAIP: 7-14-20

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 4
2020 Aerial Photograph Detail

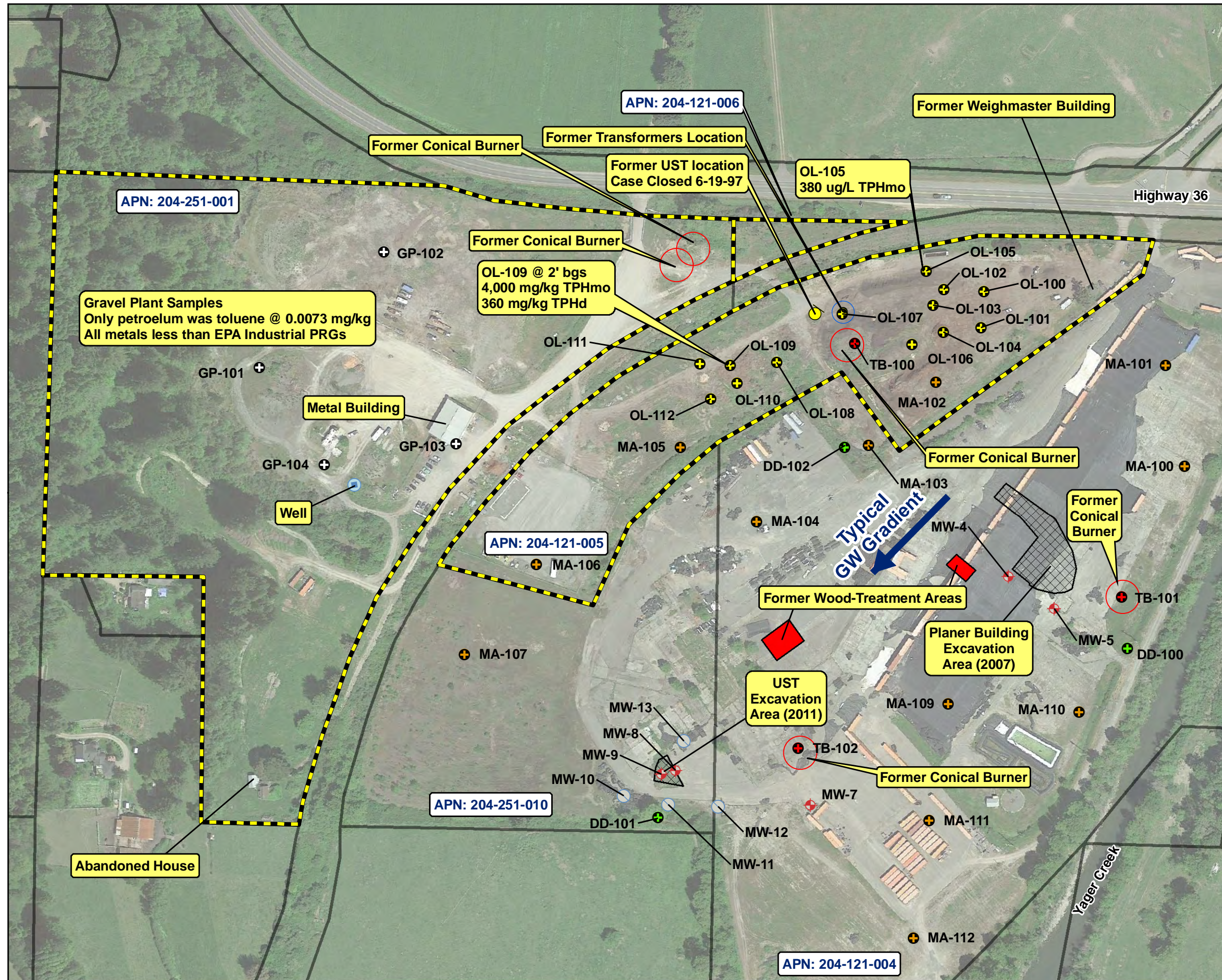


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22

By
SJT



Gravel Plant Samples
 Only petroleum was toluene @ 0.0073 mg/kg
 All metals less than EPA Industrial PRGs

OL-109 @ 2' bgs
 4,000 mg/kg TPHmo
 360 mg/kg TPHd

OL-105
 380 ug/L TPHmo

Typical
 GW Gradient

Abandoned House

LEGEND

- Subject Property
- Other Parcels
- Excavation Area
- Former Wood Treatment Area
- Former Conical Burner
- Water Supply Well
- Monitoring Well
- Monitoring Well (destroyed)
- "Conical Burner" Sample
- "Orban Lumber" Sample
- "Gravel Plant" Sample
- "Drainage Ditch" Sample
- "Miscellaneous Area" Sample

Base Image Data Source:
 Google Earth Pro: 4-30-19

ALL LOCATIONS APPROXIMATE

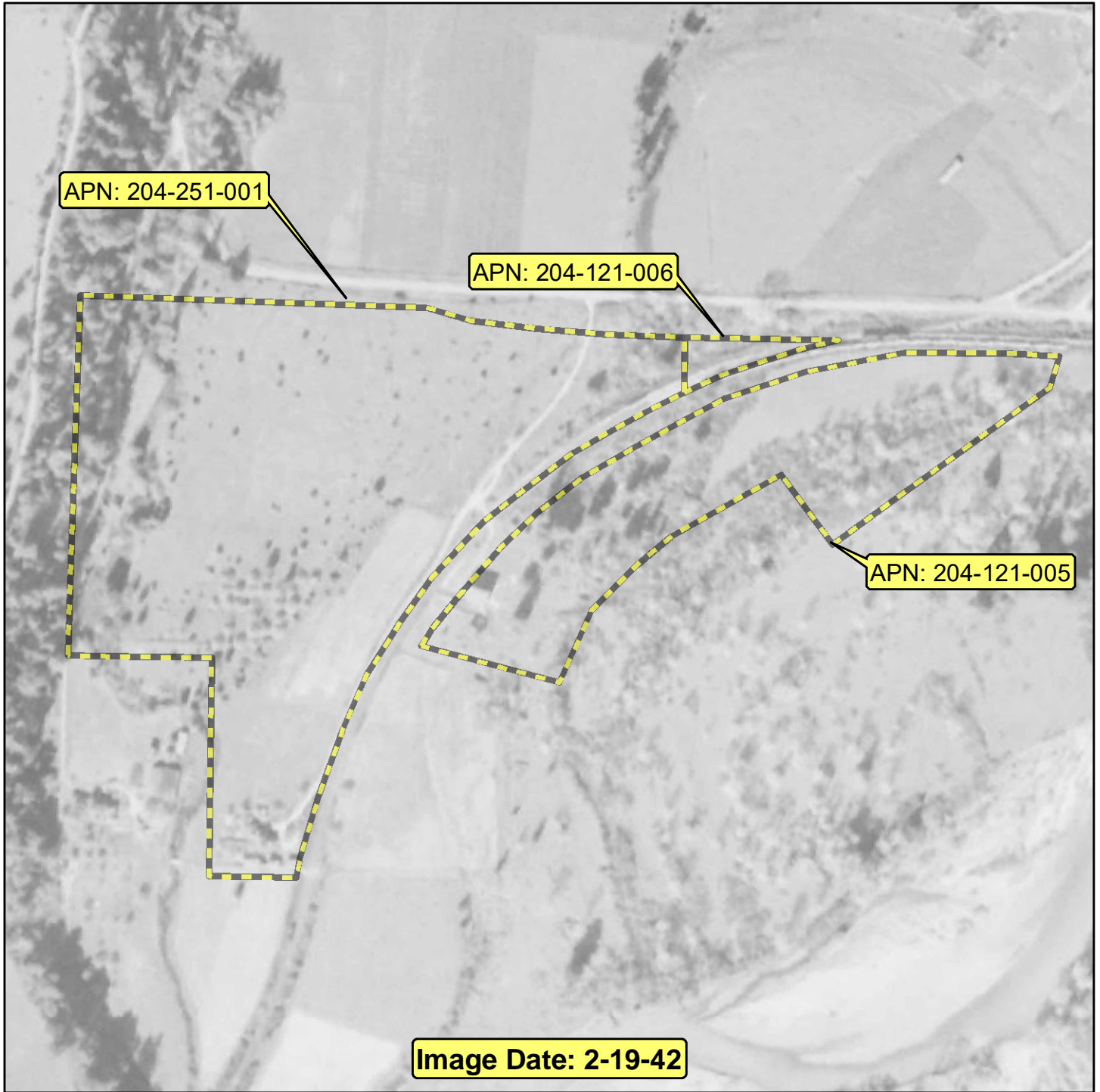
0 50 100 200 300 400 500
 Feet

Phase I ESA - Humboldt Reserve LLC
 4798 Highway 36, Hydesville, CA

Figure 5
 Site Plan
 2019 Aerial Photograph

Project No. FES-105	Figure Date 5-8-22	By SJT
------------------------	-----------------------	-----------


**Freshwater
 Environmental
 Services**



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 2-19-42

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 6
1942 Aerial Photograph Detail

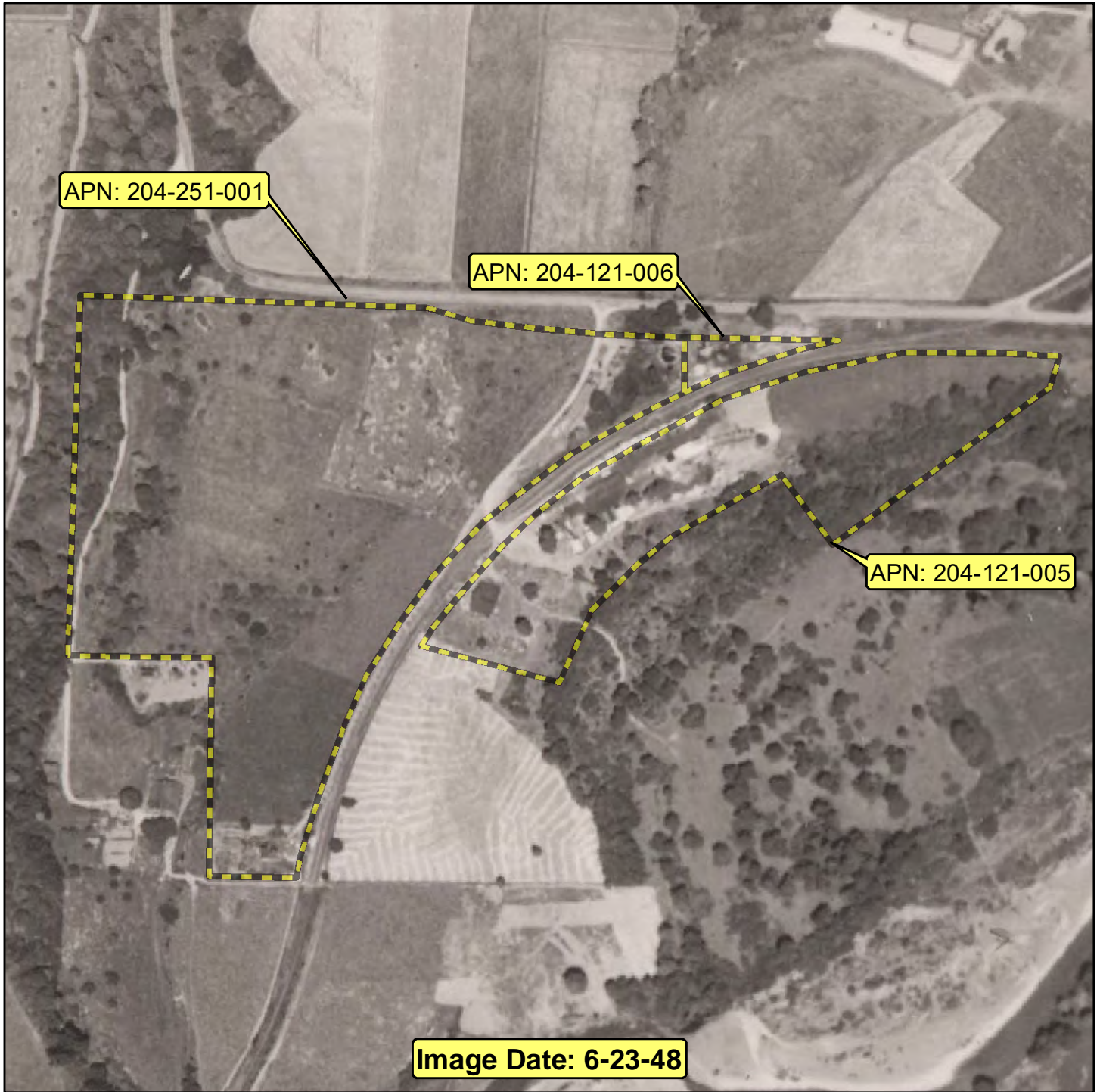


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
Humboldt County: 6-23-48

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 7

1948 Aerial Photograph Detail

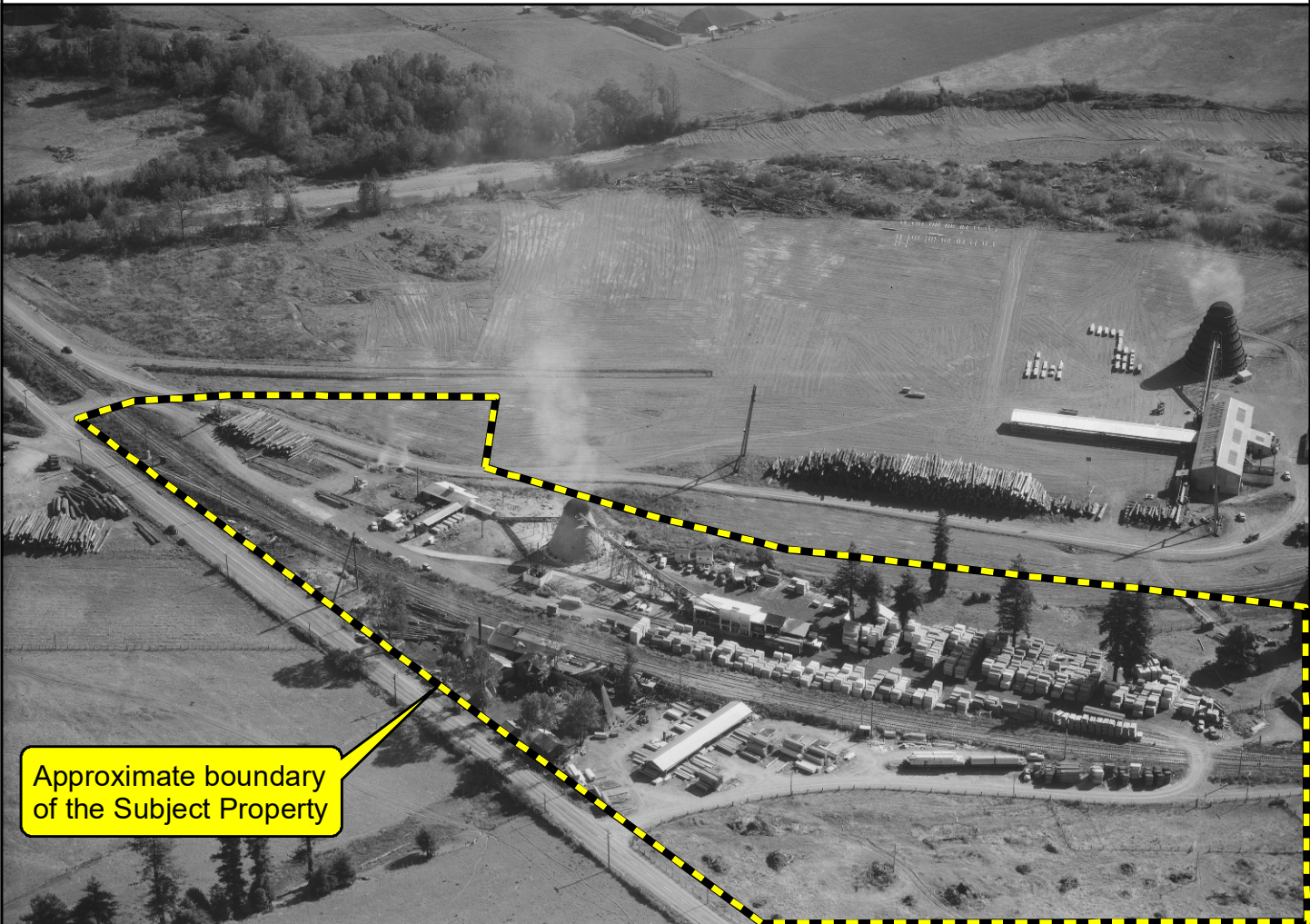


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22

By
SJT



Approximate boundary of the Subject Property

Image Date: 10-31-52

LEGEND

Historical oblique aerial photograph obtained in digital format from Humboldt State University, Humboldt Room, Photograph Collection (Shuster Collection, Photo ID: 2001011753). Photograph dated October 31, 1952.

ALL LOCATIONS APPROXIMATE



APPROXIMATE NORTH

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 8
1952 Oblique Aerial Photograph

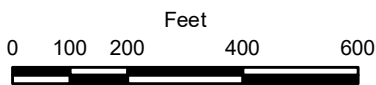
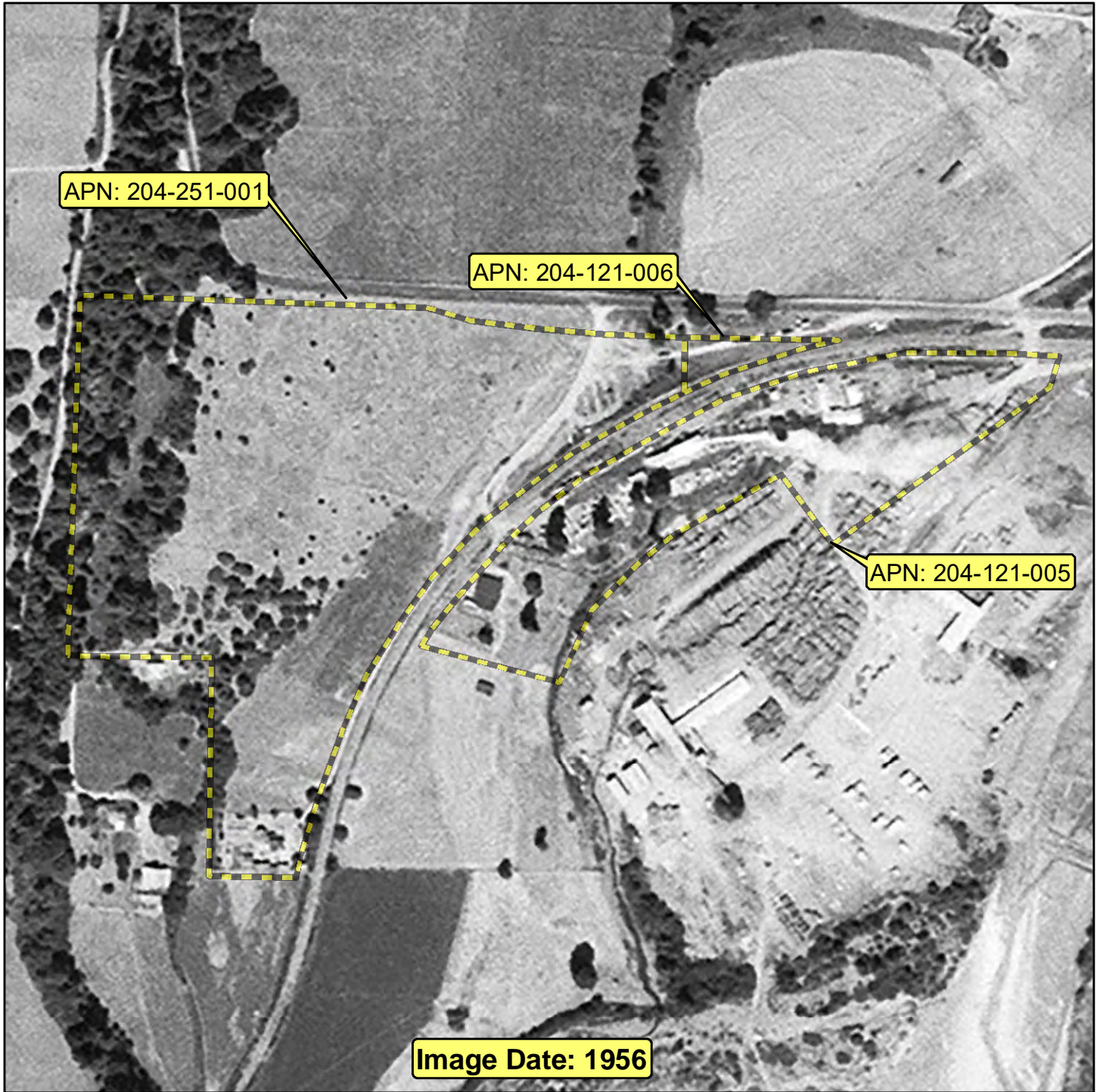


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-6-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 1956

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 9
1956 Aerial Photograph Detail

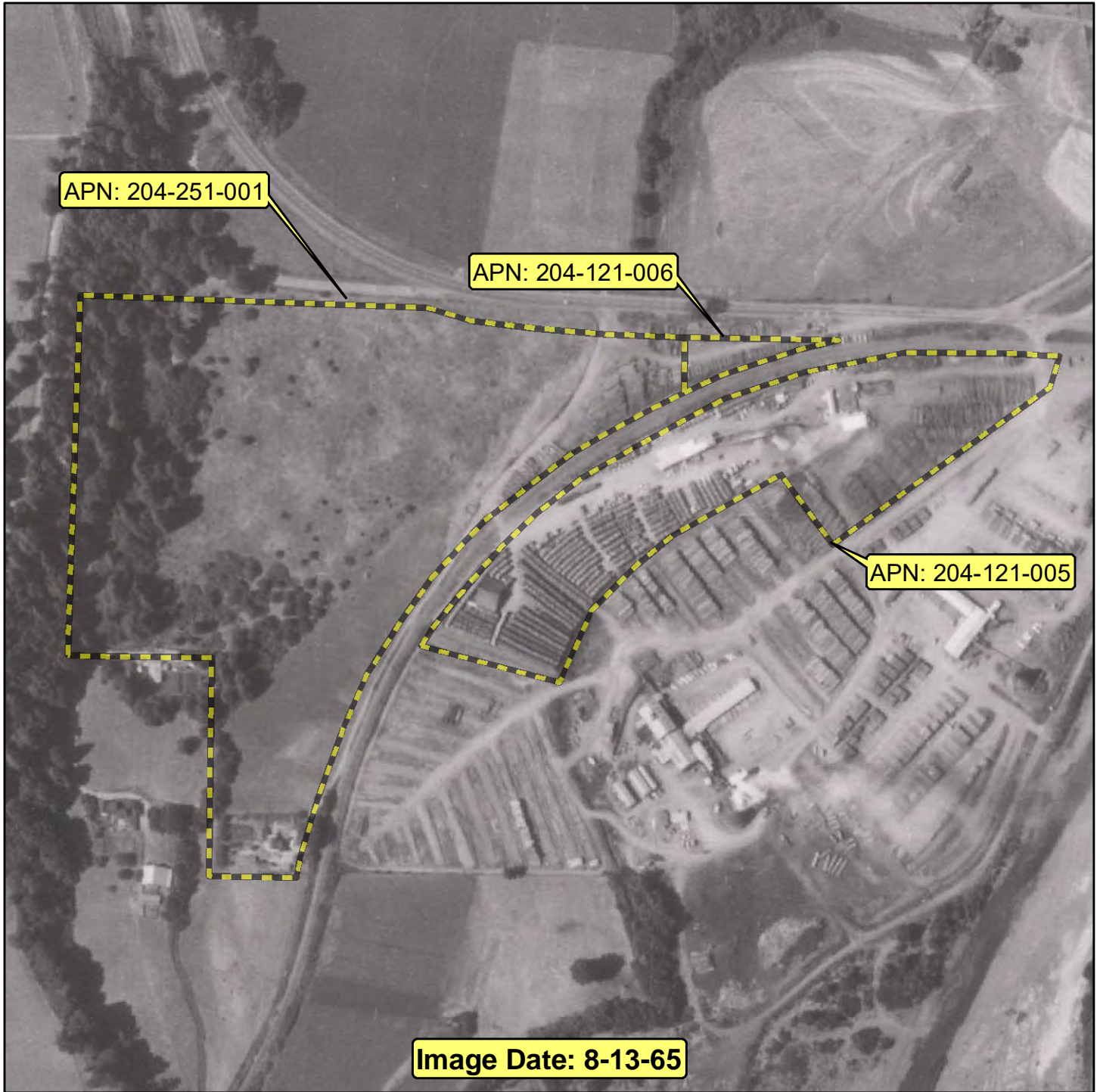


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
Humboldt County: 8-13-65

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 10
1965 Aerial Photograph Detail

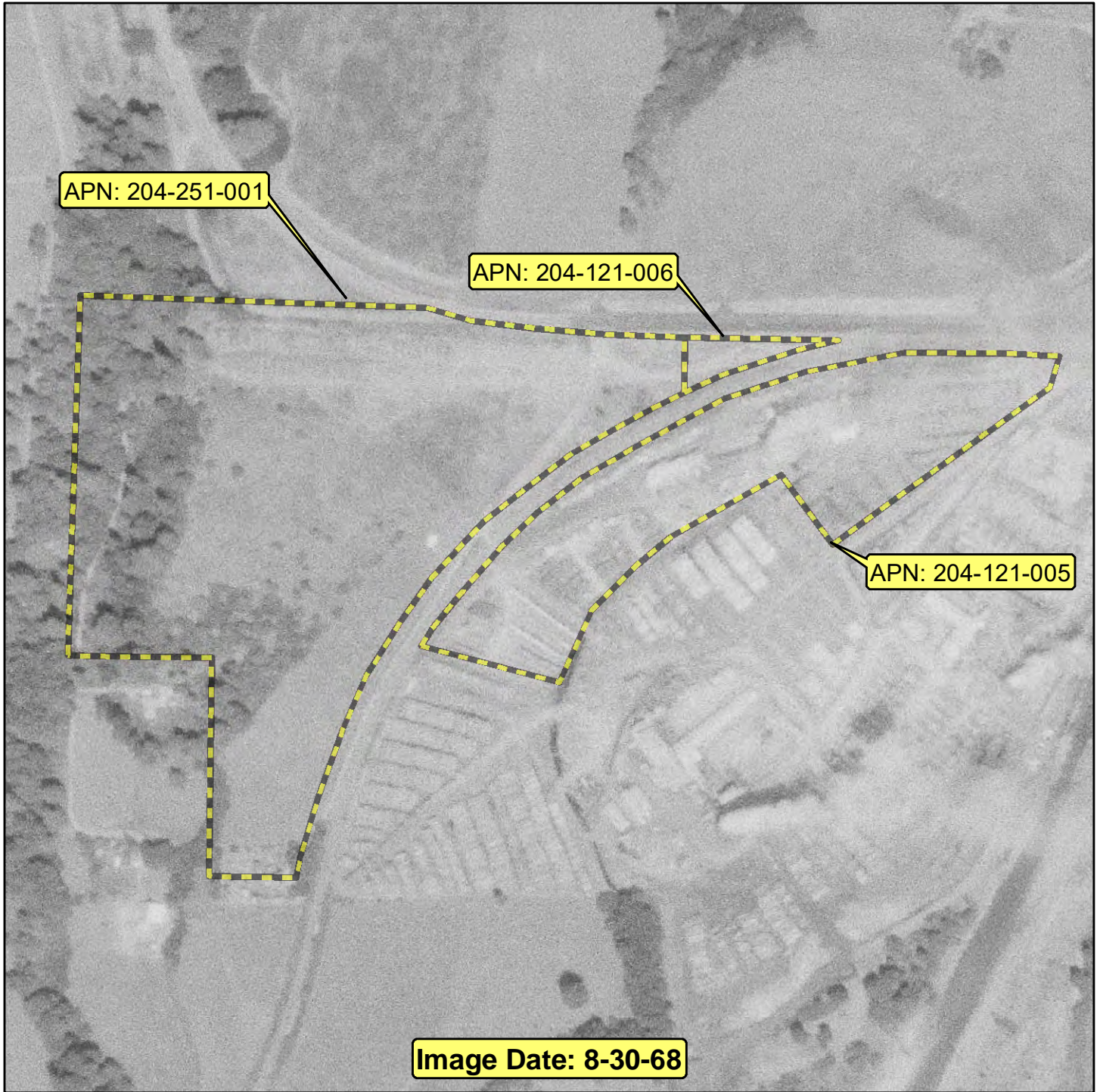


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 8-30-68

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 11
1968 Aerial Photograph Detail

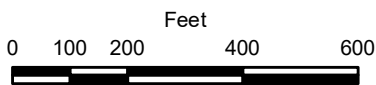
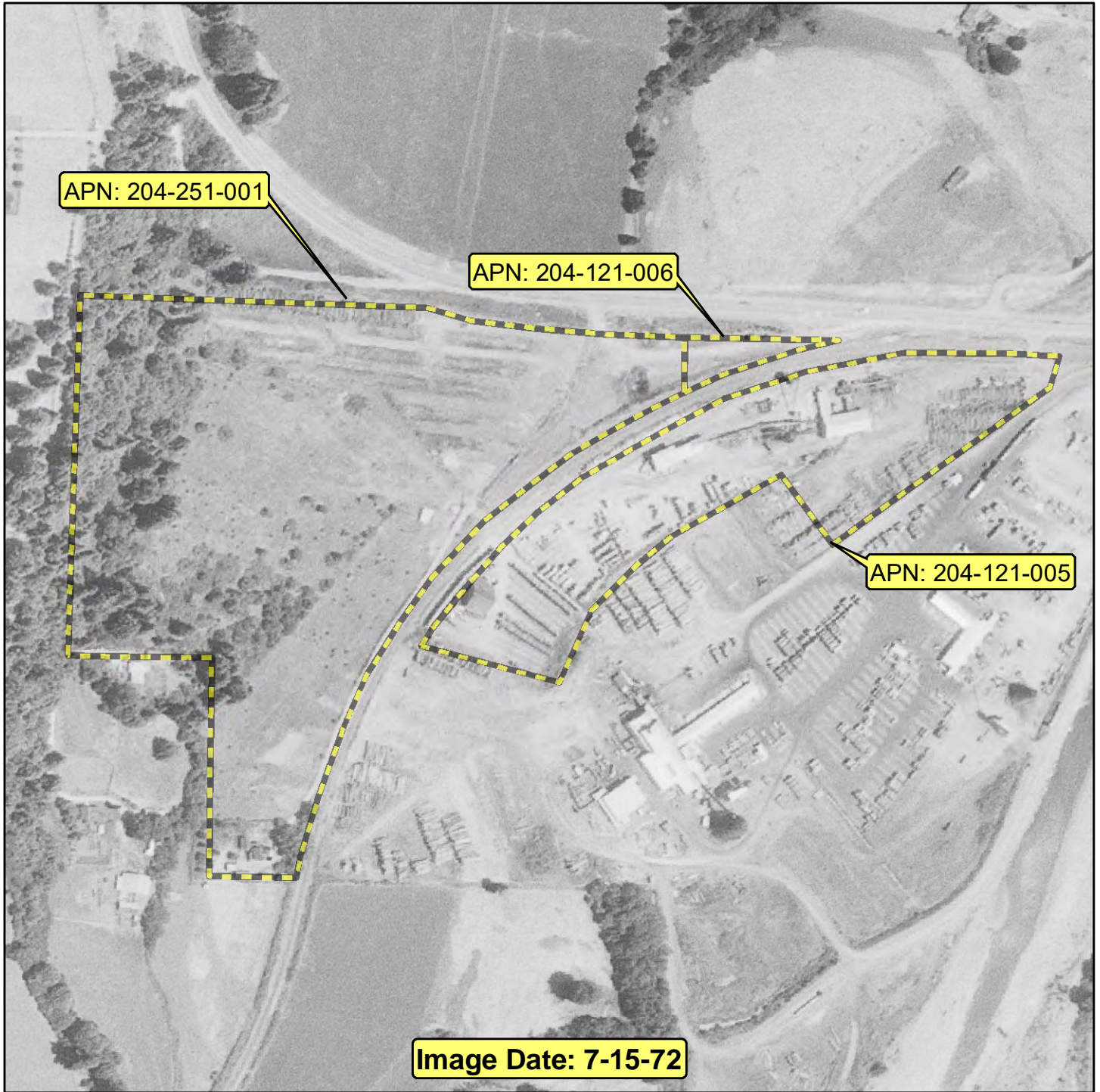


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-5-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 7-15-72

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 12
1972 Aerial Photograph Detail

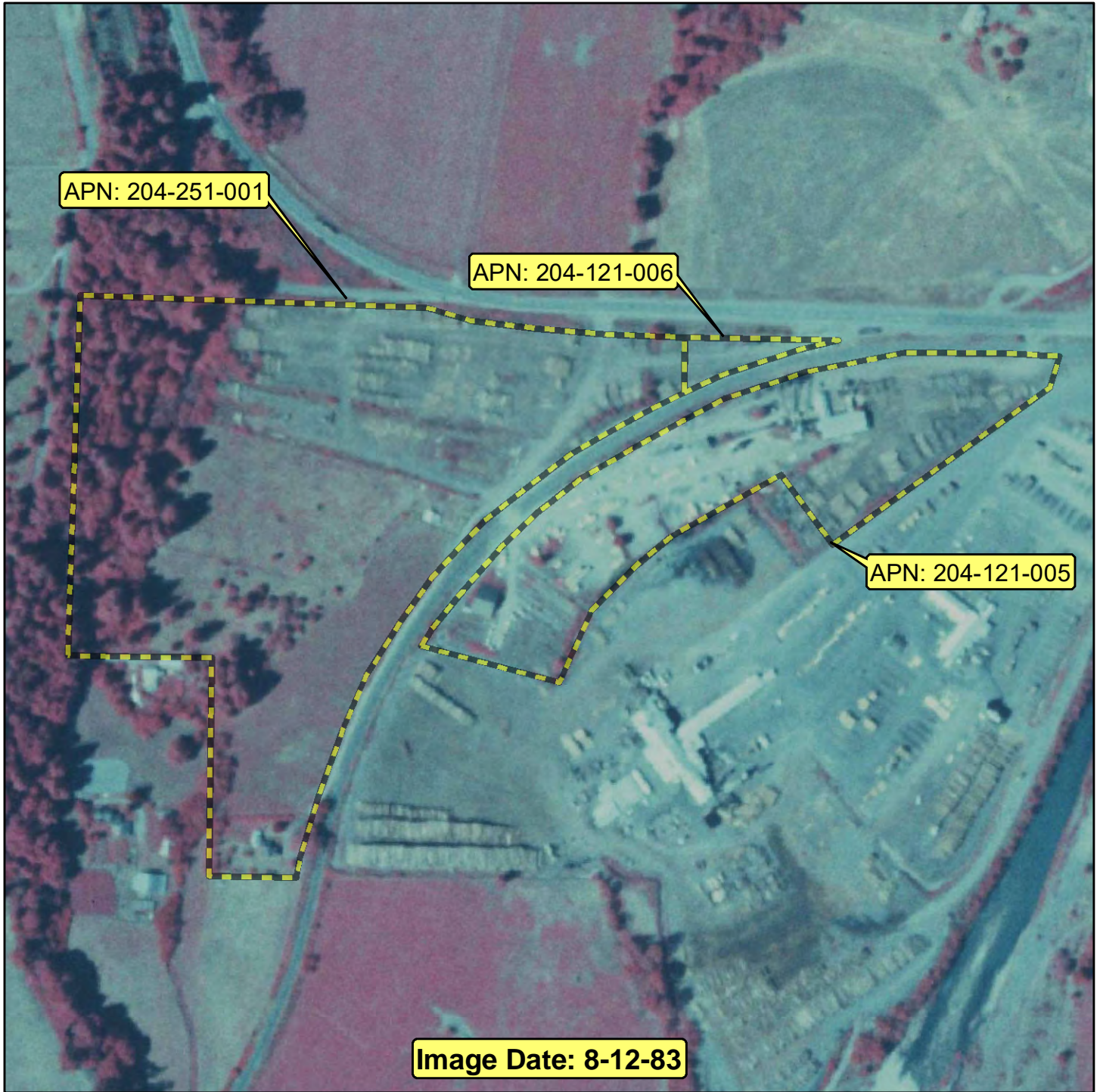


Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 8-12-83

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 13

1983 Aerial Photograph Detail



Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 1993

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 14
1993 Aerial Photograph Detail

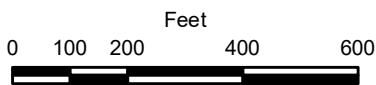
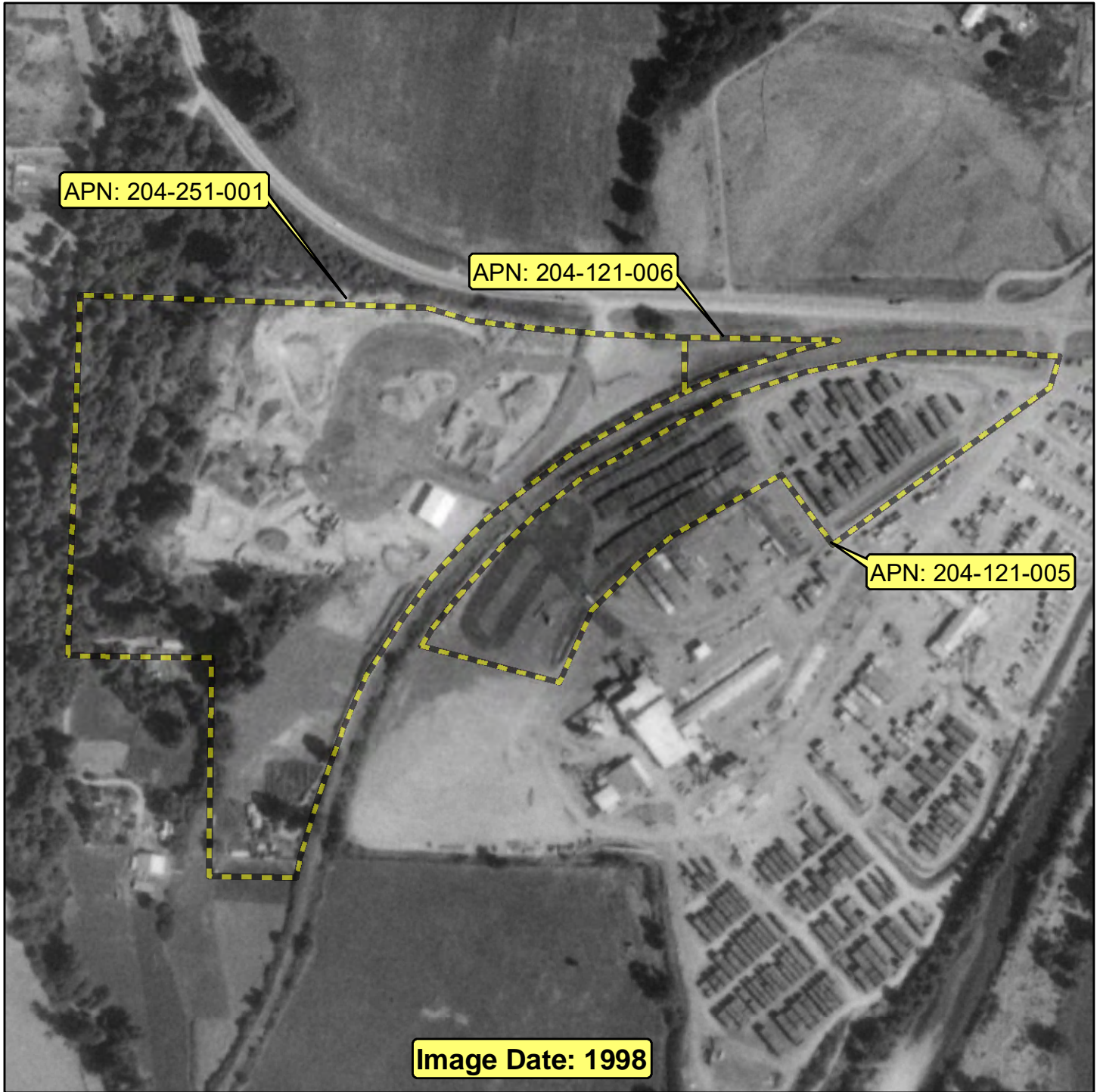


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-5-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 1998

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 15
1998 Aerial Photograph Detail

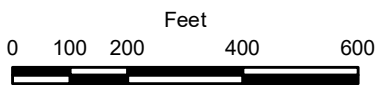


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-5-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 2005

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 16
2005 Aerial Photograph Detail



Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 2009

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 17
2009 Aerial Photograph Detail

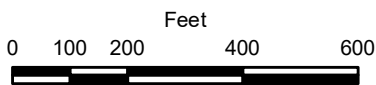


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-5-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 2012

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 18
2012 Aerial Photograph Detail

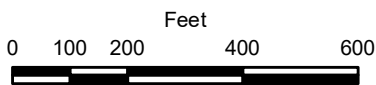


Freshwater Environmental Services


Project No.
FES-105

Figure Date
5-5-22

By
SJT



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
EDR: 2016

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 19
2016 Aerial Photograph Detail



Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22


By
SJT



Feet



LEGEND

 Approximate boundary of Subject Property

Base Image Data Source:
Google Earth Pro: 4-30-19

ALL LOCATIONS APPROXIMATE

Phase I ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 20
2019 Aerial Photograph Detail



Freshwater Environmental Services

Project No.
FES-105

Figure Date
5-5-22

By
SJT

PHOTOGRAPHS



Photo 1. Looking north at the entrance to the Subject Property.
Image date: May 3, 2022.



Photo 2. Looking east to the former mill entrance. Image date: May 3, 2022.



Photo 3. Looking southwest from the entrance to the Subject Property. Image date: May 3, 2022.



Photo 4. Looking northeast at the weighmaster building. Image date: May 3, 2022.

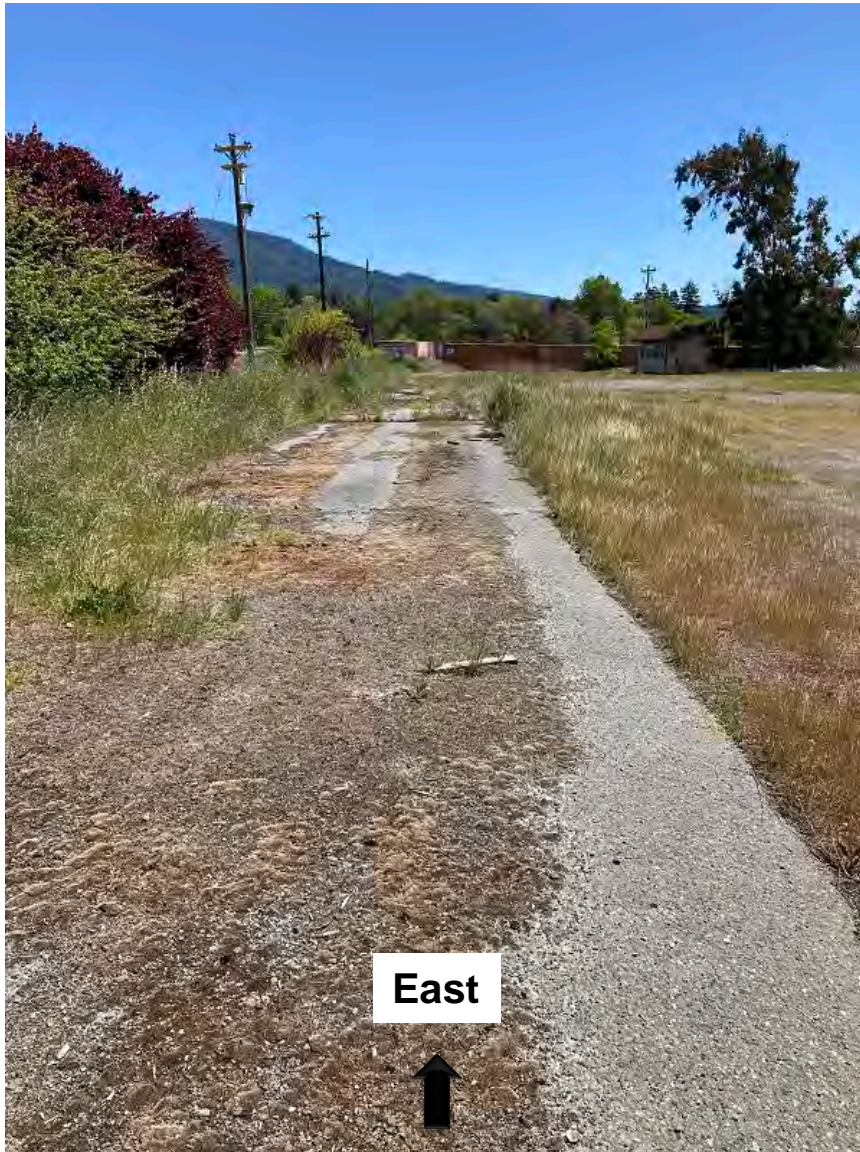


Photo 5. Looking east at the truck scale.
Image date: May 3, 2022.



Photo 6. Truck reload.
Image date: May 3, 2022.



Photo 7. Looking west across APN 204-251-001. Image date: May 3, 2022.



Photo 8. Looking southwest toward the metal building on APN 204-251-001. Image date: May 3, 2022.



Photo 9. Fenced area on APN 204-121-005.
Image date: May 3, 2022.

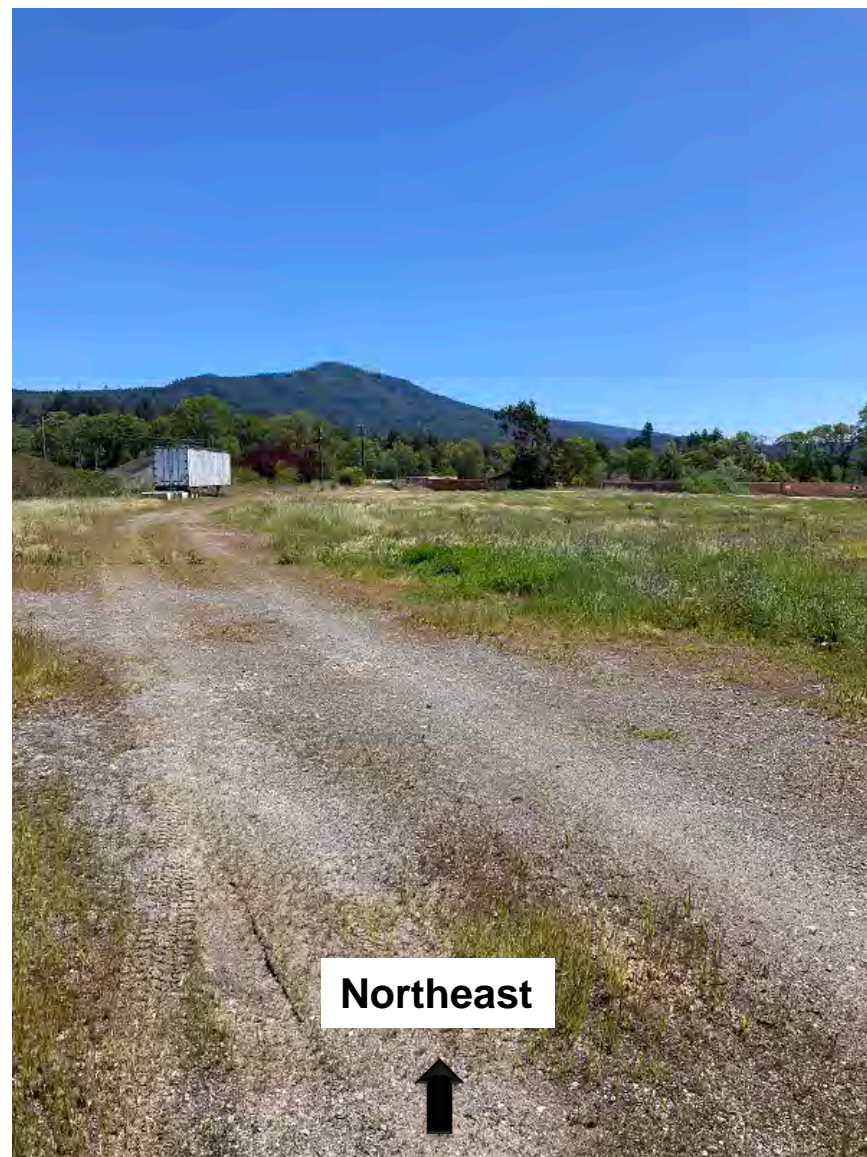


Photo 10. Looking northeast across the
Subject Property. Image date: May 3, 2022.



Photo 11. Looking southeast across the Subject Property. Image date: May 3, 2022.



Photo 12. Looking south-southwest across the Subject Property. Image date: May 3, 2022.



Photo 13. Looking southwest across the Subject Property. Image date: May 3, 2022.

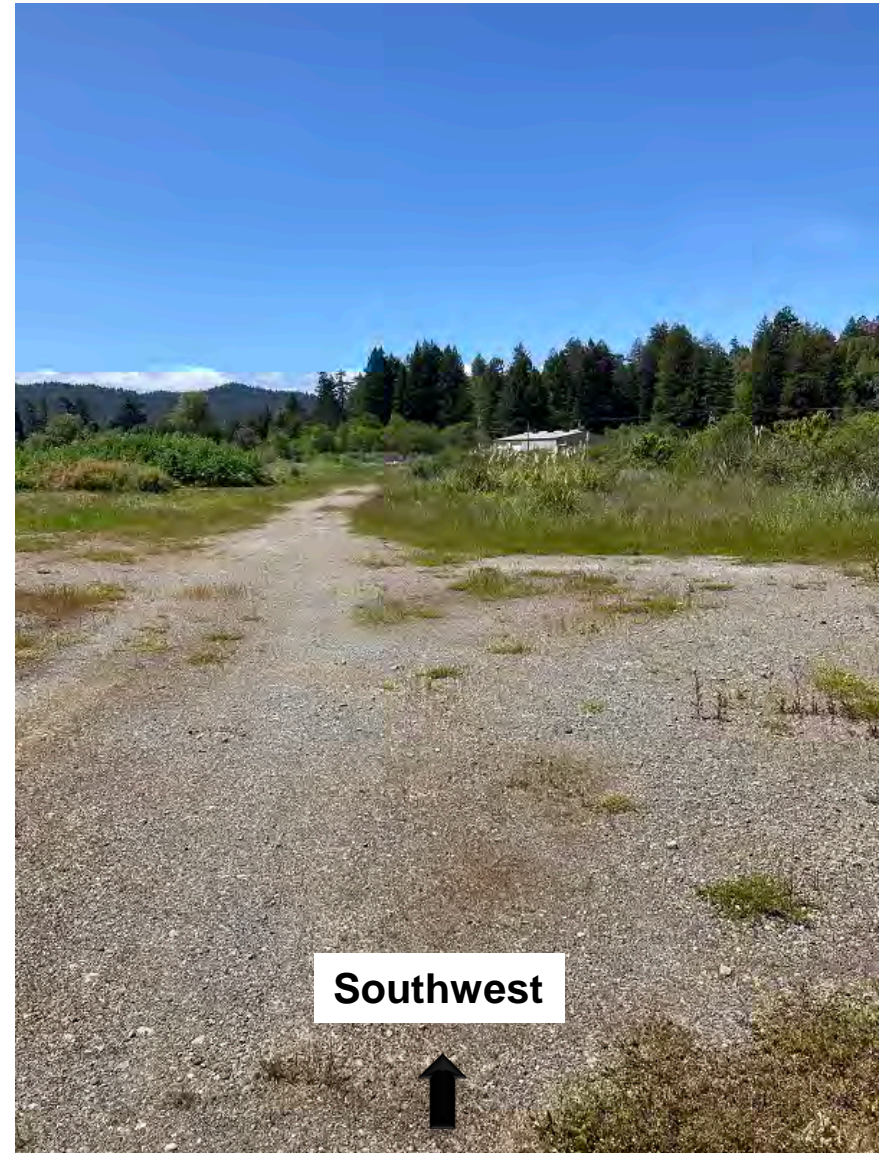


Photo 14. Looking southwest across the Subject Property. Image date: May 3, 2022.



Photo 15. Typical bark pile on the Subject Property. Image date: May 3, 2022.

APPENDIX A

QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONALS



Freshwater Environmental Services

78 Sunny Brae Center, Arcata, CA 95521
707 839-0091

SCOTT FERRIMAN

Project Scientist

EDUCATION

B.A. Interdisciplinary Studies in Environmental Sciences
New England College, Henniker, New Hampshire, 1993

CERTIFICATIONS

OSHA 40-hr Safety Training (annual refresher current)
DOT 40-hr Hazardous Waste Transportation Course
NIOSH Site Investigation 1, 40-hr Hazardous Waste Investigation Course

PROFESSIONAL EXPERIENCE

Mr. Ferriman focuses on subsurface characterization, evaluation and design of in-situ remediation systems, contaminant fate and transport, and interpretation of chemical data. Mr. Ferriman's professional experiences and capabilities are summarized below:

- Project Management of many fuel and other chemically contaminated sites in California and coordinated all aspects of project activities ranging from initial response to regulatory closure.
- Operations management and technical support to junior staff in a regional office.
- Feasibility Testing including aquifer, soil vapor extraction, air sparge, biovent, dual-phase extraction, and bio-attenuation testing.
- Corrective Action Plan (CAP) and Remedial Action Plan (RAP) preparation, and remediation design and recommendation.
- Operations, Maintenance, and Compliance Reporting for remediation systems.
- Oversight and Management of UST removals and over-excavation of contaminated soil.
- Performed Phase I and II environmental site assessments for realtors and financial institutions.
- Managed an environmental analytical laboratory in northern California.
- Managed and engineered several large multi-task construction projects in northern California. Projects included a water treatment plant in Johnsville, California, North Main Street beautification project in Walnut Creek, California, a multi-bathroom facility at a Del Ray Elementary in Orinda, California, and the City of Orinda Community Park playground facility.

PROFESSIONAL EMPLOYMENT HISTORY

2019 - present	Freshwater Environmental Services, Inc., Project Scientist
2004 - 2019	Blue Rock Environmental, Inc., California North Coast Ops. Manager / Project Scientist
2000 - 2004	The Auger Group, Inc. dba Clearwater Group, Senior Scientist
1999 - 2000	Clearwater Group, Inc., Project Scientist
1997 - 1999	Biland Construction Co., Project Engineer
1995 - 1997	Aqua Science Engineers, Inc., Environmental Specialist
1993 - 1995	Trace Analysis laboratory, Inc., Senior Project Specialist



Freshwater Environmental Services

STAN THIESEN, PG

Geologist

REGISTRATIONS/CERTIFICATIONS

Professional Geologist: California (#7990)

Registered Geologist: Oregon (#G2127)

EDUCATION

BA, Geology, Humboldt State University, 1984

EXPERIENCE SUMMARY

Mr. Thiesen has over 20 years of experience in geological investigations, and environmental consulting. His experience includes soil and groundwater investigations, underground tank investigations, Phase I Environmental Site Assessments, storm water monitoring, geologic and geomorphic mapping, naturally-occurring asbestos investigation, air photo interpretation, geographic information system (GIS), hydrology, environmental permitting, and mineral exploration.

PROJECT EXPERIENCE

Site Investigation

- **Soil and Groundwater Assessment for the Town of Samoa, CA.** The assessment included drilling, sampling, and preparing a report for over 100 borings advanced by FES at the Site. The assessment work was followed by a Remedial Action Plan which was approved by the Regional Water Quality Control Board. Prepared and recorded nine deed restriction including soil and groundwater management plans for the Site.
- **Phase I Environmental Site Assessment Current/Former Lumber Mill Sites.** Performed a Phase I ESA for a large former lumber mill site that included several generations of mill activities. The configuration of several of the older mill operations were established through interpretation of historic aerial photographs. Historic aerial photographs were geo-referenced in a Geographic Information System (GIS) to provide a single graphic that showed the generations of mill facilities.
- **Dioxin Assessment/Cleanup and Case Closure at Former Lumber Mill Site.** Developed work plans for two phases of soil and groundwater assessment of several areas at a former mill site. The location of the former lumber mill features were determined through the interpretation of historic aerial photographs. Investigations concluded the presence of dioxin-impacted soil over the applicable screening levels in the area of the former conical burner. Coordinated the excavation and disposal of dioxin-impacted soils resulting in case closure from the California Regional Water Quality Control Board.
- **Underground Storage Tank Investigation and Case Closure.** Performed a soil and groundwater investigation of a residential above ground heating oil tank. The assessment resulted in case closure by the Humboldt County Division of Environmental Health.
- **Stormwater Monitoring and BMP Inspection.** Performed stormwater monitoring at a former metal recycling facility. Stormwater sampling was performed at sampling stations that were located and designed to evaluate the condition of stormwater generated onsite, stormwater received from offsite sources and receiving waters. Stormwater analytical data was used to determine the effectiveness of BMPs which were modified based on analytical results. The project also included the construction of the sampling stations, routine inspections, and maintenance.

- **Site Characterization, Northern California.** Prepared a work plan for additional site characterization at an industrial facility to further delineate the extent of soil and groundwater contamination from constituents including: dissolved metals, chlorinated solvents, sodium hydroxide, and petroleum hydrocarbons. The project involved locating and supervising borings to collect soil and groundwater samples. Wrote the report that included an evaluation of the lateral and vertical extent of constituents that exceeded the water quality objectives set by the regulatory agency.
- **Landfill Monitoring, Northern California.** Conducted quarterly groundwater monitoring at a closed wood waste facility. Performed annual differential settlement inspections and annual erosion control inspections. Wrote quarterly and annual reports evaluating changes in concentrations of analytes.
- **Groundwater Monitoring, Northern California.** Conducted semiannual groundwater monitoring at a large industrial facility. The project included writing semiannual reports evaluating changes in the concentrations of analytes.
- **Site Investigation, Northern California.** Conducted a field investigation at a wastewater treatment plant to determine whether petroleum hydrocarbons were present near the location of an underground storage tank. The project involved locating and supervising six borings to collect soil and groundwater samples in an area designated for plant expansion.
- **UST Removal and Soil Excavation, Northern Oregon.** Supervised the removal of two USTs and the excavation of petroleum-impacted soils. Was also responsible for supervising the installation of temporary helical anchor supports for the canopy so that soils could be excavated beneath the fuel dispenser islands.

Geologic and Geomorphic Mapping

- **Panoche/Silver Creek Watershed, Central California.** Performed air photo interpretation of mass wasting and erosion features including field verification for several large watersheds in the mountains west of the San Joaquin Valley. The project included the evaluation of sediment sources and source areas containing selenium and asbestos using GIS. Wrote several watershed assessment reports analyzing the natural and human influences on the watersheds.
- **Large Timber Company, Humboldt County, California.** Inventoried landslides on industrial timberlands in northern California as part of a monitoring program to assess management implications of landslides that occur after major precipitation events. Developed standard operating procedures and a landslide inventory form for the project.
- **Large Timber Company, Van Duzen Watershed, Humboldt County, California.** Conducted air photo interpretation of recent through relict landslides, field verification of interpretation, analysis of landslide data, and final report writing for watershed analysis. Developed maps that showed the relative potential landslide hazard based on the air photo interpretation and other information.
- **Six Rivers National Forest, Northern California.** Geologic and geomorphic mapping for the Six Rivers National Forest, California. Included mapping bedrock geology and geomorphic features at 1:24,000, field verification of contacts and features, drafting of maps, editing and attribution of maps in a GIS, writing reports on the significance of geology to forest issues, and analysis of relations between geology, soils, and vegetation.

Geographic Information System (GIS) Analysis

- **Humboldt County Public Works, Northern California.** Digitized selected stormwater features from subdivision maps.
- **Panoche/Silver Creek Watershed, Central California.** Created GIS-based maps of mass wasting and erosion features for several large arid watersheds on the west side of the San Joaquin Valley. Digitized geologic maps for use in watershed assessment.

- **Six Rivers National Forest, Northern California.** Created digital geology coverage for the four northern National Forests in California. Project involved: scanning, registering, projecting, and on-screen digitizing of existing geologic maps using ARC/INFO.
- **National Forest Roads Analysis Support Team.** Researched the feasibility of using GIS for evaluating road risk on the National Forest road system. Contributed 80 pages of text and graphics to the National Forest Roads Analysis Report (Miscellaneous Report FS-643, 1999).

Environmental Permitting

- **Samoa Townsite EIR, Humboldt County, California.** Wrote the geologic hazard section of an Environmental Impact Report for a proposed commercial and residential development.
- **County of Del Norte, Northern California.** Developed CEQA document and permits for replacement of a public boat launching facility on the Klamath River in northern California.

Photographic Documentation

- **Confidential, Northern California.** Provided reference photographs from Key Observable Points for a photo simulation of a large proposed industrial facility in northern California.
- **Panoche/Silver Creek Watershed.** Created a photographic database for use in assessing current conditions in large watersheds in the Coast Ranges of Central California.

Mineral Exploration

- **Asamera Minerals (U.S.), Reno, Nevada.** Field geology for precious metal exploration in Nevada and California. Explored for gold in western Nevada and eastern California. Was responsible for geologic mapping at scales from 1"=20' to 1"=1000', underground mapping and sampling, surface geochemical sampling, geophysical surveying with a portable magnetometer/VLF instrument and drafting of maps and cross sections. Worked for six months field logging reverse circulation drill holes and supervising drilling operations on truck mounted and heli-portable drill rigs.

Instruction

- **Humboldt State University, Arcata, California.** Taught field geology for the 1993 Humboldt State University Advanced Field Mapping course in the Inyo Mountains of eastern California; taught introductory geology lab at Humboldt State University.

CONTINUING EDUCATION

Engineering Geology for Timber Harvesting, Wildland Management and Watershed Restoration, Eureka, California, 2002.
CEQA Basics Workshop, Redding, California, 2002.

PUBLICATIONS

Tetra Tech., 2002. Van Duzen River Watershed Analysis, Mass Wasting Assessment, public review draft, July 2002 (primary contributor to mass wasting module).

USDA Forest Service. 1999. Roads analysis: Informing decisions about managing the National Forest transportation system. Miscellaneous Report FS-643. August 1999. Washington, DC: U.S. Dept. of Agriculture, Forest Service; 222 p.

PROFESSIONAL EMPLOYMENT HISTORY

Geologist, Freshwater Environmental Services, 2007 to present
Geologist, Tetra Tech, 2001 to 2007
Geologist, SHN Consulting Engineers and Geologist, 2000 to 2001
Geologist, Contracted with Six Rivers National Forest, 1999 to 2000
Researcher, National Forest Roads Analysis Support Team, 1998 to 1999
Geologist, Six Rivers National Forest, 1994 to 1998
Field Assistant, Hoopa Valley Indian Reservation, 1993
Instruction, Humboldt State University, 1993
Geologist, Asamera Minerals (U.S.), 1987 to 1989

APPENDIX B
SITE DOCUMENTS

**Phase I Environmental Site Assessment
PALCO Carlotta Mill, Carlotta, CA**

SHN Consulting Engineers & Geologists, Inc.

February 2005

Reference: 004247

Phase 1 Environmental Site Assessment

PALCO Carlotta Sawmill Carlotta, California

Prepared for:

PALCO

Prepared by:



Consulting Engineers & Geologists, Inc.
812 W. Wabash Ave.
Eureka, CA 95501-2138
707-441-8855

February 2005

QA/QC: MEL__

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Acronyms and Abbreviations

ADS	Attorney's Diversified Services, Incorporated	H&M	Hulbert & Muffly Company, Incorporated
APN	Assessor's Parcel Number	L-P	Louisiana-Pacific Corporation
AST	Aboveground Storage Tank	MSL	Mean Sea Level
ASTM	American Society for Testing and Materials	MW-#	Monitoring Well-#
BMP	Best Management Practice	NFPA	National Fire Protection Association
BTEX	Benzene, Toluene, Ethylbenzene, and total Xylenes	ng/kg	nanograms per kilogram
Cal-EPA	California Environmental Protection Agency	NPL	National Priorities List
Cal-site	State Calsite (formerly ASPIS)	ODW	Cal-DHS Office of Drinking Water
CAO	Cleanup and Abatement Order	OEHHA	Cal-EPA Office of Environmental Health Hazard Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Federal Superfund), 42 USC Section 9601 et seq., 40 CFR; California Superfund H&S Code Section 25300 et seq., see HAS	PCB	Polychlorinated Biphenyl
CORRACTS	Corrective Action Report,	pCi/L	pico-Curies per Liter of air
DOG	California Division of Oil and Gas	PCP	Pentachlorophenol
DTSC	Cal-EPA Department of Toxic Substances Control	PG&E	Pacific Gas & Electric
DWR	California Department of Water Resources	PRG	Preliminary Remedial Goals
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System (Federal)	QA/QC	Quality Assurance/Quality Control
CIWMB	Cal-EPA Integrated Waste Management Board	RCRA	Resource Conservation and Recovery Act
EDR	Environmental Data Resources, Incorporated	RCRIS-TSD	Resource Conservation and Recovery Information System
EPA	Environmental Protection Agency	RWQCB	California Regional Water Quality Control Board, North Coast Region
ERNS	Emergency Response Notification System	SHN	SHN Consulting Engineers & Geologists, Inc.
ESA	Environmental Site Assessment	SWRCB	California State Water Resources Control Board
G-P	Georgia-Pacific Corporation	TCP	Tetrachlorophenol
HAZMAT	Hazardous Materials	TEQ	Toxic Equivalency
HCDEH	Humboldt County Division of Environmental Health	TPHD	Total Petroleum Hydrocarbons as Diesel
HCDNR	Humboldt County Department of Natural Resources	TPHG	Total Petroleum Hydrocarbons as Gasoline
		USC	United States Code
		USGS	U.S. Geological Survey
		UST	Underground Storage Tank
		W&K	Winzler & Kelly Consulting Engineers

1.0 Introduction

1.1 Purpose

SHN Consulting Engineers & Geologists, Inc. (SHN) has completed a Phase 1 Environmental Site Assessment (ESA) for the PALCO Carlotta Sawmill (study area). The purpose of conducting this Phase 1 ESA was to assess the study area, largely based on current circumstances, with respect to the presence or absence in the environment, of regulated or hazardous materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and Title 22 of the California Code of Regulations. This Phase 1 ESA was prepared in general accordance with American Society for Testing and Materials (ASTM) Standard Practice E 1527-00 for the Phase 1 ESA Process. Any exception to or deletion from this standard practice is described in Section 1.3 of this report.

This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability; that is, practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice," as defined in 42 United States Code (USC) 9601 (35)(B).

This report has been prepared on behalf of and for the exclusive use of PALCO and its designated representatives, and is subject to and issued in connection with the agreement with SHN and the provisions thereof. PALCO and its designated representatives may read and rely upon the information contained in the report for loan underwriting purposes subject only to the conditions and limitations identified in the report.

1.2 Scope of Services

In compliance with ASTM Standard E 1527-00, SHN performed these services in preparation of this document:

- Conducted a field reconnaissance of the study area to look for evidence of existing or potential soil and groundwater contamination.
- Provided color photographs of the study area (Appendix A).
- Conducted a survey in the study area vicinity to identify businesses or facilities that may use, produce, and/or store reportable quantities of hazardous materials or generate hazardous waste. SHN also conducted a perimeter survey of the adjacent properties for obvious signs of potential contaminant migration.
- Reviewed selected agency files, and made inquiries of PALCO representatives with historic knowledge of the study area and current site operations.
- Reviewed local and regional geological and groundwater conditions in study area. SHN also included a literature-based discussion regarding the potential for radon gas to be problematic at the study area.
- Identified existing or proposed municipal infrastructure for the study area and vicinity, including potable water, wastewater, and storm water provisions, as mandated by the ASTM guidelines.

- Examined aerial photographs of the study area taken over the past 62 years (Appendix B and Appendix I, Table I-1), as well as reviewed archived permit records (Appendix C and Appendix I, Table I-2), historic Sanborn Maps (Appendix D), U.S. Geological Survey (USGS) topographic maps (Appendix E and Appendix I, Table I-3), business (street) directories (Appendix I, Table I-4), and other reasonably ascertainable standard sources, for the purpose of developing a continuous site history dating back to the first known development, or the year 1940, as recommended by the ASTM guidelines.
- Using the ASTM-designated search radii, reviewed publicly available federal, state, county, and other regulatory agency lists and databases (including CERCLIS¹, NPL², and Cal-sites³) for sites with known hazardous materials contamination and/or registered underground storage tanks located on or near the study area (Appendix F).
- Reviewed regulatory agency files, as necessary, for identified contaminated sites to evaluate whether the listed sites are likely to be potential hazardous materials threats to the study area (Appendix G). SHN also included a discussion of previous environmental work that was completed for the study area, as well as a review of available records and documents at the California Regional Water Quality Control Board, North Coast Region (RWQCB; as requested by PALCO, Appendix I, Table I-5).
- Conducted telephone interviews, and submitted project-specific questionnaires to select former PALCO representatives with long-term knowledge of historic site operations (Appendix H and Appendix I, Table I-6).
- Summarized key findings from the Phase 1 Environmental Site Assessment (Appendix I, Table I-7).

Sampling and testing of soil and groundwater at the study area, and assessments of the existing buildings for the presence of asbestos and lead-based paint were beyond SHN's scope of services for this project.

1.3 Limitations and Exceptions

Information contained in this ESA was obtained in part from the Environmental Data Resources Incorporated (EDR) Report (Appendix F). SHN also derived the data in this report primarily from visual inspections, examination of records in the public domain, and written interviews with selected individuals with information about the study area. A chain-of-title was not provided for SHN's review during preparation of this report. Except as otherwise stated in the report, SHN has not attempted to verify the accuracy or completeness of any such information. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration at the study area; analysis of the data; and re-evaluation of the findings, observations, and conclusions expressed in this report.

Because of the limitations stated above, the findings, observations, and conclusions expressed by SHN in this report are not, and should not be considered an opinion concerning the compliance of

¹ CERCLIS: Comprehensive Environmental Response Compensation and Liability Information System (Federal)

² NPL: National Priorities List

³ Cal-site: State Calsite (formerly ASPIS)

any past or present owner or operator of the study area with any federal, state, or local laws or regulations. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Such data, findings, observations, and conclusions are based solely on site conditions in existence at the time of the investigation, and are not representative of areas of the study area that were not readily accessible or observable.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

2.0 Site Description

2.1 Location and Legal Description

The study area, as defined in this report, consists of the land area containing the Carlotta Sawmill, which is presently owned and operated by PALCO. The study area lies within the community of Carlotta, an unincorporated area of Humboldt County, California (Figure 1). The land included in the study area is bound by State Highway 36 to the north, undeveloped land and residential sites to the south, Yager Creek to the east, and Barber Creek and undeveloped land to the west.

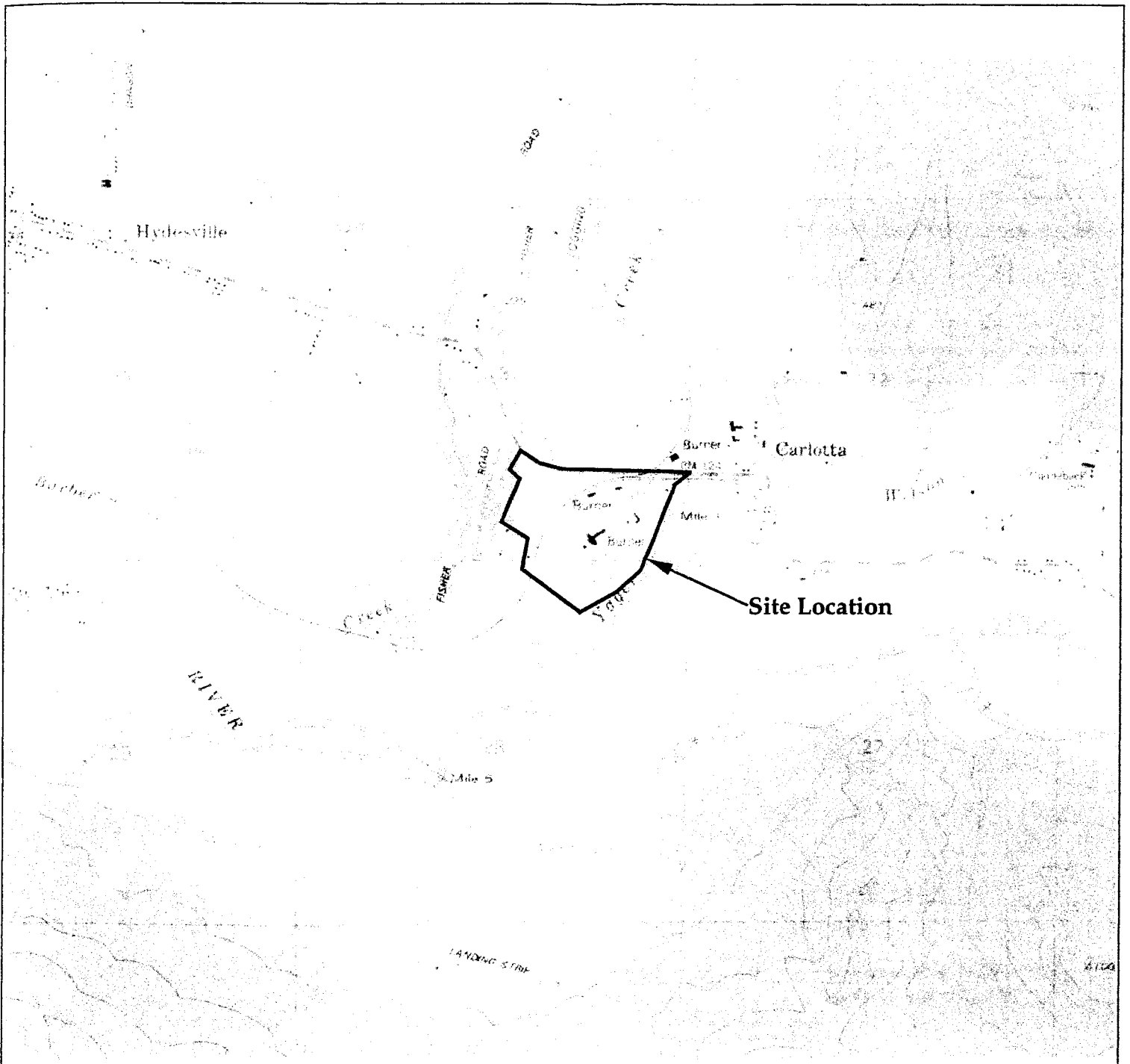
As shown on Figure 1, a Northwestern Pacific Railroad Company easement bisects the study area, trending northeast to southwest. The study area is located within a mixed-use rural residential and ranching area, and is comprised of Humboldt County Assessor's Parcel Numbers (APNs) 204-121-04, 204-121-05, 204-121-06, 204-251-01, 204-251-10, and 206-351-04, as highlighted on the Parcel Maps included as Figures 2, 3, and 4. The study area lies within Sections 21 and 28 of Township 2 North, Range 1 East, Humboldt Base and Meridian. A site plan is included as Figure 5.

2.2 Site and Vicinity General Characteristics

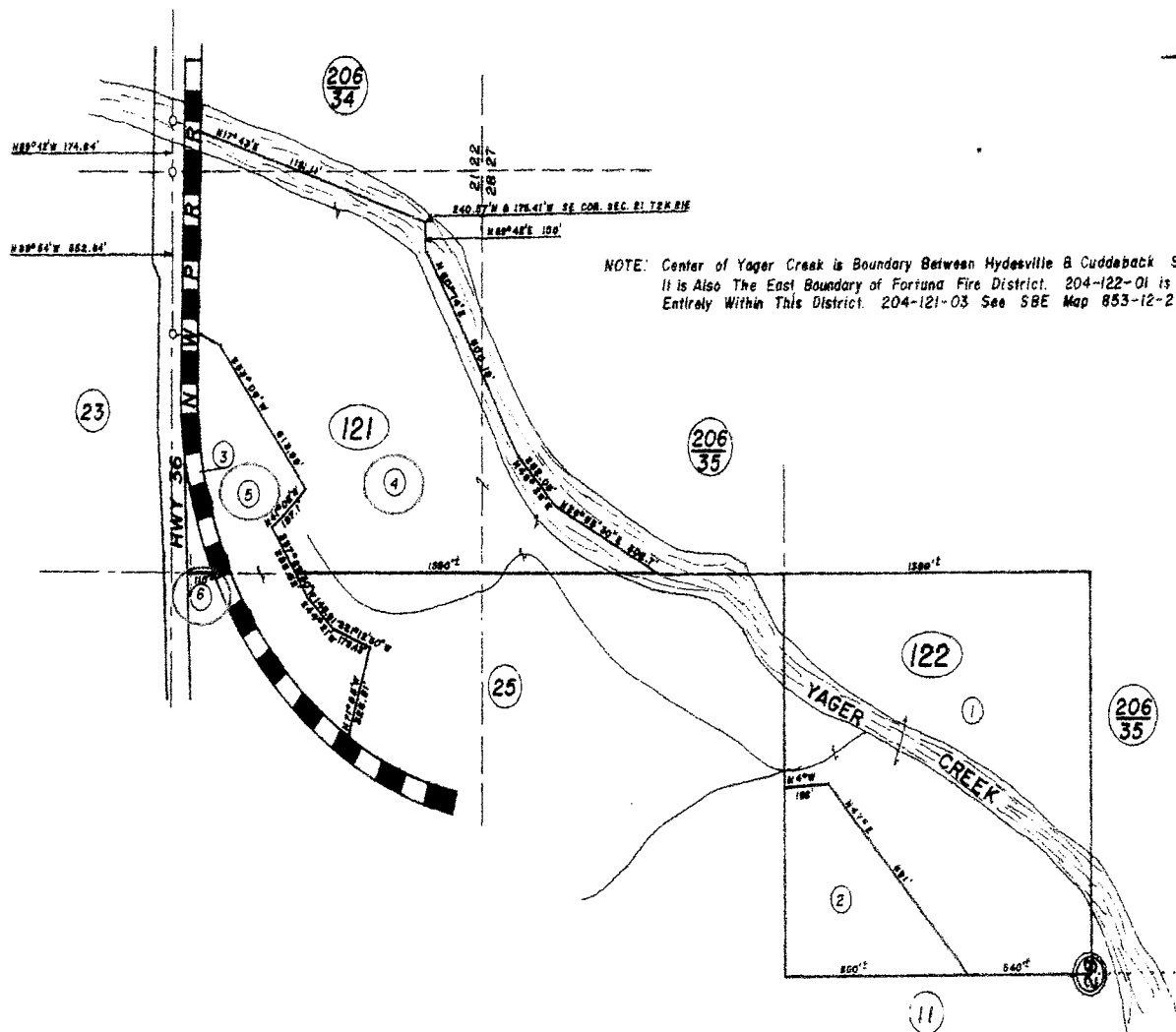
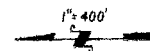
The study area is located within a predominantly rural residential and ranching area approximately 1,000 feet southwest of the community of Carlotta. Residential sites and the Carlotta Grange Hall are located north of the study area, on the opposite side of State Highway 36. Residential sites and undeveloped land are located south of the study area, and east of Yager Creek. Barber Creek and residential sites lie west of the study area. The Carlotta Sawmill lies approximately four miles east of the junction of State Highway 36 and U.S. Highway 101.

2.3 Field Reconnaissance

SHN completed a field reconnaissance of the PALCO Carlotta Sawmill facility on Friday, October 15, 2004. SHN was assisted during a portion of the site visit by PALCO Environmental Services Director, Robert Vogt, who provided information regarding current operations at the main sawmill facility and other portions of the study area as designated in this report.



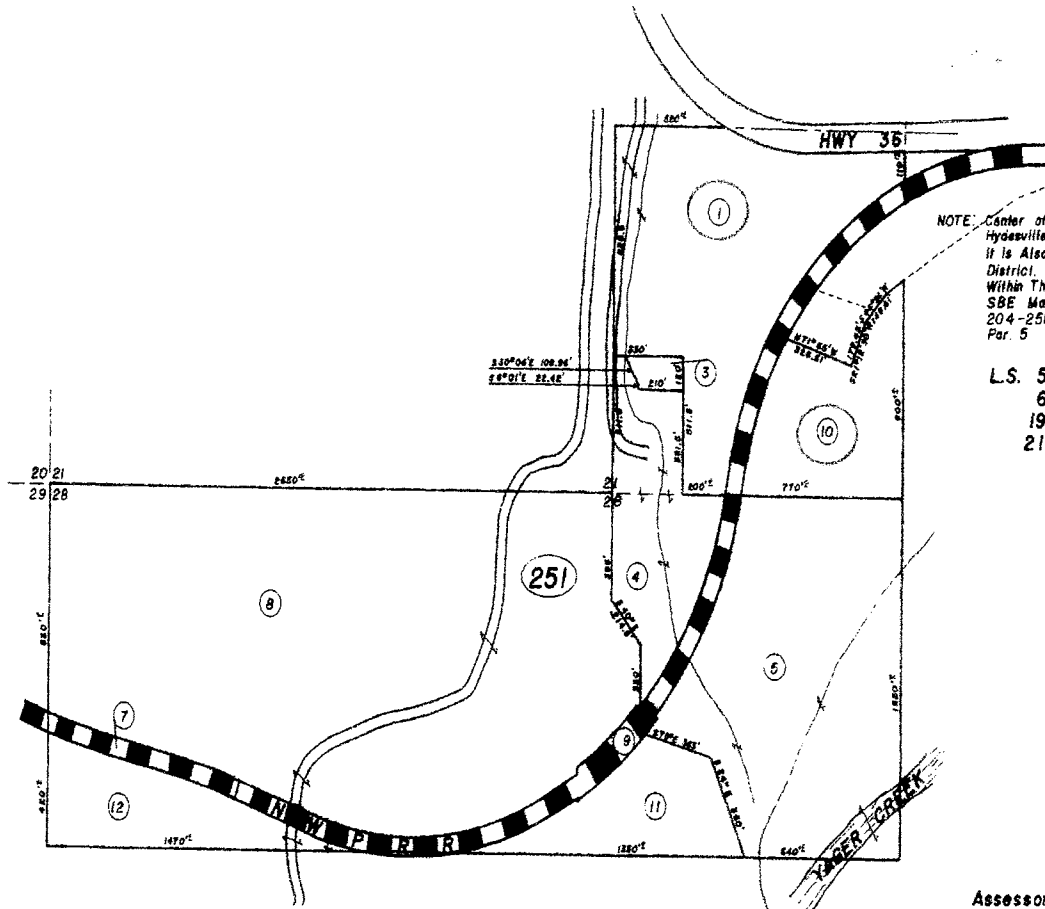
**SOURCE: HYDESVILLE
USGS 7.5 MINUTE
QUADRANGLE**



Assessor's Maps Bk.204-Pg.12
County of Humboldt, Calif.

NOTE - Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

Parcels highlighted in red are included in the study area.



NOTE: Center of Yager Creek is Boundary Between Hydenville & Cuddeback School Districts. It is Also The East Boundary of Fortuna Fire District. 204-251-05 is Assessed Entirely Within This District. 204-251-07 See SBE Map 853-12-26A Par. 10 204-251-09 See SBE Map 853-12-27B Par. 5

- L.S. 5 Pg. 57
- 6 Pg. 54
- 19 Pg. 33
- 21 Pg. 21

EIC 7-21-70

Assessor's Maps Bk.204-Pg.25
County of Humboldt, Calif.

NOTE - Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

Parcels highlighted in red are included in the study area.

PTN SEC 28 2N 1E

206-35

T.C.A.

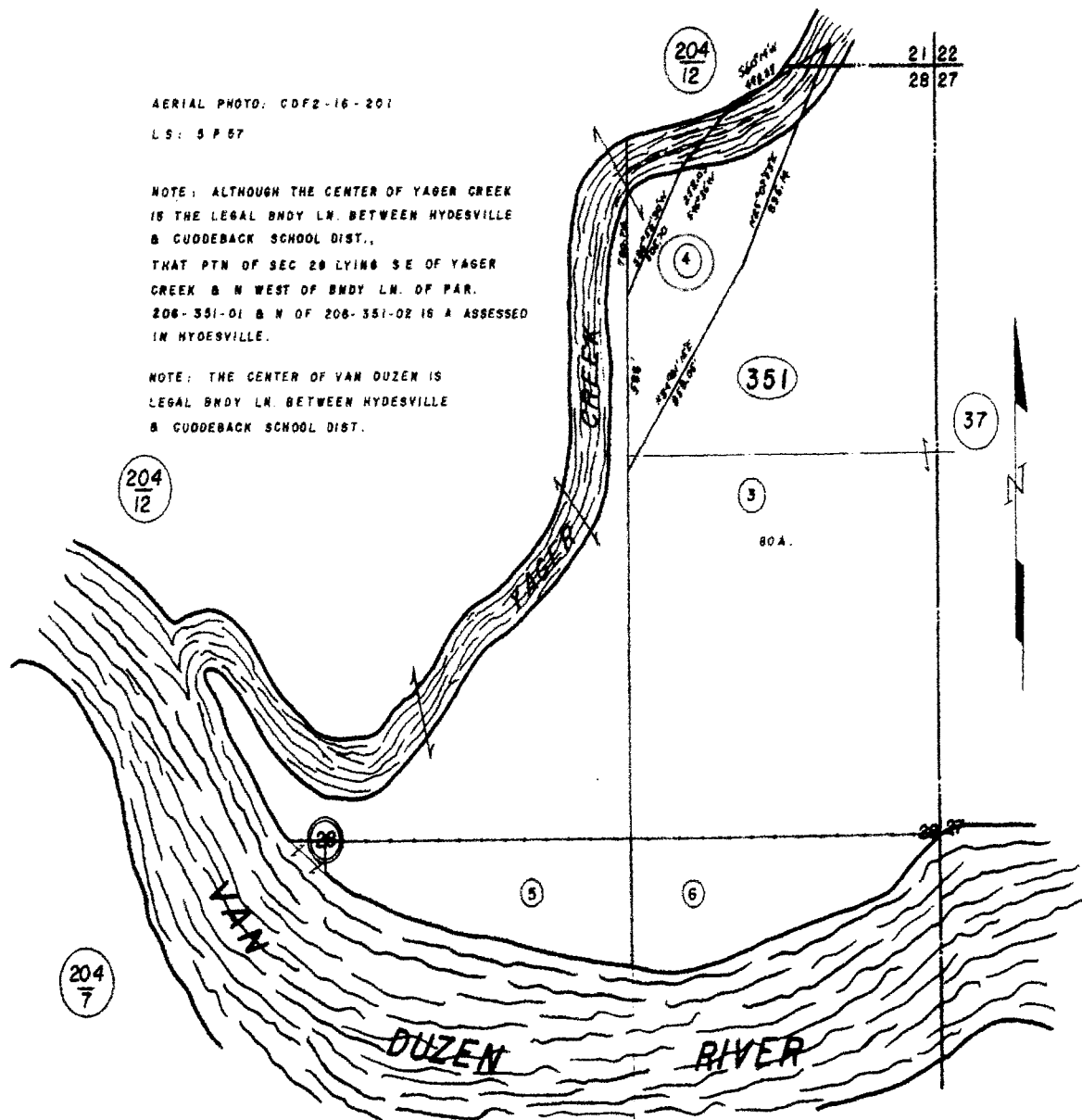
1" = 400'

AERIAL PHOTO: CDF2-16-201

LS: 5 P 57

NOTE: ALTHOUGH THE CENTER OF YAGER CREEK IS THE LEGAL BNDY LN. BETWEEN HYDESVILLE & CUDEBACK SCHOOL DIST., THAT PTN OF SEC 28 LYING SE OF YAGER CREEK & N WEST OF BNDY LN. OF PAR. 206-351-01 & N OF 206-351-02 IS ASSESSED IN HYDESVILLE.

NOTE: THE CENTER OF VAN DUZEN IS LEGAL BNDY LN. BETWEEN HYDESVILLE & CUDEBACK SCHOOL DIST.



Parcel highlighted in red is included in the study area.

The PALCO Carlotta Sawmill is comprised of several operational areas, including the log deck, lumber storage yard, and shipping yard; fueling area and oil house; the main sawmill complex and debarker; millwright shop, electrician shop, and truck shop; the planer complex; an equipment boneyard; and the aggregate crushing, washing, and stockpiling, and concrete batch plant area, which is operated and leased by others. The facility is fenced on all sides, and is accessed by means of entrances that extend south from Highway 36. The guard shack for the facility's main entrance is located on the north-central portion of the study area.

To facilitate discussion, the operational facilities included within the study area are further discussed under their respective subheadings. The reader is encouraged to refer to Appendix A of this report, which contains color photographs of significant site features noted within the study area. Key site features are also shown on the site plan included as Figure 5.

2.3.1 Log Deck and Lumber Storage Yard, and Shipping Yard

The log deck and lumber storage yards are located north, east, and west of the sawmill complex, and comprise approximately 11 acres. The log decks are used for the storage of redwood and fir. Operations at the log deck consist of truck scaling, log loading and unloading, log scaling, log transfer, and log storage. The ground at the log deck is gravel-surfaced or paved, depending on location. A truck scale and a weighmaster shack are located at the northern end of the log deck. The lumber storage, drying, and shipping yards are located north and east of the sawmill. The existing lumber storage areas are either paved or gravel-surfaced again, depending on location. At the time of the site visit, SHN did not observe any obvious, visible hazardous materials (HAZMAT) concerns at these locations. However, the ground at these locations was not fully observable due to the inventory of logs and lumber present, and accumulation of wood debris, bark, and sawdust.

2.3.2 Aggregate Crushing, Washing and Stockpiling, and Concrete Batch Plant Area

The aggregate processing facility and concrete batch plant are located in the westernmost portion of the study area, on the opposite side of the existing railroad easement (Appendix A and Figure 5). Various sizes of aggregates are transported to this location and stockpiled. A portable, gravel processing plant consisting of a primary core crusher, shaker screens, and associated conveyors is also operated at this location; although, the facility was not running at the time of SHN's site visit. The sand and gravel wash operation at the site is utilized for both sizing and separating the gravel mix into various-sized aggregates. The segregated materials are then stockpiled, and/or were previously used as feedstock for the concrete batch plant (discussed below) when it was in operation.

Water for the gravel processing operations is supplied by an on-site well (Appendix A and Figure 5). Mr. Vogt informed SHN that the gravel washing/processing operations in the study area commenced in the late 1990s. Water from the gravel washing areas (when active) is directed into two settling ponds located south of the process areas (Appendix A and Figure 5). At the time of the site visit, SHN did not observe any obvious, visible HAZMAT concerns at the gravel washing/processing areas.

Two unlined settlement ponds are located south and southwest of the inactive concrete batch plant (Appendix A). Mr. Vogt informed SHN that when gravel-washing operations are occurring, excess water from the westernmost pond flows into the easternmost pond. At the time of SHN's site visit, neither of the two settlement ponds contained water; although, the banks of both ponds were densely overgrown with green vegetation. SHN did not observe any noxious odors, visible staining, or other obvious HAZMAT concerns at either of the two settlement pond locations. Mr. Vogt informed SHN that the westernmost boundary of the gravel processing area is bermed, to prevent surface water runoff from entering the creek located adjacent to the westernmost boundary of the study area.

The concrete batch plant, which was inactive at the time of SHN's site visit, is located southeast of the gravel processing areas and north of the two settlement ponds (Appendix A and Figure 5), and is owned and operated by Granite Construction (site leased from PALCO). The existing plant consists of a 7-cubic-yard aggregate batcher, cement batcher, cement silo, "add mixture" tanks, and associated conveyors and controls. The process control center is located within a portable building located adjacent to, and west of the batch plant.

Mr. Vogt informed SHN that the concrete batch plant was taken out of service approximately 2 years ago. He also informed SHN that when the plant was in operation, a 500-gallon, Aboveground Storage Tank (AST) previously containing diesel fuel was operated at this location. Mr. Vogt stated that the former tank was secondarily contained. At the time of the site visit, SHN did not observe any visible ground staining or odors at the former diesel tank location (Appendix A). The "add-mixture" tanks for the batch plant had been removed prior to SHN's site visit.

A shop building with metal exterior siding and metal roof is located northeast of the concrete batch plant (Appendix A). The existing building has rollup cargo doors on its eastern and western sides. It is SHN's understanding that the existing building is used for equipment storage and light equipment maintenance. At the time of the site visit, SHN was not able to observe the inside of this structure due to inaccessibility. SHN did not observe any obvious evidence of Underground Storage Tanks (USTs) at this location (vent pipes, fueling islands, or fill ports). The existing building is partially bound by concrete walkways that are free of staining or cracking.

SHN observed a number of stored items: one piece of heavy equipment, two camper shells, and a pickup truck, located adjacent to, and south of the existing shop building. A Pacific Gas & Electric Company (PG&E) pad-mounted electrical transformer is also located south of the building. The existing transformer is located inside of a concrete, secondary-containment structure. At the time of the site visit, SHN was not able to physically observe the transformer or containment structure for visible leakage due to inaccessibility. Given that the existing shop building was constructed within the past 15 years, and that in the early 1980s, PG&E commenced an in-house policy of installing only non-Polychlorinated Biphenyl (PCB) containing equipment at its service locations, it is unlikely that the existing pad transformer contains PCBs in its dielectric cooling fluids.

2.3.3 Fueling Area and Oil House

The facility's fueling area is located west/northwest of the main sawmill complex (Appendix A and Figure 5). A 9,200-gallon diesel AST, 800-gallon gasoline AST, and associated piping and fuel dispenser pumps are operated at this location. The existing ASTs and associated fuel dispenser

pumps are located inside of a concrete, secondary-containment structure. Company vehicles, front-end loaders, forklifts, and other equipment are fueled at this location. The ground adjacent to the containment structure (where fueling occurs) is asphalt-paved.

At the time of the site visit, SHN did not observe excessive staining or cracking on the floor of the AST containment structure. Additionally, the AST containment structure is covered to prevent excess rainwater from accumulating inside of the unit. Absorbent materials are stored inside of the AST containment structure to contain and capture any product that may be present in the event of an accidental spill.

An oil house is located adjacent to, and south of the fueling area (Appendix A and Figure 5). The oil house is covered, and has a concrete floor and containment curb. The existing building was noted to contain approximately 6, 55-gallon drums with side-mounted dispensers. SHN observed catch pans located beneath each of the product dispensers. A 220-gallon storage tank with a top mounted dispenser, labeled as "machine oil," is also located inside of the oil house, as is a variety of hardware and other items stored on shelves. At the time of the site visit, SHN observed oil accumulation on the concrete floor at a number of locations inside of the oil house; although, the floor of the building was not cracked, and no floor drains were observed.

2.3.4 Main Sawmill Complex and Debarker

The main sawmill building is located in the central portion of the study area (Appendix A and Figure 5). The sawmill complex consists of the debarker, bark hog, hog fuel bin, compressor building, head rig, log in-feed/out-feed, automated grading and trim line, automatic sorter and stacker (green chain), chipper, and chip bins. The bark hog, hog fuel bin, compressor building, and chip bins are separate structures within the sawmill complex.

When the sawmill was expanded, the chipper was relocated aboveground, and the former chipper area was demolished and filled in to ground level. A fire suppression system containing a 318,000-gallon water storage tank was also added to the facility during its expansion. A well that supplies water to the facility is located outside, and west of the millwright shop (Appendix A and Figure 5). The primary operations conducted at the sawmill facility include log debarking, sawing, and milling.

The ring debarker is located adjacent to the northwestern end of the main sawmill building (Appendix A and Figure 5). Logs are transported to the debarker from the northern log deck utilizing front-end loaders. The debarker is used to remove bark from logs prior to being cut into dimensional lumber within the sawmill. Two hydraulic pumps and associated oil reservoirs (200- and 250-gallon capacity) are located within a separate building adjacent to the debarker, inside of a concrete, secondary-containment structure. At the time of the site visit, SHN observed an accumulation of oily sawdust on the concrete floor inside of the hydraulic equipment building; although, no obvious cracking was noted where the floor was observable.

The main sawmill building uses water for cooling some of the facility's saws, and "saw glide" is used to lubricate the blades. A concrete sump is located in the basement of the sawmill. This sump has been cleaned and sealed, and is used solely for collecting groundwater that infiltrates the basement through seams in the floor during heavy precipitation. At the time of the site visit, a

cover blocked the inside of the sump, so SHN could not visibly observe it. Water that collects in the sump is directed into a 1,100-gallon aboveground holding tank. The water is then directed through bag filters and carbon filters, to another 1,100-gallon holding tank, which then outfalls into the facility's storm drain system.

Cooling water for the facility's sash gang saw and two hydraulic oil coolers is circulated through a closed-loop system to a cooling tower, located outside and adjacent to the building. The sawmill water system consists of a well that operates with a submersible pump motor, and six pressurized bladder tanks that provide pressurized water to the system. SHN observed a number of locations inside of the main sawmill building where drums of various oils and lubricants are stored. SHN also observed a number of hydraulic oil units in the operational areas of the mill. At the time of the site visit, SHN did not observe excessive staining on the concrete floor, or other evidence of large volume product spillage at these locations.

A bark hog and hog fuel bin are located adjacent to the northwestern side of the sawmill building (Appendix A and Figure 5). A series of conveyors transports bark and wood debris to the bark hog. The conveyors empty into a hopper, located inside of the building. The hog grinder is at the base of the hopper. From the grinder, hog fuel is transported along an enclosed conveyor into the hog fuel bin. The hog fuel is then loaded into truck trailers through a hydraulically-controlled gate on the bin. A hydraulic pump and reservoir are located at the base of the bin. Again, SHN did not observe any obvious, visible HAZMAT concerns at these locations

The log in-feed/out-feed is located along the northwestern side of the sawmill, adjacent to the debarker (Figure 5). The in-feed/out-feed consists of a delivery chain used to transport logs into and out of the sawmill. Logs are fed into the delivery chain using front-end loaders. The trim re-entry is located at the southeast corner of the sawmill (Figure 5). The re-entry delivery chain is used to transport timbers into the sawmill. The timbers are loaded onto the re-entry delivery chain utilizing forklifts. At the time of the site visit, SHN did not observe any obvious, visible HAZMAT concerns at these locations, other than moderate oil accumulation on the pavement beneath some of the equipment.

The green chain is located on the northeastern side of the sawmill (Appendix A and Figure 5). The green chain consists of a delivery chain that conveys sawn lumber for manual sorting and stacking. Large dimension timbers are removed from the end of the green chain utilizing forklifts.

An automated grading and trimming line, sorter, and stacker were installed at the main sawmill during the course of the facility's modernization and expansion project, located east and north of the building (Appendix A and Figure 5). When this portion of the facility was in operation, graded and trimmed lumber was transported from the line to the automatic bin and tray sorter system, which functioned as an automated green chain, and from that location to an automated stacker section. The vast majority of the equipment from these areas of the facility has since been removed and transported to PALCO's corporate facility located in Scotia, California.

SHN observed 55-gallon drums and smaller containers of oils and lubricants at various locations throughout the main operational areas of the sawmill complex. SHN observed approximately 50, 55-gallon drums of oils/lubricants inside the laydown area, located in the new sorter building (Appendix A). At the time of the site visit, SHN did not observe heavy oil accumulation or

cracking on the concrete surface at these locations. SHN did, however, observe oil accumulation on the concrete floor beneath some of the facility's hydraulic equipment. A septic tank and leachfield that services the existing restrooms inside of the sawmill is located east of the main building.

2.3.5 Millwright Shop and Truck Shop

The millwright shop is located southwest of the main sawmill building (Appendix A and Figure 5). The millwright shop is used for the maintenance and repair of sawmill and other equipment. The existing building is of wood construction, with a wood beam-supported roof. The floor of the building is concrete. SHN observed a variety of machine/equipment parts, welding equipment, grinders, drill presses, and other shop equipment inside of the building. SHN also observed 2 saw blade sharpeners, both of which require cutting oil for their operation and are partially recessed in the concrete floor (Appendix A). At the time of the site visit, SHN observed oil accumulation and metal shavings at a number of locations throughout the building. However, not all of the floor could be physically inspected due to the equipment and number of items that were present. Metal trimmings and used cutting oil generated from shop activities are stored in labeled 55-gallon drums, which are then transported off site for disposal.

The truck shop is located adjacent to and southwest of the millwright shop (Appendix A and Figure 5). SHN observed a variety of shop tools and equipment parts located throughout the working areas of the building. New vehicle parts are stored inside of a room located northeast of the main shop area. A sub-grade mechanic's pit is located inside of the truck shop building (Appendix A). During the site visit, SHN observed oil accumulation on the concrete bottom of the pit. Absorbent materials are used to capture spilled materials that accumulate in the bottom of the pit. SHN observed a drainpipe located in the western side of the mechanic's pit, which drains into (discharges to) an unknown location.

SHN observed approximately one dozen 55-gallon drums, and a number of 5-gallon containers of new oil and lubricants inside of the truck shop. Approximately one-half of the existing drums have top-mounted dispensers. Spent solvents, used oil filters, used antifreeze, and power train fluids are stored in 55-gallon drums inside of the building. These materials are routinely transported off site by licensed, hazardous waste haulers. At the time of the site visit, SHN observed some oil accumulation on the concrete floor beneath several of the drums, and at other locations inside of the truck shop. The existing building does not contain any hydraulic lifts. No floor drains were observed inside of the truck shop, where the floor was observable

A covered wash area is located adjacent to the northwestern side of the truck shop (Appendix A and Figure 5). This location is used for pressure-washing vehicles and equipment. Rinse water generated from washing operations flows into a closed-loop system consisting of a trench settlement drain, an oil/water separator, a sump with an electric pump, bag filters, a carbon canister treatment system, and 1,500-gallon water storage tank. The treated rinse water is then directed back into the wash area and reused. Sediments that collect in the trench floor drain are removed periodically, placed into 55-gallon drums, and transported off site for appropriate disposal. The work area and wash pad are curbed, and covered. The system's oil/water separator and associated carbon filter treatment system are located outside and adjacent to the northwestern side of the building. An existing water supply well that operates with a submersible pump motor, and associated pressure tank, supplies water for the wash area. SHN observed 2, 55-gallon drums

of used antifreeze and a number of other 55-gallon drums of automotive fluids located inside of the covered wash area. At the time of the site visit, the concrete inside the covered wash area and near the existing material drums was free of heavy oil accumulation or cracking.

A 420-gallon waste oil AST is located within a small room, outside and adjacent to the southeastern side of the truck shop (Appendix A and Figure 5). The existing tank is located inside of a concrete, secondary-containment structure. At the time of SHN's site visit, the concrete bottom of the containment structure contained some oil accumulation, but was free of cracking.

2.3.6 Planer Complex

The planer complex is located in the northeastern portion of the study area (Appendix A and Figure 5). Green and seasoned lumber is loaded into the planer at the southwestern and northeastern corners. A sump that collects water that is used to cool the planer head is located at the base of the planer. The sump also receives water that accumulates in the basement during periods of heavy precipitation. Water that collects in the sump is pumped outside the building into a 1,100-gallon, aboveground holding tank (Appendix A). The water is then directed through a carbon filtration system to remove any potential contaminants, and is then directed into a second aboveground holding tank. The water in the tank is periodically sampled, and subsequently applied to the log deck and other areas of the mill for dust control.

The planer out-feed sorter is located in the western/northwestern side of the facility. The planer in feed is located on the eastern side of the northernmost end of the building. The finished lumber bumper bander is located in the southernmost end of the facility. Metal bands are placed on finished lumber at this location prior to shipment. At the time of SHN's site visit, the existing planer was non-operational, the floor beneath the equipment contained a heavy accumulation of sawdust, and as such, could not be physically observed.

The southeastern portion of the planer building houses 2 ASTs containing hydraulic oil and Unocal 76 Uniglide saw lubricant (Appendix A). At the time of the site visit, SHN observed oily sawdust accumulation beneath the existing ASTs. SHN observed moderate oil accumulation at a number of locations on the concrete floor throughout the planer facility. Water for the planer facility is supplied by an on-site well, located adjacent to the eastern side of the building (Appendix A and Figure 5).

A hydraulic equipment compressor room is located outside of and adjacent to the eastern side of the planer building (Appendix A). At the time of the site visit, SHN observed heavy oil accumulation on the concrete floor beneath the equipment. An employee lunchroom and electrical equipment building are located adjacent to the northernmost end of the planer facility. No obvious HAZMAT concerns were observed at either of these two locations. A septic system and associated leachfield that receive domestic waste from the employee restrooms is located adjacent to the eastern side of the building.

2.3.7 Equipment Boneyard

An equipment boneyard is located in the southeastern portion of the study area (Appendix A). This location, which is gravel-surfaced, is used for the storage of conveyors, numerous equipment

parts, and other items associated with the existing sawmill and planer operations. SHN also observed two empty, aboveground storage tanks of previous unspecified contents at this location. At the time of the site visit, SHN observed a number of surficially-stained locations throughout this portion of the study area. However, none of the stains that were observed are larger than approximately 2 feet in diameter, and as such, do not appear to be of significant concern from a HAZMAT perspective.

2.3.8 Remainder of Study Area

The remainder of the study area consists of paved and gravel-surfaced parking areas and driveways. No obvious, visible HAZMAT concerns were observed at these locations. SHN observed a number of storm drain drop inlets located throughout these areas, none of which contain excessive ground staining surrounding the units.

A storm water collection ditch is located along the southern side of the study area (Appendix A). At the time of SHN's site visit, water that was present in the ditch did not appear discolored or odoriferous, and did not have any visible sheen on its surface. It should be noted that the vast majority of the storm water collection ditch was not readily accessible or observable by SHN, due to extensive vegetation overgrowth.

A three-section, unlined, storm-water-settling pond is located in the southeastern corner of the study area (Appendix A and Figure 5). At the time of SHN's site visit, water in the pond, although not discolored, contained green algae on its surface. No noxious odors or other obvious HAZMAT concerns were observed at the settling pond location.

2.4 Utility Features

2.4.1 Sewer

The restrooms in the planer and sawmill buildings are serviced by on-site septic tanks and leachfields. The Humboldt County Department of Public Works does not provide sanitary sewer infrastructure for or in the vicinity of the study area as defined in this report.

2.4.2 Water

As indicated in Section 2.3 of this document, potable and process water for the existing buildings in the study area is provided by on-site wells. The Humboldt County Department of Public Works does not supply potable water for the study area.

2.4.3 Storm Water

As discussed at length in the November 1998 Storm Water Pollution Prevention Plan (SHN, 1998), the vast majority of storm water runoff from the study area flows into existing storm drain drop inlets, which then outfall into an existing drainage ditch located along the southern property boundary. A portion of the storm water runoff flows west, into an existing drainage ditch located along the railroad easement. Storm water runoff that enters the ditch located along the southern boundary of the study area is directed into a series of three settlement ponds, and from there, enters

a culvert in the southeastern corner of the study area, which outfalls into Yager Creek. As further described in the Storm Water Pollution Prevention Plan (SWPPP), PALCO employs Best Management Practices (BMPs) to prevent unauthorized storm water discharges from the study area.

2.4.4 Electricity

Neighborhood distribution electric lines supported on wooden poles were observed on the northern portion of the study area, and along the existing railroad easement adjacent to the northern property boundary. SHN also observed a number of pole transformers both on and adjacent to the study area. All of these transformers are tagged "non-PCB" with respect to their dielectric cooling fluids. SHN observed a number of newer pad transformers located within the study area that supply power to the sawmill and planer. The existing pad transformers are newer units, and as such, are unlikely to contain any PCBs in their cooling fluids. No ground staining or other evidence of leakage was observed at any of the transformer locations.

2.4.5 Gas

SHN observed abovegrade monuments associated with a buried PG&E natural gas line located on and adjacent to the eastern boundary of the study area. SHN did not observe any signs, vent pipes, or other surface evidence of buried liquid petroleum pipelines located within or adjacent to the study area. PALCO informed SHN in writing that some of the existing buildings located within the study area are heated with propane. No sure evidence of either underground or aboveground heating oil tanks was observed in the study area during SHN's recent field reconnaissance.

2.5 Current Uses of Adjoining Properties

North: The study area is bound to the north by State Highway 36, beyond which is the Carlotta Grange building, residential sites, and undeveloped pastureland. SHN did not observe any obvious evidence of regulated materials migrating on the surfaces from these locations onto the surface of the study area. A sawmill operation associated with the former Carlotta Lumber Company is located outside and northeast of the study area as defined in this report, on the opposite side of Highway 36 and east of Yager Creek. This facility is discussed at length in Section 4.1 of this document.

South: The study area is bound to the south by undeveloped land. Again, SHN did not observe any obvious evidence of regulated materials migrating from this direction onto the surface of the study area.

East: The study area is bound to the east by Yager Creek. SHN did not observe any obvious evidence of regulated materials migrating from this location onto the surface of the study area.

West: The study area is bound to the west by Barber Creek and undeveloped land. SHN did not observe any obvious evidence of regulated materials migrating from this location onto the surface of the study area.

3.0 User Provided Information

3.1 Environmental Liens or Activity/Deed Restrictions

SHN is not aware of any environmental liens and/or deed restrictions associated with the study area, and no information of such was provided to SHN by PALCO during preparation of this Phase 1 ESA.

3.2 Specialized Knowledge

The users of this Phase 1 ESA (PALCO and its designated representatives), did not provide SHN with any specialized knowledge or experience that is material to recognized environmental conditions in conjunction with the study area as defined in this report. However, SHN did identify a number of locations within the study that either contain, or are likely to contain, recognized environmental conditions stemming from past site operations. These locations are summarized in Table 1-7, and are discussed elsewhere in this report.

3.3 Valuation Reduction for Environmental Liens

The user of this report, and current property owners (PALCO), did not provide SHN with actual knowledge that the purchase price of the study area is significantly less than the purchase price of comparable properties, due to environmental liens or other recognized environmental conditions.

3.4 Previous Environmental Work at the Study Area

SHN reviewed a number of documents and records for the Carlotta Sawmill associated with previous environmental work that was completed for the facility. In particular, motor fuel USTs have been removed from the site, and a discussion of the UST removals is presented in greater detail in Section 4.2 of this document.

According to a report of subsurface investigation for the PALCO Carlotta Sawmill study area (W&K, November 2002), the sawmill facility was previously owned and operated by the Louisiana-Pacific Corporation (L-P). In 1986, title to the property was transferred to PALCO. When the facility was operated by L-P, a dip tank and spraying equipment were used to apply anti-stain chemicals to lumber. These operations reportedly occurred inside of the sawmill, green chain, and the planer building. The historic wood treating operations, as described by Winzler & Kelly (W&K), are generally consistent with those that were reported by long-term operators at the Carlotta Sawmill, which were interviewed by SHN during preparation of this report (Appendix I, Table 1-6).

Over the past several years, a series of subsurface investigations have been completed at the wood treatment locations. From these investigations, it was determined that both soil and groundwater at these locations have been impacted by Pentachlorophenol (PCP), Tetrachlorophenol (TCP), dioxins/furans, and petroleum hydrocarbons, stemming from past site operations. PCP/TCP-contaminated soils have been removed from the impacted locations and transported off site for disposal. Seven groundwater-monitoring wells were installed in conjunction with these

investigations, and groundwater monitoring was performed through 2002. According to W&K, during the course of their most recent site investigation, PCP and TCP were not detected in any of the soil samples that were collected from areas where these chemicals were historically utilized. In addition, the existing groundwater monitoring wells were monitored for a period of 5 years, and PCP and TCP have only been detected in 2 of the 7 monitoring wells. The W&K report also states that there has been only one detection of PCP in any of the site groundwater monitoring wells since April 2000, located near the planer building. No detectable concentrations of either PCP or TCP have been present in any of the monitoring wells that designate the downgradient property boundary (wells MW-2, MW-6, and MW-7).

According to the W&K report, a representative from L-P Corporation visited the Carlotta Sawmill study area on September 5, 2002, to collect soil samples to be submitted to an analytical laboratory for dioxins and furans analyses. A total of 11 soil samples were collected, 4 of which were obtained from the main drainage ditch and sedimentation pond located along the southern and southeastern boundaries of the study area. One soil sample was collected from the lumber storage area in the reload area. A soil sample was also collected in the vicinity of the former dip tank at the sawmill, and a soil sample was collected from the spray ring application area of the planer building. Two soil samples were also collected from the former stud mill portion of the study area, previously owned by the Orban Lumber Company and operated by Hulbert & Muffly Company. An additional two samples were collected off site, on the opposite side of Highway 36.

The W&K report indicates that the laboratory analyses of all 11 soil samples revealed detectable concentrations of dioxins/furans. In their report, they stated that out of the 11 soil samples that were analyzed for dioxins/furans, only 3 contained Toxic Equivalency (TEQ) concentrations in excess of the U.S. Environmental Protection Agency (EPA) Preliminary Remedial Goal (PRG) value of 16 parts per trillion (nanograms per kilogram [ng/kg]). Of these 3 samples, 2 were collected within the study area near the planer, and the remaining sample was collected from a drainage ditch located along the existing railroad easement. Based on the results of the investigation, W&K recommended that no additional work be conducted with respect to PCP and TCP. W&K also requested that the RWQCB consider rescission of the existing Cleanup and Abatement Order (CAO) for dioxins/furans.

In a May 2, 2003, letter to L-P, the RWQCB stated that further work was needed to comply with CAO 97-106, including the removal of approximately 100 cubic yards of dioxin-contaminated soils near the planer building, and sampling of groundwater monitoring wells MW-4 and MW-5 for dioxins/furans. An August 7, 2003, letter from the RWQCB to the Orban Lumber Company stated that the vertical and lateral extents of contamination at the facility has been defined, and that developing an appropriate remedial action plan for the site needed to address when water quality objectives would be met for the remaining contamination in groundwater. A July 20, 2004, letter from the RWQCB addressed to PALCO stated that the dioxin sampling and remedial excavation work plan by W&K was approved for testing and excavation of dioxin-contaminated soils. It is not readily apparent from agency file documents, however, whether the proposed work plan has been implemented, or whether any other work has been completed at the Carlotta Sawmill since that time.

4.0 Records Review--Standard Environmental Record Resources

Utilizing the ASTM standard E 1527-00 recommended search radii, SHN authorized EDR, located in Milford, Connecticut, to perform a review of federal and state agency databases that track sites with known hazardous materials contamination (Appendix F). EDR did not identify any potential or confirmed state or federal "Superfund" sites located on or within one mile of the study area during their review of the EPA's CERCLIS and NPL databases. In addition, the study area does not appear on the EPA's Emergency Response Notification System (ERNS) database, and does not contain any businesses or facilities that are listed as Resource Conservation and Recovery Act (RCRA) Generators.

Again using the ASTM standard E 1527-00 recommended search radii, both EDR and SHN reviewed databases regarding hazardous materials contamination that are maintained by the following agencies:

- California Environmental Protection Agency (Cal-EPA)
- Cal-EPA Department of Toxic Substances Control (DTSC)
- Cal-EPA Office of Environmental Health Hazard Assessment (OEHHA)
- Cal-EPA Regional Water Quality Control Board, North Coast Region (RWQCB)
- California State Water Resources Control Board (SWRCB)
- Cal-EPA Integrated Waste Management Board (CIWMB)
- Cal-DHS Office of Drinking Water (ODW)
- California Division of Oil and Gas (DOG)
- Corrective Action Report (CORRACTS)
- Resource Conservation and Recovery Information System (RCRIS-TSD)
- Humboldt County Humboldt County Department of Health and Human Services, Division of Environmental Health (HCDEH)

Both SHN and EDR identified only the PALCO Carlotta Sawmill, which appears in the EDR database as two separate "sites" (the Pacific Lumber Company/Carlotta Mill, and the PL Carlotta Mill). However, as was discussed in Section 2.5 and further discussed in Section 6.1 of this document, the former Carlotta Lumber Company (of which the study area is only a portion), also had an off-site sawmill facility located northeast of the study area, on the opposite side of State Highway 36 and east of Yager Creek. No other known sites that have experienced unauthorized hazardous materials releases were identified within a ½-mile radius from the study area. SHN reviewed the HCDEH case files for both the off-site, former Carlotta Lumber Company site, and the existing PALCO Carlotta Sawmill (study area), the findings of which are summarized in Sections 4.1 and 4.2, respectively.

4.1 Off-Site Portion of the Former Carlotta Lumber Company

The off-site portion of the former Carlotta Lumber Company is located approximately 500 feet northeast of the study area, on the opposite side of Highway 36 and east of Yager Creek. According to HCDEH file information, the site was previously owned by the Orban Lumber Company, and the former lumber mill was constructed in 1942. During the early 1980s, the site was used for

treating cut lumber with water-based fungicides including Chapman P-180 and Koppers Noxtane SSL. Both fungicides contained PCP and TCP. The RWQCB issued CAO 87-133 for the Carlotta Lumber Company in 1987, after PCP was detected in an on-site, community water supply well. Sawmill operations terminated at the site in the early 1990s.

A series of soil and groundwater investigations completed by SHN and others date back to the late 1980s. From those investigations, it was determined that both soil and groundwater at the facility are impacted with both PCP and TCP stemming from past site operations. A series of groundwater monitoring events conducted by SHN revealed that groundwater beneath the off-site, former Carlotta Lumber Company site flows to the west and southeast, away from the study area as defined in this report. In summary, SHN has not encountered any data to suggest that groundwater contamination associated with the former, off-site Carlotta Lumber Company operation has migrated beneath the study area. As such, it does not warrant further discussion.

4.2 HCDEH File Review for PALCO Carlotta Sawmill (Study Area)

SHN reviewed the case files for the PALCO Carlotta Sawmill study area during a visit to the HCDEH on October 20, 2004. According to their records, two 500-gallon USTs, previously containing gasoline and diesel fuel, were removed from the northern portion of the study area in October 1990, near the former Orban Lumber Company stud mill (see Figure 5 and Section 6.1 of this document).

Following the UST removals, an estimated 200 cubic yards of petroleum hydrocarbon-contaminated soils were excavated from the former tank locations in June and August 1991, and stockpiled on site. Two groundwater samples were then collected from the former UST excavation, both of which contained no detectable concentrations of any of the constituents for which they were tested, including Total Petroleum Hydrocarbons as Diesel (TPHD) and as Gasoline (TPHG), and Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX).

Following the initial phases of investigative work, the HCDEH authorized the excavated soils from the former UST locations to be used as base material for paving the facility's log deck. In early 1997, the contaminated soil was placed and compacted to a lift of 6 to 8 inches of aggregate base rock overlain by 4 inches minimum of asphalt concrete pavement. Following the relocation of the petroleum hydrocarbon-contaminated soils, no further work was requested by either the HCDEH or the RWQCB with respect to the UST removals, and the site was granted official case closure by both agencies on June 19, 1997 and March 31, 1997, respectively. SHN has included copies of the agency closure letters in Appendix G.

The County case files for the Carlotta Sawmill also contained a permit for the operation of 3 USTs, issued in May 1988. Two of these former USTs were described in the previous paragraph. The remaining UST was identified as a 1,000-gallon gasoline tank. The permit was issued to the Carlotta Lumber Company. Through the research completed as part of this study, SHN learned that the 1,000-gallon UST was previously operated by L-P Corporation, and was removed during their ownership of the facility. The document specifies that all 3 motor fuel USTs were integrity tested, and at that time, were classified as "tight" by National Fire Protection Association (NFPA) standards. SHN has included copies of these classification documents in Appendix G.

The HCDEH case files also contained a letter from the RWQCB addressed to PALCO, dated January 3,1990. Their letter states that "it appears that a hydrogeologic investigation is warranted for the 1,000-gallon tank" at the Carlotta Sawmill, and that a work plan for additional site investigation be submitted to the agency. SHN has included a copy of the RWQCB letter in Appendix G.

It should be noted that the HCDEH case files do not contain any additional documents pertaining to the former 1,000-gallon UST. SHN did, however, learn through a review of RWQCB file documents, that the RWQCB was involved with the tank when it was removed, although no official, written case closure was issued by that agency. A summary of the key findings from the RWQCB records review are presented in Section 4.3, and in Appendix I, Table I-5. Because the former gasoline UST tank removal has not been issued a written case closure, it is likely that further work may be necessary to satisfy the regulatory agency requirements for official case closures. SHN learned through the course of this Phase 1 study that the former gasoline tank dispenser pump was previously located near the eastern side of the truck shop.

SHN also encountered a Hazardous Materials Inventory Location Report Site Map, which shows an "oil room" located near the existing planer chip bins. Although the HCDEH case files do not contain any reports of product spillage or container leakage at this location, given the nature of its operation and considering the types of regulated or hazardous materials that may have been stored there, this location may warrant further investigation. SHN has included a copy of the site plan in Appendix G.

The HCDEH case files contain a July 27,1999, memorandum from the HCDEH addressed to the RWQCB. The memorandum states that during a routine site inspection, the HCDEH observed a release of diesel fuel on soil near the mobile diesel tank at the gravel plant. An August 19,1999, letter from PALCO addressed to the RWQCB states that the "oil spill in the area was localized, had not spread, and the amount spilled was estimated to be between five and ten gallons." Their letter also stated that the contaminated soil was transported off site by Asbury Environmental Services. A copy of the PALCO letter and associated Uniform Hazardous Waste Manifest for the contaminated soil removal are included in Appendix G. Appendix G also contains an October 28, 1999, letter from the RWQCB addressed to PALCO, which stated that they reviewed the written documentation and disposal receipt pertaining to the diesel-contaminated soil that was removed from near the portable AST, and that "the information you submitted satisfies our concerns related to this matter."

SHN also reviewed inspection reports that were available in the HCDEH file documents. At the times of their inspections, which were completed in 1997,1999, 2001, and 2003, the HCDEH field representatives identified a number of housekeeping issues at the facility, including but not limited to:

- complete new business plan and hazardous material inventory,
- accumulation label needed on waste oil tank,
- more labels on tanks,
- clean up end-seal application area or pave area to prevent spillage to soil,
- all containers of hazardous waste must be labeled,
- personnel training program does not meet the requirements of the HCDEH, and
- label diesel tank at pump station and add to inventory.

SHN observed one entry on a July 19,1999, inspection report, which directed the site operator to "check and correct source of leak on hydraulic unit (sorter area - stacker hydraulic unit)," and "clean-up and correct spillage of diesel on ground at gravel plant." An August 19,1999, letter from PALCO addressed to the HCDEH, stated that "the source of the leak on the hydraulic unit at the stacker unit has been located and repaired, and all leaked oil has been cleaned out of the containment area." Their letter also reiterated that the diesel spill at the gravel plant had been properly addressed and cleaned up. SHN has included a copy of this letter in Appendix G.

The HCDEH case files also contain a Business Owner/Operator form, dated March 1, 2003, and an Emergency Response Plan and Employee Training Plan, date stamped March 3, 2003. Their files also contain a Chemical Summary by Facility form, dated August 26, 2004. The Chemical Summary contains an inventory of hazardous and/or regulated materials that are used and/or stored at the facility in 2004. SHN has included copies of these documents in Appendix G.

4.3 RWQCB File Review for PALCO Carlotta Sawmill

Attorney's Diversified Services Incorporated (ADS), located in Santa Rosa, California provided photocopies of the case file documents from the RWQCB field office pertaining to the PALCO Carlotta Sawmill. These case file documents are summarized in Appendix I, Table I-5. Significant findings from the RWQCB file documents, from a HAZMAT perspective, are highlighted in bold type. The RWQCB file documents provided by ADS to SHN did not include any documentation specifying whether the former 1,000-gallon gasoline UST at the Carlotta Sawmill had received official written case closure from that agency or the HCDEH. However, as further discussed in Table I-5 of this document, the RWQCB case files contained a March 26, 1986 letter from L-P Corporation addressed to the RWQCB. In their letter, L-P Corporation stated that groundwater samples were collected from an on-site well located near the shop building, as well as an off site well located approximately 500 feet south of the southern boundary of the study area. L-P Corporation also stated that during a September 25, 1985 telephone conversation with Frank Reichmuth from the RWQCB, it was decided that since both wells showed no evidence of contamination, that there was no need for additional sampling.

It should be noted herein that because the existing petroleum hydrocarbon contamination associated with the former gasoline UST has not been further investigated or remediated, it is likely that further work may be required to satisfy the regulatory agency requirements for official written case closure.

5.0 Geologic, Soils, and Groundwater Conditions

5.1 Regional Geology

Review of the 1967 State of California, Division of Mines and Geology "Geologic Map of California, Ukiah Sheet," reveals that the study area is underlain by Holocene age (less than 11,000-year old) alluvial deposits. These deposits form natural levees and broad alluvial fans of low relief along the

main course of rivers, and are differentiated from older units by their position near geographically modern stream channels. The alluvial units typically comprised of mixtures of sand, silt, and clay; although, gravel zones are also common.

5.2 Soils

Review of the November 1965 Soils of *Western Humboldt County, California*, by the University of California, Davis, indicates that the study area is comprised of "Carlotta loam, 0 to 3 percent slopes," "Ferndale silt loam, 0 to 3 percent slopes," "Ferndale silt loam, shallow, 0 to 3 percent slopes," and "Mixed fine and coarse soil material." The Carlotta series consists of moderately well-drained, medium-textured soils developed on sedimentary alluvium derived from soft and hard sediments of the north Coast Range Mountains. The parent material is usually high in quartz or quartzites. These soils occur on low river terraces having smooth, flat relief. Native vegetation is essentially redwood, which occurs at elevations ranging from 50 to 500 feet above Mean Sea Level (MSL) in a sub-humid climate. Thick strata of river gravels or cobbles may be found at any depth in the profile. Carlotta soils are utilized on a limited basis for pasture, but are mostly used for timberland.

The Ferndale series consists of deep, well-drained, medium-textured alluvial soils on recent flood plains below the coast range sedimentary geologic formations. Parent material for the soil is mixed: the Coast Range includes sandstones, greywackes, and some ultrabasic intrusive rocks. The entire profile is neutral in reaction. Silt loam is the dominant type; although, silty clay loam is also prevalent. Ferndale soils occur at elevations ranging from near MSL to 100 feet above MSL in a humid mesothermal coastal climate having a mean annual temperature of 52 degrees Fahrenheit. Ferndale soils are utilized primarily for livestock pasture.

5.3 Radon Potential

Radon isotope-22 is a colorless and odorless radioactive gas that is a natural decay product of uranium. Uranium and radon gas are present in varying amounts in soil and rocks, and radon is present in background concentrations in the atmosphere. There is current evidence that indicates that increased lung cancer rates are directly related to radon decay products. Radon gas and indoor exposure levels in the United States are under intense research by government regulators and the medical communities. The EPA has established an action level for indoor radon concentrations at or exceeding 4 pico-Curies per Liter of air (pCi/L). This level, as established by the EPA, assumes that 1 to 3 persons per 100 exposed to this concentration during their lifetime will die of lung cancer induced by radon.

Based on SHN's review of the EPA's on-line "Map of Radon Zones," the study area is located within Zone 3. The EPA specifies that properties and counties located in Zone 3 have a predicted average indoor radon screening level below 2 pCi/L, which is substantially lower than the designated action level of 4 pCi/L. Site-specific radon conditions, however, can only be determined by sampling and testing existing and/or future buildings located within the study area. In addition, indoor radon concentrations can be affected by a number of variables, including building materials, site-specific geology, and quality of construction. As such, the EPA recommends that all owners

test their homes for radon. Because the study area is located within Zone 3, the likelihood of indoor radon concentrations exceeding the EPA-designated action level of 4 pCi/L is considered low.

5.4 Regional Groundwater

The study area is located within the North Coast Hydrologic Study Area, Eel River Valley Basin, as defined by the California Department of Water Resources (DWR). At present, the DWR does not monitor any groundwater wells in the immediate vicinity of the study area. The closest DWR-monitored well that we were able to locate on their on-line database is located more than 5 miles away from the study area. As such, it is likely to be of limited beneficial use in estimating depth to groundwater beneath the study area. In general, the direction of shallow groundwater flow beneath the study area likely follows surface topography. Seasonal changes, time of year, outlying agricultural pumping, and stages of the Yager Creek and the nearby Van Duzen River may also influence groundwater flow beneath and in the vicinity of the study area. Previous groundwater monitoring by L-P (between 1998 and 2002) revealed variable depth-to-groundwater measurements beneath the study area (from approximately 3 to 13 feet below ground surface).

6.0 Historical Land Use of the Subject Property

6.1 Historical Overview of the PALCO Carlotta Sawmill

On May 6, 1986, PALCO acquired approximately 54 acres of the historic Carlotta Lumber Company sawmill (located within the study area as defined in this report) from L-P, formerly Georgia-Pacific (G-P) Corporation. The land initially acquired by PALCO consisted of APNs 204-121-04, 204-251-10, and 206-351-04 (see Figures 2 through 4). PALCO acquired an additional 0.024 acres of land from the Southern Humboldt Lumber Company in September 1986.

On May 3, 1989, PALCO obtained an additional 22 acres of land from the Southern Humboldt Lumber Company, which succeeded by merger to the former Orban Lumber Company. This land area included APNs 204-121-05, 204-121-06, and 204-251-01. This recent land acquisition was the site of the former Orban Lumber Company stud mill, as discussed elsewhere in this report and shown on Figure 5. The former Carlotta Lumber Company had additional facilities located outside of the study area, on the opposite side of State Highway 36 and east of Yager Creek (see Section 4.1 of this report).

Hulbert & Muffly Company Incorporated (H&M) operated the existing PALCO Carlotta Sawmill, located within the study area, prior to the time that it was acquired by G-P. The former Carlotta Lumber Company land holdings were originally acquired from Francis Tann in or around 1952. The historic business directories that were reviewed during preparation of this report (Section 6.4 and Appendix I, Table I-4), indicated that Francis Tann was a merchant in the Carlotta area as far back as the early 1920s. Mr. Tann reportedly owned a sawmill, as well as a water system that serviced the community of Carlotta. The water system owned by Tann, to the best of our knowledge, was not located on, or did not service the study area as defined in this report, although it did provide water for the former Carlotta Lumber Company sawmill, and adjacent residential community, located on the opposite (north) side of State Highway 36.

A chain-of-title was not provided for SHN to review during preparation of this Phase 1 ESA report. As such, additional historic ownership information pertaining to the land parcels within the study area was not readily accessible.

6.2 Aerial Photographs

SHN reviewed Humboldt County Department of Natural Resources (HCDNR) historic aerial photographs with coverage of the study area that were taken in the years 1942, 1948, 1954, 1963, 1966, 1974, 1988, and 1996. SHN also obtained an aerial photograph with coverage of the study area that was flown in 1998 from EDR. Key findings from the aerial photograph review are presented in Appendix I, Table I-1. SHN has included copies of the aerial photographs that were reviewed during preparation of this report in Appendix B.

6.3 Sanborn Maps

As recommended by ASTM standard E 1527-00, SHN attempted to review historic Sanborn Maps for the study area. Sanborn Maps were drafted from the late-1800s to the mid-1900s, and were commonly utilized by fire insurance companies to determine a site's fire insurability. These maps can be significant research tools because they often reveal potential hazardous materials issues that may have been present on a particular site, such as automobile service garages, dealerships, and aboveground and underground storage tanks.

SHN contacted EDR in an attempt to purchase Sanborn Maps. EDR is the present owner of the Sanborn Company, and as such, maintains the largest collections of Sanborn Maps in the United States. Personnel from EDR informed SHN that there are no Sanborn Maps available with coverage of the study area. Sanborn Maps generally provide the most extensive coverage in the downtown areas of older cities, or in neighborhoods that have experienced long-term residential and/or commercial development. EDR's response to the Sanborn Map request from SHN is included in Appendix D.

6.4 Topographic Maps

SHN also obtained color copies of historic USGS topographic maps with coverage of the study area from EDR. The topographic maps were published in the years 1959 and 1979. Key findings from the topographic map review are presented in Appendix I, Table I-3. SHN has included copies of the historic topographic maps that were reviewed during preparation of this report in Appendix E.

6.5 Business Directories

As recommended by ASTM standard E 1527-00, SHN reviewed historic business (street) directories with coverage of the study area and the Carlotta community. Business directories were published from the late 1800s through the present. These directories contain business and residential listings that are based on street number identifiers. Business directories can be significant research tools because they often reveal historic businesses or facilities at a given location that may have the potential to have used, stored, or generated hazardous materials.

The Humboldt County Main Library located in Eureka, California maintains a collection of business directories for areas of Humboldt County that were published for various years between 1885 and 2002. The findings from the business directory research are presented in Appendix I, Table I-4. In summary, SHN identified a number of businesses or facilities located within the Carlotta area, and possibly within the study area as defined in this report, which, based on the business type implied by their name, have the potential to have utilized and/or stored reportable quantities of hazardous materials.

6.6 Building Permit Records

SHN visited the Humboldt County Community Development Department, Building Division on September 30, 2004, to review historic permit records that were issued for the study area. The Building Division maintains structural, demolition, alteration, mechanical, plumbing, electrical, and other permit records dating back to 1972, which are accessed by Assessor's Parcel Number. SHN encountered a total of 10 permits that were issued for the study area, which are summarized in Appendix I, Table I-2, and included in Appendix C.

6.7 Zoning/Land Use Records

Personnel from the Humboldt County Community Development Department, Planning Division, informed SHN that the study area parcels are zoned "MH heavy industrial."

6.8 Questionnaires and Interviews

During the course of this Phase 1 ESA, SHN submitted written questionnaires to current and former PALCO employees with long-term knowledge of the Carlotta Sawmill that were designated by Mr. Robert Vogt. SHN also conducted telephone interviews with two retired PALCO employees that worked at the facility prior to and after it was acquired by PALCO. Significant findings from both the questionnaire responses and telephone interviews are presented in Appendix I, Table I-6.

7.0 Findings and Conclusions

Listed below in Table 1, and further detailed in Table I-7, in Appendix I, is a summary of the key site features that were identified by SHN within the study area during the course of this Phase 1 ESA, as well as potential areas of concern from a hazardous materials perspective that were observed during the field reconnaissance and historic land use research. Table I-7, in Appendix I presents further detail with regard to business ownership, occupancy, and information sources.

Table 1
Key Site Features
PALCO Carlotta Sawmill, Humboldt County, California

Location Inside of Stud Area	Significant Feature	Potential Contaminants
Former Orban Lumber Company stud mill	Potential oil and metals accumulation on ground	Petroleum hydrocarbons, metals
	Wood treatment application area	PCP, TCP, dioxins/furans, petroleum hydrocarbons
Former Orban Lumber Company planer	Potential oil and metals accumulation on ground	Petroleum- hydrocarbons, metals
	Wood treatment application area	PCP, TCP, dioxins/furans, petroleum hydrocarbons
Former Orban -Lumber Company stud mill	Former 550-gallon gasoline and diesel USTs	Petroleum hydrocarbons
	Oil disposal sump	Petroleum hydrocarbons, metals, solvents
Former Orban -Lumber Company planer,	Former teepee burner	Petroleum hydrocarbons, metals, dioxins/furans
Former Orban Lumber Company stud mill	Former oil house	Petroleum hydrocarbons
Existing sawmill and planer facilities	Potential oil and metals accumulation on ground	Petroleum hydrocarbons
	Drum storage areas and ASTs inside of building	Petroleum, hydrocarbons
Northwest of sawmill facility	Aboveground gasoline and diesel storage tanks, oil house	Gasoline, diesel fuel, petroleum hydrocarbons, petroleum
Sawmill	Debarker hydraulic equipment room	Hydraulic oil
	Compressor room	Hydraulic oil
	Millwright Shop	Petroleum hydrocarbons, metals, solvents
	Truck Shop operational areas and mechanic's pit	Petroleum hydrocarbons, metals, solvents
	Former Hyster forklift shop	Petroleum hydrocarbons, metals, solvents
	Former gasoline UST east of truck shop	Gasoline petroleum hydrocarbons, lead.
	Steam wash area and sump adjacent to truck shop	Petroleum hydrocarbons, metals, solvents
	Waste oil tank adjacent to east side of truck shop.	Petroleum hydrocarbons, metals
	Possible former log pond	Petroleum hydrocarbons-metals, industrial process wastes
	Former teepee burner	Petroleum hydrocarbons, metals dioxins/furans
	Former wood treatment application areas	PCP, TCP, dioxins/furans, petroleum hydrocarbons
Planer facility	Former wood treatment application areas	TCP, dioxins/furan petroleum hydrocarbons.
Southeast of planer facility-	Former wood treatment chemical storage area	PCP, TCP, dioxins/furans, petroleum hydrocarbons
Behind the planer facility	Former electrical transformer with PCBs removed by L-P	PCBs
Railroad easement	Former wood treatment area and other activities	PCP/TCP, dioxins/furans, petroleum hydrocarbons, pesticides
Log deck	Buried petroleum hydrocarbon contaminated soils	Petroleum hydrocarbons
Westernmost portion of study area	Former barn and other out buildings	Petroleum hydrocarbons, metals
Western portion of study area	Gravel wash settlement ponds	PH
Western portion of study area	Shop building northeast of concrete batch plant	--1
Western portion of study area	Inactive concrete batch plant	Diesel, petroleum hydrocarbons near former AST
Southeast portion of study area	Equipment boneyard	Petroleum hydrocarbons

1. Building was not accessible at the time of SHN's site visit. As such, it is unknown whether this location may be considered a potential area of concern.

- . (1922) "Humboldt County Directory 1922," Humboldt County Main Library: HR 9179412. NR: Western.
- . (1923) "Humboldt County Directory 1923," Humboldt County Main Library: HR 9179412. NR: Western.
- . (1924) "Humboldt County Directory 1924. Humboldt County Main Library: HR 9179412. NR: Western.

8.2 Records of Personal and Written Communications

- Bryant, Don. (October 22, 2004). Telephone discussion of the written questionnaire provided by SHN. Current PALCO employee for 39 years. The questionnaire focused on past site operations within the study area. Questionnaire provided by SHN. Current PALCO resident engineer.
- Burris, Claude. (October 28, 2004). Telephone interview. Former employee that worked at the Carlotta Sawmill from 1969 through 1998. Discussed the historic operations of the facility.
- Bush, Ron. (October 22, 2004). Written questionnaire provided by SHN. Current PALCO employee that began working at the Carlotta Sawmill in 1972 as a log handler, and a foreman since 1986. The questionnaire focused on past site operations within the study area.
- Griesbach, Blaine. (October 22, 2004). Written questionnaire provided by SHN. Former PALCO employee that commenced work at the Carlotta Sawmill in 1972. The questionnaire focused on past site operations within the study area.
- Henson, Bennie. (October 27, 2004). Telephone interview. Former employee that worked at both the former Orban Lumber Company stud mill and the Carlotta Sawmill facility between 1963 and 1997. Discussed the historic operations at both facilities within the study area.
- Macy, Gary. (October 22, 2004). Written questionnaire provided by SHN. Current PALCO employee that worked at the Carlotta Sawmill from 1970 through 1988. The questionnaire focused on past site operations within the study area.
- Tucker, James. (October 22, 2004). Written questionnaire provided by SHN. Current PALCO employee that worked at the Carlotta Sawmill. The questionnaire focused on past site operations within the study area.

8.3 Topographic Maps

- U.S. Geological Survey. (1959). "7.5-Minute Series, Hydesville, California Quadrangle." NR: USGS
- . (1979). "7.5-Minute Series, Hydesville, California Quadrangle." NR: USGS

8.4 Aerial Photographs (Humboldt County)

Date	Identification Numbers	Scale
2/19/42	CVL-10B-32 and CVL-10B-33 ¹	-- ²
6/23/48	CDF2-16-200 and CDF2-16-201 ¹	--
7/27/54	CVL-7N-167 and CVL-7N-168 ¹	--
8/15/63	HC-S-2-3 18B-17 and HC-S-2-3 18B-18 ¹	--
1966	HC-66 18-2 and HC-66 18-3 ¹	--
1974	HC 74 18A-11 ¹	--
6/18/88	WAC-88CA 18-90 and WAC 88CA 18-91 ¹	1" = 2,000'
7/19/96	96138 1-9-61 and 96138 1-9-62 ¹	1" = 1,000'
1998	USGS (Inquiry No. 1269945.5) ³	1" = 666'

1. Photograph reviewed at the Humboldt County Department of Natural Resource.
2. Scale of photograph not specified.
3. Photograph obtained from Environmental Data Resources, Inc.

9.0 Qualifications of Environmental Professionals

SHN's project team included Steven Di Leo, Patrick Barsanti, and Martin Lay. Steven Di Leo is a Registered Environmental Assessor (REA) in the State of California, and is a staff Environmental Specialist. Patrick Barsanti is an Environmental Engineer and also an REA in the State of California. Martin Lay, who is a licensed Professional Engineer and REA in the State of California, provided the Quality Control and Quality Assurance (QA/QC) for this project.

**Phase II Environmental Site Assessment
PALCO Carlotta Mill, Carlotta, CA**

SHN Consulting Engineers & Geologists, Inc.

July 2007

Phase II Environmental Site Assessment

**PALCO Carlotta Sawmill
Carlotta, California**

**Confidential
Attorney-Client Privileged**

Prepared for:
PALCO

Prepared by:



Consulting Engineers & Geologists, Inc.
812 W. Wabash Ave.
Eureka, CA 95501-2138
707-441-8855



July 2007

QA/QC: MEL__

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Acronyms and Abbreviations

-	Not analyzed	pg/L	picograms per Liter
<	"less than" the method reporting limit	ug/g ug/L	micrograms per gram micrograms per Liter
mg/Kg	milligrams per Kilogram	ug/kg	micrograms per Kilogram
pg/g	picograms per gram		
2,3,7,8-TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin		
BGS	Below Ground Surface		
BTEX	Benzene, Toluene, Ethylbenzene, and total Xylenes		
CDHS	California Department of Health Services		
DOT	Department of Transportation		
DD-#	Drainage Ditch -number		
EPA	United States Environmental Protection Agency		
ESA	Environmental Site Assessment		
GP-#	Gravel Plant -number		
GPS	Global Positioning System		
LP	Louisiana-Pacific Corporation		
MA-#	Miscellaneous Area -number		
MTBE	Methyl Tertiary-Butyl Ether		
NA	Not Available		
NCL	North Coast Laboratories		
NR	No Reference		
OH-#	Oil House -number		
OL-#	former Orban Lumber -number		
PCP	Pentachlorophene		
PID	Photo Ionization Detector		
PL-#	Planer -number		
PRG	Preliminary Remediation Goals		
RR-#	Railroad -number		
RWQCB	California Regional Water Quality Control Board		
SHN	SHN Consulting Engineers & Geologists, Inc.		
SM-#	Sawmill -number		
STL	Severn Trent Laboratories		
STLC	Soluble Threshold Limit Concentration		
SVOC	Semi-volatile Organic Compound		
TB	Teapot Burner		
TCP	Tetrachlorophenol		
TEF	Toxicity Equivalency Factor		
TEQ	Toxicity Equivalency Quotient		
TPHD	Total Petroleum Hydrocarbons as Diesel		
TPHG	Total Petroleum Hydrocarbons as Gasoline		
TPHMO	Total Petroleum Hydrocarbons as Motor Oil		
TS-#	Truck Shop -number		
TTL	Total Threshold Limit Concentration		
UST	Underground Storage Tank		
VOC	Volatile Organic Compound		

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1.0 Introduction

1.1 Purpose

SHN Consulting Engineers & Geologists, Inc. (SHN) has prepared this Phase II Environmental Site Assessment (ESA) for the PALCO Carlotta Sawmill (site). The investigation areas were chosen based on information presented in the Phase I ESA completed in 2005 (SHN, 2005). A detailed site history was included in the Phase I ESA. Areas chosen for the Phase II are described in Section 1.3.

Also, a limited, targeted subsurface investigation was previously performed by SHN in February 2006. Specific areas of the facility that were investigated were the planer area, the sawmill green chain area, and the former Louisiana-Pacific (LP) Gasoline Underground Storage Tank (UST) Area. The purpose of conducting this targeted investigation was to determine if historic site uses of Pentachlorophenol (PCP) and gasoline by LP had impacted soil and or groundwater. Complete results of the limited investigation were presented in the Subsurface Investigation Report of Findings (SHN, 2006). LP is performing additional investigations at the planer area and the former Gasoline UST Area.

This report has been prepared on behalf of and for the exclusive use of PALCO and its designated representatives.

1.2 Location

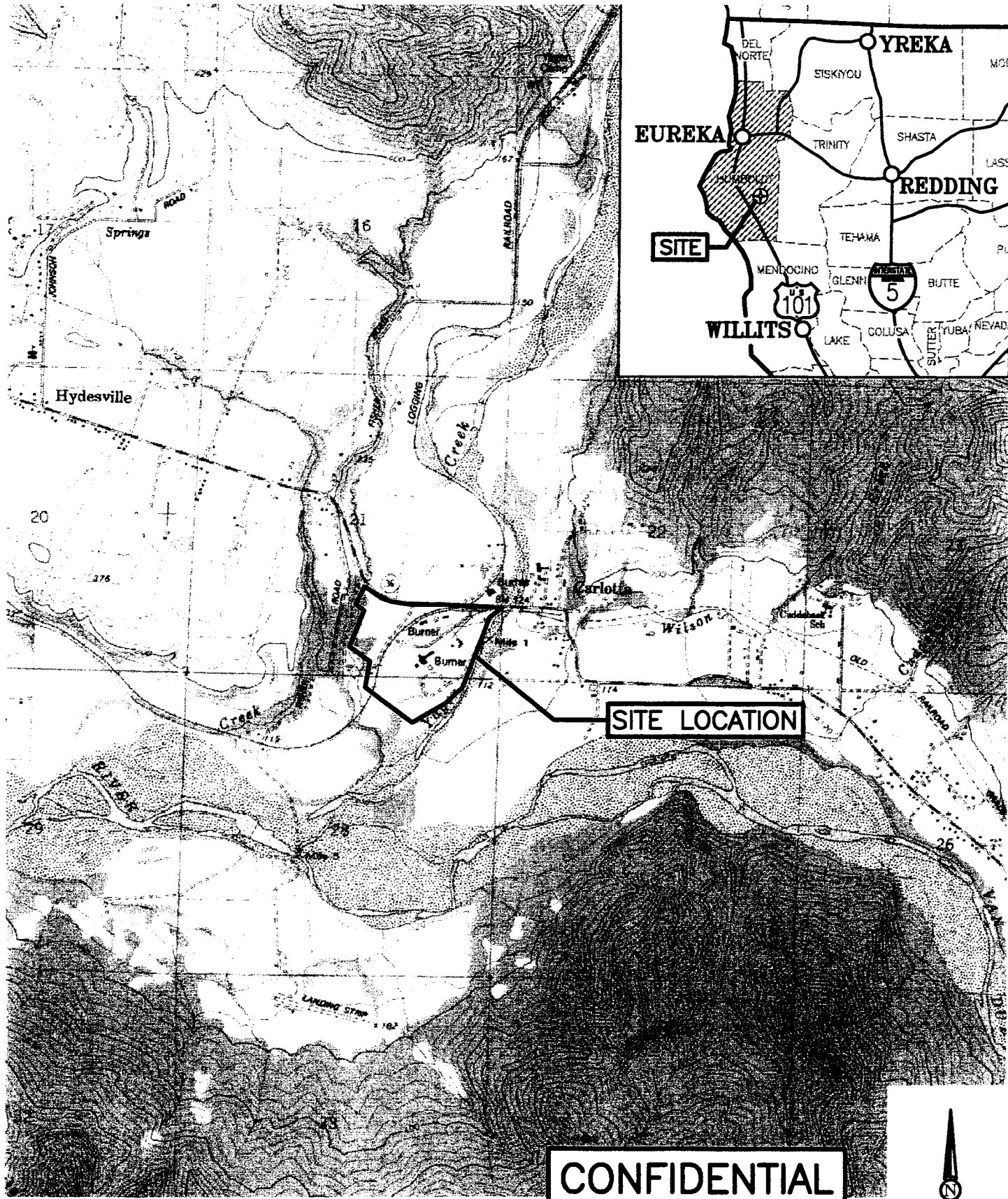
The study area consists of the land area containing the Carlotta Sawmill, which is presently owned by PALCO. The sawmill is currently inactive. The site lies within the community of Carlotta, an unincorporated area of Humboldt County, California (Figure 1). State Highway 36 borders the site to the north, undeveloped land and residential sites are to the south, Yager Creek is to the east, and Barber Creek and undeveloped land border the site to the west.

As shown on Figure 2, a Northwestern Pacific Railroad Company easement bisects the study area, trending northeast to southwest. The study area is located within a mixed-use rural residential and ranching area, and is comprised of Humboldt County assessor's parcel numbers 204-121-04, 204-121-05, 204-121-06, 204-251-01, 204-251-10, and 206-351-04. The study area lies within Sections 21 and 28 of Township 2 North, Range 1 East, Humboldt Base and Meridian. A site plan with investigation locations is included as Figure 2.

1.3 Areas of Concern

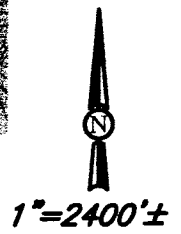
Areas of concern identified in the Phase I ESA and investigated during the Phase II ESA are identified below. The sample identification labels associated with each area are shown in brackets. The areas investigated include:

- Former Orban Lumber Company stud mill and planer building (OL)
- Former Teepee Burners (TB)
- Gravel Plant and shop area (GP)
- Oil House and associated above ground storage tanks (OH)
- Planer area (PL)



SOURCE: HYDESVILLE
USGS 7.5 MINUTE
QUADRANGLE

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	<p>PALCO Carlotta Phase II ESA Carlotta, California</p>	<p>Site Location Map SHN 004247.101</p>
<p>July 2007</p>	<p>004247-101-SITE-LCTN</p>	<p>Figure 1</p>

- Sawmill area (SM)
- Truck Shop area (TS)
- Miscellaneous Areas (log deck and material/equipment laydown areas) (MA)
- Site Drainage Ditch areas (DD)

The railroad easement was not investigated, as an access agreement was not pursued from the Northwestern Pacific Railroad. One soil boring was advanced on the railroad spur on the site property (designated RR-100).

1.4 Objective

The objective of this investigation was to collect soil and groundwater samples for laboratory analysis to determine if previous operations at the facility impacted soil and/or groundwater. Investigation locations and laboratory analytical methods were selected by SHN with the approval of PALCO.

1.5 Scope of Work

The scope of work was approved by PALCO and was designed to provide the information needed to meet the objective of this investigation. Sample locations were selected in the field by SHN, based on recommendations in the Phase I ESA (SHN, 2005). Soil borings and temporary well points were installed for soil and groundwater sample collection. The scope consisted of:

- project implementation,
- drilling 61 soil borings,
- installing 49 temporary well points,
- collecting soil samples from each boring,
- collecting a groundwater sample from each temporary well point,
- collecting surface soil samples from site drainage ditches,
- laboratory analysis of soil and groundwater samples, and
- preparing this assessment report.

2.0 Field Activities

2.1 Soil and Groundwater Sampling

On October 30 through November 3, 2006, SHN supervised Enprob Environmental Probing in the collection of subsurface soil and groundwater samples. On November 16, 2006, SHN collected surface soil samples in the drainage ditches at three locations at the site (DD-100 through DD-102) and mapped all soil boring and well point locations with a hand held Global Positioning System (GPS) unit. A detailed site plan with sampling locations is shown on Figure 2.

One soil sample was collected from each soil boring (except two soil samples were collected at TB-100, 101, and 102 and SM-101). Borings were extended until groundwater was encountered or refusal occurred. Borings were extended to depths ranging from 8 to 20 feet Below Ground Surface (BGS). Geoprobe® driven samples were continuously collected in 4-foot sections. The samples were initially screened in the field using a Photo Ionization Detector (PID). Following retrieval of the

sampler, the plastic tube was removed from the sampler, and the selected sample aliquot was cut from the desired depth and sealed on both ends with Teflon® tape and plastic caps. Sample aliquots were selected based on the PID results, visual observation, and changes in subsurface lithology. Typically, soil samples were collected at the observed fill/native soil contact. Soils in the remaining sample tubes were used for soil descriptions. Drainage ditch soil samples were collected with a pre-cleaned stainless steel trowel and placed in 4 oz. glass jars. Each soil sample was labeled with the project name, project number, sample number, sample depth, sample time, and date. All samples were placed in Ziploc® bags and stored in an iced cooler. Selected soil samples were submitted to the laboratory for analysis. Each soil sample was analyzed for constituents described in Section 2.2. Sample handling, transport, and delivery to the laboratory were documented using chain-of-custody procedures.

A total of 49 groundwater samples were collected from temporary well points using a temporary polyvinyl chloride casing and screen placed into an open borehole or through the dual-tube drive casing. Groundwater was collected from each temporary well point using new polyethylene tubing with a Geopump® peristaltic pump and placed in laboratory-supplied containers. Each groundwater sample container was labeled with the project name, project number, sample number, sample time, and date and placed in an iced cooler. Each groundwater sample was analyzed for constituents described in Section 2.2. Sample handling, transport, and delivery to the laboratory were documented using chain-of-custody procedures.

Depth-to-water measurements from grade were taken using an electrical conductivity sensor from select well points prior to removing the temporary well point.

All boreholes were backfilled with cement grout and capped at the surface to match the existing surface. Field notes are included in Appendix A. Soil boring logs are included in Appendix B.

2.2 Laboratory Analysis

Soil samples collected at the PALCO Carlotta site were analyzed for one or more of the following constituents. Constituents were selected based on information in the Phase I ESA (SHN, 2005). Table 1 summarizes the specific constituents analyzed in soil samples collected from the investigation areas.

- Total Petroleum Hydrocarbons as Motor Oil (TPHMO), as Diesel (TPHD), and as Gasoline (TPHG) were analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8015B. Silica gel cleanup was performed on soil samples for analysis of TPHMO or TPHD, because field personnel observed significant organic material in soil borings.
- Benzene, Toluene, Ethylbenzene, total Xylenes (BTEX), and Methyl Tertiary-Butyl Ether (MTBE) were analyzed in general accordance with EPA Method No. 8021B or 8260B.
- Volatile Organic Compounds (VOCs) were analyzed in general accordance with EPA Method No. 8260B.
- Semi-Volatile Organic Compounds (SVOCs) were analyzed in general accordance with EPA Method No. 8270C.

- CAM-5 Metals were analyzed in general accordance with EPA Method No. 6010B. CAM-5 Metals include Cadmium, Chromium, Lead, Nickel, and Zinc.
- CAM-17 Metals were analyzed in general accordance with EPA Method No. 6010, 6020B, or 245.1. CAM-17 Metals include Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.
- PCP and Tetrachlorophenol (TCP) were analyzed in general accordance with the Canadian Pulp Report Method.
- Dioxin and Furan compounds in general accordance with EPA Method 8290.

Table 1
Soil Sample Analytical Constituents
PALCO Carlotta Phase II ESA
Carlotta, California

Investigation Area	TPHD/ MO ¹	TPHG ² /BTEX ³ / MTBE ⁴	VOCs ⁵	SVOCs ⁶	CAM-5 ⁷	CAM-17 ⁸	PCP/TCP ⁹	Dioxins/ Furans ¹⁰
Drainage Ditch (DD)	A ¹¹	-- ¹²	--	--	--	A	A	A
Gravel Plant (GP)	A	A	--	--	S ¹³	--	--	--
Miscellaneous Areas (MA)	A	--	--	S	A	S	S	S
Oil House (OH)	A	A	--	--	S	--	--	--
Former Urban Lumber Area (OL)	A	A	S	S	S	S	A	S
Planer (PL)	A	A	--	--	S	--	--	--
Railroad Spur (RR)	A	A	--	--	--	A	--	--
Sawmill (SM)	A	A	--	--	A	--	--	--
Former Teepee Burner (TB)	A	--	--	--	A	S	S	A
Truck Shop (TS)	A	A	S	S	S	--	--	--

1. TPHD/MO: Total Petroleum Hydrocarbons as Diesel and Motor Oil, analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8015B
2. TPHG: Total Petroleum Hydrocarbons as Gasoline, analyzed in general accordance with EPA Method No. 8015B
3. BTEX: Benzene, Toluene, Ethylbenzene and total Xylenes, analyzed in general accordance with EPA Method No. 5030/8021B or 8260B
4. MTBE: Methyl Tertiary Butyl Ether, analyzed in general accordance with EPA Method No. 5030/8021B or 8260B
5. VOCs: Volatile Organic Compounds analyzed in general accordance with EPA Method No. 8260B
6. SVOCs: Semi-Volatile Organic Compounds analyzed in general accordance with EPA Method No. 8270C
7. CAM-5: analyzed in general accordance with EPA Method No. 6010B
8. CAM-17: analyzed in general accordance with EPA Method No. 6010, 6020B, or 245.1
9. PCP/TCP : Pentachlorophenol and Tetrachlorophenol analyzed in general accordance with the Canadian Pulp Method
10. Dioxns/Furans: analyzed in general accordance with EPA Method No. 8290
11. A : denotes all samples collected were analyzed for the specified constituents
12. --: Not analyzed
13. S: denotes select soil samples collected were analyzed for the specified constituents

Groundwater samples collected at the PALCO Carlotta site were analyzed for one or more of the following constituents. Constituents were selected based on information in the Phase I ESA (SHN, 2005). Table 2 summarizes the specific constituents analyzed in groundwater samples collected from the investigation areas.

- TPHMO, TPHD, and TPHG in general accordance with EPA Method No. 8015B;
- BTEX, and MTBE in general accordance with EPA Method No. 8021B or 8260B;
- VOCs in general accordance with EPA Method No. 8260B;
- SVOCs in general accordance with EPA Method No. 8270C;
- CAM-5 Metals in general accordance with EPA Method No. 200.8;
- CAM-17 Metals in general accordance with EPA Method No. 200.8;
- Mercury in general accordance with EPA Method No. 245.1;
- PCP and TCP in general accordance with the Canadian Pulp Report Method; and
- Dioxin and Furan compounds in general accordance with EPA Method 8290.

Table 2
Groundwater Sample Analytical Constituents
PALCO Carlotta Phase I/II
Carlotta, California

Investigation Area	TPHD/ MO ¹	TPHG ² /BTEX ³ / MTBE ⁴	VOCs ⁵	SVOCs ⁶	CAM-5 ⁷	CAM-17 ⁸	PCP/TCP ⁹	Dioxins/ Furans ¹⁰
Gravel Plant (GP)	A ¹¹	A	--	--	S ¹³	--	--	--
Miscellaneous Areas (MA)	A	--	--	S	A	S	S	S
Oil House (OH)	A	A	--	--	A	--	--	--
Former Urban Lumber Area (OL)	A	A	--	S	S	S	A	S
Planer (PL)	A	A	--	--	S	--	S	--
Sawmill (SM)	A	A	--	--	A	--	--	--
Former Teepee Burners (TB)	A	--	--	--	A	S	S	A
Truck Shop (TS)	A	A	S	S	S	--	--	--

1. TPHD/MO: Total Petroleum Hydrocarbons as Diesel and Motor Oil, analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8015B
2. TPHG: Total Petroleum Hydrocarbons as Gasoline, analyzed in general accordance with EPA Method No. 8015B
3. BTEX: Benzene, Toluene, Ethylbenzene and total Xylenes, analyzed in general accordance with EPA Method No. 5030/8021B or 8260B
4. MTBE: Methyl Tertiary-Butyl Ether, analyzed in general accordance with EPA Method No. 5030/8021B or 8260B
5. VOCs: Volatile Organic Compounds analyzed in general accordance with EPA Method No. 8260B
6. SVOCs: Semi-Volatile Organic Compounds analyzed in general accordance with EPA Method No. 8270C
7. CAM-5: analyzed in general accordance with EPA Method No. 6010B
8. CAM-17: analyzed in general accordance with EPA Method No. 6020B or 245.1
9. PCP/TCP : Pentachlorophenol and Tetrachlorophenol analyzed in general accordance with the Canadian Pulp Method
10. Dioxns/Furans : analyzed in general accordance with EPA Method No. 8290
11. A : All samples collected were analyzed for the specified constituents
12. --: Not analyzed
13. S: Select soil samples collected were analyzed for the specified constituents

Soil and groundwater samples were submitted to North Coast Laboratories (NCL), of Arcata, California. NCL subcontracted certain analyses to Severn Trent Laboratories (STL), in Sacramento, California and Alpha Analytical Laboratories (Alpha), in Ukiah, California. A summary of all soil and groundwater analytical results is presented in Appendix C.

Dioxin and furan Toxicity Equivalency Quotient (TEQ) concentrations were calculated by STL. The TEQ is used to calculate the toxicity of the dioxins and furans on a weighted basis by multiplying a Toxicity Equivalency Factor (TEF) that has been assigned to each individual dioxin/furan compound. The TEF relates the toxicity of each compound to 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). Laboratory analytical reports are included in Appendix D.

2.3 Equipment Decontamination Procedures

All drilling equipment was cleaned prior to being transported to the site. All equipment that required on-site cleaning was decontaminated using the triple wash system. The equipment was first washed in a water solution using Liquinox® cleaner, followed by two distilled water rinses.

2.4 Investigation-Derived Waste Management

Water used in the decontamination of equipment, tools, and all purge water was contained in Department of Transportation (DOT)-approved DOT 17 E/H, 55-gallon drums. The water was transported and discharged to PALCO's Scotia Wastewater treatment facility. A total of 18 gallons of water was generated during the investigation.

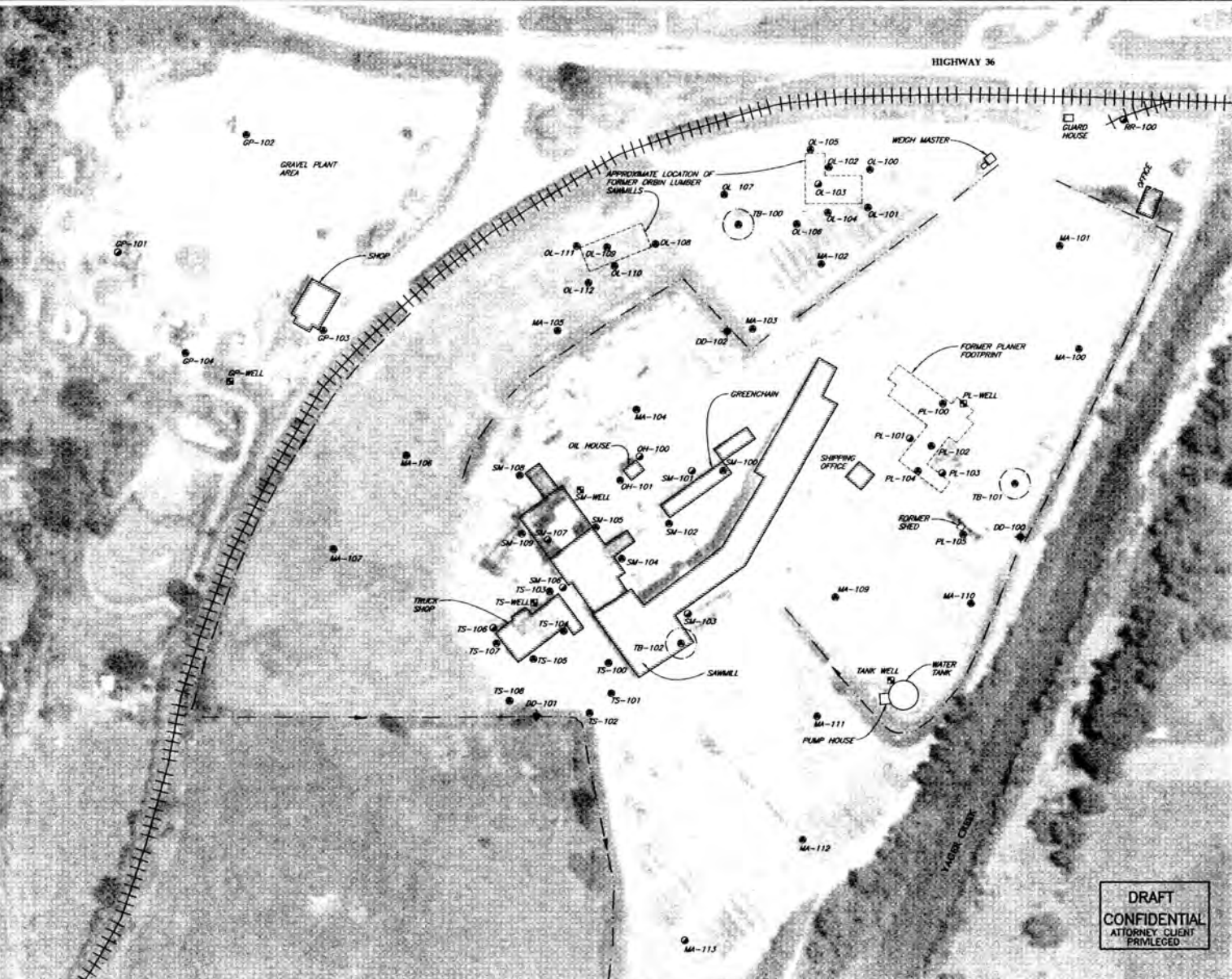
3.0 Summary of Results of the Investigation

3.1 Post Analysis Sample Screening

3.1.1 Soil Screening

SHN screened the laboratory analytical data to provide a summary of potential issues discovered at the site as part of this Initial Phase II ESA. Soil analytical data was compared to U.S. EPA Region IX Industrial and Residential Preliminary Remediation Goals (PRGs). For the Characteristics of Toxicity the Total Threshold Limit Concentration (TTL) values were compared. Additionally, the soil analytical results were compared to ten times the Soluble Threshold Limit Concentration (STLC) values, to determine if solubility tests would be required by the California Regional Water Quality Control Board, North Coast Region (RWQCB). Table 3 summarizes the soil screening data to which the laboratory data was compared. TPHMO, TPHD, and TPHG were screened against the RWQCB Tri-Regional Staff Recommendations (RWQCB, 1990). The RWQCB Tri-Regional Staff recommends that soil with total petroleum hydrocarbons concentrations in excess of 100 micrograms per gram (ug/g) be indicative of a release of "significant" volume. Therefore, the sum of the laboratory analytical data for TPHMO, TPHD, and TPHG concentrations at each sampling location was screened against 100 ug/g, to assess potential areas of concern. Figures 3, 4, and 5 show select constituents detected in soil samples.

- EXPLANATION**
- SOIL BORING LOCATION AND DESIGNATION
 - SM-101 SOIL BORING/WELL POINT LOCATION AND DESIGNATION
 - MA-101 WATER SUPPLY WELL LOCATION AND DESIGNATION
 - PL-WELL SURFACE SOIL SAMPLE LOCATION AND DESIGNATION
 - DO-100 DRAINAGE DITCH
 - DIRECTION OF FLOW
 - RAIL ROAD
 - BUILDING (APPROXIMATE)
 - FORMER BUILDING FOOTPRINT (APPROXIMATE)
 - FORMER TEEPEE BURNER (APPROXIMATE)
-
- OL ORGAN LUMBER
 - TB TEEPEE BURNER
 - GP GRAVEL PLANT
 - OH OIL HOUSE
 - PL PLANER
 - SM SAWMILL
 - TS TRUCK SHOP
 - MA MISCELLANEOUS AREA
 - DD DRAINAGE DITCH
 - RR RAILROAD



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NOTE: ALL LOCATIONS APPROXIMATE



PALCO Carlotta
Phase II ESA
Carlotta, California

Site Plan
SHN 004247.100

April 2007

004247-101-SITE.dwg

Figure 2



- EXPLANATION**
- SOIL BORING LOCATION AND DESIGNATION
 - SM-101 SOIL BORING DESIGNATION
 - SOIL BORING/WELL POINT LOCATION AND DESIGNATION
 - MA-101 WATER SUPPLY WELL LOCATION AND DESIGNATION
 - ⊕ PL-WELL WELL LOCATION AND DESIGNATION
 - SURFACE SOIL SAMPLE LOCATION AND DESIGNATION
 - DO-100 DRAINAGE
 - RR RAIL ROAD
 - BUILDING (APPROXIMATE)
 - FORMER BUILDING FOOTPRINT (APPROXIMATE)
 - FORMER TEEPEE BURNER (APPROXIMATE)

- OL ORBAN LUMBER
- TB TEEPEE BURNER
- GP GRAVEL PLANT
- OH OIL HOUSE
- PL PLANNER
- SM SHAWMILL
- TS TRUCK SHOP
- MA MISCELLANEOUS AREA
- DO DRAINAGE DITCH
- RR RAILROAD
- SURF SURFACE

4' SAMPLE DEPTH (FEET BGS)
7,300 ARSENIC CONCENTRATIONS IN SOIL } RESULTS IN ug/kg

DRAFT
CONFIDENTIAL
 ATTORNEY CLIENT
 PRIVILEGED

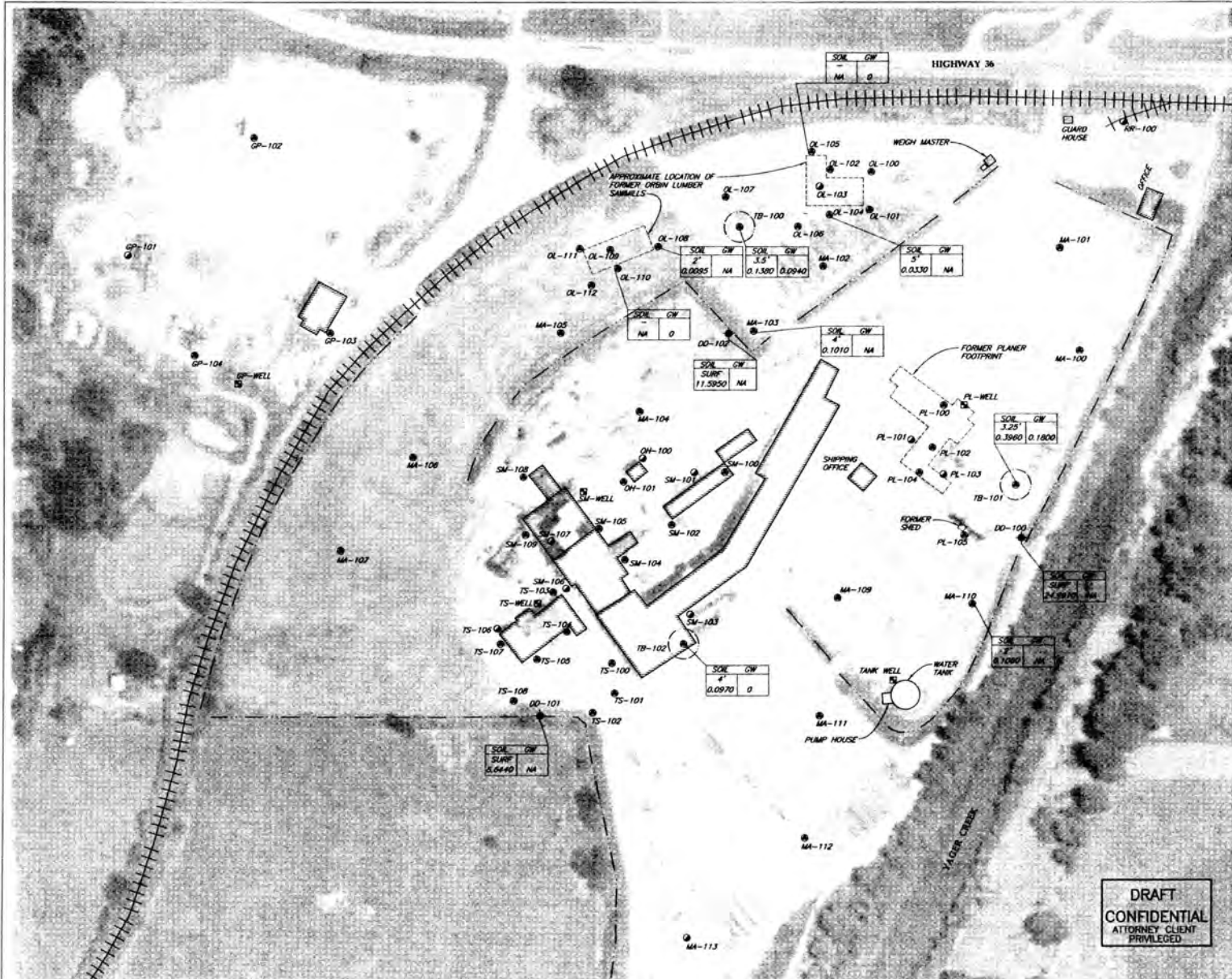
NOTE: ALL LOCATIONS APPROXIMATE

1"=100'
 0 100

SEW
 Consulting Engineers
 & Geologists, Inc.

PALCO Carlotta
 Phase II ESA
 Carlotta, California
 April 2007

Arsenic Concentrations in Soil
 SHN 004247.100
 004247-101-ARS-CONC.dwg
 Figure 3



EXPLANATION

- Q SOIL BORING LOCATION AND DESIGNATION
- SM-101 SOIL BORING/WELL POINT LOCATION AND DESIGNATION
- MA-101 WATER SUPPLY WELL LOCATION AND DESIGNATION
- PL-WELL SURFACE SOIL SAMPLE LOCATION AND DESIGNATION
- DO-100 DRAINAGE
- RR RAIL ROAD
- Building (Approximate)
- Former Building Footprint (Approximate)
- Former Teepee Burner (Approximate)

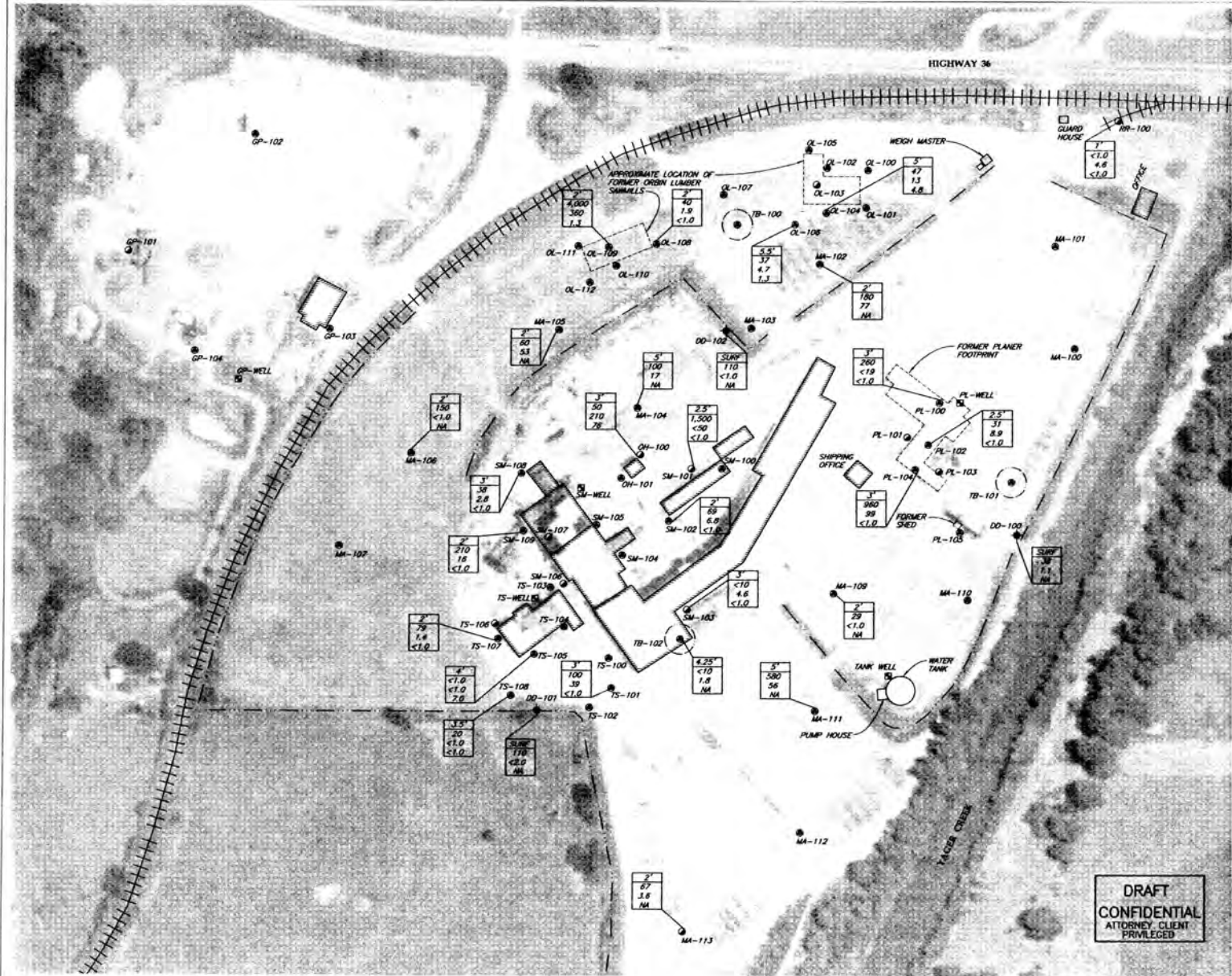
- OL ORBAN LUMBER
- TB TEEPEE BURNER
- GP GRAVEL PLANT
- OH OIL HOUSE
- PL PLANT
- SM SAWMILL
- TS TRUCK SHOP
- MA MISCELLANEOUS AREA
- DO DRAINAGE DITCH
- RR RAILROAD

SOIL	GW	SOIL SAMPLE DEPTH (FEET BGS)	TEQ IN µg/L
3.25'			
0.3960	0.1800		

TEQ: TOXICITY EQUIVALENT QUOTIENT
 NA: NOT ANALYZED
 SURF: SURFACE

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- EXPLANATION**
- SOIL BORING LOCATION AND DESIGNATION
 - SM-101 SOIL BORING/WELL POINT LOCATION AND DESIGNATION
 - MA-101 WATER SUPPLY WELL LOCATION AND DESIGNATION
 - PL-WELL SURFACE SOIL SAMPLE LOCATION AND DESIGNATION
 - DO-100 DRAINAGE
 - RR RAIL ROAD
 - BUILDING (APPROXIMATE)
 - FORMER BUILDING FOOTPRINT (APPROXIMATE)
 - FORMER TEEPEE BURNER (APPROXIMATE)

- OL ORBON LUMBER
 - TB TEEPEE BURNER
 - GP GRANEL PLANT
 - OH OIL HOUSE
 - PL PLANER
 - SM SHAMMEL
 - TS TRUCK SHOP
 - MA MISCELLANEOUS AREA
 - DO DRAINAGE DITCH
 - RR RAILROAD
- | | | |
|-----|-----|-----------------|
| 2 | 4.7 | RESULTS IN ug/L |
| 1.3 | 1.3 | |
| 4.8 | 4.8 | |
- NA: DENOTES NOT ANALYZED
SURF: SURFACE

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NOTE: ALL LOCATIONS APPROXIMATE



SHN
Consulting Engineers
& Geologists, Inc.

PALCO Carlotta
Phase II ESA
Carlotta, California

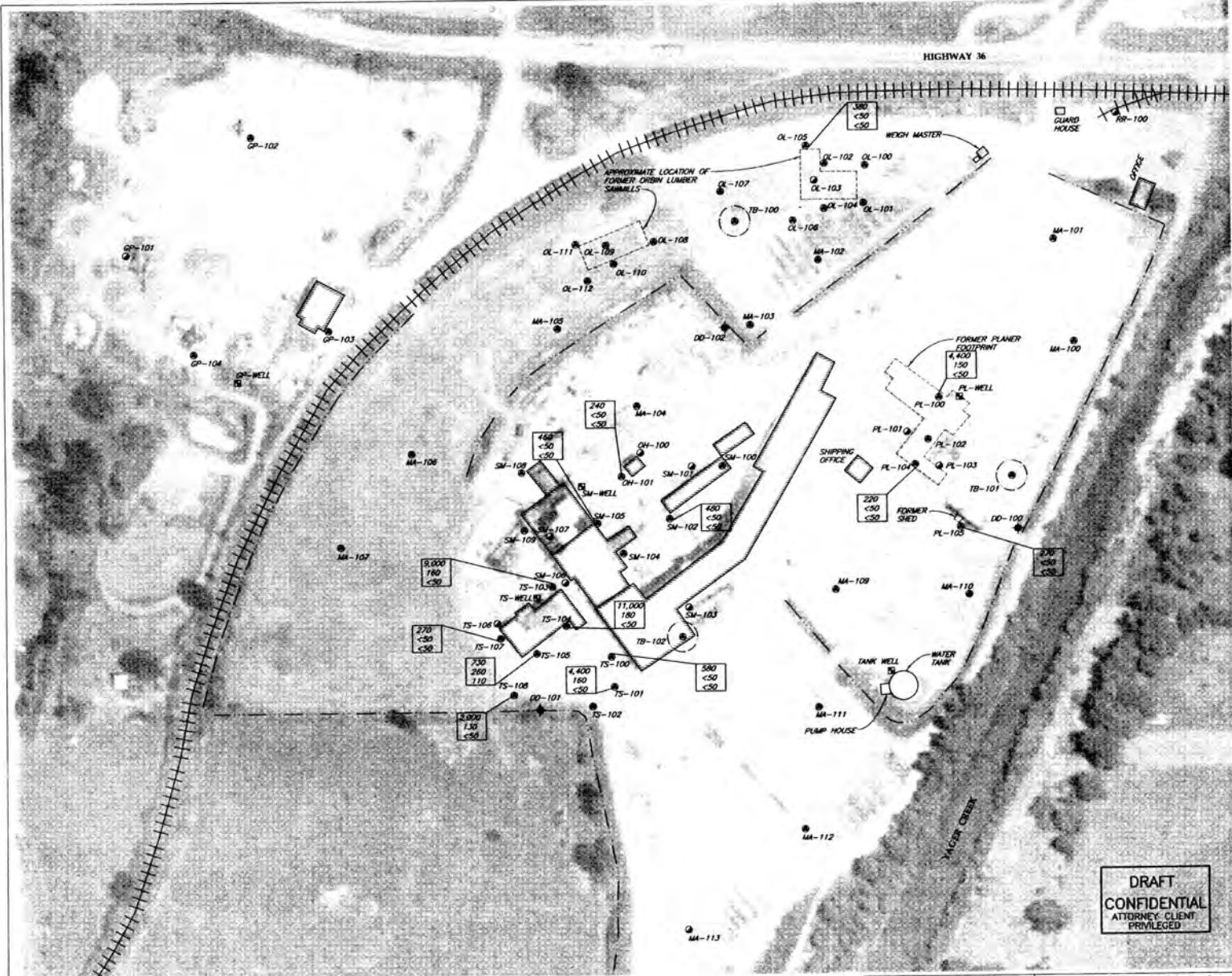
Petroleum Hydrocarbons in Soil

SHN 004247.100

April 2007

004247-101-PHC-CONC.dwg

Figure 5



- EXPLANATION**
- SOIL BORING LOCATION AND DESIGNATION
 - SOIL BORING/WELL POINT LOCATION AND DESIGNATION
 - WATER SUPPLY WELL LOCATION AND DESIGNATION
 - SURFACE SOIL SAMPLE LOCATION AND DESIGNATION
 - DRAINAGE
 - RAIL ROAD
 - ▭ BUILDING (APPROXIMATE)
 - ▭ FORMER BUILDING FOOTPRINT (APPROXIMATE)
 - FORMER TEEPEE BURNER (APPROXIMATE)

- OL ORISH LUMBER
 - TB TEEPEE BURNER
 - GP GRAVEL PLANT
 - OH OIL HOUSE
 - PL PLANER
 - SM SHAMMILL
 - TS TRUCK SHOP
 - MA MISCELLANEOUS AREA
 - DD DRAINAGE DITCH
 - RR RAILROAD
- | | | |
|-----|-------|-----------------|
| 47 | TPH40 | RESULTS IN ug/L |
| 1.5 | TPH41 | |
| 4.8 | TPH42 | |
- NA: DENOTES NOT ANALYZED

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Table 3
Soil Screening Data
PALCO Carlotta Phase II ESA, Carlotta, California
(units in ug/g¹ unless noted)

Analyte	Industrial PRG ²	Residential PRG	TTL ³	STLC 10 ⁴
Antimony	410	31	500	150
Arsenic	0.25 ⁵	0.062 ⁵	500	50
Barium	67,000	5,400	10,000	1,000
Beryllium	1,900	150	75	0.75
Cadmium	450	37	100	10
Chromium	450	210	2,500	50
Cobalt	1,900	900	8,000	800
Copper	41,000	3,100	2,500	250
Lead	800	150	1,000	50
Mercury	310	20	20	2
Molybdenum	5,100	300	3,500	3,500
Nickel	20,000	1,600	2,000	200
Selenium	5,100	300	100	10
Silver	5,100	300	500	50
Thallium	67	5.2	700	70
Vanadium	1,000	70	2,400	240
Zinc	100,000	23,000	5,000	2,500
Dioxin (2,3,7,8-TCDD) (pg/g ⁶)	1	3.9	10,000	10,000
Pentachlorophenol	9	3	17	17
Benzene	1.4	0.64	NA ⁷	NA
Ethylbenzene	400	400	NA	NA
MTBE ⁸	50	32	NA	NA
Tetrachlorophenol	3,000	1,800	NA	NA
Toluene	520	520	NA	NA
Total Xylenes	420	270	NA	NA
Bis(2-ethylhexyl) phth-alate	120	35	NA	NA

1. ug/g: micrograms per gram
2. PRG: U.S. EPA Region IX Industrial and Residential Preliminary Remediation Goals
3. TTL: Total Threshold Limit Concentration from the U.S. Resource Conservation Recovery Act Characteristics of Toxicity
4. STLC 10: Ten times the Soluble Threshold Limit Concentration (STLC) from the U.S. Resource Conservation Recovery Act (RCRA) Characteristics of Toxicity as ug/g
5. California Modified PRG
6. pg/g: picograms per gram
7. NA: Not Available.
8. MTBE: Methyl Tertiary-Butyl Ether

3.4 Gravel Plant

3.4.1 Soil Analytical Results

Four soil samples were submitted for laboratory analysis from soil borings located within the gravel plant boundaries (GP-101 through GP-104). The locations of the gravel plant samples are shown on Figure 2. The laboratory analytical results for the soil samples collected during the investigation are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

Toluene was the only petroleum constituent detected in soil samples within the gravel plant area. Toluene was detected in two of the soil samples at concentrations ranging from 0.0073 ug/g to 0.011 ug/g. The concentrations of Toluene do not exceed the EPA Residential or Industrial PRGs.

All concentrations of metals detected were below the EPA Industrial and Residential PRGs. No metals concentrations exceeded the respective TTLCs or required STLC confirmation.

3.4.2 Groundwater Analytical Results

Three groundwater samples were collected on November 11, 2006, from three well points within the gravel plant area and submitted for laboratory analysis. The laboratory analytical results for the groundwater samples collected from the gravel plant area are presented Appendix C, Tables C-4 and C-5. Laboratory analytical reports are included in Appendix D.

No petroleum hydrocarbons were detected in groundwater samples collected from the gravel plant area. All CAM-5 metals were detected in groundwater.

3.5 Miscellaneous Areas

3.5.1 Soil Analytical Results

Thirteen soil borings were installed in the miscellaneous areas across the site. One soil sample was submitted for laboratory analysis from each soil boring. The locations of the miscellaneous area soil borings are shown on Figure 2. The laboratory analytical results for the soil samples collected during the investigation are presented in Appendix C, Tables C-1, C-2, and C-3. Laboratory analytical reports are included in Appendix D.

TPHD was detected in seven of the soil samples at concentrations ranging from 29 ug/g to 580 ug/g. TPHMO was detected in three of the soil samples at concentrations ranging from 3.6 ug/g to 77 ug/g. Bis (2-Ethylhexyl) phthalate was the only SVOC detected, and was detected in three soil samples analyzed at concentrations ranging from 900 ug/kg to 7,600 ug/kg. The concentrations of Bis (2-Ethylhexyl) phthalate are below the EPA Industrial and Residential PRGs. Bis (2-Ethylhexyl) phthalate is found in many plastics (USDHHS, 2002). The source of the Bis (2-Ethylhexyl) phthalate is most likely the plastic liner used in the Geoprobe® sampling tubes.

PCP and TCP were not detected in any of the soil samples analyzed. Dioxins were detected in both soil samples analyzed with dioxin/furan TEQs of 0.101 pg/g and 0.106 pg/g, which are below the EPA Residential PRG of 3.9 pg/g. No Furans were detected in the soil samples analyzed.

Arsenic was detected in soil samples from the miscellaneous areas at concentrations that range from 2,400 ug/kg to 7,800 ug/kg, exceeding the California Modified Industrial and Residential PRGs. The remaining CAM-17 Metals were detected in soil samples at the site below EPA Industrial and Residential PRGs. No metals, PCP, or dioxin/furan TEQ concentrations exceeded the Title 22 TTLC or required STLC confirmation.

3.5.2 Groundwater Analytical Results

Twelve groundwater samples were collected from temporary well points in miscellaneous areas across the site and submitted for laboratory analysis. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the miscellaneous areas are presented in Appendix C, Tables C-4 and C-5. Laboratory analytical reports are included in Appendix D.

All CAM-17 metals, with the exception of antimony, cadmium, selenium, silver, and thallium, were detected in groundwater. No petroleum hydrocarbons (POP, or TPH) were detected in groundwater samples.

3.6 Oil House

3.6.1 Soil Analytical Results

On November 1, 2006, two soil borings were installed in the vicinity of the Oil House. One soil sample was collected from each boring and submitted for laboratory analysis. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from Oil House are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

TPHMO, TPHD, TPHG, and Toluene were detected in soil sample OH-100@3' at concentrations of 50, 210, 76, and 0.013 ug/g, respectively. Petroleum hydrocarbons are present at concentrations that exceed the 100-ug/g soil screening level outlined in Section 3.1.1. All metals and BTEX compounds were detected below their respective EPA Residential and Industrial PRGs. No metals exceeded the Title 22 TTLC or required STLC confirmation.

3.6.2 Groundwater Analytical Results

One groundwater sample (OH-101) was collected from a temporary well point in the vicinity of the Oil House and submitted for laboratory analysis. The location of the temporary well point is shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the miscellaneous areas are presented in Appendix C, Tables C-4 and C-5. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in groundwater in the vicinity of well point OH-101 at a concentration of 240 ug/L. All five CAM-5 metals were detected in groundwater.

3.7 Former Urban Lumber Area

3.7.1 Soil Analytical Results

On October 30 and 31, 2006, 13 soil borings were advanced in the Former Urban Lumber area and one soil sample was collected from each soil boring and submitted for laboratory analysis. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from the Former Urban Lumber area are presented in Appendix C, Tables C-1, C-2, and C-3. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in four of the 13 samples analyzed at concentrations ranging from 37 to 4,000 ug/g. TPHD was detected in four of the 13 samples analyzed at concentrations ranging from 1.9 to 360 ug/g. TPHG was detected in three of the 13 samples analyzed at concentrations ranging from 1.3 to 4.8 ug/g. Petroleum hydrocarbons are present at concentrations that exceed the 100-ug/g soil screening level outlined in Section 3.1.1. Toluene was detected in four of the 13 samples analyzed at concentrations ranging from 0.0054 to 0.032 ug/g. Total Xylenes were detected in four of the 13 samples analyzed at concentrations ranging from 0.0066 to 0.0099 ug/g. Toluene and total xylenes concentrations do not exceed their respective EPA Residential or Industrial PRGs. The only other VOC detected was 4-Isopropyltoluene at a concentration of 0.021 ug/g.

Bis (2-Ethylhexyl) phthalate was the only SVOC detected, and was detected in all soil samples analyzed at concentrations ranging from 340 to 420 ug/g. The concentrations of Bis (2-Ethylhexyl) phthalate are below the EPA Industrial and Residential PRGs. Bis (2-Ethylhexyl) phthalate is found in many plastics (USDOHHS, 2002). The source of the Bis (2-Ethylhexyl) phthalate is most likely the plastic liner used in the Geoprobe® sampling tubes.

Two soil samples were analyzed for dioxins and furans from the Former Urban Lumber area. Dioxin/furans were detected in both samples with TEQs ranging from 0.0095 to 0.033 pg/g, which are below the EPA Residential PRG of 3.5 pg/g.

Arsenic was detected in soil sample OL-105@3' at a concentration of 3,300 ug/kg, which exceeds the California Modified Industrial PRG of 250 ug/kg and the California Modified Residential PRG of 62 ug/g. The remaining CAM-17 Metals were detected in soil samples at the site below EPA Industrial and Residential PRGs. No metals or dioxin/furan TEQ concentrations exceeded the Title 22 TTLC or required SIDS confirmation.

3.7.2 Groundwater Analytical Results

Twelve groundwater samples were collected from temporary well points at the Former Urban Lumber Area and submitted for laboratory analysis. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the Former Urban Lumber Area are presented in Appendix C, Tables C-4, C-5, and C-6. Laboratory analytical reports are included in Appendix D.

TPHMO was the only petroleum constituent detected and was detected in the groundwater sample from temporary well point B-105 at a concentration of 380 micrograms per Liter (ug/L). Barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc were detected in groundwater.

Dioxins and furans were detected in one of the groundwater samples. However, the sample was determined to have excessive sediment. The sample was filtered and then re-analyzed. Upon Re-analysis, no dioxins or furans were detected.

3.8 Planer Area

3.8.1 Soil Analytical Results

On November 1, 2006, six soil borings were advanced in the Planer Area and one soil sample was collected from each soil boring and submitted for laboratory analysis. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from the Planer Area are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in three of the six soil samples analyzed at concentrations ranging from 31 to 960 ug/g. TPHD was detected in two of the six soil samples analyzed at concentrations of 8.9 and 99 ug/g. Petroleum hydrocarbons are present at concentrations that exceed the 100-ug/g soil screening level outlined in Section 3.1.1. Toluene was detected in one soil sample at a concentration of 0.0060 ug/g and total xylenes were detected in two soil samples at concentrations of 0.0072 and 0.0092 ug/g. Toluene and total xylenes concentrations did not exceed their respective EPA Residential or Industrial PRGs.

None of the detected metals concentrations exceeded their respective EPA Residential or Industrial PRGs, or their respective TTLCs or required TTLC confirmation.

3.8.2 Groundwater Analytical Results

Four groundwater samples were collected from temporary well points at the Planer Area. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the Planer Area are presented in Appendix C, Tables C-4, and C-5. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in three of the four samples analyzed at concentrations ranging from 220 ug/L to 4,400 ug/L. TPHD was detected on one of the four samples analyzed at a concentration of 150 ug/L. PCP was detected in the one groundwater sample analyzed at a concentration of 0.43 ug/L.

All CAM-5 metals were detected in groundwater.

3.9 Railroad Spur Area

On November 3, 2006, one soil boring was advanced in the Railroad Spur Area and one soil sample was collected and submitted for laboratory analysis. The location of the soil boring is shown in Figure 2. The laboratory analytical results for the soil samples collected from the Railroad Spur Area are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

No petroleum hydrocarbons were detected at concentrations that exceed the soil screening levels detailed in Section 3.1.1. Arsenic was detected at a concentration of 4,800 ug/kg, exceeding the California Modified Industrial PRG of 350 ug/kg and the California Modified Residential PRG of 62 ug/kg. No other metals were detected at concentrations that exceed the EPA Industrial or Residential PRGs. No metals concentrations exceeded the Title 22 TTLCs or required STLC confirmation.

No groundwater samples were collected at the Railroad Spur Area.

3.10 Sawmill Area

3.10.1 Soil Analytical Results

On November 1 and 2, 2006, nine soil borings were advanced in the Sawmill Area. A total of 10 soil samples were collected and submitted for laboratory analysis. Two soil samples were collected at different depths from soil boring SM-101. Visual observation of stained soil in the shallow soil sample at SM-101 prompted collection of a deeper sample to determine the vertical extent of contamination. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from the Sawmill Area are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in four of the 10 samples analyzed, at concentrations ranging from 38 to 1,500 ug/g. TPHD was detected in four of the samples at concentrations ranging from 2.8 to 16 ug/g. Petroleum hydrocarbons are present at concentrations that exceed the 100-ug/g soil screening level outlined in Section 3.1.1. Toluene was detected in five samples ranging from 0.0054 to 0.011 ug/g and total xylenes were detected at concentrations ranging from 0.0064 to 0.0152 ug/g. Toluene and total xylenes concentrations did not exceed their respective EPA Residential or Industrial PRGs.

All concentrations of metals detected were below their respective EPA Industrial and Residential PRGs.

3.10.2 Groundwater Analytical Results

Six groundwater samples were collected from temporary well points at the Sawmill Area. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the Sawmill Area are presented in Appendix C, Tables C-4, and C-5. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in two of the six groundwater samples analyzed at concentrations ranging from 460 to 480 ug/L. No other petroleum hydrocarbon compounds were detected in the Sawmill Area.

All CAM-5 metals were detected in groundwater.

3.11 Former Teepee Burner Areas

3.11.1 Soil Analytical Results

On November 1 and 2, 2006, three soil borings were advanced in the Former Teepee Burner Areas. Six soil samples were collected and submitted for laboratory analysis. Shallow samples were submitted for dioxin/furan analysis, while deeper samples were analyzed for other select constituents. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from the Former Teepee Burner Areas are presented in Appendix C, Tables C-1, C-2, and C-3. Laboratory analytical reports are included in Appendix D.

TPHD was detected in one soil sample at a concentration of 1.8 ug/g. Arsenic was detected at 7,300 ug/kg, exceeding the California Modified Industrial PRG of 250 ug/kg and the Residential PRG of 62 ug/g. None of the remaining CAM-17 metals concentrations exceeded their respective EPA Residential or Industrial PRGs.

Dioxins were detected in all three soil samples from the Former Teepee Burner Areas. Furans were detected in one of the soil samples. The dioxin/furan TEQs ranged from 0.0970 to 0.1380 pg/g, which are below the EPA Residential PRG of 3.9 pg/g.

No metals or dioxin concentrations exceeded the Title 22 TTLCs or required STLC confirmation.

3.11.2 Groundwater Analytical Results

Three groundwater samples were collected from temporary well points at the Former Teepee Burner Areas. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the Former Teepee Burner Areas are presented in Appendix C, Tables C-4, C-5, and C-6. Laboratory analytical reports are included in Appendix D.

Petroleum hydrocarbons and PCB/TCF were not detected in groundwater samples analyzed. All CAM-17 metals were detected in groundwater samples, with the exception of antimony, selenium, and thallium.

Dioxin/furans were detected in two of the three groundwater samples collected. The dioxin/furan TEQs ranged from 0.0940 to 0.1800 pg/L.

3.12 Truck Shop Area

3.12.1 Soil Analytical Results

On November 2 and 3, 2006, 9 soil borings were advanced in the Truck Shop Area. Nine soil samples were collected and submitted for laboratory analysis. The locations of the soil borings are shown in Figure 2. The laboratory analytical results for the soil samples collected from the Truck Shop Area are presented in Appendix C, Tables C-1 and C-2. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in three of the nine samples analyzed at concentrations ranging from 20 to 100 ug/g. TPHD was detected in two of the nine samples analyzed at concentrations ranging from 1.4 to 39 ug/g. TPHG was detected in one soil sample at 7.0 ug/g. Petroleum hydrocarbons were detected at concentrations that exceed the 100-ug/g soil screening level outlined in Section 3.1.1. Toluene was detected in two soil samples at concentrations ranging from 0.0092 ug/g to 0.015 ug/g. Benzene was detected in one soil sample at a concentration of 0.012 ug/g. Ethylbenzene, and total xylenes were detected in one soil sample at concentrations of 0.0266 to 0.088 ug/g, respectively. Benzene, toluene, ethylbenzene, and total xylenes concentrations did not exceed their respective EPA Residential or Industrial PRGs.

Additional VOCs were detected in one soil sample. The VOCs include n-Propylbenzene (0.025 ug/g), Trimethylbenzene (0.064 ug/g), 1,2,4-Trimethylbenzene (0.18 ug/g), 4-Isopropyltoluene (0.024 ug/g), and Naphthalene (0.044 ug/g). The only SVOC detected was Bis (2-Ethylhexyl) phthalate, at 520 ug/g. Bis (2-Ethylhexyl) phthalate is found in many plastics (USDHHS, 2002). The source of the Bis (2-Ethylhexyl) phthalate is most likely the plastic liner used in the Geoprobe® sampling tubes. VOC and SVOC concentrations were below their respective EPA Industrial and Residential PRGs.

No metals were detected above the EPA Industrial or Residential PRGs.

3.12.2 Groundwater Analytical Results

Eight groundwater samples were collected from temporary well points at the Truck Shop Area. The locations of the temporary well points are shown in Figure 2. The laboratory analytical results for the groundwater samples collected from the Truck Shop Area are presented in Appendix C, Tables C-4, and C-5. Laboratory analytical reports are included in Appendix D.

TPHMO was detected in 7 of the 8 groundwater samples analyzed at concentrations ranging from 270 to 11,000 ug/L. TPHD was detected in 5 of the 8 samples analyzed at concentrations ranging from 130 to 260 ug/L. TPHG was detected in 1 of the 8 samples analyzed at a concentration of 110 ug/L.

Chromium, lead, nickel, and zinc were detected in groundwater.

4.0 Recommendations

Contingent upon the proposed future land use at the site and associated use of groundwater, interested parties should initiate discussions with the appropriate regulatory oversight agencies to determine the applicable soil cleanup levels and water quality goals. At that time, the need for additional characterization could be determined.

5.0 Limitations

The analyses contained in this report are based on site conditions observed at the time of our investigations, data from subsurface explorations and laboratory tests, our current understanding of proposed project elements, and on our experience with similar projects in similar environments.

We have assumed that the information obtained from our limited subsurface explorations is representative of subsurface conditions throughout the site.

Subsurface conditions may differ from those disclosed by our limited investigations. Our firm has prepared this report for your exclusive use on this project in substantial accordance with the generally accepted investigation practice as it exists in the site area at the time of our study, including time and budget constraints. No warranty is expressed or implied.

6.0 References Cited

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- U.S. Environmental Protection Agency (October 2004). Region 9 PRGs 2004 Table. <<http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf>>

**Report of Findings for Stockpiled Soil Sampling
Conducted at PALCO's Carlotta Stud Mill**

SHN Consulting Engineers & Geologists, Inc.

July 26, 1995



Reference: 890097.200

July 26, 1995

Mr. Dale Dell'Osso
Project Geologist
Humboldt County Division of
Environmental Health
100 H Street, Suite 100
Eureka, CA 95501

RECEIVED
JUL 28 1995
HUMBOLDT CO. DIVISION
OF ENVIRONMENTAL HEALTH

**SUBJECT: REPORT OF FINDINGS FOR STOCKPILED SOIL SAMPLING
CONDUCTED AT PALCO'S CARLOTTA STUD MILL (LOP #12332)**

Dear Mr. Dell'Osso:

INTRODUCTION

SHN is submitting this report on behalf and with the approval of The Pacific Lumber Company (PALCO). This report summarizes the Carlotta Mill, contaminated soil, stockpile sampling event, and presents the results of the investigation. Refer to Figure 1 for the site location.

The work was conducted in conformance with the SHN, May 24, 1995, PACIFIC LUMBER COMPANY (PALCO), CARLOTTA STUD MILL PROPOSED STOCKPILED SOIL CHARACTERIZATION LOP #12332, work plan (see Attachment B). Work plan verbal approval was granted by you to Martin Lay on June 1, 1995.

SAMPLING METHODOLOGY

On June 6, 1995, SHN collected soil samples of stockpiled soils, as required by the Humboldt County Division of Environmental Health (HCDEH). Sample grid and specific sample locations (see Attachment C) were determined from the random sampling selection process of ASTM D 3665-82 (Reapp. 1987), Standard Practice for Random Sampling of Construction Materials.

From each stockpile grid unit (approximately 25-35 cubic yards), four discrete soil samples were collected for laboratory compositing into one representative sample for target contaminant analyses (Figure 2 and Attachment C). The average depth of the stockpiled soil



Mr. Dale Dell'Osso

Report of Findings for Stockpiled Soil Sampling

July 26, 1995

Page 2

was approximately 3 feet. Due to the rocky texture of the soil, a shovel, pick, and pry bar were used to dig holes to depths ranging from 1.5 feet to 3 feet (4 holes per grid). A decontaminated stainless steel tool was then used to scrape the sides of each hole, prior to sample collection. The soil samples were collected by driving each laboratory supplied brass tube into a freshly exposed portion of the sidewall. Ends of the sampling tubes were immediately sealed using Teflon® and plastic end caps. The sampling tubes were identified by job name and number, sample location, time and date of collection, sampler's initials, and analysis requested. All samples were stored and transferred to a State certified North Coast Laboratories Ltd., inside an iced container. Completed chain-of-custody documentation accompanied the samples to the laboratory, where the samples were released to the sample custodian.

SAMPLING RESULTS

Each representative (composite) soil sample was analyzed for Total Petroleum Hydrocarbons as Gasoline (TPHG, EPA 5030GCFID) and as Diesel (TPHD, EPA 3550 GCFID), Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX, EPA 8020 Modified), and total lead (EPA 7421). The results of this investigation are summarized in Table 1 (for laboratory results, see Attachment A).

Analytical results of the collected soil samples indicate that low level TPHG and TPHD contamination, as well as low levels of toluene, ethylbenzene, and total xylenes exist in the stockpiled soils. A Total Characteristic Leaching Procedure (TCLP) test was conducted on sample SPD (highest TPHD concentration), as required by HCDEH, to determine the leaching potential of TPHD from the soils. Additionally, a California Assessment Method (CAM) extraction and analysis for lead was conducted on the SPD sample.

Results of the TCLP analysis on SPD indicated the TPHD extract concentration level to be 160 ug/L, and the lead extraction was non detectable at a detection limit of 0.020 mg/L. (See Attachment A).

CONCLUSIONS

The low level TPHG and volatile organic compounds do not pose an exposure health risk if the soil is properly secured and/or remediated. The contaminants will mostly degrade, by volatilization, upon mechanical disturbance and movement of the stockpiled soils to PALCO



Mr. Dale Dell'Osso
Report of Findings for Stockpiled Soil Sampling
July 26, 1995
Page 3

proposed log deck paving areas (see Recommendations section). The low level TPHD contamination will not degrade as effectively as the identified volatile fractions. However, the TCLP extraction, conducted on the TPHD fraction, indicates a low potential for TPHD leaching from soil to surrounding environments if mobilized by water. This condition will be technically discussed in the remedial action plan described in the recommendations section.

PALCO informed SHN on June 22 that the stockpiled soils were relocated approximately 200 feet West, along the fence line on site, to accommodate mill operations. No impermeable material was reportedly placed between the existing ground and the stockpiled soil at this new location.

RECOMMENDATIONS

PALCO proposes that the soils be used as a sub base material prior to asphalt paving the log deck at their Scotia site or Carlotta site. More detailed information on the use of the soil will be submitted in a separate remedial action work plan. SHN agrees with and recommends this proposed soil remediation method for the stockpiled soils from the Carlotta UST investigation. Additionally, remedial work should be completed before the coming wet weather season, or the soil stockpiles should be covered and secured to prevent rainfall runoff from mobilizing remaining contaminant to surface drainages.

If you have any questions, please call either me or Pat Barsanti at 441-8855.

Sincerely,

**SHN CONSULTING ENGINEERS
& GEOLOGISTS**

Martin E, Lay, P.E.
Project Manager
MEL:lms
Enclosures (3)

cc: Gary Falk, PALCO
Bonnie Rolandelli, RWQCB

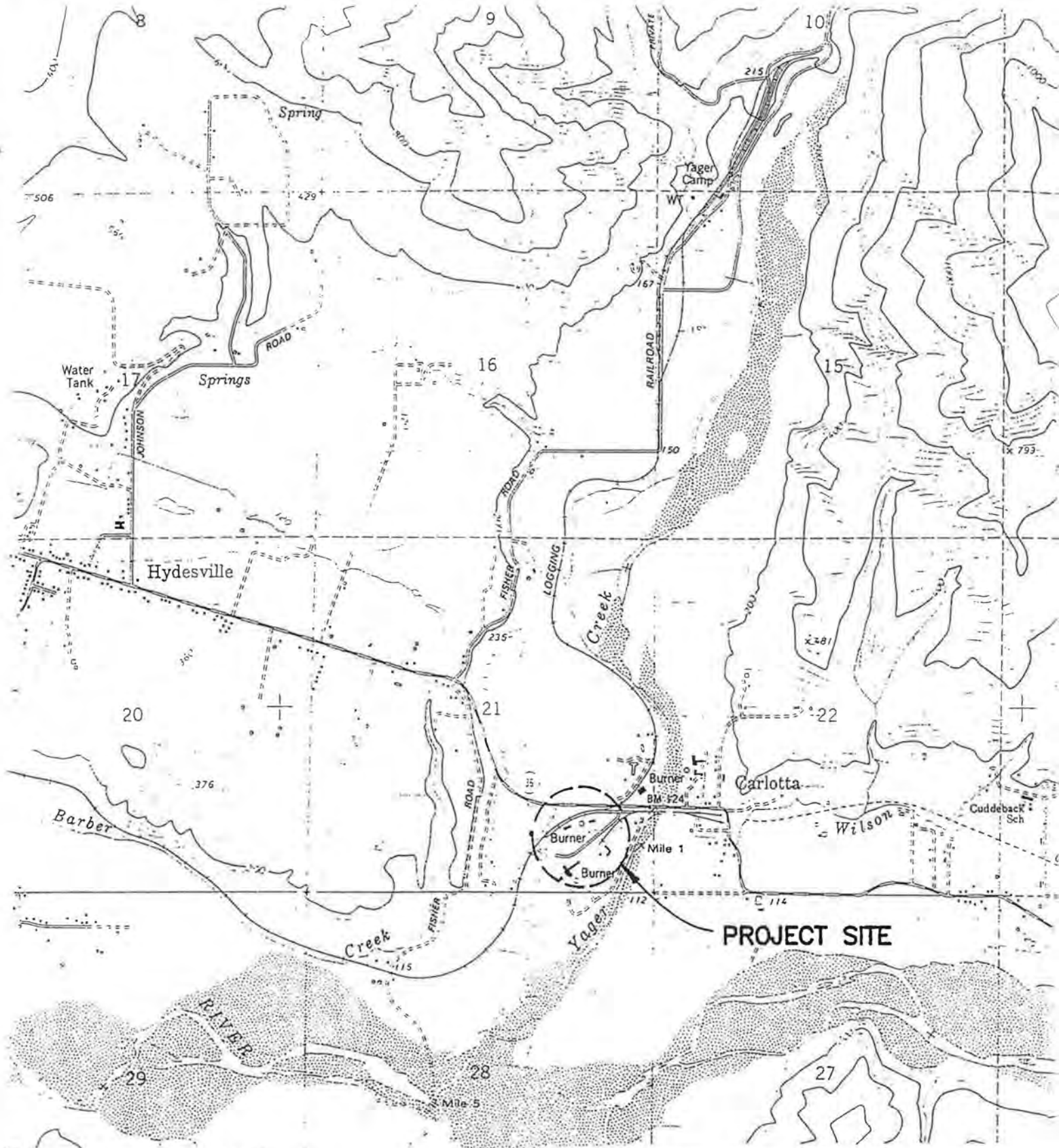


TABLE 1.
VOLATILE ORGANIC AND LEAD ANALYTICAL RESULTS FROM STOCKPILED SOIL, PALCO-CARLOTTA MILL

Sample Designation:	SPA	SPB	SPC	SPD	SPE	SPF	SPG	SPH
Sample Collection Date:	06/06/95	06/06/95	06/06/95	06/06/95	06/06/95	06/06/95	06/06/95	06/06/95
Benzene	<0.0050	<0.0050	0.0057	0.0051	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	0.043	0.037	0.061	0.065	0.054	0.014	0.026	<0.0050
Ethylbenzene	0.03	0.025	0.033	0.022	0.032	<0.0050	0.023	<0.0050
m,p Xylene	0.15	0.11	0.19	0.13	0.17	0.032	0.074	<0.010
o Xylene	0.082	0.063	0.11	0.065	0.091	0.021	0.039	<0.0050
TPHC Gasoline	8.2 (a)	7.1 (a)	9.7 (a)	4.4 (a)	7.2 (a)	2.0 (a)	5.4 (a)	<1.0
TPHC Diesel	6.9 (b)	4.4 (b)	11 (b)	60 (b)	7.8 (b)	10 (b)	1.8 (c)	1.1 (c)
Lead (mg/kg)	15	10	17	13	13	14	8.9	9.2

Units: ug/g, unless noted

- (a) Sample does not have the typical pattern of fresh gasoline. However, the results reported represent the amount of material in the gasoline range.
- (b) Sample contains material in the diesel range of molecular weights and beyond. This suggests the presence of an oil heavier than diesel. All diesel results reported represent the amount of material in the diesel range of molecular weights only.
- (c) Sample contains material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil. All diesel results reported represent the amount of material in the diesel range of molecular weights only.



HYDESVILLE, CALIF.

SE:4 FORTUNA 1:5 QUADRANGLE
40124-E1-TF-024

1979



PACIFIC LUMBER COMPANY
CARLOTTA MILL SITE

VICINITY MAP

SHN 890097.300
MAY, 1995



FIGURE 1

REC'D 7-2-1995



**NORTH COAST
LABORATORIES LTD.**

DATE: June 22, 1995

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REPORT TO: Pacific Lumber
P.O. Box 37
Scotia, CA 95565

ATTENTION: Don Bryant

NCL: 95-06-107

=====

ADDENDUM TO CHEMICAL EXAMINATION REPORT

=====

PARAMETER

NOTATIONS

TPHC Diesel

Samples 01B, 02B, 03B, 04B, 05B and 06B contain material in the diesel range of molecular weights and beyond. This suggests the presence of an oil heavier than diesel.

Samples 07B and 08B contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

The surrogate for samples 01B, 02B, 03B, 04B, 05B and 06B could not be quantified due to matrix interference.

All diesel results reported represent the amount of material in the diesel range of molecular weights only.

TPHC Gasoline

Samples 01A, 02A, 03A, 04A, 05A, 06A and 07A do not have the typical pattern of fresh gasoline. However, the results reported represent the amount of material in the gasoline range.

Regan Kohn
Laboratory Supervisor(s)

Tracy H. ...
QA officer

Michelle Dostal (for JGC)
Jesse G. Chaney, Jr.
Laboratory Director



NORTH COAST
LABORATORIES LTD.

Date: 06/22/95

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REPORT Pacific Lumber
TO P.O. Box 37
Scotia, CA 95565

WORK ORDER 95-06-107

PO # M-40887

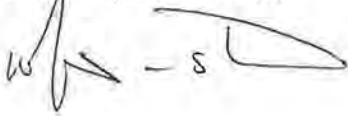
Attn: Don Bryant

INVOICE # 60045406

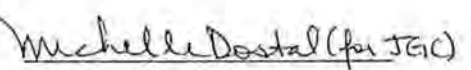
WORK ID: 890097.300/PALCO-CARLOTTA MIL

REPORT CERTIFIED BY


Laboratory Supervisor(s)

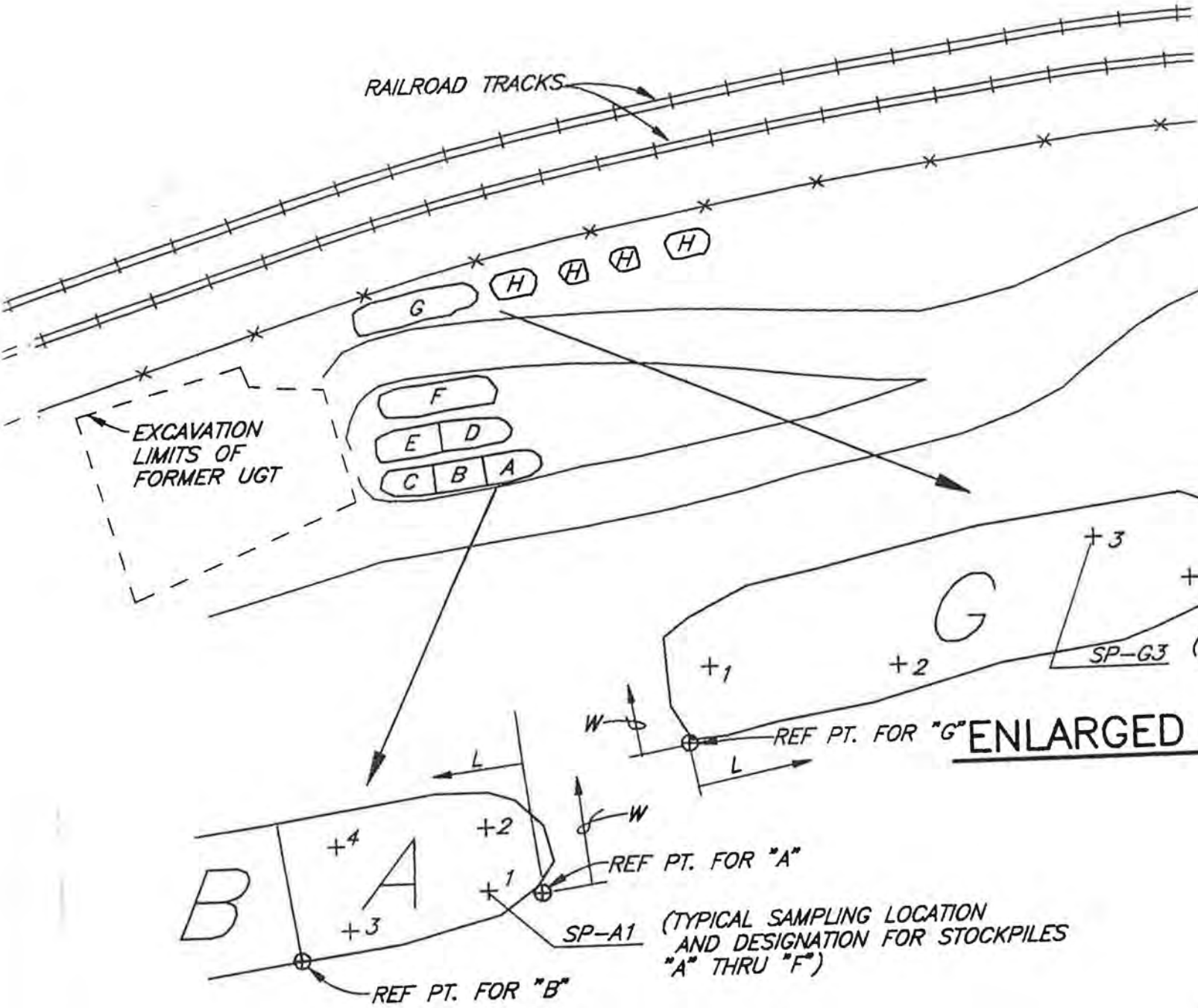



QA Officer


Michelle Dostal (for JGC)
Jesse G. Chaney, Jr.
Laboratory Director

← TO FORTUNA

HIGHWAY 36



ENLARGED VIEW

(TYPICAL SAMPLING LOCATION AND DESIGNATION FOR STOCKPILES "A" THRU "F")

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SAMPLE IDENTIFICATION

<u>Fraction</u>	<u>Sample Description</u>	<u>Comments:</u>
01	SPA	
01	SPA	NO = Not Quantified
01	SPA	
02	SPB	
02	SPB	Notes and Definitions:
02	SPB	Limit = Reporting Limit
03	SPC	ND = None Detected
03	SPC	
03	SPC	
04	SPD	
04	SPD	
04	SPD	
05	SPE	
05	SPE	
05	SPE	
06	SPF	
06	SPF	
06	SPF	
07	SPG	
07	SPG	
07	SPG	
08	SPH	
08	SPH	
08	SPH	
09	Blank	
10	Lab. Control Sample	

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SAMPLE ID: SPA FRAC.: 01A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.043	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	0.030	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
m,p Xylene	0.15	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.082	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	100	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	8.2	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

SAMPLE ID: SPA FRAC.: 01B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	6.9	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	ND	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPA FRAC.: 01C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Lead	15	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPB FRAC.: 02A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.037	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	0.025	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
m,p Xylene	0.11	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.063	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	104	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	7.1	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

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SAMPLE ID: SPB FRAC.: 02B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	4.4	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	NQ	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPB FRAC.: 02C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Lead	10	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPC FRAC.: 03A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	0.0057	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.061	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	0.033	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
m,p Xylene	0.19	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.11	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	105	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	9.7	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

SAMPLE ID: SPC FRAC.: 03B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	11	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	NQ	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

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SAMPLE ID: SPC FRAC.: 03C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Lead	17	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPD FRAC.: 04A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	0.0051	0.0050	ug/g	1.0	06/16/95	06/19/95	EPA 8020
Toluene	0.065	0.0050	ug/g	1.0	06/16/95	06/19/95	EPA 8020
Ethylbenzene	0.022	0.0050	ug/g	1.0	06/16/95	06/19/95	EPA 8020
m,p Xylene	0.13	0.010	ug/g	1.0	06/16/95	06/19/95	EPA 8020
o Xylene	0.065	0.0050	ug/g	1.0	06/16/95	06/19/95	EPA 8020
Surrogate:					06/16/95	06/19/95	EPA 8020
1-chloro-4-fluorbenzene	102	N/A	% Rec	1.0	06/16/95	06/19/95	EPA 8020
TPHC Gasoline/soil	4.4	1.0	ug/g	1.0	06/16/95	06/19/95	EPA5030GCFID

SAMPLE ID: SPD FRAC.: 04B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	60	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	NQ	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPD FRAC.: 04C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Lead	13	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPE FRAC.: 05A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.054	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	0.032	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020

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PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
m,p Xylene	0.17	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.091	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	108	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	7.2	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

SAMPLE ID: SPE FRAC.: 05B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	7.8	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	ND	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPE FRAC.: 05C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Lead	13	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPF FRAC.: 06A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.014	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
m,p Xylene	0.032	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.021	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	116	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	2.0	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

SAMPLE ID: SPF FRAC.: 06B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	10	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID

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PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
n-tricosane	ND	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPF FRAC.: 06C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
Lead	14	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: SPG FRAC.: 07A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Toluene	0.026	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Ethylbenzene	0.023	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
m,p Xylene	0.074	0.010	ug/g	1.0	06/16/95	06/20/95	EPA 8020
o Xylene	0.039	0.0050	ug/g	1.0	06/16/95	06/20/95	EPA 8020
Surrogate:					06/16/95	06/20/95	EPA 8020
1-chloro-4-fluorbenzene	96.4	N/A	% Rec	1.0	06/16/95	06/20/95	EPA 8020
TPHC Gasoline/soil	5.4	1.0	ug/g	1.0	06/16/95	06/20/95	EPA5030GCFID

SAMPLE ID: SPG FRAC.: 07B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	1.8	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	80.6	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPG FRAC.: 07C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
Lead	8.9	2.0	mg/kg	4.0		06/09/95	EPA 7421

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SAMPLE ID: SPH FRAC.: 08A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/17/95	EPA 8020
Toluene	ND	0.0050	ug/g	1.0	06/16/95	06/17/95	EPA 8020
Ethylbenzene	ND	0.0050	ug/g	1.0	06/16/95	06/17/95	EPA 8020
m,p Xylene	ND	0.010	ug/g	1.0	06/16/95	06/17/95	EPA 8020
o Xylene	ND	0.0050	ug/g	1.0	06/16/95	06/17/95	EPA 8020
Surrogate:					06/16/95	06/17/95	EPA 8020
1-chloro-4-fluorbenzene	96.3	N/A	% Rec	1.0	06/16/95	06/17/95	EPA 8020
TPHC Gasoline/soil	ND	1.0	ug/g	1.0	06/16/95	06/17/95	EPA5030GCFID

SAMPLE ID: SPH FRAC.: 08B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	1.1	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	87.9	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID

SAMPLE ID: SPH FRAC.: 08C COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
Lead	9.2	2.0	mg/kg	4.0		06/09/95	EPA 7421

SAMPLE ID: Blank FRAC.: 09A COLLECTED: N/A RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL.FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	ND	0.0050	ug/g	1.0	06/16/95	06/16/95	EPA 8020
Toluene	ND	0.0050	ug/g	1.0	06/16/95	06/16/95	EPA 8020
Ethylbenzene	ND	0.0050	ug/g	1.0	06/16/95	06/16/95	EPA 8020
m,p Xylene	ND	0.010	ug/g	1.0	06/16/95	06/16/95	EPA 8020
o Xylene	ND	0.0050	ug/g	1.0	06/16/95	06/16/95	EPA 8020
Surrogate:					06/16/95	06/16/95	EPA 8020
1-chloro-4-fluorbenzene	97.0	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
Lead	ND	2.0	mg/kg	4.0		06/09/95	EPA 7421
TPHC Diesel/soil							EPA3550GCFID

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PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TPHC Diesel	ND	1.0	ug/g	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	89.7	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID
TPHC Gasoline/soil	ND	1.0	ug/g	1.0	06/16/95	06/16/95	EPA5030GCFID

SAMPLE ID: Lab. Control Sample FRAC.: 10A COLLECTED: N/A RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
BTX and E/soil							EPA 8020
Benzene	109	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
Toluene	111	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
Ethylbenzene	110	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
m,p Xylene	97.9	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
o Xylene	108	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
Surrogate:					06/16/95	06/16/95	EPA 8020
1-chloro-4-fluorbenzene	94.7	N/A	% Rec	1.0	06/16/95	06/16/95	EPA 8020
Lead	98.2	N/A	% Rec	4.0		06/09/95	EPA 7421
TPHC Diesel/soil							EPA3550GCFID
TPHC Diesel	75.2	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID
Surrogate:					06/09/95	06/14/95	EPA3550GCFID
n-tricosane	102	N/A	% Rec	1.0	06/09/95	06/14/95	EPA3550GCFID
TPHC Gasoline/soil	105	N/A	% Rec	1.0	06/16/95	06/16/95	EPA5030GCFID



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata, California 95521
707-822-4649 • FAX 707-822-6831

Chain of Custody

P. 1 of 1

Attention: GARY FALK
 Results & Invoice to: PACIFIC LUMBER Co.
 Address: P.O. BOX 37
SCOTIA, CALIF 95565-0037
 Phone: 764-2222
 Copies of Report to: MARTY LAY
SIEN EUREKA
441-8855

PROJECT INFORMATION
 Project Number: 890097.300
 Project Name: PALCO-CARLOTTA MILL
 Purchase Order Number: _____

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
1	SPA1, A2, A3, A4	6-6-95	1030	SOIL
2	SPB1, B2, B3, B4		1100	
3	SPC1, C2, C3, C4		1130	
4	SPD1, D2, D3, D4		1230	
5	SPE1, E2, E3, E4		1300	
6	SPF1, F2, F3, F4		1330	
7	SPG1, G2, G3, G4		1430	
8	SPH1, H2, H3, H4		1500	

ANALYSIS	CONTAINER	PRESERVATIVE
TPHG/BTEX (40) 13	13	-
TPHD (4) 13	13	-
Ti, Pb (1) 11	11	-

LABORATORY NUMBER: 9106109

TAT: 24 Hr 48 Hr 5 Day 5-7 Day
 STD (2-3 Wk) Other: _____
 PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms
 Preliminary: FAX Verbal By: ___/___/___
 Final Report: FAX Verbal By: ___/___/___

CONTAINER CODES: 1—1/2 gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other
 PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄; d—Na₂S₂O₅; e—NaOH; f—C₂H₃O₂Cl; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
COMPOSITE BRASS TUBES (4 EACH)
DO A TCLP TEST ON HOTTEST SAMPLE
TEST FOR TPHD, TPHG, & TBT
intact / cool

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<u>Marty Lay</u>	<u>6/7/95 110</u>	<u>[Signature]</u>	<u>6/7/95 1115</u>

SAMPLE DISPOSAL
 UNCL Disposal of Non-Contaminated
 Return Pickup
CHAIN OF CUSTODY SEALS Y/N/NA
 SHIPPED VIA: UPS Air-Ex Fed-Ex Bus (Hand)

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

REC'D JUL 17 1995



**NORTH COAST
LABORATORIES LTD.**

DATE: July 13, 1995

Page 1 of 1

REPORT TO: Pacific Lumber
P.O. Box 37
Scotia, CA 95565

ATTENTION: Gary Falk

NCL: 95-06-454

=====

ADDENDUM TO CHEMICAL EXAMINATION REPORT

=====

PARAMETER

NOTATIONS

TPHC Diesel

Sample 01A contains material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

An emulsion was formed during the extraction of sample 01A/matrix spike. This emulsion may be responsible for the lower matrix spike recovery.

All diesel results reported represent the amount of material in the diesel range of molecular weights only.

Ropar...
Laboratory Supervisor(s)

Michelle Dostal
QA Officer

Jesse G. Chaney, Jr.
Laboratory Director



Date: 07/14/95

REPORT

Page 1 of 3

REPORT Pacific Lumber
TO P.O. Box 37
Scotia, CA 95565

WORK ORDER 95-06-454

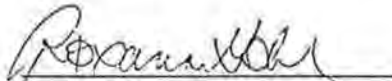
PO # M-40887

Attn: Gary Falk

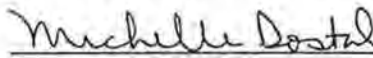
INVOICE # 60045743

WORK ID: 890097.300/PALCO-Carlotta Mil

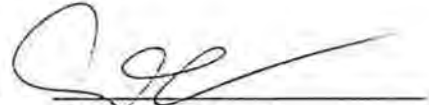
REPORT CERTIFIED BY



Laboratory Supervisor(s)



QA Officer



Jesse G. Chaney, Jr.
Laboratory Director

SAMPLE IDENTIFICATION

<u>Fraction</u>	<u>Sample Description</u>	<u>Comments:</u>
01	<u>SPD1,D2,D3,D4</u>	
01	<u>SPD1,D2,D3,D4</u>	Previously reported on 07/13/95.
02	<u>Blank on TCLP extract</u>	
03	<u>Lab. Control Sample</u>	
04	<u>Matrix Spike on 1A Extract</u>	

Notes and Definitions:
Limit = Reporting Limit
ND = None Detected

Date: 07/14/95
 Work Order: 95-06-454
 Invoice #: 60045743

REPORT

SAMPLE ID: SPD1,D2,D3,D4 FRAC.: 01A COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
TCLP Extraction	06/29/95						
TPHC Diesel/water							EPA3510GCFID
TPHC Diesel	160	50	ug/L	1.0	07/10/95	07/10/95	EPA3510GCFID
Surrogate:					07/10/95	07/10/95	EPA3510GCFID
n-tricosane	29.2	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID

SAMPLE ID: SPD1,D2,D3,D4 FRAC.: 01B COLLECTED: 06/06/95 RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Cam Extraction	06/29/95						
Lead	ND	0.050	mg/L	10		07/04/95	EPA 239.2

SAMPLE ID: Blank on TCLP extract FRAC.: 02A COLLECTED: N/A RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Cam Extraction	06/29/95						
Lead	ND	0.020	mg/L	4.0		07/04/95	EPA 239.2
TCLP Extraction	06/29/95						
TPHC Diesel/water							EPA3510GCFID
TPHC Diesel	ND	50	ug/L	1.0	07/10/95	07/10/95	EPA3510GCFID
Surrogate:					07/10/95	07/10/95	EPA3510GCFID
n-tricosane	65.8	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID

SAMPLE ID: Lab. Control Sample FRAC.: 03A COLLECTED: N/A RECEIVED: 06/07/95

PARAMETER	RESULT	LIMIT	UNITS	DIL. FACTOR	EXTRACTED	RUN	METHOD
Cam Extraction	06/29/95						
Lead	105	N/A	% Rec	4.0		07/04/95	EPA 239.2
TCLP Extraction	06/29/95						
TPHC Diesel/water							EPA3510GCFID
TPHC Diesel	63.6	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID
Surrogate:					07/10/95	07/10/95	EPA3510GCFID
n-tricosane	77.7	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID

Date: 07/14/95
Work Order: 95-06-454
Invoice #: 60045743

REPORT

Page 3 of 3

SAMPLE ID: Matrix Spike on 1A Extract FRAC.: 04A COLLECTED: 06/06/95 RECEIVED: 06/07/95

<u>PARAMETER</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	<u>DIL. FACTOR</u>	<u>EXTRACTED</u>	<u>RUN</u>	<u>METHOD</u>
TCLP Extraction	06/29/95						
TPHC Diesel/water							EPA3510GCFID
TPHC Diesel	13.2	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID
Surrogate:					07/10/95	07/10/95	EPA3510GCFID
n-tricosane	21.8	N/A	% Rec	1.0	07/10/95	07/10/95	EPA3510GCFID



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata, California 95521
707-822-4649 • FAX 707-822-6831

Chain of Custody

P. 1 1
9506454

LABORATORY NUMBER: 9506454

Attention: GARY FALK
 Results & Invoice to: PACIFIC LUMBER CO.
 Address: P.O. BOX 37
SCOTIA, CALIF. 95565-0037
 Phone: 764-2222
 Copies of Report to: MARTY LAY
SAN EUREKA
441-8855

PROJECT INFORMATION
 Project Number: 890097.300
 Project Name: PALCO-CARLOTTA MILL
 Purchase Order Number: _____

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
1	SPA1, A2, A3, A4	6-6-95	1030	SOIL
2	SPB1, B2, B3, B4		1100	
3	SPC1, C2, C3, C4		1130	
4	SPD1, D2, D3, D4		1230	
5	SPE1, E2, E3, E4		1300	
6	SPF1, F2, F3, F4		1330	
7	SPG1, G2, G3, G4		1430	
8	SPH1, H2, H3, H4		1500	

ANALYSIS	CONTAINER	PRESERVATIVE
TPHG/BTEX (4) 13	1	
TPHD (4) 13		
TL Pb (4) 11		

TAT: 24 Hr 48 Hr 5 Day 5-7 Day
 STD (2-3 Wk) Other _____
 PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms
 Preliminary: FAX Verbal By: / /
 Final Report: FAX Verbal By: / /

CONTAINER CODES: 1—1/2 gal. pl; 2—250 ml pl;
 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;
 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA;
 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar;
 13—brass tube; 14—other
 PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄;
 d—Na₂S₂O₈; e—NaOH; f—C₂H₅O₂Cl; g—other.

SAMPLE CONDITION/SPECIAL INSTRUCTIONS:
Composite BRASS TUBES (4 EACH)
DO A TCLP TEST ON HOTTEST
SAMPLE
TEST FOR TPHD, TPHG &
TBT
intact / cool

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<u>Martin G. Lay</u>	<u>6/7/95 1110</u>	<u>[Signature]</u>	<u>6/7/95 1115</u>

SAMPLE DISPOSAL
 NCL Disposal of Non-Contaminated
 Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
 SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

**Remedial Action Completion Certification
Carlotta Stud Mill
511 Highway 36, Carlotta, California
LOP#12332**

Humboldt County Division of Environmental Health

June 19, 1997



**HUMBOLDT COUNTY
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
100 H STREET, SUITE 100, EUREKA, CA 95501**

(707) 445-6215
FAX (707) 441-5699

Remedial Action Completion Certification

19 June 1997

Mr. John Prevost
Director of Environmental Services
Pacific Lumber Company
Post Office Box 37
Scotia, California 95565-0037

Mr. Paul Orban
Orban Lumber Company
16102 E. Galdstone
Irwindale, California 91706

**RE: Carlotta Stud Mill
511 Highway 36, Carlotta, California
LOP #12332**

Dear Messrs. Prevost and Orban:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please telephone our office at (707) 445-6215, if you have any questions regarding this matter.

A handwritten signature in black ink that reads "Dennis J. Kalson".

Dennis J. Kalson, R.E.H.S.
Director, Division of Environmental Health
Humboldt County Department of Health

cc: Mike Harper, State Water Resources Control Board, Underground Tank Program
Dave Deaner, State Water Resources Control Board, Cleanup Fund Program
Bonnie Rolandelli, North Coast Regional Water Quality Control Board
Martin E. Lay, SHN Consulting Engineers & Geologists

12332.011/377L

Case Closure Summary
Leaking Underground Fuel Storage Tank Program

I. Agency Information

Agency Name: Humboldt County LOP	Address: 100 H Street, Suite 100
City/State/Zip: Eureka, CA 95501	Phone: 707.445.6215
Responsible Staff Person: Dale R. Dell'Osso	Title: Project Geologist

II. Case Information

Site facility name: Pacific Lumber Company - Carlotta Stud Mill				
Site facility address: 511 Highway 36, Carlotta, California				
RB LUSTIS Case No:		Local Case No:		LOP Case No: 12332
URF filing date: 11/1/90		Sweeps No: 3964		
Responsible Party (ies)		Address		Phone Number
1) Pacific Lumber Company John Prevost		1) Post Office Box 37 Scotia, California 95540-0037		707.764.4280
2) Orban Lumber Company Paul Orban		2) 16102 E. Gladstone Irwindale, California 91706		
Tank No	Size (gallons)	Contents	Closed in place/removed	Date
1	500	gasoline	removed	10/31/90
2	500	diesel	removed	10/31/90

III. Release and Site Characterization Information

Cause and type of release: Tank system leakage/failure				
Site characterization complete? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Date approved by oversight agency: 3/4/97		
Monitoring wells installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Number:	Proper screen interval? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Highest GW depth below ground surface: ~13'		Lowest depth: 20.4'	Flow direction:	
Most sensitive current use: drinking				
Drinking water wells affected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Aquifer name:		
Surface water affected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Nearest affected SW name:		
Offsite beneficial use impacts (location): None				
Report(s) on file? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Where is report filed? HCDEH & NCRWQCB		

Treatment and Disposal of Affected Material			
Material	Amount (units)	Action (Treatment/disposal & destination)	Date
Tank	1,000 gallons	Unknown	-
Piping	~20 feet	Unknown	-
Free Product	-	-	-
Soil	200 cu. yds.	reused as fill beneath Carlotta Mill paved log deck	10/95
Groundwater	-	-	-
Barrels	-	-	-

Case Closure Summary
Leaking Underground Fuel Storage Tank Program

III. Release and Site Characterization Information (continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup									
Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPHg	32	ND	NA	ND	Xylenes	0.032	ND	NA	ND
TPHd	17	ND	NA	ND	Ethylbenzene	0.043	ND	NA	ND
Benzene	ND	ND	NA	ND	Oil & Grease				
Toluene	0.009	ND	NA	ND	Heavy Metals				
Other	NA	110*			Other				

Comments:
 NA-Not Analyzed
 * TPH as Motor oil

IV. Closure

Completed corrective action protect existing beneficial uses per the RWQCB Basin Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Completed corrective action protect potential beneficial uses per the RWQCB Basin Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does Corrective action protect public health for current land use?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Site Mangement Requirements Site owner to maintain asphalt log deck cover in good repair at all times in areas where soil contamination is encapsulated at all times. Site owner to notify this agency if land use changes.	
Should corrective action be reviewed if land use changes?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Monitoring wells decommissioned: <input type="checkbox"/> Yes <input type="checkbox"/> No	No. decommissioned: No. retained:
List enforcement actions taken: ARB LTR 1-1-30-90. TBD LTR 7-19-91. DRD LTR 7-28-92,8-31-92. DRD LTR 12-9-92,4-21-93. JWC LTR 8/3/93,12-23-93. DRD LTR 8/11/93, 12/2/93, 8/28/95, 11/13/95. DRD CLOSURE REQST 3/4/97. BAR LTR 3/31/97. RACC 6/19/97	
List enforcement actions recinded: 12/2/93	

V. Local Agency Representative Data

Name: Dennis J. Kalson	Title: Director
Signature: <i>Dennis J. Kalson</i>	Date: 6/19/97

VI. RWQCB Notification

Date submitted to RB: 3/4/97	RB response: Concurrence
RWQCB staff name: Bonnie A. Rolandelli	Title: Assoc. Eng. Geologist
	Date: 2/31/97

VII. Additional Comments, Data, etc.

--

APPENDIX C

EDR HISTORICAL AERIAL PHOTOGRAPHS



Humboldt Reserve, LLC

4798 Highway 36

Hydesville, CA 95547

Inquiry Number: 6885678.8

March 11, 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

03/11/22

Site Name:

Humboldt Reserve, LLC
4798 Highway 36
Hydesville, CA 95547
EDR Inquiry # 6885678.8

Client Name:

Freshwater Environmental Service
78 Sunny Brae
Arcata, CA 95521
Contact: Scott Ferriman



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
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1998	1"=500'	Acquisition Date: January 01, 1998	USGS/DOQQ
1993	1"=500'	Flight Date: January 01, 1993	USGS
1983	1"=500'	Flight Date: August 12, 1983	USDA
1972	1"=500'	Flight Date: July 15, 1972	USGS
1968	1"=500'	Flight Date: August 30, 1968	USGS
1956	1"=500'	Flight Date: January 01, 1956	USGS
1942	1"=500'	Flight Date: February 19, 1942	USDA

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INQUIRY #: 6885678.8

YEAR: 2016

— = 500'





INQUIRY #: 6885678.8

YEAR: 2012

— = 500'





INQUIRY #: 6885678.8

YEAR: 2009

— = 500'





INQUIRY #: 6885678.8

YEAR: 2005

— = 500'





INQUIRY #: 6885678.8

YEAR: 1998

— = 500'





INQUIRY #: 6885678.8

YEAR: 1993

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 6885678.8

YEAR: 1983

— = 500'



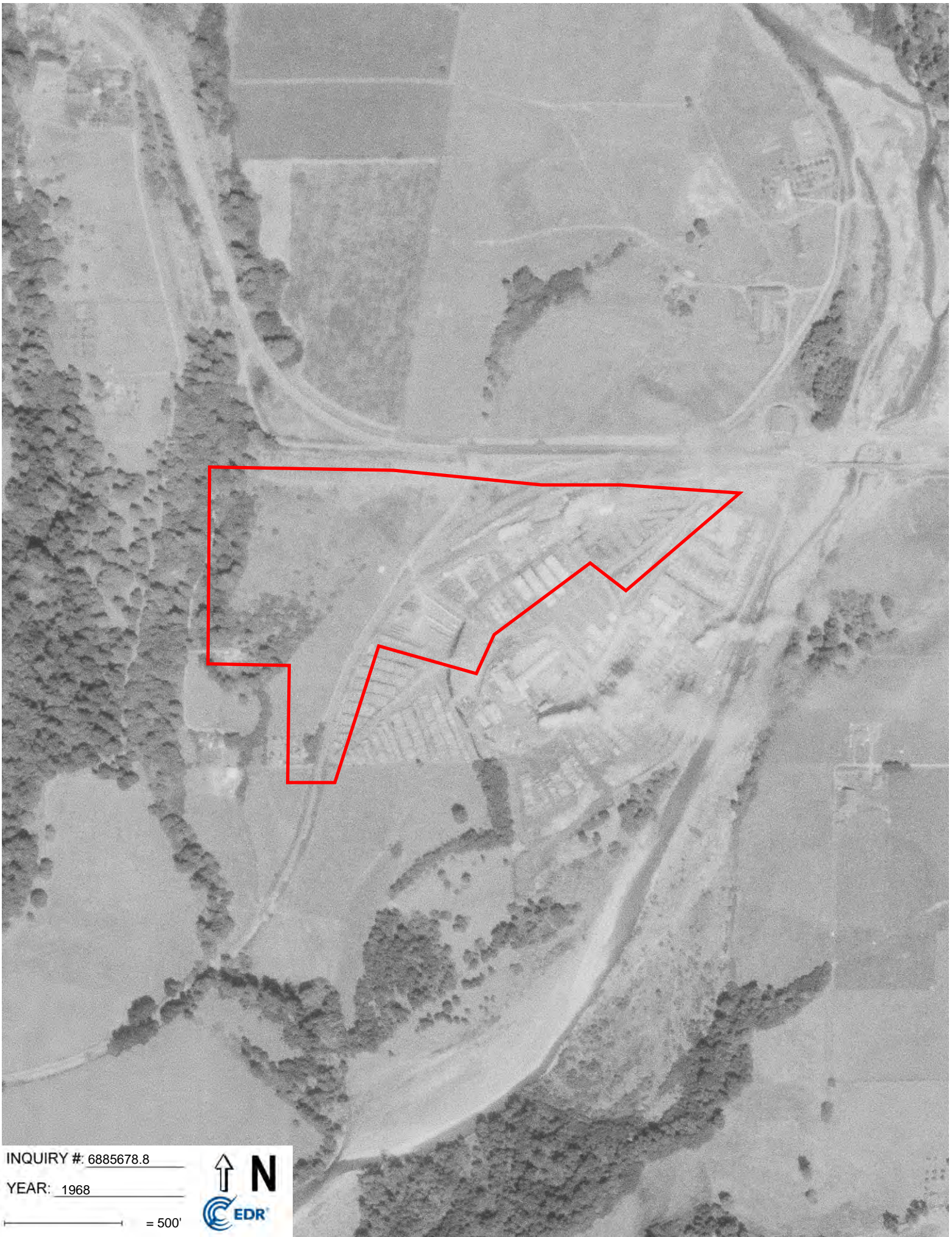


INQUIRY #: 6885678.8

YEAR: 1972

— = 500'





INQUIRY #: 6885678.8

YEAR: 1968

— = 500'





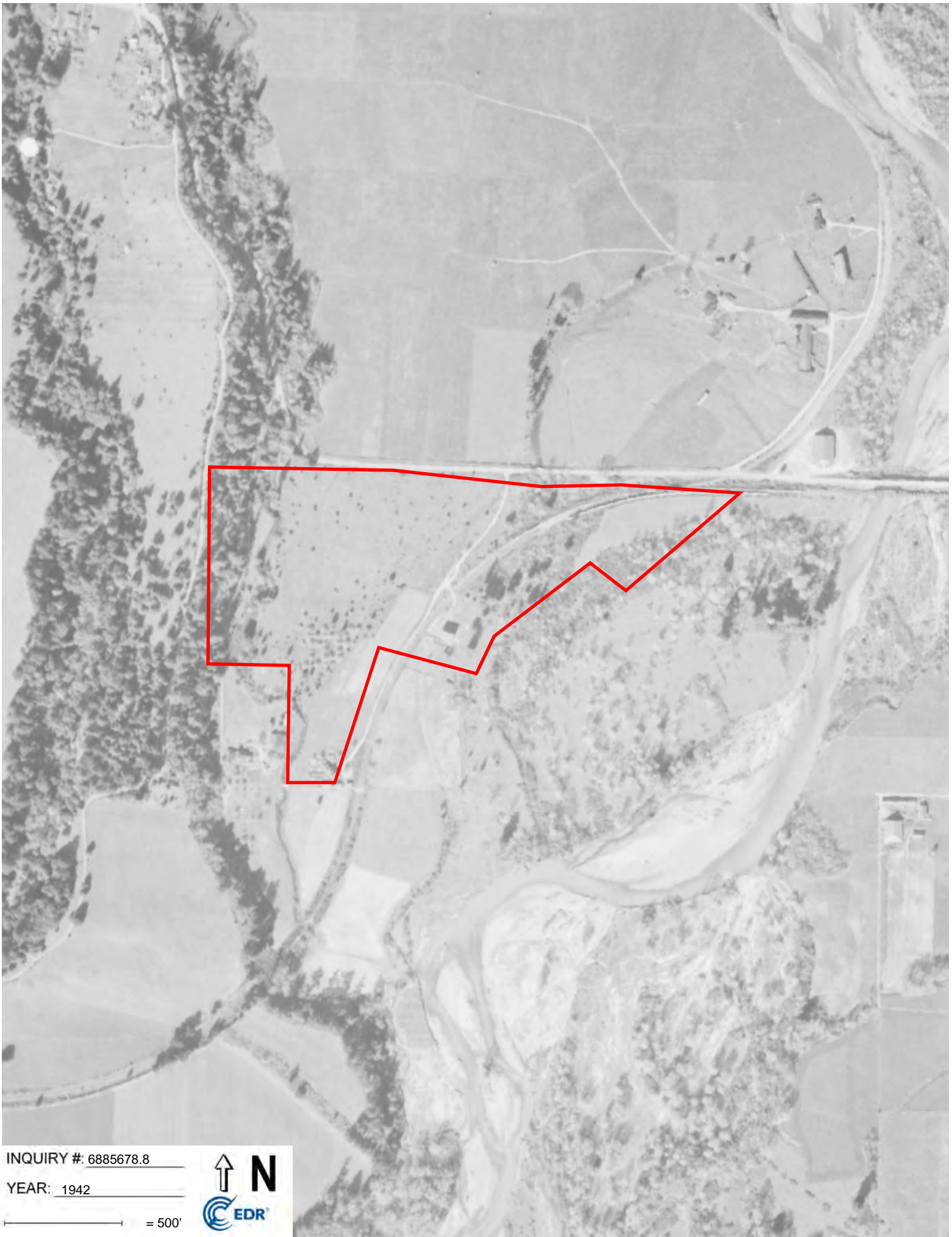
INQUIRY #: 6885678.8

YEAR: 1956

— = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 6885678.8

YEAR: 1942

— = 500'



APPENDIX D

EDR HISTORICAL TOPOGRAPHIC MAPS

Humboldt Reserve, LLC

4798 Highway 36

Hydesville, CA 95547

Inquiry Number: 6885678.4

March 04, 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

03/04/22

Site Name:

Humboldt Reserve, LLC
4798 Highway 36
Hydesville, CA 95547
EDR Inquiry # 6885678.4

Client Name:

Freshwater Environmental Service
78 Sunny Brae
Arcata, CA 95521
Contact: Scott Ferriman



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Freshwater Environmental Service 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.#	FES-105	Latitude:	40.536244 40° 32' 10" North
Project:	Humboldt Reserve, LLC	Longitude:	-124.071219 -124° 4' 16" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	409279.52
		UTM Y Meters:	4487829.04
		Elevation:	130.64' above sea level

Maps Provided:

2018
2015
2012
1979
1959
1944

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Topo Sheet Key

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

2018 Source Sheets



Hydesville
2018
7.5-minute, 24000

2015 Source Sheets



Hydesville
2015
7.5-minute, 24000

2012 Source Sheets



Hydesville
2012
7.5-minute, 24000

1979 Source Sheets



Hydesville
1979
7.5-minute, 24000
Aerial Photo Revised 1972

Topo Sheet Key

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

1959 Source Sheets

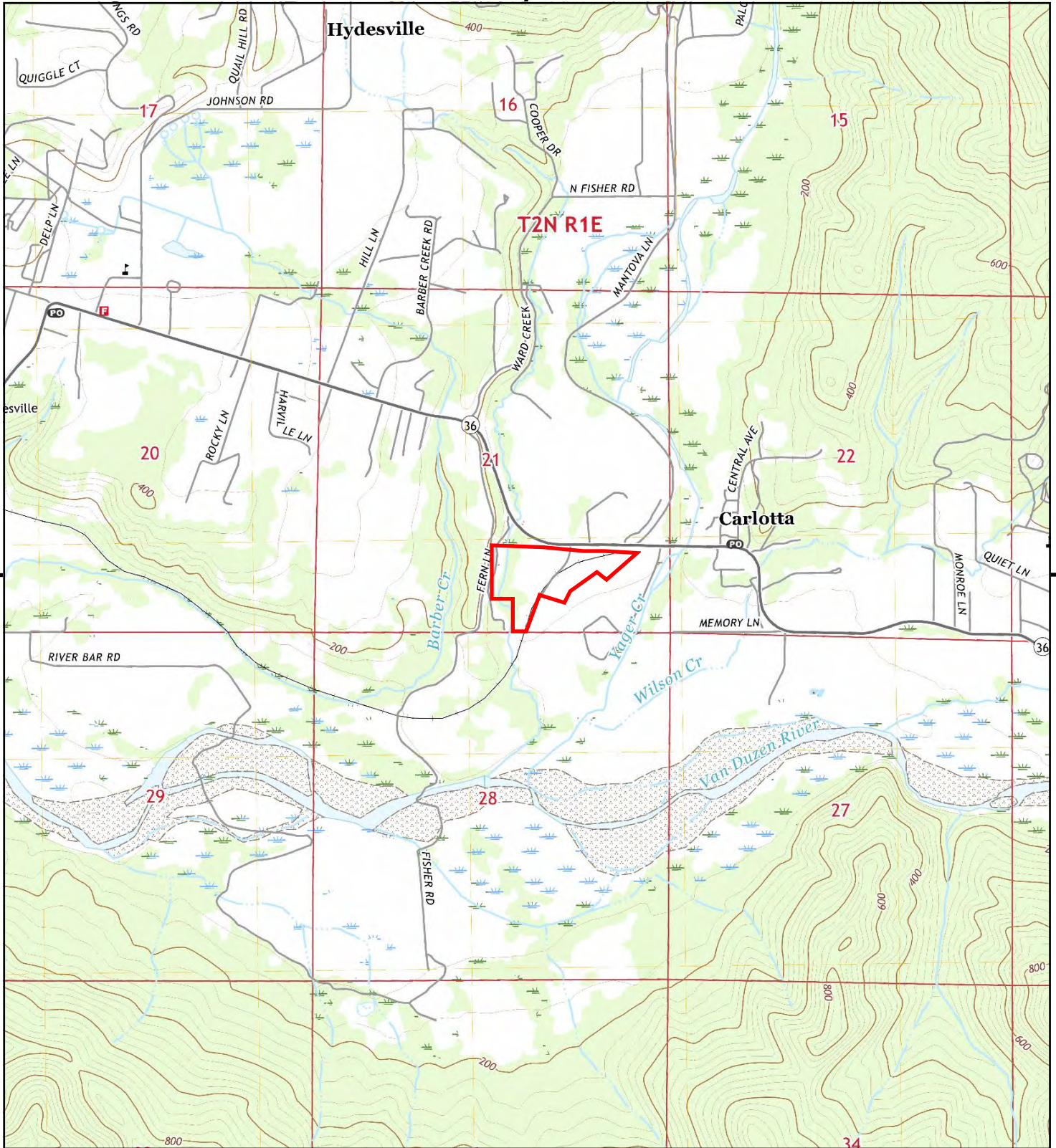


Fortuna
1959
15-minute, 62500
Aerial Photo Revised 1956

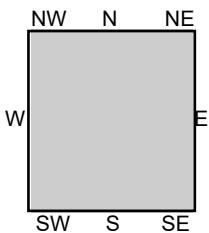
1944 Source Sheets



Fortuna
1944
15-minute, 62500



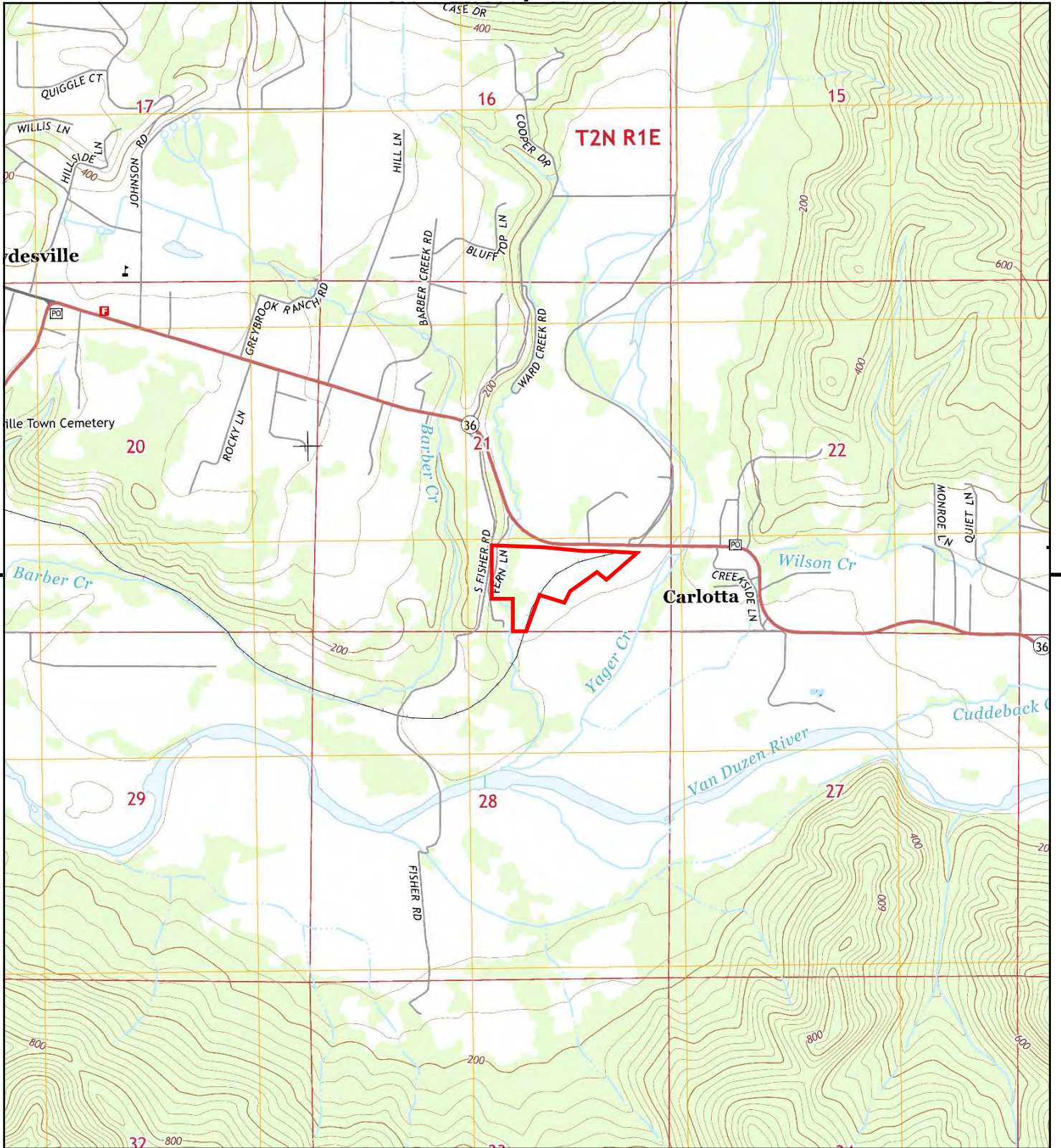
This report includes information from the following map sheet(s).



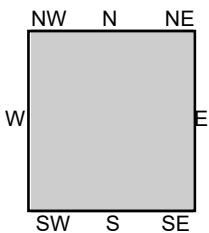
TP, Hydesville, 2018, 7.5-minute

SITE NAME: Humboldt Reserve, LLC
ADDRESS: 4798 Highway 36
 Hydesville, CA 95547
CLIENT: Freshwater Environmental Service





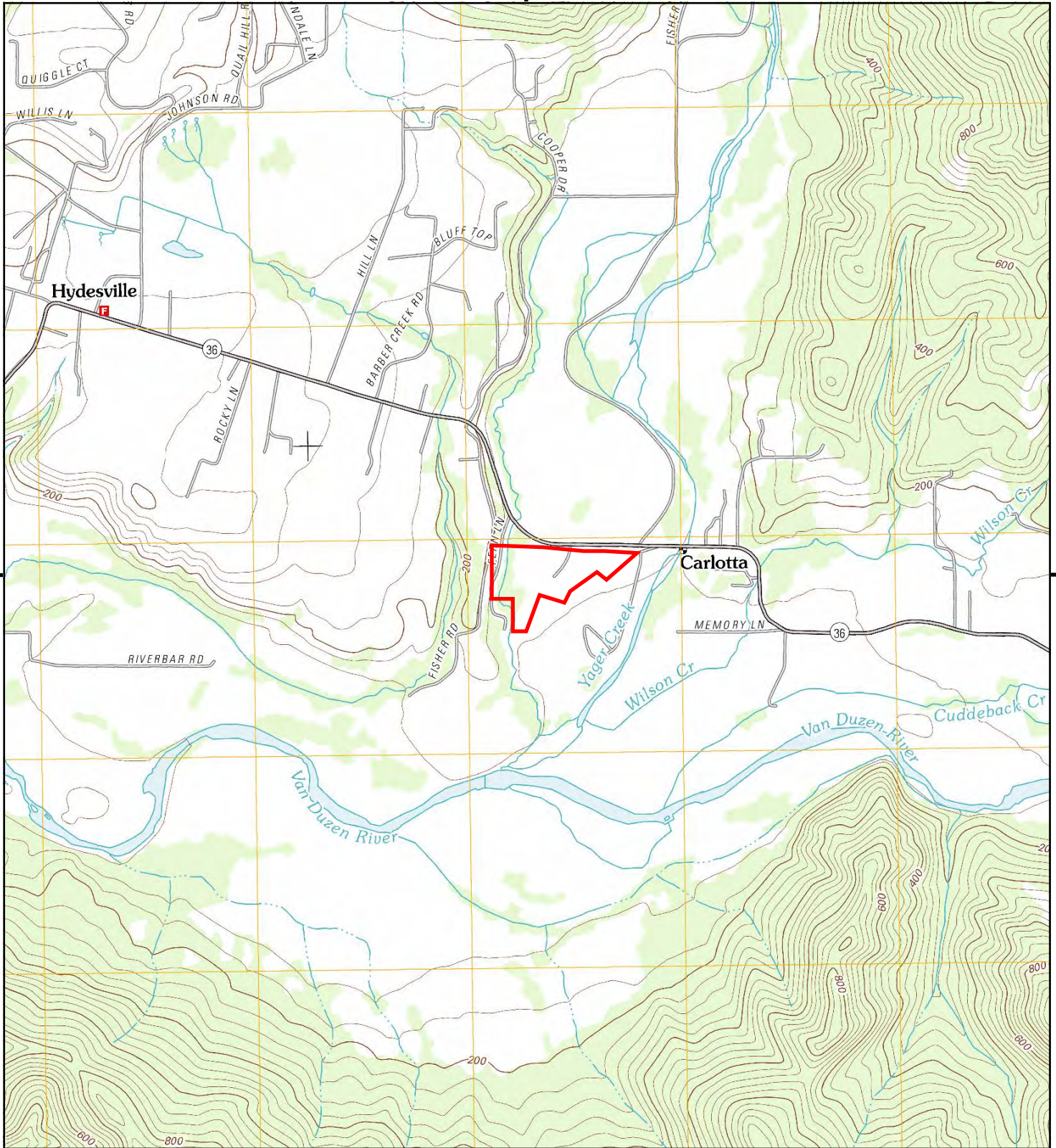
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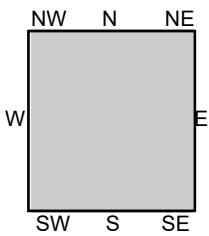
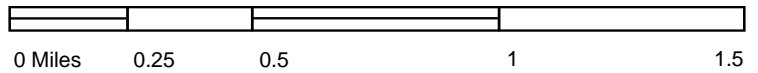
TP, Hydesville, 2015, 7.5-minute

SITE NAME: Humboldt Reserve, LLC
ADDRESS: 4798 Highway 36
 Hydesville, CA 95547
CLIENT: Freshwater Environmental Service





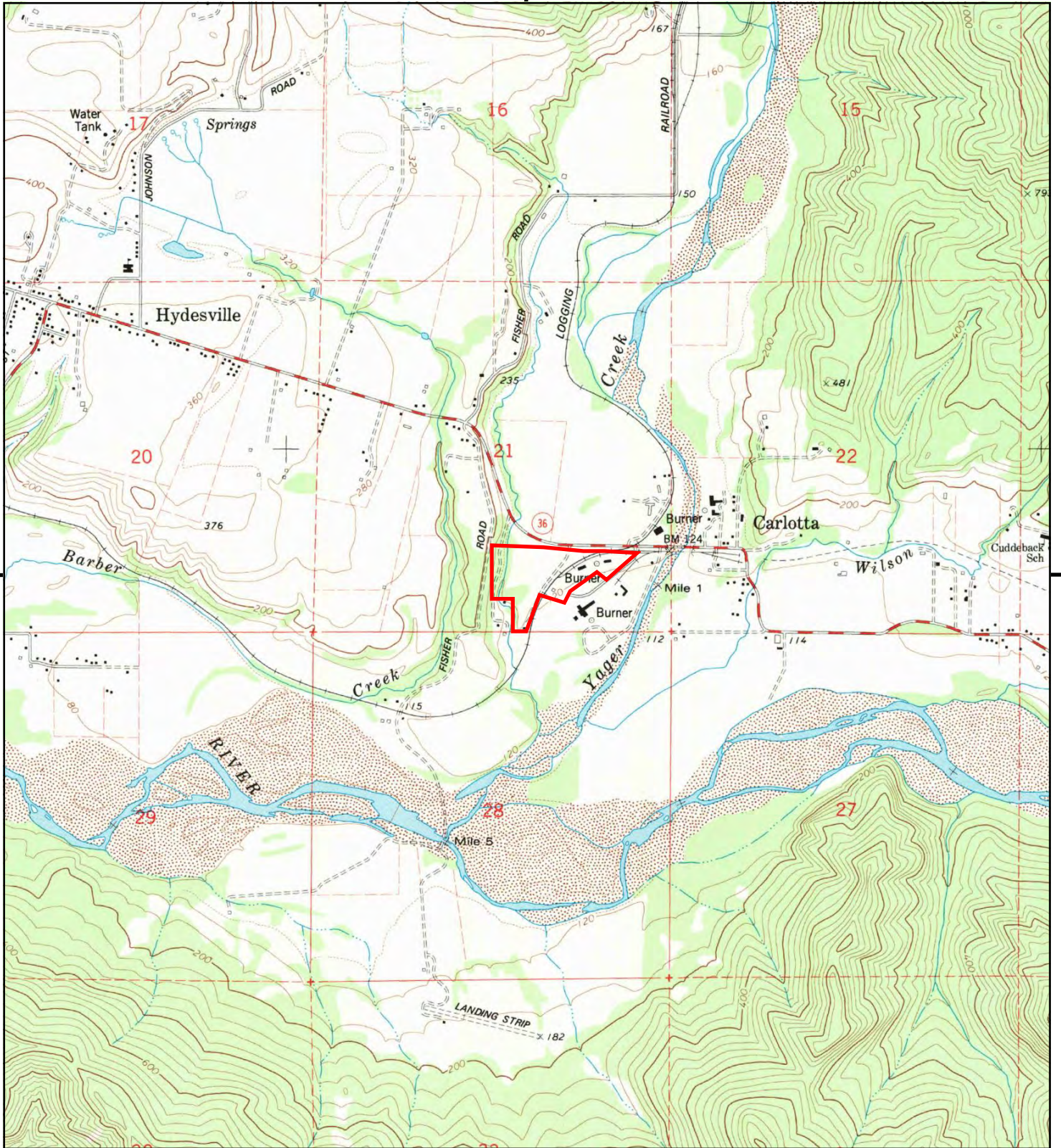
This report includes information from the following map sheet(s).



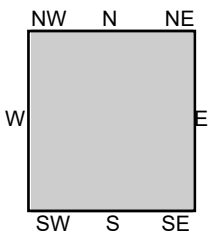
TP, Hydesville, 2012, 7.5-minute

SITE NAME: Humboldt Reserve, LLC
ADDRESS: 4798 Highway 36
Hydesville, CA 95547
CLIENT: Freshwater Environmental Service





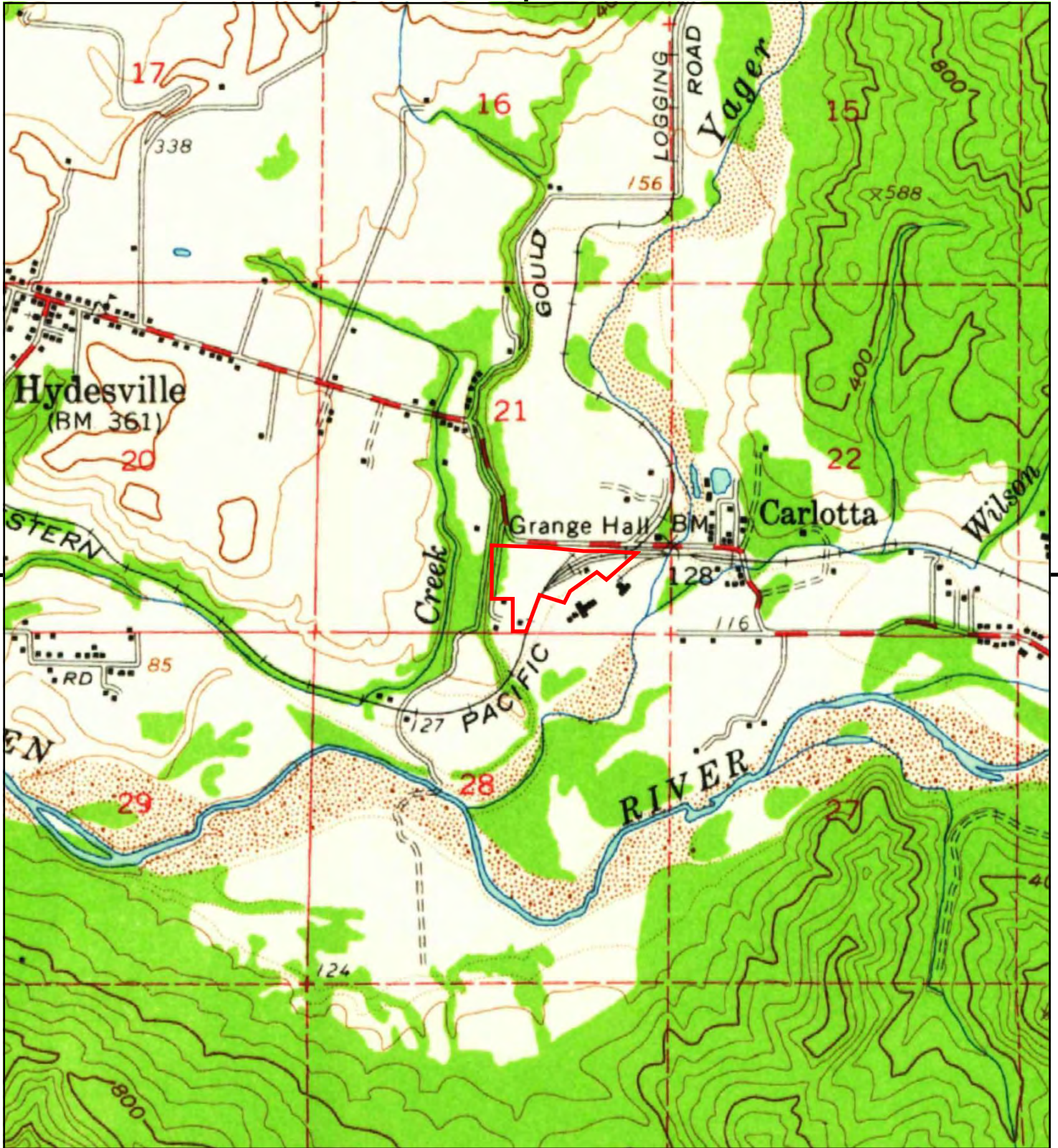
This report includes information from the following map sheet(s).



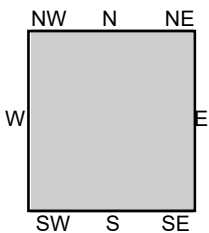
TP, Hydesville, 1979, 7.5-minute

SITE NAME: Humboldt Reserve, LLC
ADDRESS: 4798 Highway 36
 Hydesville, CA 95547
CLIENT: Freshwater Environmental Service





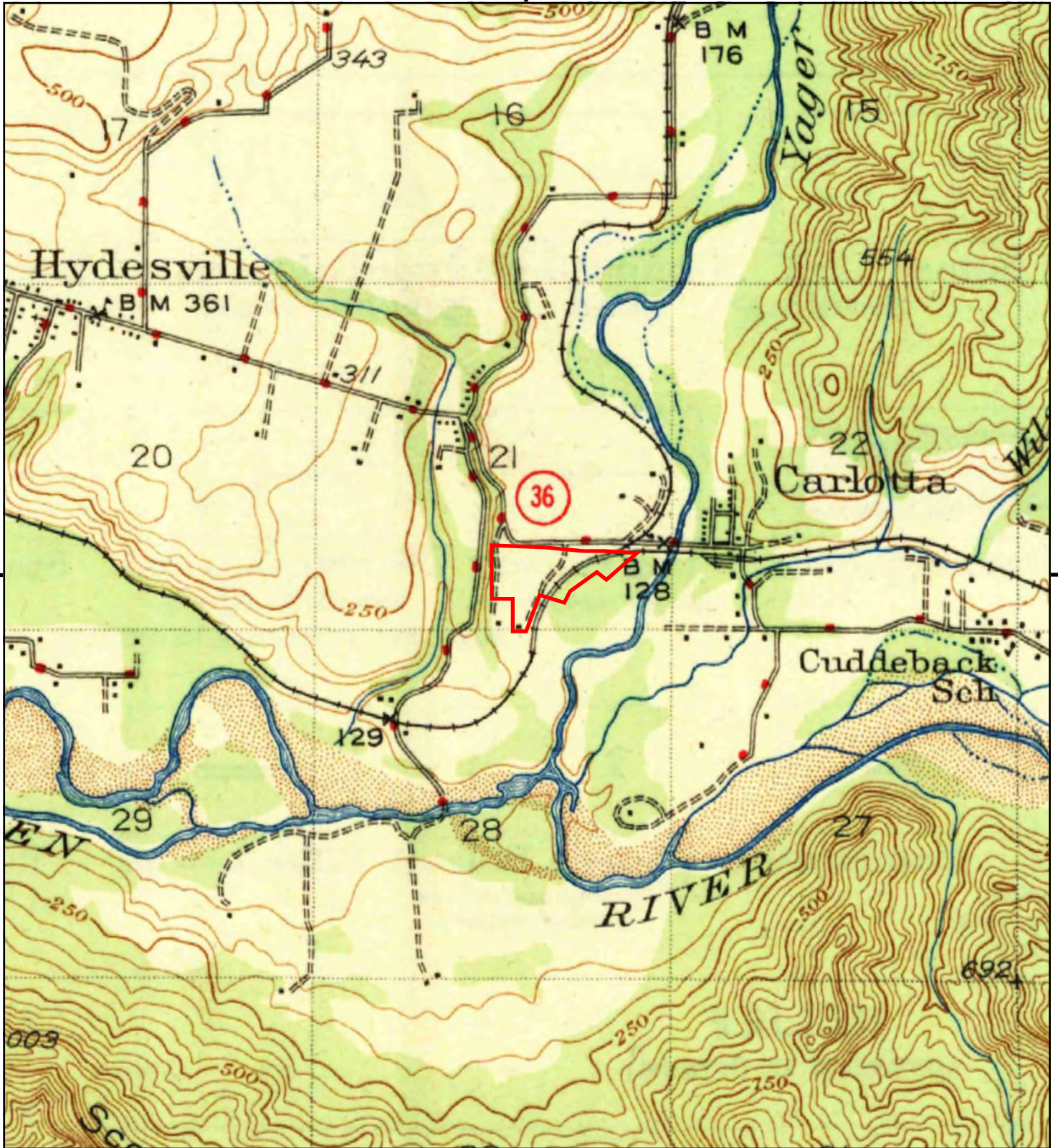
This report includes information from the following map sheet(s).



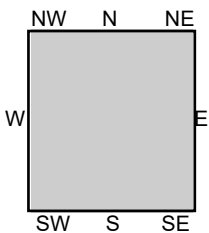
TP, Fortuna, 1959, 15-minute

SITE NAME: Humboldt Reserve, LLC
 ADDRESS: 4798 Highway 36
 Hydesville, CA 95547
 CLIENT: Freshwater Environmental Service





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TP, Fortuna, 1944, 15-minute

SITE NAME: Humboldt Reserve, LLC
 ADDRESS: 4798 Highway 36
 Hydesville, CA 95547
 CLIENT: Freshwater Environmental Service



APPENDIX E

EDR HISTORICAL CITY DIRECTORY DATA

Humboldt Reserve, LLC

4798 Highway 36
Hydesville, CA 95547

Inquiry Number: 6885678.5

March 09, 2022

The EDR-City Directory Image Report

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City Directory Images

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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

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<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

FINDINGS

TARGET PROPERTY STREET

4798 Highway 36
Hydesville, CA 95547

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

HIGHWAY 36

1992	pg A10	EDR Digital Archive
------	--------	---------------------

HWY 36

1995	pg A8	EDR Digital Archive
------	-------	---------------------

STATE HIGHWAY 36

2017	pg A1	EDR Digital Archive
2014	pg A2	EDR Digital Archive
2010	pg A3	EDR Digital Archive
2005	pg A5	EDR Digital Archive
2000	pg A7	EDR Digital Archive
1995	pg A9	EDR Digital Archive
1992	pg A11	EDR Digital Archive

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

STATE HIGHWAY 36 2017

1576 WILLS STEVE TRUCKING & LOGGING
3296 HYDESVILLE COMMUNITY CHURCH
3390 UNITED STATES POSTAL SERVICEUSPS
3415 MURNISH MARKET
3452 CRAPS, ALYSSA
3455 HYDESVILLE WATER DISTRICT
3526 COOK, MOLLY J
3604 ESSIG, ANTHONY G
3652 CHITTENDENS GRANITE
3900 SCHLERF, STEVE P
4307 HERMAN, FRANK H
4332 BALL, JEFFREY A

STATE HIGHWAY 36 2014

3156	FRASER, RICHARD D
3212	GUY, NELSON H
3217	PEUGH, HEATHER
3222	MCKENZIE, BRIAN P
3258	SORCI, ROBERT
3272	KENNON, JOHNNY C
3285	MARTINEZ, FRANK A
3296	HYDESVILLE COMMUNITY CHURCH
3390	UNITED STATES GOVERNMENT
3412	BOONE, JENNIFER
3415	MURRISH MARKET
3452	SATTERFIELD, THEO W
3455	HYDESVILLE WATER DISTRICT
3468	HALL, HERSCHEL E
3494	TIBBETTS, JOHN H
3526	COOK, JOHN C
3529	HOVER, GARY M
3556	KOON, ROBERT E
3565	GLAVOR, ALDA L
3568	BOWLEY, WES A
3575	STRAHAN, STEPHANIE L
3582	HOPPER, HARRIS
3584	GLASS, STACY L
3604	ESSIG, ANTHONY G
3607	NEWMAN, REAGEN N
3696	PAREDES, WILLIAM E
3820	FRASER, ERNEST E
3830	MIKELS, PAUL
3840	MAHAN, KRISTI
3852	WEIR, ARETHA
3860	ROCK, SARA
3866	METZGER, TANAR G
3867	PARROTT, JACKSON
3868	DICKSON, TODD D
3870	BAILON, DIANA
3900	SCHLERF, STEVE P
3968	HALL, RICHARD A
3987	BECK, RAE C
4018	WILBORN, JERRY L
4030	BOLTON, JACOB
4046	KRYSTOSEK, ANTHONY F
4307	GRUHLKE, DOROTHY Z
4332	BALL, JEFFREY A
4434	ROSS, KYLE
4452	POWERS, MAREETA L
4455	ORCUTT, STEVEN
	RHONDA, JAKE
4476	BRYANT, DENNIS

STATE HIGHWAY 36 2010

3156 FRASER, RICHARD D
 3203 CROSSWHITE, WILLIAM L
 3212 GUY, NELSON H
 3217 VANVALKENBURGH, BRUCE A
 3242 MCKENZIE, GREG H
 3258 SORCI, ROBERT
 3272 KENNON, BARBARA J
 3285 MARTINEZ, FRANK A
 3288 BENESH, SEAN
 3307 MURRAY, JIMMY
 3313 HALL, RANDY A
 3349 BOLING, CLARK M
 3381 MARCHETTI, CARL
 3389 MURRISH, STEPHEN F
 3390 US POST OFFICE
 3397 MURRISH HYDESVILLE MARKET
 SMITH, STEVEN L
 3412 MARCHETTI, CARL
 3422 SMITH, LORRAINE L
 3452 RAULFS, HORST A
 3465 FOLEY, GERALD
 3468 HALL, HERSCHEL E
 3482 RAULFS, NORST
 3494 GODFREY, SAM
 3526 COOK, JOHN C
 3529 HOVER, GARY L
 3556 KOON, ROBERT E
 3565 GLAVOR, ALDA L
 3568 ALBRIGHT, KENNETH C
 PRECISION AUTO GLASS
 3575 STRAHAN, STEPHANIE L
 3582 HOPPER, HARRIS
 3584 GLASS, STACY L
 3596 TORREZ, JACINTO J
 3607 NEWMAN, REAGEN N
 3678 QUINN, NEWTON C
 3696 BRINCKHAUS, LALITA R
 3732 RAMLAND, JUDY
 3830 MIKELS, PAUL
 3840 MAHAN, KRISTI
 3844 ELLIS, ROBERT A
 3852 WEIR, ARETHA
 3866 METZGER, TANAR G
 3867 PARROTT, JACKSON
 3868 HUDSON, RANDA
 3870 HAWLEY, YVONNE
 3968 HALL, RICHARD A
 3987 BECK, RAE C
 3991 BECK, GERALD E
 3994 SMITH, ROBERT G

STATE HIGHWAY 36 2010 (Cont'd)

4006	POLLEX, DALE R
4018	WILBORN, JERRY L
4030	BOLTON, JACOB
4062	KRYSTOSEK, ANTHONY F
4307	HERMAN, FRANK H
4332	BALL, JEFFEY A
4452	POWERS, MAREETA L
4455	RHONDA, JAKE
4476	BRYANT, DENNIS
4478	KELLEY, MATTHEW

STATE HIGHWAY 36 2005

3156 FRASER, RICHARD D
 3203 CROSSWHITE, WILLIAM L
 3212 GUY, NELSON H
 3217 MASON, NAOMI J
 3258 SORCI, ROBERT
 3272 KENNON, JOHNNY C
 3285 MARTINEZ, FRANK A
 3288 BENESH, SEAN
 3296 HYDESVILLE COMMUNITY CHURCH
 3307 HILL, BARBARA P
 3313 HALL, RANDY A
 3349 BOLING, CLARK M
 3381 MARCHETTI, CARL
 3389 MURRISH, STEPHEN F
 3390 HYDESVILLE POST OFFICE
 3397 MURRISH HYDESVILLE MARKET
 3432 MARCHETTI, CARL
 3452 RAULFS, HORST A
 3465 FOLEY, SAGE
 3468 HALL, HERSCHEL E
 3482 RAULFS, NORST
 3494 OCCUPANT UNKNOWN,
 3526 COOK, JOHN C
 3529 HOVER, GARY L
 3556 KOON, ROBERT E
 3565 GLAVOR, ALDA L
 3568 ALBRIGHT, STACY
 CALIFORNIA DENT PRECISION
 3575 STRAHAN, STEPHANIE L
 3582 HOPPER-HARRIS, BARBARA A
 3584 GLASS, STACY L
 3596 TORREZ, JACINTO J
 3607 NEWMAN, REAGEN N
 3678 QUINN, NEWTON C
 3696 BRINCKHAUS, LALITA R
 3732 RAMLAND, JUDY
 3774 OLANDER, JUSTIN
 3798 BARNHART, BEVERLY L
 3840 MAHAN, KRISTI
 3852 WEIR, ARETHA
 3866 WHITE, SALINA
 3867 PARROTT, JACKSON
 3868 HUDSON, RANDA
 3900 OCCUPANT UNKNOWN,
 3968 HALL, RICHARD A
 3987 BECK, RAE C
 4006 POLLEX, DALE R
 4030 FORD, ROBERT V
 4062 KRYSTOSEK, ANTHONY F
 4307 HERMAN, FRANK H

STATE HIGHWAY 36 2005 (Cont'd)

4332 WEAVER, JEREMY K
4452 POWERS, WILLIE
4476 SIMKO, PAUL A
4478 KELLEY, MATTHEW

STATE HIGHWAY 36 2000

3136	FRASER, RICHARD D
3181	KLEIN, NELSON
3258	SORCI, ROBERT
3285	MARTINEZ, FRANK
3296	HYDESVILLE COMMUNITY CHURCH
3307	HILL, BARBARA P
3313	HALL, RANDY
3349	BOLING, CLARK
3390	UNITED STATES GOVERNMENT POSTAL SERVICE
3397	MURRISHS HYDESVILLE MARKET
3452	FIKE, ARLIS L
3455	HYDESVILLE WATER DISTRICT
3468	HALL, H
3494	SPEARS, T L
3526	NEWMAN, RICK
3529	HOVER, MELANIE
3538	HYDESVILLE MITEY MART
3556	JOHNSON, APRIL S
3568	PHILLIPS, LEANORA K
3596	TORRES, JACINTO
3607	NEWMAN, REAGEN
3968	HALL, RICHARD A
3987	BECK, RAE C
4030	FORD, ROBERT
4260	ROCHA, LESLIE
4307	HERMAN, FRANK
4452	POWERS, WILLIE
4784	FRENCH, ALAN E

HWY 36 1995

3136	FRASER, RICHARD D
3181	KLEIN, NELSON
3258	SORCI, ROBERT
3307	HILL, BARBARA P
3349	BOLING, CLARK
3405	HALL, RANDY
3468	HALL, H
3494	BATY, EDD
3529	HOVER, MELANIE
3556	JOHNSON, APRIL S
3596	TORRES, JACINTO
3607	NEWMAN, REAGEN
3636	MADDOX, CHARLES
3678	QUINN, IRA
3900	SCHLERF, CATHY
3968	HALL, RICHARD A
4260	ROCHA, LESLIE
4307	HERMAN, FRANK
4384	HIGGINS, S
4452	POWERS, WILLIE
4476	KRAEMER, JAMES A
4784	FRENCH, ALAN E

STATE HIGHWAY 36 1995

3136 FRASER, RICHARD D
3296 HYDESVILLE COMMUNITY CHURCH
3390 US POST OFFICE
3397 MURRISHS HYDESVILLE MKT
3399 MURRISH VIDEO
3452 HYDESVILLE BURGER BAR
3455 HYDESVILLE WATER DISTRICT

HIGHWAY 36 1992

4452 POWERS, WILLIE
4784 FRENCH, ALAN E

STATE HIGHWAY 36 1992

3136	FRASER, RICHARD D
3181	KLEIN, NELSON
3258	SORCI, ROBERT
3296	HYDESVILLE COMM CH
3313	NORMAN, KENNETH
3327	PETTIT, G
3349	BOLING, CLARK
3390	US POSTAL SERVICE
3397	MURRISH'S HYDVL MKT
3405	HALL, RANDY
3452	HYDESVILLE BURGER
3455	HYDESVL WATER DIST
3465	NELSON, ELLEN A
3468	HALL, H
3494	BATY, EDD
3529	HOVER, MELANIE
3538	FIGUEIREDOS VIDEO HYDESVILLE MINI MRT
3556	JOHNSON, APRIL S
3596	TORRES, JACINTO
3900	SCHLERF, HERMAN
3968	HALL, RICHARD A
3994	SMITH, ROBERT G
4260	ROCHA, LESLIE
4307	HERMAN, TED
4384	HIGGINS, S

APPENDIX F

EDR SANBORN FIRE INSURANCE MAPS



Humboldt Reserve, LLC

4798 Highway 36

Hydesville, CA 95547

Inquiry Number: 6885678.3

March 04, 2022

Certified Sanborn® Map Report



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/04/22

Site Name:

Humboldt Reserve, LLC
4798 Highway 36
Hydesville, CA 95547
EDR Inquiry # 6885678.3

Client Name:

Freshwater Environmental Service
78 Sunny Brae
Arcata, CA 95521
Contact: Scott Ferriman



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Certification # AC84-41A1-B3ED
PO # FES-105
Project Humboldt Reserve, LLC

UNMAPPED PROPERTY

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Sanborn® Library search results

Certification #: AC84-41A1-B3ED

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- University Publications of America
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APPENDIX G
EDR RADIUS MAP REPORT

Humboldt Reserve, LLC

4798 Highway 36
Hydesville, CA 95547

Inquiry Number: 6885678.2s
March 04, 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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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

4798 HIGHWAY 36
HYDESVILLE, CA 95547

COORDINATES

Latitude (North): 40.5362440 - 40° 32' 10.47"
Longitude (West): 124.0712190 - 124° 4' 16.38"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 409277.1
UTM Y (Meters): 4487618.0
Elevation: 131 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 12014200 HYDESVILLE, CA
Version Date: 2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140608, 20140607
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
4798 HIGHWAY 36
HYDESVILLE, CA 95547

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	PALCO CARLOTTA MILL	511 HIGHWAY 36	LUST, Cortese, CERS	Lower	1 ft.
A2	HYDESVILLE SUBSTATIO	5151 HIGHWAY 36	CUPA Listings	Lower	122, 0.023, ENE
A3	HYDESVILLE SUBSTATIO	5151 HIGHWAY 36	AST	Lower	122, 0.023, ENE
A4	HYDESVILLE SUBSTATIO	5151 HIGHWAY 36	CERS TANKS, CERS	Lower	122, 0.023, ENE
5	PACIFIC LUMBER COMPA	511 HIGHWAY 36	CPS-SLIC	Lower	152, 0.029, SE
6	PACIFIC LUMBER COMPA	511 HIGHWAY 36	LUST, CPS-SLIC, HIST CORTESE, CERS	Lower	560, 0.106, ESE
7	HELY CREEK WOOD WAST	5 MI SE CARLOTTA HWY	SWF/LF, CERS	Lower	1207, 0.229, ENE
8	CARLOTTA LUMBER COMP	HIGHWAY 36	CPS-SLIC, ENF, Notify 65, CIWQS, CERS	Higher	1611, 0.305, ENE
B9	PALCO YAGER CREEK	2115 FISHER ROAD	LUST, Cortese, Notify 65, CIWQS, CERS	Lower	1719, 0.326, SW
B10	PACIFIC LUMPER YAGER	2115 FISHER ROAD	CPS-SLIC	Lower	1719, 0.326, SW
B11	PACIFIC LUMBER COMPA	2115 FISHER	LUST, HIST CORTESE	Lower	1719, 0.326, SW

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
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-VSQG..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

EXECUTIVE SUMMARY

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal (Superfund) equivalent sites

RESPONSE..... State Response Sites

Lists of state- and tribal hazardous waste facilities

ENVIROSTOR..... EnviroStor Database

Lists of state and tribal leaking storage tanks

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

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
HIST Cal-Sites..... Historical Calsites Database

EXECUTIVE SUMMARY

SCH.....	School Property Evaluation Program
CDL.....	Clandestine Drug Labs
CERS HAZ WASTE.....	CERS HAZ WASTE
Toxic Pits.....	Toxic Pits Cleanup Act Sites
US CDL.....	National Clandestine Laboratory Register
AQUEOUS FOAM.....	Former Fire Training Facility Assessments Listing
PFAS.....	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST.....	SWEEPS UST Listing
HIST UST.....	Hazardous Substance Storage Container Database
CA FID UST.....	Facility Inventory Database

Local Land Records

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

RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
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

EXECUTIVE SUMMARY

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
FINDS.....	Facility Index System/Facility Registry System
UXO.....	Unexploded Ordnance Sites
ECHO.....	Enforcement & Compliance History Information
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN.....	Bond Expenditure Plan
DRYCLEANERS.....	Cleaner Facilities
EML.....	Emissions Inventory Data
ENF.....	Enforcement Action Listing
Financial Assurance.....	Financial Assurance Information Listing
HAZNET.....	Facility and Manifest Data
ICE.....	ICE
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
MINES.....	Mines Site Location Listing
MWMP.....	Medical Waste Management Program Listing
NPDES.....	NPDES Permits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing
PROC.....	Certified Processors Database
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
CIWQS.....	California Integrated Water Quality System
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)
HWTS.....	Hazardous Waste Tracking System
MINES MRDS.....	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF.....	Recovered Government Archive Solid Waste Facilities List
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EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

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 state and tribal landfills and solid waste disposal facilities

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>HELY CREEK WOOD WAST</i>	<i>5 MI SE CARLOTTA HWY</i>	<i>ENE 1/8 - 1/4 (0.229 mi.)</i>	<i>7</i>	<i>18</i>
Database: SWF/LF (SWIS), Date of Government Version: 11/08/2021				
Facility ID: 12-AA-0076				
Operational Status: Clean Closed				
Regulation Status: Permitted				

Lists of state and tribal leaking storage tanks

LUST: 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.

A review of the LUST list, as provided by EDR, has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>PALCO CARLOTTA MILL</i>	<i>511 HIGHWAY 36</i>	<i>0 - 1/8 (0.000 mi.)</i>	<i>A1</i>	<i>9</i>
Database: LUST, Date of Government Version: 12/06/2021				
Global Id: T0602300253				
Status: Completed - Case Closed				
<i>PACIFIC LUMBER COMPA</i>	<i>511 HIGHWAY 36</i>	<i>ESE 0 - 1/8 (0.106 mi.)</i>	<i>6</i>	<i>16</i>
Database: LUST REG 1, Date of Government Version: 02/01/2001				

EXECUTIVE SUMMARY

Facility Id: 1THU332

PALCO YAGER CREEK **2115 FISHER ROAD** **SW 1/4 - 1/2 (0.326 mi.)** **B9** **40**

Database: LUST, Date of Government Version: 12/06/2021

Global Id: T0602300144

Status: Completed - Case Closed

PACIFIC LUMBER COMPA **2115 FISHER** **SW 1/4 - 1/2 (0.326 mi.)** **B11** **44**

Database: LUST REG 1, Date of Government Version: 02/01/2001

Facility Id: 1THU197

CPS-SLIC: 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.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 4 CPS-SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARLOTTA LUMBER COMP	HIGHWAY 36	ENE 1/4 - 1/2 (0.305 mi.)	8	20
Database: SLIC REG 1, Date of Government Version: 04/03/2003				
Database: CPS-SLIC, Date of Government Version: 12/06/2021				
Facility Status: Open - Inactive				
Facility Id: 1NHU761				
Global Id: T0602393520				

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PACIFIC LUMBER COMPA	511 HIGHWAY 36	SE 0 - 1/8 (0.029 mi.)	5	16
Database: SLIC REG 1, Date of Government Version: 04/03/2003				
Facility Id: 1NHU637				
PACIFIC LUMBER COMPA	511 HIGHWAY 36	ESE 0 - 1/8 (0.106 mi.)	6	16
Database: CPS-SLIC, Date of Government Version: 12/06/2021				
Facility Status: Open - Inactive				
Global Id: T0602393482				
PACIFIC LUMPER YAGER	2115 FISHER ROAD	SW 1/4 - 1/2 (0.326 mi.)	B10	44
Database: SLIC REG 1, Date of Government Version: 04/03/2003				
Facility Id: 1NHU197				

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 is 1 AST 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>
HYDESVILLE SUBSTATIO	5151 HIGHWAY 36	ENE 0 - 1/8 (0.023 mi.)	A3	12
Database: AST, Date of Government Version: 07/06/2016				

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

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 10/18/2021 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>
HYDEVILLE SUBSTATIO	5151 HIGHWAY 36	ENE 0 - 1/8 (0.023 mi.)	A4	13

Other Ascertainable Records

Cortese: 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).

A review of the Cortese list, as provided by EDR, and dated 12/16/2021 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PALCO CARLOTTA MILL Cleanup Status: COMPLETED - CASE CLOSED	511 HIGHWAY 36	0 - 1/8 (0.000 mi.)	A1	9
PALCO YAGER CREEK Cleanup Status: COMPLETED - CASE CLOSED	2115 FISHER ROAD	SW 1/4 - 1/2 (0.326 mi.)	B9	40

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 is 1 CUPA Listings 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>
HYDEVILLE SUBSTATIO Database: CUPA HUMBOLDT, Date of Government Version: 08/12/2021 Permit Status: 01 - Active Local Site Id: FA0001606	5151 HIGHWAY 36	ENE 0 - 1/8 (0.023 mi.)	A2	11

HIST CORTESE: 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 [CALSTITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there

EXECUTIVE SUMMARY

are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PACIFIC LUMBER COMPA Reg Id: 1THU332	511 HIGHWAY 36	ESE 0 - 1/8 (0.106 mi.)	6	16
PACIFIC LUMBER COMPA Reg Id: 1THU197	2115 FISHER	SW 1/4 - 1/2 (0.326 mi.)	B11	44

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 12/13/2021 has revealed that there are 2 Notify 65 sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARLOTTA LUMBER COMP	HIGHWAY 36	ENE 1/4 - 1/2 (0.305 mi.)	8	20
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PALCO YAGER CREEK	2115 FISHER ROAD	SW 1/4 - 1/2 (0.326 mi.)	B9	40

CERS: 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

A review of the CERS list, as provided by EDR, and dated 10/18/2021 has revealed that there is 1 CERS site within approximately 0.001 miles of the target property.

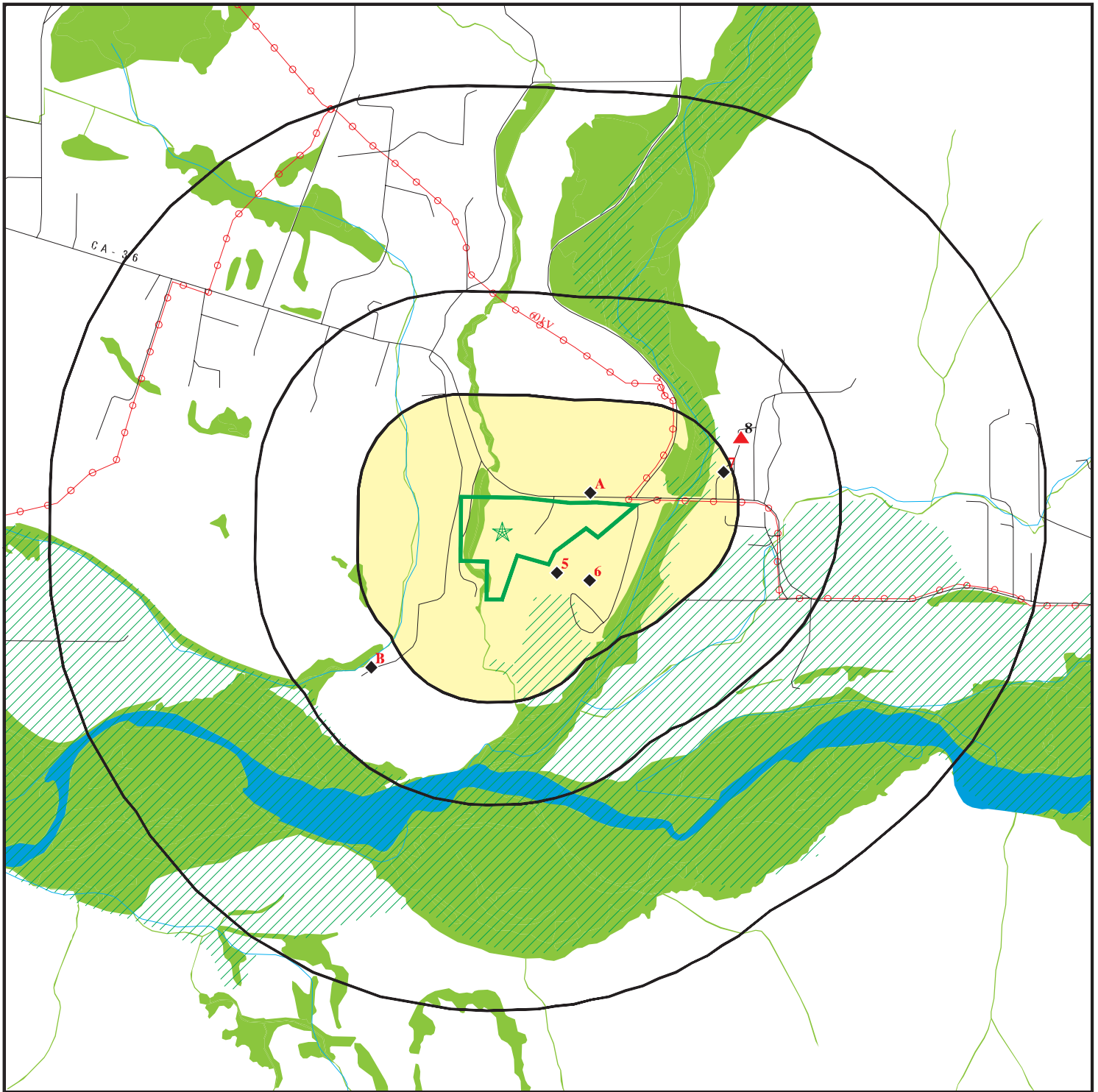
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PALCO CARLOTTA MILL	511 HIGHWAY 36	0 - 1/8 (0.000 mi.)	A1	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

<u>Site Name</u>	<u>Database(s)</u>
SUN GIANT FARMS	CERS HAZ WASTE
CARLOTTA CONTAINER SITE	SWF/LF
SWAIN'S FLAT OUTPOST	LUST

OVERVIEW MAP - 6885678.2S



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

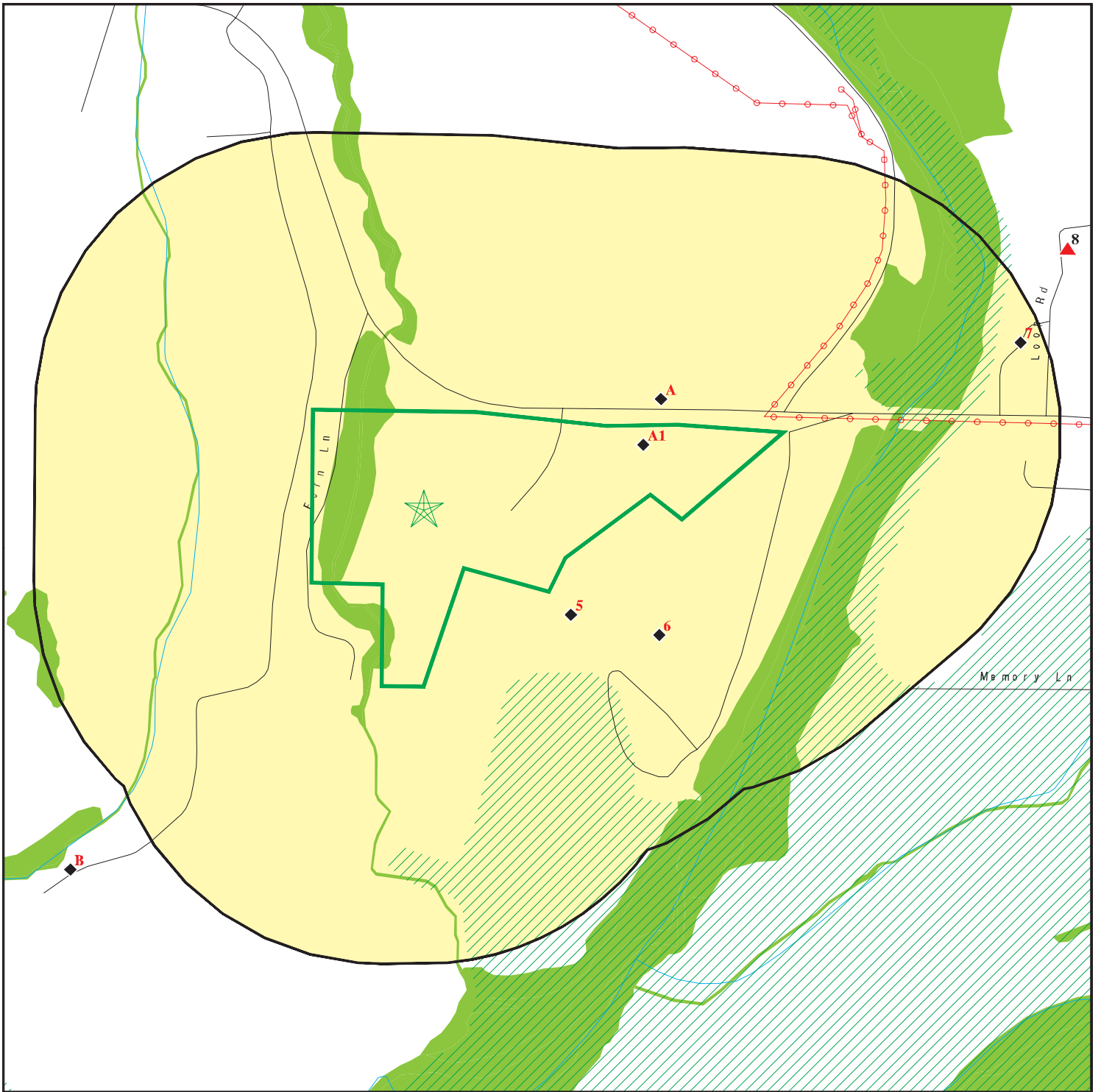









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.





SITE NAME: Humboldt Reserve, LLC
 ADDRESS: 4798 Highway 36
 Hydesville CA 95547
 LAT/LONG: 40.536244 / 124.071219


CLIENT: Freshwater Environmental Service
 CONTACT: Scott Ferriman
 INQUIRY #: 6885678.2s
 DATE: March 04, 2022 6:54 pm

DETAIL MAP - 6885678.2S



-  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
-  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: Humboldt Reserve, LLC
 ADDRESS: 4798 Highway 36
 Hydesville CA 95547
 LAT/LONG: 40.536244 / 124.071219

CLIENT: Freshwater Environmental Service
 CONTACT: Scott Ferriman
 INQUIRY #: 6885678.2s
 DATE: March 04, 2022 6:54 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		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<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	0	NR	0
<i>Lists of state- and tribal hazardous waste facilities</i>								
ENVIROSTOR	1.000		0	0	0	0	NR	0
<i>Lists of state and tribal landfills and solid waste disposal facilities</i>								
SWF/LF	0.500		0	1	0	NR	NR	1

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		2	0	2	NR	NR	4
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		2	0	2	NR	NR	4
<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	0	NR	NR	NR	1
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	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	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
CERS TANKS	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
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		0	0	NR	NR	NR	0
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		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **PALCO CARLOTTA MILL**
511 HIGHWAY 36
< 1/8 **CARLOTTA, CA 95528**
1 ft.

LUST **S122356245**
Cortese **N/A**
CERS

Site 1 of 4 in cluster A

Relative:
Lower
Actual:
125 ft.

LUST:
Name: PALCO CARLOTTA MILL
Address: 511 HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0602300253
Global Id: T0602300253
Latitude: 40.5370634555518
Longitude: -124.067465007202
Status: Completed - Case Closed
Status Date: 06/19/1997
Case Worker: ZZZ
RB Case Number: 1THU332
Local Agency: HUMBOLDT COUNTY LOP
File Location: Not reported
Local Case Number: 12332
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0602300253
Contact Type: Local Agency Caseworker
Contact Name: Mark Verhey
Organization Name: HUMBOLDT COUNTY LOP
Address: 100 H Street, Suite 100
City: Eureka
Email: mverhey@co.humboldt.ca.us
Phone Number: Not reported

Global Id: T0602300253
Contact Type: Regional Board Caseworker
Contact Name: HUMBOLDT COUNTY LOP CLOSED SITE
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0602300253
Action Type: ENFORCEMENT
Date: 11/09/1990
Action: * Historical Enforcement

Global Id: T0602300253
Action Type: Other
Date: 11/01/1990
Action: Leak Discovery

Global Id: T0602300253
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO CARLOTTA MILL (Continued)

S122356245

Date: 07/28/1995
Action: Other Report / Document

Global Id: T0602300253
Action Type: Other
Date: 11/01/1990
Action: Leak Reported

Global Id: T0602300253
Action Type: ENFORCEMENT
Date: 06/19/1997
Action: Closure/No Further Action Letter - #12332.RACC

Global Id: T0602300253
Action Type: Other
Date: 11/01/1990
Action: Leak Stopped

LUST:

Global Id: T0602300253
Status: Open - Case Begin Date
Status Date: 11/01/1990

Global Id: T0602300253
Status: Open - Site Assessment
Status Date: 11/09/1990

Global Id: T0602300253
Status: Open - Remediation
Status Date: 06/18/1997

Global Id: T0602300253
Status: Open - Site Assessment
Status Date: 06/18/1997

Global Id: T0602300253
Status: Open - Verification Monitoring
Status Date: 06/18/1997

Global Id: T0602300253
Status: Completed - Case Closed
Status Date: 06/19/1997

CORTESE:

Name: PALCO CARLOTTA MILL
Address: 511 HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0602300253
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO CARLOTTA MILL (Continued)

S122356245

Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

CERS:

Name: PALCO CARLOTTA MILL
Address: 511 HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Site ID: 207211
CERS ID: T0602300253
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: HUMBOLDT COUNTY LOP CLOSED SITE - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported
Affiliation Address: 5550 SKYLANE BOULEVARD, SUITE A
Affiliation City: SANTA ROSA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Local Agency Caseworker
Entity Name: Mark Verhey - HUMBOLDT COUNTY LOP
Entity Title: Not reported
Affiliation Address: 100 H Street, Suite 100
Affiliation City: Eureka
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

A2
ENE
< 1/8
0.023 mi.
122 ft.

HYDEVILLE SUBSTATION
5151 HIGHWAY 36
HYDEVILLE, CA 95547

CUPA Listings **S110738131**
N/A

Site 2 of 4 in cluster A

Relative:
Lower
Actual:
126 ft.

CUPA HUMBOLDT:
Name: HYDEVILLE SUBSTATION
Address: 5151 HIGHWAY 36
City,State,Zip: HYDEVILLE, CA 95547
Local Site Id: FA0001606
Facility Address 2: Not reported
Program Identifier: CUPA - HMBP
Program Element Code Desc: 4201 4201 - HMBP and/or Inventory

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYDESVILLE SUBSTATION (Continued)

S110738131

Permit Status: 01 - Active
CERS ID: 10405426
Facility Status: 04 - ACTIVE, EXEMPT FROM BILLING
Record ID: PR0001567
District: S - South
SIC Code: 3612 - Transformers, except electronic
Last Touched: 03/26/2021
Update By: JGONZALEZ
Contact Name: Tambra Fisher
Day Phone: 7077644268
Latitude: 40.53759
Longitude: -124.0663

Name: HYDESVILLE SUBSTATION
Address: 5151 HIGHWAY 36
City,State,Zip: HYDESVILLE, CA 95547
Local Site Id: FA0001606
Facility Address 2: Not reported
Program Identifier: CUPA - APSA Tier I
Program Element Code Desc: 4005 4005 - APSA Tier I Facility
Permit Status: 01 - Active
CERS ID: 10405426
Facility Status: 01 - ACTIVE, BILLABLE
Record ID: PR0004529
District: S - South
SIC Code: 3612 - Transformers, except electronic
Last Touched: 03/26/2021
Update By: JGONZALEZ
Contact Name: Tambra Fisher
Day Phone: 7077644268
Latitude: 40.53759
Longitude: -124.0663

A3
ENE
< 1/8
0.023 mi.
122 ft.

HYDESVILLE SUBSTATION
5151 HIGHWAY 36
HYDESVILLE, CA 95547
Site 3 of 4 in cluster A

AST A100420914
N/A

Relative:
Lower
Actual:
126 ft.

AST:
Name: HYDESVILLE SUBSTATION
Address: 5151 HIGHWAY 36
City/Zip: HYDESVILLE,95547
Certified Unified Program Agencies: Not reported
Owner: Humboldt Redwood Company, LLC
Total Gallons: Not reported
CERSID: 10405426
Facility ID: Not reported
Business Name: Humboldt Redwood Company, LLC
Phone: (707) 764-4268
Fax: (707) 764-4113
Mailing Address: PO Box 37
Mailing Address City: Scotia
Mailing Address State: CA
Mailing Address Zip Code: 95565
Operator Name: Humboldt Redwood Company, LLC - Hydesville Substation
Operator Phone: (707) 485-4408
Owner Phone: (707) 764-4268

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HYDESVILLE SUBSTATION (Continued)

A100420914

Owner Mail Address: PO Box 37
 Owner State: CA
 Owner Zip Code: 95565
 Owner Country: United States
 Property Owner Name: Humboldt Redwood Company, LLC
 Property Owner Phone: (707) 764-4268
 Property Owner Mailing Address: PO Box 37
 Property Owner City: Scotia
 Property Owner Stat : CA
 Property Owner Zip Code: 95565
 Property Owner Country: United States
 EPAID: Not reported

A4
ENE
 < 1/8
 0.023 mi.
 122 ft.

HYDESVILLE SUBSTATION
5151 HIGHWAY 36
HYDESVILLE, CA 95547

CERS TANKS **S121741303**
CERS **N/A**

Site 4 of 4 in cluster A

Relative:
Lower
Actual:
126 ft.

CERS TANKS:
 Name: HYDESVILLE SUBSTATION
 Address: 5151 HIGHWAY 36
 City,State,Zip: HYDESVILLE, CA 95547
 Site ID: 123628
 CERS ID: 10405426
 CERS Description: Aboveground Petroleum Storage

CERS:
 Name: HYDESVILLE SUBSTATION
 Address: 5151 HIGHWAY 36
 City,State,Zip: HYDESVILLE, CA 95547
 Site ID: 123628
 CERS ID: 10405426
 CERS Description: Chemical Storage Facilities

Violations:
 Site ID: 123628
 Site Name: Hydesville Substation
 Violation Date: 02-23-2015
 Citation: 19 CCR 6.95 25508(a)(1) - California Code of Regulations, Title 19, Chapter 6.95, Section(s) 25508(a)(1)
 Violation Description: Failure to complete and electronically submit the Business Activities Page and/or Business Owner Operator Identification Page.
 Violation Notes: Returned to compliance on 02/27/2015. Update the owner / operator page in CERS to reflect changes in personnel.
 Violation Division: Humboldt County Division of Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS,

Evaluation:
 Eval General Type: Compliance Evaluation Inspection
 Eval Date: 09-21-2021
 Violations Found: No
 Eval Type: Routine done by local agency
 Eval Notes: Not reported
 Eval Division: Humboldt County Division of Environmental Health
 Eval Program: HMRRP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYDESVILLE SUBSTATION (Continued)

S121741303

Eval Source: CERS,
Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Humboldt County Division of Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-23-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Humboldt County Division of Environmental Health
Eval Program: HMRRP
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-29-2019
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Humboldt County Division of Environmental Health
Eval Program: APSA
Eval Source: CERS,

Eval General Type: Compliance Evaluation Inspection
Eval Date: 09-21-2021
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Humboldt County Division of Environmental Health
Eval Program: APSA
Eval Source: CERS,

Enforcement Action:
Site ID: 123628
Site Name: Hydesville Substation
Site Address: 5151 HIGHWAY 36
Site City: HYDESVILLE
Site Zip: 95547
Enf Action Date: 02-23-2015
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: Humboldt County Division of Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS,

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: Suzanne McClurkin-Nelson
Entity Title: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYDESVILLE SUBSTATION (Continued)

S121741303

Affiliation Address: PO Box 37
Affiliation City: Scotia
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95565
Affiliation Phone: ,

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: PO Box 37
Affiliation City: Scotia
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95565
Affiliation Phone: ,

Affiliation Type Desc: Operator
Entity Name: Humboldt Redwood Company, LLC - Hydesville Substation
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: (707) 485-4408,

Affiliation Type Desc: Parent Corporation
Entity Name: Humboldt Redwood Company, LLC
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: Suzanne McClurkin-Nelson
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: Property Owner
Entity Name: Humboldt Redwood Company, LLC
Entity Title: Not reported
Affiliation Address: PO Box 37
Affiliation City: Scotia
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 95565
Affiliation Phone: (707) 764-4268,

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

HYDESVILLE SUBSTATION (Continued)

S121741303

Affiliation Type Desc: CUPA District
 Entity Name: Humboldt Cnty Env Health
 Entity Title: Not reported
 Affiliation Address: 100 H Street, Suite 100
 Affiliation City: Eureka
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: 95501
 Affiliation Phone: (707) 445-6215,

Affiliation Type Desc: Identification Signer
 Entity Name: Suzanne McClurkin-Nelson
 Entity Title: Environmental Specialist
 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: Humboldt Redwood Company, LLC
 Entity Title: Not reported
 Affiliation Address: PO Box 37
 Affiliation City: Scotia
 Affiliation State: CA
 Affiliation Country: United States
 Affiliation Zip: 95565
 Affiliation Phone: (707) 764-4253,

5
SE
 < 1/8
 0.029 mi.
 152 ft.

PACIFIC LUMBER COMPANY/ CARLOTTA MILL
511 HIGHWAY 36
CARLOTTA, CA 95564

CPS-SLIC S105051006
N/A

Relative:
Lower

SLIC REG 1:
 Region: 1
 Facility ID: 1NHU637
 Staff Initials: KSA

Actual:
120 ft.

6
ESE
 < 1/8
 0.106 mi.
 560 ft.

PACIFIC LUMBER COMPANY CARLOTTA MILL (LOUISIANA PA
511 HIGHWAY 36
CARLOTTA, CA 95564

LUST S101307189
CPS-SLIC N/A
HIST CORTESE
CERS

Relative:
Lower

LUST REG 1:
 Region: 1
 Facility ID: 1THU332
 Staff Initials: Closed

Actual:
117 ft.

CPS-SLIC:
 Name: PACIFIC LUMBER COMPANY CARLOTTA MILL (LOUISIANA PACIFIC CARLOTTA)
 Address: 511 HIGHWAY 36

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PACIFIC LUMBER COMPANY CARLOTTA MILL (LOUISIANA PACIFIC CARL (Continued))

S101307189

City,State,Zip: CARLOTTA, CA 95564
Region: STATE
Facility Status: Open - Inactive
Status Date: 08/18/2015
Global Id: T0602393482
Lead Agency: NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number: Not reported
Latitude: 40.5345789319157
Longitude: -124.067187309265
Case Type: Cleanup Program Site
Case Worker: TNM
Local Agency: HUMBOLDT COUNTY LOP
RB Case Number: 1NHU637
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Benzene, Toluene, Xylene, Dioxin / Furans, Gasoline, Waste Oil / Motor / Hydraulic / Lubricating

Site History: Former operations at the Carlotta Mill used pentachlorophenol and copper-based compounds to treat lumber. Dioxins have also been found onsite. These chemicals are in groundwater and were in surface soil. There were also fuel underground storage tanks used at the site. These have been removed, and the associated petroleum contaminated groundwater cleaned up.

Click here to access the California GeoTracker records for this facility:

HIST CORTESE:

edr_fname: PACIFIC LUMBER CO. /CARLO
edr_fadd1: 511 36
City,State,Zip: CARLOTTA, CA
Region: CORTESE
Facility County Code: 12
Reg By: LTNKA
Reg Id: 1THU332

CERS:

Name: PACIFIC LUMBER COMPANY CARLOTTA MILL (LOUISIANA PACIFIC CARLOTTA)
Address: 511 HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95564
Site ID: 200385
CERS ID: T0602393482
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: Mark Verhey - HUMBOLDT COUNTY LOP
Entity Title: Not reported
Affiliation Address: 100 H Street, Suite 100
Affiliation City: Eureka
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Regional Board Caseworker
Entity Name: TOM MAGNEY - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

PACIFIC LUMBER COMPANY CARLOTTA MILL (LOUISIANA PACIFIC CARL (Continued)

S101307189

Affiliation Address: 5550 SKYLANE BOULEVARD, SUITE A
 Affiliation City: SANTA ROSA
 Affiliation State: CA
 Affiliation Country: Not reported
 Affiliation Zip: Not reported
 Affiliation Phone: 7075762030,

7
ENE
1/8-1/4
0.229 mi.
1207 ft.

HELY CREEK WOOD WASTE SITE
5 MI SE CARLOTTA HWY 36 NR PAMPLIN GROVE
CARLOTTA, CA 95528

SWF/LF **S102360156**
CERS **N/A**

Relative:
Lower
Actual:
130 ft.

SWF/LF (SWIS):
 Name: HELY CREEK WOOD WASTE SITE
 Address: 5 MI SE CARLOTTA HWY 36 NR PAMPLIN GROVE
 City,State,Zip: CARLOTTA, CA 95528
 Region: STATE
 Facility ID: 12-AA-0076
 SWIS Number: 12-AA-0076
 Point of Contact: Angela Gomez
 Is Archived: No
 Is Closed Illegal Abandoned: Yes
 Is Site Inert Debris Engineered Fill: No
 Is Financial Assurances Responsible: No
 Absorbed On: Not reported
 Operational Status: Clean Closed
 Absorbed By: Not reported
 Closed Illegal Abandoned Category: D
 EPA Federal Registry ID: Not reported
 ARB District: North Coast Unified
 SWRCB Region: North Coast
 Local Government: Humboldt County (Unincorporated)
 Reporting Agency Legal Name: County of Humboldt
 Reporting Agency Department: Department of Health and Human Services, Environmental Health Division
 Enforcing Agency Legal Name: County of Humboldt
 Enforcing Agency Department: Department of Health and Human Services, Environmental Health Division
 Regulation Status: Permitted

Activity:
 SWIS Number: 12-AA-0076
 Site Name: Hely Creek Wood Waste Site
 Activity: Wood Waste Disposal Site
 Activity Is Archived: No
 Category: Disposal
 Activity Classification: Solid Waste Facility
 WDR Number: Not reported
 WDR Landfill Class: Not reported
 Cease Operation: Not reported
 Cease Operation Type: Not reported
 Inspection Frequency: None
 Throughput: Not reported
 Throughput Units: Not reported
 Remaining Capacity: Not reported
 Remaining Capacity Date: Not reported
 Capacity: Not reported
 Capacity Units: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HELY CREEK WOOD WASTE SITE (Continued)

S102360156

Total Acreage: 0
Disposal Acreage: 0
Permitted Elevation: Not reported
Permitted Elevation Type: Not reported
Permitted Depth: Not reported
Permitted Depth Type: Not reported
Point of Contact: Angela Gomez
Site Operational Status: Clean Closed
Site Regulatory Status: Permitted
Site Is Archived: No
Is Closed Illegal Abandoned: Yes
Is Site Inert Debris Engineered Fill: No
Is Financial Assurances Responsible: No
Absorbed On: Not reported
Absorbed By: Not reported
Closed Illegal Abandoned Category: D
EPA Federal Registry ID: Not reported
County: Humboldt
ARB District: North Coast Unified
SWRCB Region: North Coast
Local Government: Humboldt County (Unincorporated)
Street Address: 5 Mi Se Carlotta Hwy 36 Nr Pamplin Grove
City: Carlotta
State: CA
ZIP Code: 95528
Reporting Agency Legal Name: County of Humboldt
Reporting Agency Department: Department of Health and Human Services, Environmental Health Division
Enforcing Agency Legal Name: County of Humboldt
Enforcing Agency Department: Department of Health and Human Services, Environmental Health Division

Operator:

SWIS Number: 12-AA-0076
Site Name: Hely Creek Wood Waste Site
Site Operational Status: Clean Closed
Site Type: Disposal Only
Site Regulatory Status: Permitted
Latitude: 40.53845
Longitude: -124.06093
Is Archived: No
Operator: Humboldt Redwood Company, LLC
Started On: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Email: Not reported
Contact Phone: (707) 764-4472
Street Address: P.O. Box 37
Operator City: Scotia
Operator State: CA
Operator Zip: 95565

Owner:

SWIS Number: 12-AA-0076
Owner: Humboldt Redwood Company, LLC
Owner Address: P.O. Box 37
Owner City: Scotia
Owner State: CA

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HELY CREEK WOOD WASTE SITE (Continued)

S102360156

Owner Zip: 95565
Site Name: Hely Creek Wood Waste Site
Site Operational Status: Clean Closed
Site Type: Disposal Only
Site Regulatory Status: Permitted
Latitude: 40.53845
Longitude: -124.06093
Is Archived: No
Started On: Not reported
Contact Name: Not reported
Contact Title: Not reported
Contact Email: Not reported
Contact Phone: (707) 764-4472

CERS:

Name: HELY CREEK WOOD WASTE SITE
Address: 5 MI SE CARLOTTA HWY 36 NR PAMPLIN GROVE
City,State,Zip: CARLOTTA, CA
Site ID: 509170
CERS ID: 12-AA-0076
CERS Description: Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc: Legal Operator
Entity Name: Humboldt Redwood Company, LLC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Scotia
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95565
Affiliation Phone: 7077644472,

Affiliation Type Desc: Legal Owner
Entity Name: Humboldt Redwood Company, LLC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Scotia
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95565
Affiliation Phone: 7077644472,

8
ENE
1/4-1/2
0.305 mi.
1611 ft.

CARLOTTA LUMBER COMPANY
HIGHWAY 36
CARLOTTA, CA 95528

CPS-SLIC **U000069686**
ENF **N/A**
Notify 65
CIWQS
CERS

Relative:
Higher
Actual:
143 ft.

SLIC REG 1:
Region: 1
Facility ID: 1NHU761
Staff Initials: KSA

CPS-SLIC:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Region: STATE
Facility Status: Open - Inactive
Status Date: 06/22/2017
Global Id: T0602393520
Lead Agency: NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number: Not reported
Latitude: 40.539631188429
Longitude: -124.060196525678
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: HUMBOLDT COUNTY LOP
RB Case Number: 1NHU761
File Location: Regional Board
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Other Insecticides / Pesticide / Fumigants / Herbicides
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

ENF:

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Region: 1
Facility Id: 213262
Agency Name: Not reported
Place Type: Service/Commercial
Place Subtype: Service/Commercial Site, NEC
Facility Type: All other facilities
Agency Type: Not reported
Of Agencies: Not reported
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: Enf Action
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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
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:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	236486
Region:	1
Order / Resolution Number:	Not reported
Enforcement Action Type:	Oral Communication
Effective Date:	08/03/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	08/03/2001
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B1HU761NSL Carlotta Lumber Company
Description:	Not reported
Program:	SLIC
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:	CARLOTTA LUMBER COMPANY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Address:	HIGHWAY 36
City,State,Zip:	CARLOTTA, CA 95528
Region:	1
Facility Id:	213262
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
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:	Enf Action
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:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

WDR Review - Rescind: Not reported
WDR Review - No Action Required: Not reported
WDR Review - Pending: Not reported
WDR Review - Planned: Not reported
Status Enrollee: Not reported
Individual/General: Not reported
Fee Code: Not reported
Direction/Voice: Not reported
Enforcement Id(EID): 225246
Region: 1
Order / Resolution Number: Not reported
Enforcement Action Type: Staff Enforcement Letter
Effective Date: 07/31/2000
Adoption/Issuance Date: Not reported
Achieve Date: Not reported
Termination Date: 07/31/2000
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Historical
Title: Enforcement - 1B1HU761NSL Carlotta Lumber Company
Description: SIGNED ACKNOWLEDGEMENT FORM OVER 30 DAYS LATE.
Program: SLIC
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: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Region: 1
Facility Id: 213261
Agency Name: Not reported
Place Type: Manufacturing
Place Subtype: Manufacturing NEC
Facility Type: Industrial
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: Not reported
Place Longitude: Not reported
SIC Code 1: 2421
SIC Desc 1: Sawmills and Planing Mills, General
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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

# Of Places:	1
Source Of Facility:	Enf Action
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:	Not reported
Program Category1:	Not reported
Program Category2:	WDR
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
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:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	224137
Region:	1
Order / Resolution Number:	87-133
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	10/06/1987
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B83081OHUM Carlotta Lumber Company
Description:	CAO REQUIRES INVESTIGATION AND CLEANUP AND ABATEMENT.
Program:	WDR
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

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:	CARLOTTA LUMBER COMPANY
Address:	HIGHWAY 36
City,State,Zip:	CARLOTTA, CA 95528
Region:	1
Facility Id:	213261
Agency Name:	Not reported
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	2421
SIC Desc 1:	Sawmills and Planing Mills, General
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:	Enf Action
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:	Not reported
Program Category1:	Not reported
Program Category2:	WDR
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
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:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	224060
Region:	1
Order / Resolution Number:	89-052
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	04/04/1989
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B83081OHUM Carlotta Lumber Company
Description:	FOR IMPLEMENTATION OF PHASE 2 INVESTIGATION & PROVIDE SPECIFIC DATES BY WHICH TASKS TO BE COMPLETED.
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:	CARLOTTA LUMBER COMPANY
Address:	HIGHWAY 36
City,State,Zip:	CARLOTTA, CA 95528
Region:	1
Facility Id:	213261
Agency Name:	Not reported
Place Type:	Manufacturing
Place Subtype:	Manufacturing NEC
Facility Type:	Industrial
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	2421
SIC Desc 1:	Sawmills and Planing Mills, General

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

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:	Enf Action
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:	Not reported
Program Category1:	Not reported
Program Category2:	WDR
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
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:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	223947
Region:	1
Order / Resolution Number:	LT910607
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	06/07/1991
Adoption/Issuance Date:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Achieve Date: Not reported
Termination Date: Not reported
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Historical
Title: Enforcement - 1B83081OHUM Carlotta Lumber Company
Description: REQUESTING INFORMATION REGARDING DISPOSAL OF THE
CONTAMINATED SOILS FROM 2ND EXCAVATION.

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: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Region: 1
Facility Id: 213261
Agency Name: Not reported
Place Type: Manufacturing
Place Subtype: Manufacturing NEC
Facility Type: Industrial
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: Not reported
Place Longitude: Not reported
SIC Code 1: 2421
SIC Desc 1: Sawmills and Planing Mills, General
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: Enf Action
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: Not reported
Program Category1: Not reported
Program Category2: WDR

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
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:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
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:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	223946
Region:	1
Order / Resolution Number:	95-06002
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	08/24/1995
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B83081OHUM Carlotta Lumber Company
Description:	CAO RESCINDS 89-052.
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

NOTIFY 65:

Name:	CARLOTTA LUMBER CO
Address:	HWY 36
City,State,Zip:	CARLOTTA, CA 93926
Date Reported:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER CO.
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER COMPANY
Address: HWY 36 (PO BOX 8)
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER COMPANY
Address: HWY 36 (PO BOX 8)
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER CO.
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER CO.
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER COMPANY
Address: HWY 36 (PO BOX 8)
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER CO
Address: HWY 36
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Name: CARLOTTA LUMBER CO
Address: HWY 36
City,State,Zip: CARLOTTA, CA 93926
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

CIWQS:

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Agency: Urban Lumber Company (Carlotta Lumber Company)
Agency Address: 16102 Gladstone Street, Irwindale, CA 91706
Place/Project Type: Manufacturing NEC
SIC/NAICS: 2421
Region: 1
Program: WDR
Regulatory Measure Status: Historical
Regulatory Measure Type: WDR
Order Number: 95-06001
WDID: 1B83081OHUM
NPDES Number: Not reported
Adoption Date: 08/24/1995
Effective Date: 08/24/1995
Termination Date: Not reported
Expiration/Review Date: Not reported
Design Flow: 0.0001
Major/Minor: Not reported
Complexity: C
TTWQ: 2
Enforcement Actions within 5 years: 0
Violations within 5 years: 0
Latitude: Not reported
Longitude: Not reported

CERS:

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Site ID: 257068
CERS ID: T0602393520
CERS Description: Cleanup Program Site

Violations:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Violation Date: 08-03-2001
Citation: California Water Code
Violation Description: Not reported
Violation Notes: MRP 01-002 REQUIRES THAT QUARTERLY MOINTORING REPORT BE SUBMITTED BY 4/15/01. REPORT RECEIVED 5/21/01
Violation Division: Water Boards
Violation Program: SLIC
Violation Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Violation Date: 07-25-2000
Citation: California Water Code
Violation Description: Not reported
Violation Notes: LETTER OF JUNE 2, 2000 REQUESTED RETURN OF THE SIGNED ACKNOWLEDGEMENT FORM FOR COST RECOVERY BY JUNE 15, 2000. RECEIVED OVER 30 DAYS LATE.
Violation Division: Water Boards
Violation Program: SLIC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Violation Source: CIWQS,

Enforcement Action:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-24-1995
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 06-07-1991
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 10-06-1987
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 04-04-1989
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-03-2001
Enf Action Type: Oral Communication
Enf Action Description: Oral Communication
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 07-31-2000
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: PAUL NELSON - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported
Affiliation Address: 5550 Skylane Blvd, Suite A
Affiliation City: SANTA ROSA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7075762686,

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Site ID: 257068
CERS ID: 213261
CERS Description: Waste Discharge Requirements

Violations:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Violation Date: 08-03-2001
Citation: California Water Code
Violation Description: Not reported
Violation Notes: MRP 01-002 REQUIRES THAT QUARTERLY MOINTORING REPORT BE SUBMITTED BY 4/15/01. REPORT RECEIVED 5/21/01
Violation Division: Water Boards
Violation Program: SLIC
Violation Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Violation Date: 07-25-2000
Citation: California Water Code
Violation Description: Not reported
Violation Notes: LETTER OF JUNE 2, 2000 REQUESTED RETURN OF THE SIGNED ACKNOWLEDGEMENT FORM FOR COST RECOVERY BY JUNE 15, 2000. RECEIVED OVER 30 DAYS LATE.
Violation Division: Water Boards
Violation Program: SLIC
Violation Source: CIWQS,

Enforcement Action:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-24-1995
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 06-07-1991
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 10-06-1987
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 04-04-1989
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-03-2001
Enf Action Type: Oral Communication
Enf Action Description: Oral Communication
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 07-31-2000
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: PAUL NELSON - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported
Affiliation Address: 5550 Skylane Blvd, Suite A
Affiliation City: SANTA ROSA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7075762686,

Name: CARLOTTA LUMBER COMPANY
Address: HIGHWAY 36
City,State,Zip: CARLOTTA, CA 95528
Site ID: 257068
CERS ID: 213262
CERS Description: Tanks & Ground Water Clean Up

Violations:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Violation Date: 08-03-2001
Citation: California Water Code
Violation Description: Not reported
Violation Notes: MRP 01-002 REQUIRES THAT QUARTERLY MOINTORING REPORT BE SUBMITTED BY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

4/15/01. REPORT RECEIVED 5/21/01
Violation Division: Water Boards
Violation Program: SLIC
Violation Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Violation Date: 07-25-2000
Citation: California Water Code
Violation Description: Not reported
Violation Notes: LETTER OF JUNE 2, 2000 REQUESTED RETURN OF THE SIGNED ACKNOWLEDGEMENT FORM FOR COST RECOVERY BY JUNE 15, 2000. RECEIVED OVER 30 DAYS LATE.

Violation Division: Water Boards
Violation Program: SLIC
Violation Source: CIWQS,

Enforcement Action:

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-24-1995
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 06-07-1991
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 10-06-1987
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARLOTTA LUMBER COMPANY (Continued)

U000069686

Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 04-04-1989
Enf Action Type: Clean-up and Abatement Order
Enf Action Description: Clean-up and Abatement Order
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: UNSPEC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 08-03-2001
Enf Action Type: Oral Communication
Enf Action Description: Oral Communication
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Site ID: 257068
Site Name: CARLOTTA LUMBER COMPANY
Site Address: HIGHWAY 36
Site City: CARLOTTA
Site Zip: 95528
Enf Action Date: 07-31-2000
Enf Action Type: Staff Enforcement Letter (Informal)
Enf Action Description: Staff Enforcement Letter (Informal)
Enf Action Notes: Not reported
Enf Action Division: Water Boards
Enf Action Program: SLIC
Enf Action Source: CIWQS,

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: PAUL NELSON - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported
Affiliation Address: 5550 Skylane Blvd, Suite A
Affiliation City: SANTA ROSA
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 7075762686,

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

B9 PALCO YAGER CREEK
SW 2115 FISHER ROAD
1/4-1/2 HYDESVILLE, CA 95547
0.326 mi.
1719 ft. Site 1 of 3 in cluster B

LUST S100179357
Cortese N/A
Notify 65
CIWQS
CERS

Relative:
Lower
Actual:
123 ft.

LUST:
Name: PALCO YAGER CREEK
Address: 2115 FISHER ROAD
City,State,Zip: HYDESVILLE, CA 95547
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0602300144
Global Id: T0602300144
Latitude: 40.5636076240826
Longitude: -124.059277594624
Status: Completed - Case Closed
Status Date: 11/18/1998
Case Worker: ZZZ
RB Case Number: 1THU197
Local Agency: HUMBOLDT COUNTY LOP
File Location: Not reported
Local Case Number: 12197
Potential Media Affect: Soil
Potential Contaminants of Concern: Not reported
Site History: Not reported

LUST:
Global Id: T0602300144
Contact Type: Local Agency Caseworker
Contact Name: Mark Verhey
Organization Name: HUMBOLDT COUNTY LOP
Address: 100 H Street, Suite 100
City: Eureka
Email: mverhey@co.humboldt.ca.us
Phone Number: Not reported

Global Id: T0602300144
Contact Type: Regional Board Caseworker
Contact Name: HUMBOLDT COUNTY LOP CLOSED SITE
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0602300144
Action Type: Other
Date: 11/14/1989
Action: Leak Discovery

Global Id: T0602300144
Action Type: ENFORCEMENT
Date: 11/30/1989
Action: * Historical Enforcement

Global Id: T0602300144
Action Type: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO YAGER CREEK (Continued)

S100179357

Date: 11/14/1989
Action: Leak Reported

Global Id: T0602300144
Action Type: ENFORCEMENT
Date: 11/18/1998
Action: Closure/No Further Action Letter - #12197.RACC

Global Id: T0602300144
Action Type: ENFORCEMENT
Date: 11/18/1998
Action: Closure Summary - #12197.CCS

Global Id: T0602300144
Action Type: Other
Date: 11/14/1989
Action: Leak Stopped

LUST:

Global Id: T0602300144
Status: Open - Case Begin Date
Status Date: 11/14/1989

Global Id: T0602300144
Status: Open - Site Assessment
Status Date: 11/30/1989

Global Id: T0602300144
Status: Open - Site Assessment
Status Date: 01/03/1990

Global Id: T0602300144
Status: Open - Remediation
Status Date: 02/10/1998

Global Id: T0602300144
Status: Open - Site Assessment
Status Date: 02/10/1998

Global Id: T0602300144
Status: Open - Verification Monitoring
Status Date: 02/10/1998

Global Id: T0602300144
Status: Completed - Case Closed
Status Date: 11/18/1998

CORTESE:

Name: PALCO YAGER CREEK
Address: 2115 FISHER ROAD
City,State,Zip: HYDESVILLE, CA 95547
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0602300144
Site/Facility Type: LUST CLEANUP SITE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO YAGER CREEK (Continued)

S100179357

Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

NOTIFY 65:

Name: YAGER CAMP
Address: 2115 FISHER
City,State,Zip: HYDESVILLE, CA 93944
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported
Global ID: Not reported
Status: Not reported

CIWQS:

Name: YAGER CAMP
Address: 2115 FISHER RD
City,State,Zip: HYDESVILLE, CA 95528
Agency: HUMBODLT REDWOOD COMPANY LLC
Agency Address: PO Box 37 125 Main Street, Scotia, CA 95565
Place/Project Type: Industrial - Repair Shops and Related Services, NEC
SIC/NAICS: 7699
Region: 1
Program: INDSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 1 12I022073
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 03/24/2009
Termination Date: 08/14/2013
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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO YAGER CREEK (Continued)

S100179357

Violations within 5 years: 0
Latitude: 40.55537
Longitude: -124.063

Name: YAGER CAMP
Address: 2115 FISHER RD
City,State,Zip: HYDESVILLE, CA 95547
Agency: Palco (non-stormwater sites)
Agency Address: PO Box 37, Scotia, CA 95565
Place/Project Type: Industrial - Logging
SIC/NAICS: 2411(+)
Region: 1
Program: INDSTW
Regulatory Measure Status: Terminated
Regulatory Measure Type: Storm water industrial
Order Number: 2014-0057-DWQ
WDID: 1 12I002293
NPDES Number: CAS000001
Adoption Date: Not reported
Effective Date: 03/31/1992
Termination Date: 12/15/2008
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: 40.530937
Longitude: -124.078022

CERS:

Name: PALCO YAGER CREEK
Address: 2115 FISHER ROAD
City,State,Zip: HYDESVILLE, CA 95547
Site ID: 215149
CERS ID: T0602300144
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: Mark Verhey - HUMBOLDT COUNTY LOP
Entity Title: Not reported
Affiliation Address: 100 H Street, Suite 100
Affiliation City: Eureka
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: ,

Affiliation Type Desc: Regional Board Caseworker
Entity Name: HUMBOLDT COUNTY LOP CLOSED SITE - NORTH COAST RWQCB (REGION 1)
Entity Title: Not reported
Affiliation Address: 5550 SKYLANE BOULEVARD, SUITE A
Affiliation City: SANTA ROSA
Affiliation State: CA
Affiliation Country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PALCO YAGER CREEK (Continued)

S100179357

Affiliation Zip: Not reported
Affiliation Phone: ,

B10
SW
1/4-1/2
0.326 mi.
1719 ft.

PACIFIC LUMPER YAGER CAMP
2115 FISHER ROAD
HYDESVILLE, CA 0
Site 2 of 3 in cluster B

CPS-SLIC **S105181193**
N/A

Relative:
Lower
Actual:
123 ft.

SLIC REG 1:
Region: 1
Facility ID: 1NHU197
Staff Initials: AAA

B11
SW
1/4-1/2
0.326 mi.
1719 ft.

PACIFIC LUMBER COMPANY/YA
2115 FISHER
HYDESVILLE, CA 95547
Site 3 of 3 in cluster B

LUST **S101294888**
HIST CORTESE **N/A**

Relative:
Lower
Actual:
123 ft.

LUST REG 1:
Region: 1
Facility ID: 1THU197
Staff Initials: Closed

HIST CORTESE:
edr_fname: PACIFIC LUMBER COMPANY/YA
edr_fadd1: 2115 FISHER
City,State,Zip: HYDESVILLE, CA 95547
Region: CORTESE
Facility County Code: 12
Reg By: LTNKA
Reg Id: 1THU197

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CARLOTTA	S104025274	SWAIN'S FLAT OUTPOST	HIGHWAY 36 20300		LUST
CARLOTTA	S128002069	SUN GIANT FARMS	MILE MARKER 17.9 CA-36 (APN-20	95528	CERS HAZ WASTE
CARLOTTA	S126983035	CARLOTTA CONTAINER SITE	N OF HWY 36; NEAR MILEPOST 14.	95528	SWF/LF

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: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: N/A
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2022
	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: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: N/A
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2022
	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: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/11/2022
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: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
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: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/25/2022
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: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: 800-424-9346
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/25/2022
	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: 09/13/2021	Source: EPA
Date Data Arrived at EDR: 09/15/2021	Telephone: 800-424-9346
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 11/15/2021	Source: Department of the Navy
Date Data Arrived at EDR: 11/16/2021	Telephone: 843-820-7326
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/07/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/23/2022
	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: 11/19/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/19/2021	Telephone: 703-603-0695
Date Made Active in Reports: 02/14/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 06/06/2022
	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: 11/19/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/19/2021	Telephone: 703-603-0695
Date Made Active in Reports: 02/14/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 06/06/2022
	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: 09/13/2021

Source: National Response Center, United States Coast Guard

Date Data Arrived at EDR: 09/21/2021

Telephone: 202-267-2180

Date Made Active in Reports: 12/15/2021

Last EDR Contact: 03/01/2022

Number of Days to Update: 85

Next Scheduled EDR Contact: 04/04/2022

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: 10/25/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 10/26/2021

Telephone: 916-323-3400

Date Made Active in Reports: 01/14/2022

Last EDR Contact: 01/25/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/09/2022

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: 10/25/2021

Source: Department of Toxic Substances Control

Date Data Arrived at EDR: 10/26/2021

Telephone: 916-323-3400

Date Made Active in Reports: 01/14/2022

Last EDR Contact: 01/25/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/09/2022

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: 11/08/2021

Source: Department of Resources Recycling and Recovery

Date Data Arrived at EDR: 11/09/2021

Telephone: 916-341-6320

Date Made Active in Reports: 01/28/2022

Last EDR Contact: 02/08/2022

Number of Days to Update: 80

Next Scheduled EDR Contact: 05/23/2022

Data Release Frequency: Quarterly

Lists of state and tribal leaking storage tanks

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
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
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
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
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
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
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
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
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
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
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
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
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

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: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
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
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
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: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
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: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/12/2021	Source: EPA, Region 5
Date Data Arrived at EDR: 11/15/2021	Telephone: 312-886-7439
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 10/12/2021	Source: EPA Region 8
Date Data Arrived at EDR: 11/15/2021	Telephone: 303-312-6271
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 10/12/2021	Source: EPA Region 7
Date Data Arrived at EDR: 11/15/2021	Telephone: 913-551-7003
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 10/12/2021	Source: EPA Region 6
Date Data Arrived at EDR: 11/15/2021	Telephone: 214-665-6597
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-8677
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 90	Next Scheduled EDR Contact: 05/02/2022
	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	Source: EPA Region 1
Date Data Arrived at EDR: 06/11/2021	Telephone: 617-918-1313
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

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: 12/06/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/21/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
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
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
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
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
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
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
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
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 03/02/2022
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
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: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
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: 10/12/2021
Date Data Arrived at EDR: 11/15/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 85

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 10/12/2021	Source: EPA Region 10
Date Data Arrived at EDR: 11/15/2021	Telephone: 206-553-2857
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

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: 10/14/2021	Source: EPA, Region 1
Date Data Arrived at EDR: 11/15/2021	Telephone: 617-918-1313
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 04/06/2021	Source: EPA Region 5
Date Data Arrived at EDR: 06/11/2021	Telephone: 312-886-6136
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 02/09/2022
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/02/2022
	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: 10/12/2021	Source: EPA Region 6
Date Data Arrived at EDR: 11/15/2021	Telephone: 214-665-7591
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 05/28/2021	Source: EPA Region 4
Date Data Arrived at EDR: 06/22/2021	Telephone: 404-562-9424
Date Made Active in Reports: 09/20/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 90	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

Lists of state and tribal voluntary cleanup sites

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/25/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/14/2022
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/25/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
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: 12/15/2021
Date Data Arrived at EDR: 12/16/2021
Date Made Active in Reports: 03/03/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
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: 06/10/2021
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 68

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/15/2022
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Semi-Annually

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 09/14/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 11/23/2021
Number of Days to Update: 12

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
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
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

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
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

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
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/16/2021	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 11/18/2021	Telephone: 202-307-1000
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/23/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/06/2022
	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: 10/25/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/26/2021	Telephone: 916-323-3400
Date Made Active in Reports: 01/14/2022	Last EDR Contact: 01/25/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/09/2022
	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: 01/13/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/18/2022
	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.

Date of Government Version: 10/18/2021	Source: CalEPA
Date Data Arrived at EDR: 10/19/2021	Telephone: 916-323-2514
Date Made Active in Reports: 01/12/2022	Last EDR Contact: 01/19/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/16/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/08/2022
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Quarterly

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: 02/20/2020
Date Data Arrived at EDR: 12/10/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 12/10/2021
Next Scheduled EDR Contact: 03/21/2022
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: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing Aboveground storage tank sites

Date of Government Version: 11/04/2021	Source: San Francisco County Department of Public Health
Date Data Arrived at EDR: 11/05/2021	Telephone: 415-252-3896
Date Made Active in Reports: 01/24/2022	Last EDR Contact: 01/28/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/16/2022
	Data Release Frequency: Varies

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

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: 10/18/2021	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2021	Telephone: 916-323-2514
Date Made Active in Reports: 01/12/2022	Last EDR Contact: 01/19/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

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: 08/25/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 09/03/2021	Telephone: 916-323-3400
Date Made Active in Reports: 11/22/2021	Last EDR Contact: 02/24/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 06/13/2022
	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: 01/25/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2022	Telephone: 202-564-6023
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/30/2021	Source: DTSC and SWRCB
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-323-3400
Date Made Active in Reports: 02/16/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/12/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 09/13/2021	Telephone: 202-366-4555
Date Made Active in Reports: 09/28/2021	Last EDR Contact: 12/16/2021
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/04/2022
	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: 09/30/2021	Source: Office of Emergency Services
Date Data Arrived at EDR: 10/19/2021	Telephone: 916-845-8400
Date Made Active in Reports: 01/12/2022	Last EDR Contact: 01/19/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 05/02/2022
	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: 12/06/2021	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/21/2022
	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: 12/06/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/07/2021	Telephone: 866-480-1028
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/21/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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.

Date of Government Version: 09/13/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/15/2021	Telephone: (415) 495-8895
Date Made Active in Reports: 10/12/2021	Last EDR Contact: 03/02/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/04/2022
	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: 10/26/2021	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 11/16/2021	Telephone: 202-528-4285
Date Made Active in Reports: 02/08/2022	Last EDR Contact: 02/15/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/30/2022
	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: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 03/02/2022
Number of Days to Update: 62	Next Scheduled EDR Contact: 04/25/2022
	Data Release Frequency: Semi-Annually

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	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 01/07/2022
Number of Days to Update: 574	Next Scheduled EDR Contact: 04/18/2022
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/08/2022
Next Scheduled EDR Contact: 05/23/2022
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: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/01/2022
Next Scheduled EDR Contact: 05/16/2022
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
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/03/2022
Next Scheduled EDR Contact: 05/16/2022
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
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/18/2022
Next Scheduled EDR Contact: 05/30/2022
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: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 82

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Annually

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: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 06/13/2022
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: 10/20/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 11/12/2021
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/18/2022
Next Scheduled EDR Contact: 05/02/2022
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
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 01/25/2022	Source: EPA
Date Data Arrived at EDR: 02/03/2022	Telephone: 202-564-6023
Date Made Active in Reports: 02/25/2022	Last EDR Contact: 03/02/2022
Number of Days to Update: 22	Next Scheduled EDR Contact: 05/16/2022
	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: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 01/07/2022
Number of Days to Update: 73	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Annually

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: 12/29/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/18/2022
	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: 07/29/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/24/2021	Telephone: 301-415-7169
Date Made Active in Reports: 11/19/2021	Last EDR Contact: 01/18/2022
Number of Days to Update: 87	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/28/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 06/13/2022
	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: 02/28/2022
Number of Days to Update: 251	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Varies

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: 02/04/2022
Number of Days to Update: 96	Next Scheduled EDR Contact: 05/16/2022
	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: 12/27/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/11/2022
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
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
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/08/2022
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.

Date of Government Version: 09/30/2021
Date Data Arrived at EDR: 10/13/2021
Date Made Active in Reports: 01/10/2022
Number of Days to Update: 89

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/03/2022
Next Scheduled EDR Contact: 04/18/2022
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: 09/15/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 90

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/02/2022
Next Scheduled EDR Contact: 04/04/2022
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: 01/04/2022
Next Scheduled EDR Contact: 04/18/2022
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: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/17/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/25/2022
Date Data Arrived at EDR: 02/03/2022
Date Made Active in Reports: 02/22/2022
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 05/03/2022
Next Scheduled EDR Contact: 04/11/2022
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

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

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: 11/02/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/23/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

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: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: Varies

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
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
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: 09/14/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 91

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/14/2021
Next Scheduled EDR Contact: 03/21/2022
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: 11/04/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 95

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/11/2022
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 34

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

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

Date of Government Version: 01/01/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/04/2022	Telephone: 202-564-2280
Date Made Active in Reports: 01/10/2022	Last EDR Contact: 01/04/2022
Number of Days to Update: 6	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Quarterly

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: 02/22/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Varies

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: 11/15/2021	Source: EPA
Date Data Arrived at EDR: 11/15/2021	Telephone: 800-385-6164
Date Made Active in Reports: 02/01/2022	Last EDR Contact: 02/17/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: Quarterly

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

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: 12/16/2021	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 12/16/2021	Telephone: 916-323-3400
Date Made Active in Reports: 03/03/2022	Last EDR Contact: 12/16/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 04/04/2022
	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: 05/01/2019	Source: Livermore-Pleasanton Fire Department
Date Data Arrived at EDR: 05/14/2019	Telephone: 925-454-2361
Date Made Active in Reports: 07/17/2019	Last EDR Contact: 02/08/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 05/23/2022
	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/27/2021
Date Data Arrived at EDR: 09/01/2021
Date Made Active in Reports: 11/19/2021
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 06/13/2022
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: 11/29/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/14/2022
Number of Days to Update: 77

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
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: 11/17/2021
Date Data Arrived at EDR: 11/18/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 81

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
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: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/17/2021
Next Scheduled EDR Contact: 03/28/2022
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.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/03/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 10/05/2021
Date Data Arrived at EDR: 10/06/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
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: 11/18/2021
Date Data Arrived at EDR: 11/19/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 80

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/17/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/31/2019	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 04/15/2020	Telephone: 916-255-1136
Date Made Active in Reports: 07/02/2020	Last EDR Contact: 01/07/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/15/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/15/2021	Telephone: 877-786-9427
Date Made Active in Reports: 02/03/2022	Last EDR Contact: 02/15/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/30/2022
	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 [CALSTITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	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: 11/15/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/15/2021	Telephone: 916-323-3400
Date Made Active in Reports: 02/03/2022	Last EDR Contact: 02/15/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/30/2022
	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.

Date of Government Version: 10/04/2021	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 10/05/2021	Telephone: 916-440-7145
Date Made Active in Reports: 12/22/2021	Last EDR Contact: 01/04/2022
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/06/2021	Source: Department of Conservation
Date Data Arrived at EDR: 12/07/2021	Telephone: 916-322-1080
Date Made Active in Reports: 02/23/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 03/21/2022
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/18/2021	Source: Department of Public Health
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-558-1784
Date Made Active in Reports: 02/17/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/09/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/09/2021	Telephone: 916-445-9379
Date Made Active in Reports: 01/27/2022	Last EDR Contact: 02/08/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 05/23/2022
	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: 11/30/2021	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 11/30/2021	Telephone: 916-445-4038
Date Made Active in Reports: 02/17/2022	Last EDR Contact: 02/28/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 06/13/2022
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 11/29/2021	Source: Department of Conservation
Date Data Arrived at EDR: 11/29/2021	Telephone: 916-323-3836
Date Made Active in Reports: 02/11/2022	Last EDR Contact: 11/29/2021
Number of Days to Update: 74	Next Scheduled EDR Contact: 03/21/2022
	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: 12/13/2021	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/14/2021	Telephone: 916-445-3846
Date Made Active in Reports: 03/03/2022	Last EDR Contact: 12/08/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/28/2022
	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: 12/03/2021	Source: Department of Conservation
Date Data Arrived at EDR: 12/07/2021	Telephone: 916-445-2408
Date Made Active in Reports: 02/24/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/21/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC GEO: Underground Injection Control Sites (GEOTRACKER)

Underground control injection sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
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.

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: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
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: 10/18/2021
Date Data Arrived at EDR: 10/19/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 85

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 01/19/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 12/06/2021
Date Data Arrived at EDR: 12/07/2021
Date Made Active in Reports: 02/23/2022
Number of Days to Update: 78

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/07/2021
Next Scheduled EDR Contact: 03/21/2022
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: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

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
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/06/2022
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: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

PCS ENF: Enforcement data

No description is available for this data

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/29/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Varies

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.

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	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	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 01/11/2019	Telephone: 510-567-6700
Date Made Active in Reports: 03/05/2019	Last EDR Contact: 12/28/2021
Number of Days to Update: 53	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 09/30/2021	Source: Alameda County Environmental Health Services
Date Data Arrived at EDR: 10/01/2021	Telephone: 510-567-6700
Date Made Active in Reports: 12/15/2021	Last EDR Contact: 12/28/2021
Number of Days to Update: 75	Next Scheduled EDR Contact: 04/18/2022
	Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 11/01/2021	Source: Amador County Environmental Health
Date Data Arrived at EDR: 11/02/2021	Telephone: 209-223-6439
Date Made Active in Reports: 01/24/2022	Last EDR Contact: 01/28/2022
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/16/2022
	Data Release Frequency: Varies

BUTTE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/28/2021
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

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: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2021
Next Scheduled EDR Contact: 04/04/2022
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: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 10/22/2021
Date Data Arrived at EDR: 10/26/2021
Date Made Active in Reports: 01/19/2022
Number of Days to Update: 85

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 10/01/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA EL DORADO: CUPA Facility List CUPA facility list.

Date of Government Version: 11/30/2021
Date Data Arrived at EDR: 12/01/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/07/2022
Next Scheduled EDR Contact: 05/09/2022
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: 12/21/2021
Next Scheduled EDR Contact: 04/11/2022
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: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List Cupa facility list.

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/12/2022
Number of Days to Update: 84

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

INYO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
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: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 11/10/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 82

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
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.

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: 02/24/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LASSEN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/24/2022
Next Scheduled EDR Contact: 05/02/2022
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: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/14/2021
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 Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 10/08/2021
Date Made Active in Reports: 12/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/11/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/25/2022
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
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/16/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 10/12/2021	Source: Los Angeles County Department of Public Works
Date Data Arrived at EDR: 10/13/2021	Telephone: 626-458-6973
Date Made Active in Reports: 01/04/2022	Last EDR Contact: 01/07/2022
Number of Days to Update: 83	Next Scheduled EDR Contact: 04/25/2022
	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: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 06/28/2021	Last EDR Contact: 12/17/2021
Number of Days to Update: 11	Next Scheduled EDR Contact: 04/04/2022
	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: 04/19/2021	Source: Los Angeles Fire Department
Date Data Arrived at EDR: 06/17/2021	Telephone: 213-978-3800
Date Made Active in Reports: 09/14/2021	Last EDR Contact: 12/17/2021
Number of Days to Update: 89	Next Scheduled EDR Contact: 04/04/2022
	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: 01/13/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 04/24/2022
	Data Release Frequency: Annually

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: 01/07/2022
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/25/2022
	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: 01/13/2022
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 04/28/2021	Telephone: 310-618-2973
Date Made Active in Reports: 07/13/2021	Last EDR Contact: 01/13/2022
Number of Days to Update: 76	Next Scheduled EDR Contact: 05/02/2022
	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: 02/11/2022
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/30/2022
	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: 12/20/2021
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2021	Source: Department of Public Health
Date Data Arrived at EDR: 11/18/2021	Telephone: 707-463-4466
Date Made Active in Reports: 11/22/2021	Last EDR Contact: 02/17/2022
Number of Days to Update: 4	Next Scheduled EDR Contact: 06/06/2022
	Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 11/24/2021	Source: Merced County Environmental Health
Date Data Arrived at EDR: 11/29/2021	Telephone: 209-381-1094
Date Made Active in Reports: 02/11/2022	Last EDR Contact: 02/11/2022
Number of Days to Update: 74	Next Scheduled EDR Contact: 05/30/2022
	Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
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: 01/07/2022
Next Scheduled EDR Contact: 04/11/2022
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: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
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: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List

CUPA facility list.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 10/27/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/04/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 81

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 10/08/2021
Date Data Arrived at EDR: 11/02/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 10/29/2021
Date Data Arrived at EDR: 10/29/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 83

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 05/16/2022
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: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/25/2022
Number of Days to Update: 85

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
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: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/14/2021
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST RIVERSIDE: Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 09/29/2021
Date Data Arrived at EDR: 09/30/2021
Date Made Active in Reports: 12/15/2021
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/08/2021
Next Scheduled EDR Contact: 03/28/2022
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: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
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: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/29/2021
Next Scheduled EDR Contact: 04/11/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List

Cupa facility list

Date of Government Version: 11/04/2021
Date Data Arrived at EDR: 11/05/2021
Date Made Active in Reports: 01/24/2022
Number of Days to Update: 80

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
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.

Date of Government Version: 12/01/2021
Date Data Arrived at EDR: 12/02/2021
Date Made Active in Reports: 02/17/2022
Number of Days to Update: 77

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 01/31/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 11/30/2021
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/16/2022
Number of Days to Update: 78

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 02/28/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/25/2022
Next Scheduled EDR Contact: 05/02/2022
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: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
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: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/03/2022
Date Data Arrived at EDR: 02/04/2022
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 7

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
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: 11/10/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Quarterly

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: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/15/2021
Date Data Arrived at EDR: 11/16/2021
Date Made Active in Reports: 02/03/2022
Number of Days to Update: 79

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: Varies

SAN MATEO COUNTY:

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: 12/10/2021
Next Scheduled EDR Contact: 03/21/2022
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: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List

Cupa facility list

Date of Government Version: 11/19/2021
Date Data Arrived at EDR: 11/22/2021
Date Made Active in Reports: 02/07/2022
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
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: 02/17/2022
Next Scheduled EDR Contact: 06/06/2022
Data Release Frequency: No Update Planned

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: 02/24/2022
Next Scheduled EDR Contact: 05/16/2022
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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Varies

SHASTA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/11/2022
Next Scheduled EDR Contact: 05/30/2022
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: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
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: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List Cupa Facility list

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: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
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: 12/14/2021
Next Scheduled EDR Contact: 04/04/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List Cupa facility list

Date of Government Version: 11/09/2021
Date Data Arrived at EDR: 11/11/2021
Date Made Active in Reports: 02/02/2022
Number of Days to Update: 83

Source: Stanislaus County Department of Environmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Varies

SUTTER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST SUTTER: Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 11/23/2021
Date Data Arrived at EDR: 11/29/2021
Date Made Active in Reports: 02/11/2022
Number of Days to Update: 74

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 02/24/2022
Next Scheduled EDR Contact: 06/13/2022
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List

Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/16/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List

Cupa facility list

Date of Government Version: 10/18/2021
Date Data Arrived at EDR: 10/20/2021
Date Made Active in Reports: 01/13/2022
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

TULARE COUNTY:

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: 01/28/2022
Next Scheduled EDR Contact: 05/16/2022
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: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/13/2022
Next Scheduled EDR Contact: 05/02/2022
Data Release Frequency: Varies

VENTURA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/29/2021	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 10/26/2021	Telephone: 805-654-2813
Date Made Active in Reports: 01/13/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 05/02/2022
	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	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 12/20/2021
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/11/2022
	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	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 02/07/2022
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/23/2022
	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: 09/29/2021	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 10/21/2021	Telephone: 805-654-2813
Date Made Active in Reports: 01/13/2022	Last EDR Contact: 01/18/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/02/2022
	Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/29/2021	Source: Environmental Health Division
Date Data Arrived at EDR: 12/07/2021	Telephone: 805-654-2813
Date Made Active in Reports: 02/24/2022	Last EDR Contact: 12/07/2021
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/21/2022
	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: 09/23/2021	Source: Yolo County Department of Health
Date Data Arrived at EDR: 09/28/2021	Telephone: 530-666-8646
Date Made Active in Reports: 12/15/2021	Last EDR Contact: 12/20/2021
Number of Days to Update: 78	Next Scheduled EDR Contact: 04/11/2022
	Data Release Frequency: Annually

YUBA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA YUBA: CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 10/26/2021
Date Data Arrived at EDR: 10/27/2021
Date Made Active in Reports: 01/20/2022
Number of Days to Update: 85

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/24/2022
Next Scheduled EDR Contact: 05/09/2022
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: 11/11/2021
Date Data Arrived at EDR: 11/12/2021
Date Made Active in Reports: 02/01/2022
Number of Days to Update: 81

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/11/2022
Next Scheduled EDR Contact: 05/23/2022
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/07/2022
Next Scheduled EDR Contact: 04/18/2022
Data Release Frequency: Annually

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: 01/28/2022
Next Scheduled EDR Contact: 05/09/2022
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: 01/10/2022
Next Scheduled EDR Contact: 04/25/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2020
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: 02/14/2022
Next Scheduled EDR Contact: 05/30/2022
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/02/2022
Next Scheduled EDR Contact: 06/20/2022
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.

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 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

HUMBOLDT RESERVE, LLC
4798 HIGHWAY 36
HYDESVILLE, CA 95547

TARGET PROPERTY COORDINATES

Latitude (North):	40.536244 - 40° 32' 10.48"
Longitude (West):	124.071219 - 124° 4' 16.39"
Universal Transverse Mercator:	Zone 10
UTM X (Meters):	409277.1
UTM Y (Meters):	4487618.0
Elevation:	131 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12014200 HYDESVILLE, 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).

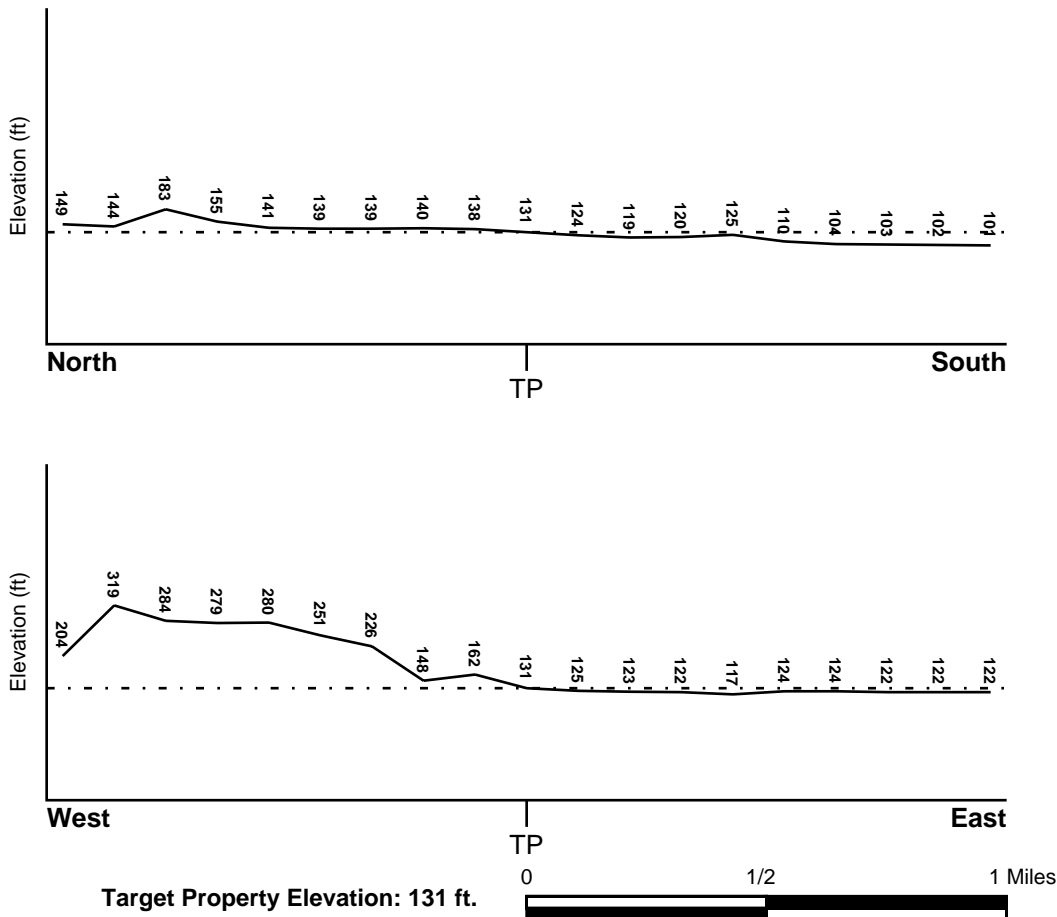
TOPOGRAPHIC INFORMATION

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 ESE

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

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
0600601140B	FEMA Q3 Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
0600601145B	FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
HYDEVILLE	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: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

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: FERNDALE

Soil Surface Texture: silt 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: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 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	21 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 7.80 Min: 6.60
2	21 inches	61 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 8.40 Min: 7.40
3	61 inches	80 inches	loamy fine sand	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: 20.00 Min: 6.00	Max: 8.40 Min: 7.40

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: silty clay loam
very gravelly - sand
loam
sand
sandy loam

Surficial Soil Types: silty clay loam
very gravelly - sand
loam
sand
sandy loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: sandy clay loam
stratified
silty clay loam
sand
silt loam
coarse sand

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>
B9	USGS40000194523	1/4 - 1/2 Mile North
C14	USGS40000194524	1/4 - 1/2 Mile North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

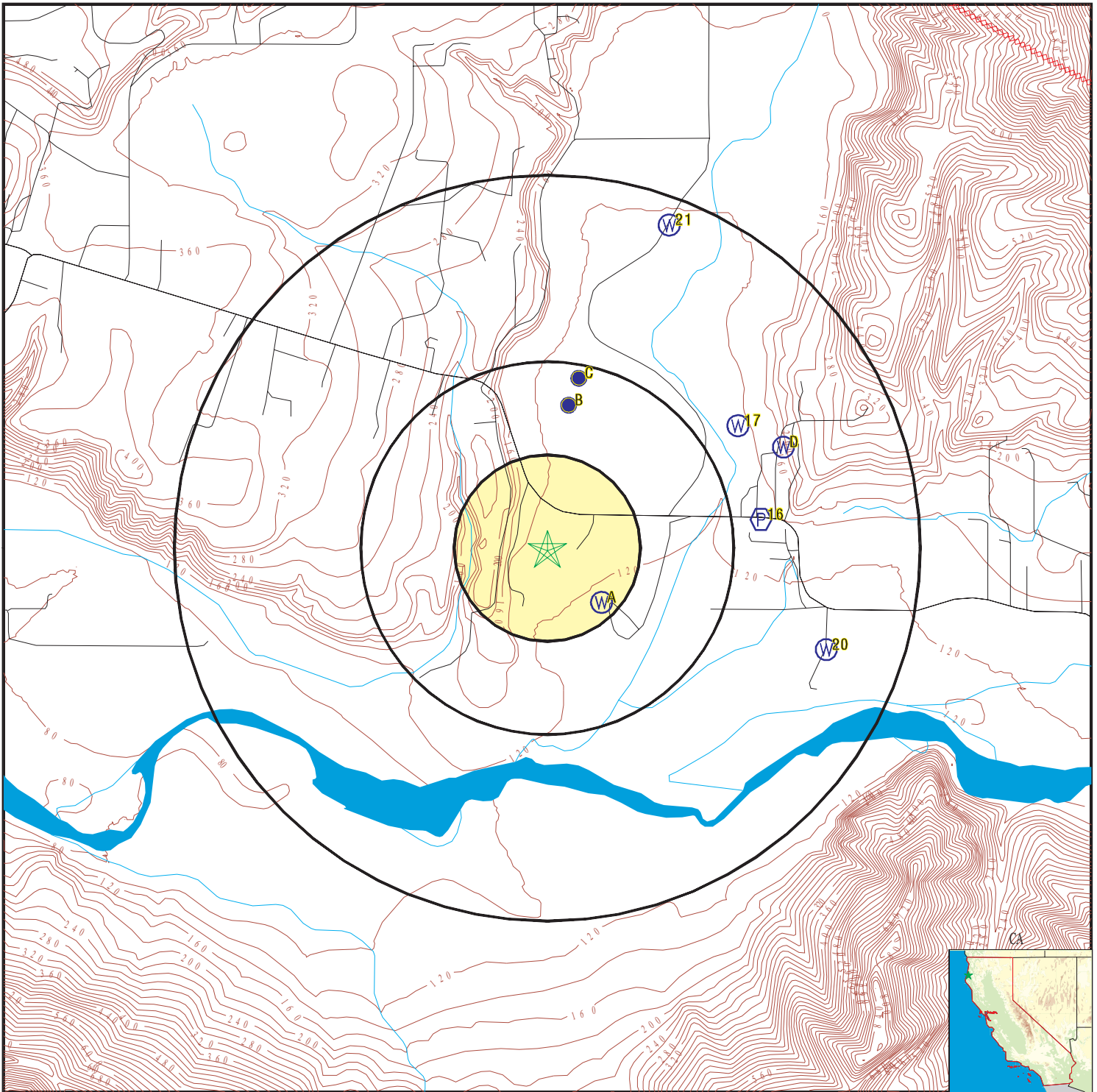
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
16	CA1200579	1/2 - 1 Mile East

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	CAEDF0000097728	1/8 - 1/4 Mile SE
A2	CAEDF0000127116	1/8 - 1/4 Mile SE
A3	CAEDF0000138157	1/8 - 1/4 Mile SE
A4	CAEDF0000060100	1/8 - 1/4 Mile SE
A5	CAEDF0000122748	1/8 - 1/4 Mile SE
A6	CAEDF0000107899	1/8 - 1/4 Mile SE
B7	1611	1/4 - 1/2 Mile North
B8	1612	1/4 - 1/2 Mile North
C10	CADWR9000043342	1/4 - 1/2 Mile North
C11	CADDW0000019075	1/4 - 1/2 Mile North
C12	CAUSGSN00012867	1/4 - 1/2 Mile North
C13	CAUSGS000002072	1/4 - 1/2 Mile North
C15	CADDW0000021895	1/4 - 1/2 Mile NNE
17	CADDW0000010194	1/2 - 1 Mile ENE
D18	1614	1/2 - 1 Mile ENE
D19	CADDW0000011971	1/2 - 1 Mile ENE
20	CADWR9000043329	1/2 - 1 Mile ESE
21	CADWR0000034471	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 6885678.2s



- 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: Humboldt Reserve, LLC
 ADDRESS: 4798 Highway 36
 Hydesville CA 95547
 LAT/LONG: 40.536244 / 124.071219

CLIENT: Freshwater Environmental Service
 CONTACT: Scott Ferriman
 INQUIRY #: 6885678.2s
 DATE: March 04, 2022 6:54 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000097728

Well ID:	T0602393482-MW-13	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0602393482&assigned_name=MW-13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-13		

A2
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000127116

Well ID:	T0602393482-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=T0602393482&assigned_name=MW-10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-10		

A3
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000138157

Well ID:	T0602393482-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=T0602393482&assigned_name=MW-9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-9		

A4
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000060100

Well ID:	T0602393482-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=T0602393482&assigned_name=MW-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-8		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A5
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000122748

Well ID:	T0602393482-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=T0602393482&assigned_name=MW-11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-11		

A6
SE
1/8 - 1/4 Mile
Lower

CA WELLS CAEDF0000107899

Well ID:	T0602393482-MW-12	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0602393482&assigned_name=MW-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0602393482&assigned_name=MW-12		

B7
North
1/4 - 1/2 Mile
Higher

CA WELLS 1611

Seq:	1611	Prim sta c:	02N/01E-21G02 H
Frds no:	1210019001	County:	12
District:	01	User id:	ATT
System no:	1210019	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	403230.0	Longitude:	1240410.8
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1210019	System nam:	Hydesville Co. W.D.
Hqname:	Not Reported	Address:	PO BOX 561
City:	HYDESVILLE	State:	CA
Zip:	95547	Zip ext:	Not Reported
Pop serv:	1019	Connection:	406
Area serve:	HYDESVILLE		
Sample date:	12-MAR-13	Finding:	5.6
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

B8
North
1/4 - 1/2 Mile
Higher

CA WELLS 1612

Seq:	1612	Prim sta c:	02N/01E-21G03 H
Frds no:	1210019002	County:	12
District:	01	User id:	ATT
System no:	1210019	Water type:	G
Source nam:	WELL 02	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	403230.0	Longitude:	1240408.4
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1210019	System nam:	Hydesville Co. W.D.
Hqname:	Not Reported	Address:	PO BOX 561
City:	HYDESVILLE	State:	CA
Zip:	95547	Zip ext:	Not Reported
Pop serv:	1019	Connection:	406
Area serve:	HYDESVILLE		

Sample date:	09-MAR-18	Finding:	1.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	07-MAR-17	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	07-MAR-17	Finding:	4.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	18-NOV-16	Finding:	340.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		

Sample date:	22-MAR-16	Finding:	3.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dir:	0.4		

Sample date:	22-MAR-16	Finding:	0.17
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dir:	0.1		

Sample date:	22-MAR-16	Finding:	110.
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		

Sample date:	22-MAR-16	Finding:	18.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		

Sample date:	22-MAR-16	Finding:	13.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	22-MAR-16	Finding:	3.
Chemical:	COLOR	Report units:	UNITS
Dir:	0.		
Sample date:	30-MAR-15	Finding:	8.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	17-FEB-15	Finding:	1.52
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dir:	0.		
Sample date:	17-FEB-15	Finding:	0.156
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dir:	0.		
Sample date:	17-DEC-14	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	17-DEC-14	Finding:	6.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	17-DEC-14	Finding:	200.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	17-DEC-14	Finding:	160.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	10-MAR-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	10-MAR-14	Finding:	43.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	10-MAR-14	Finding:	6.9
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	10-MAR-14	Finding:	120.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	19-NOV-13	Finding:	130.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	19-NOV-13	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CaCO3	Report units:	MG/L
Dir:	0.		
Sample date:	19-NOV-13	Finding:	6.6
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	19-NOV-13	Finding:	150.
Chemical:	HARDNESS (TOTAL) AS CaCO3	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.	Finding:	44.
Sample date:	19-NOV-13	Report units:	MG/L
Chemical:	CALCIUM		
Dir:	0.		
Sample date:	19-NOV-13	Finding:	11.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	19-NOV-13	Finding:	8.7
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	19-NOV-13	Finding:	310.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	15-MAR-12	Finding:	3.1
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dir:	2.		
Sample date:	15-MAR-12	Finding:	340.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		

B9
North
1/4 - 1/2 Mile
Higher

FED USGS USGS40000194523

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N001E21G003H	Type:	Well
Description:	Not Reported	HUC:	18010105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19640101	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

C10
North
1/4 - 1/2 Mile
Higher

CA WELLS CADWR9000043342

State Well #:	Not Reported	Station ID:	52116
Well Name:	Hydesville	Basin Name:	Eel River Valley
Well Use:	Residential	Well Type:	Single Well
Well Depth:	50	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

C11
North
1/4 - 1/2 Mile
Higher

CA WELLS CADDW0000019075

Well ID:	1210019-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01 - RAW	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=1210019-001&store_num=		
GeoTracker Data:	Not Reported		

C12
North
1/4 - 1/2 Mile
Higher

CA WELLS CAUSGSN00012867

Well ID:	USGS-403233124040801	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-403233124040801	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-403233124040801&store_num=		
GeoTracker Data:	Not Reported		

C13
North
1/4 - 1/2 Mile
Higher

CA WELLS CAUSGS000002072

C14
North
1/4 - 1/2 Mile
Higher

FED USGS USGS40000194524

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002N001E21G002H	Type:	Well
Description:	Not Reported	HUC:	18010105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19650710	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	50
Well Hole Depth Units:	ft		

C15
NNE
1/4 - 1/2 Mile
Higher

CA WELLS CADDW0000021895

Well ID:	1210019-002	Well Type:	MUNICIPAL
Source:	Department of Health Services		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Other Name: WELL 02 - RAW 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=1210019-002&store_num=
GeoTracker Data: Not Reported

**16
East
1/2 - 1 Mile
Higher**

FRDS PWS CA1200579

Epa region:	09	State:	CA
Pwsid:	CA1200579	Pwsname:	M.F. MITCHELL & COMPANY
Cityserved:	Not Reported	Stateserved:	CA
Zipsserved:	Not Reported	Fipscounty:	06023
Status:	Closed	Retpopsrvd:	28
Pwssvconn:	13	Psorce longname:	Groundwater
Pwstype:	TNCWS	Owner:	Private
Contact:	ANGELO BATINI	Contactorgname:	M.F. MITCHELL & COMPANY
Contactphone:	Not Reported	Contactaddress1:	P.O. Box 47
Contactaddress2:	P.O. Box 47	Contactcity:	CARLOTTA
Contactstate:	CA	Contactzip:	95528
Pwsactivitycode:	I		
PWS ID:	CA1200579	PWS type:	System Owner/Responsible Party
PWS name:	M F MITCHELL AND COMPANY	PWS address:	Not Reported
PWS city:	CARLOTTA	PWS state:	CA
PWS zip:	95528	PWS ID:	CA1200579
Activity status:	Active	Date system activated:	8404
Date system deactivated:	Not Reported	Retail population:	00000010
System name:	M F MITCHELL AND COMPANY	System address:	M F MITCHELL AND COMPANY
System address:	P O BOX 4	System city:	CARLOTTA
System state:	CA	System zip:	95528
Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	403215	Longitude:	1240333

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9300003	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	100192	Violation end date:	103192
Violation period (months):	001	Violation awareness date:	113092
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9300002	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	120192	Violation end date:	123192
Violation period (months):	001	Violation awareness date:	013093
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	9200004	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	070192	Violation end date:	093092
Violation period (months):	003	Violation awareness date:	103092
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

17
ENE
1/2 - 1 Mile
Higher

CA WELLS CADDW0000010194

Well ID:	1200579-002	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 2003	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=1200579-002&store_num=		
GeoTracker Data:	Not Reported		

D18
ENE
1/2 - 1 Mile
Higher

CA WELLS 1614

Seq:	1614	Prim sta c:	02N/01E-22E01 H
Frds no:	1200579001	County:	12
District:	01	User id:	ATT
System no:	1200579	Water type:	G
Source nam:	WELL 01 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	403225.0	Longitude:	1240331.0
Precision:	3	Status:	IR
Comment 1:	WELL IS AT CARLOTTA LUMBER CO, CARLOTTA. MILL IS ON LEFT SIDE OF HWY		
Comment 2:	36, AFTER PACIFIC LUMBER CO MILL & JUST BEFORE CARLOTTA HOTEL. WELL		
Comment 3:	IS BEHIND MILL TO THE N/E. CONTACT LUMBER CO (707) 7683535 OR SAM		
Comment 4:	STONE (707) 725-4405	Comment 5:	Not Reported
Comment 6:	Not Reported	Comment 7:	Not Reported
System no:	1200579	System nam:	M.F. Mitchell & Company
Hqname:	Not Reported	Address:	O. BOX 48
City:	CARLOTTA	State:	CA
Zip:	95528	Zip ext:	Not Reported
Pop serv:	10	Connection:	7
Area serve:	Not Reported		

D19
ENE
1/2 - 1 Mile
Higher

CA WELLS CADDW0000011971

Well ID:	1200579-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 01 (1998?) - INACTIVE		
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=1200579-001&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

20
ESE
1/2 - 1 Mile
Lower

CA WELLS CADWR9000043329

State Well #:	Not Reported	Station ID:	51842
Well Name:	A	Basin Name:	Eel River Valley
Well Use:	Irrigation	Well Type:	Single Well
Well Depth:	50	Well Completion Rpt #:	Not Reported

21
NNE
1/2 - 1 Mile
Higher

CA WELLS CADWR0000034471

Well ID:	02N01E16J001H	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02N01E16J001H	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02N01E16J001H&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95547	3	0

Federal EPA Radon Zone for HUMBOLDT 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 HUMBOLDT COUNTY, CA

Number of sites tested: 32

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.375 pCi/L	97%	3%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	-0.900 pCi/L	100%	0%	0%

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 and 2010 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 H
ENVIRONMENTAL QUESTIONNAIRES



Freshwater Environmental Services

PHASE I ESA - QUESTIONNAIRE

INSTRUCTIONS:

As soon as possible, please complete to the best of your knowledge and return (email preferred) to:

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521
Phone: 707-498-0793
Email: stan@freshwaterenvironmentalservices.com

Project Number: FES-105

GENERAL INFORMATION

Property Name: Humboldt Reserve, LLC
Address: 4798 Hyw 36
City, State, ZIP: Hydesville, CA 95547

INDIVIDUAL COMPLETING QUESTIONNAIRE OR PROVIDING ANSWERS

Name: Jack Wheeler Date: 3-5-22
Signature: Jack W
Position / Title: Property Owner

UTILITY AND SERVICE PROVIDERS

Electric	<u>PG & E</u>	Pest Control	_____
Gas	<u>N/A</u>	HVAC Maintenance	_____
Sanitary Sewer	<u>Private Septic</u>	Roof Maintenance	_____
Storm Water	_____	Fire Systems	_____
Landscaping	<u>J & G Lawn & Garden</u>	Elevator (I applicable)	<u>N/A</u>



Freshwater Environmental Services

For the remaining sections, please check "Yes", "No", or "Do not Know". If "Yes", and additional information is requested, please use space at end of questionnaire to elaborate. Please cite the question number associated with the additional information.

1. - PREVIOUS REPORTS, DOCUMENTS, AND OWNERS

1.1. Are you aware if a previous Environmental Assessment has ever been performed on the subject property? If yes, are you aware of the recommendations made in the report or please provide a copy of the report.

Yes No Do not Know

1.2. Do you have any other environmentally associated documents, such as compliance audits, environmental permits (such as an NPDES permit, boiler permit, wastewater permit), registrations (such as for an underground storage tank) or material safety data sheets? If yes, please provide a copy of the document(s).

Yes No Do not Know

1.3 Can you provide contact information (name and phone number) of the previous owner of the property? If yes, please provide below.

Yes No Do not Know

2. HISTORICAL & PRESENT USAGE / SITE CONDITIONS – SUBJECT AND ADJOINING PROPERTIES

2.1. Are you aware of the prior use of the subject property, i.e., any previous development, undeveloped? If so, please describe.

Yes No Do not Know

2.2 Has fill dirt ever been brought onto the subject property that originated from a contaminated site or from an unknown source?

Yes No Do not Know

2.3 Are there currently or have there ever been any pits, ponds or lagoons on the subject property utilized in connection with waste treatment or waste disposal?

Yes No Do not Know

2.4 Are you currently aware of or have there ever been any hazardous substances, petroleum products, tires, car or industrial batteries, pesticides or other chemicals or waste materials that have been dumped, buried or burned on the subject property?

Yes No Do not know

2.5 Have any of the adjoining properties ever been used for industrial purposes? (including but not limited to a gas station, dry cleaner, auto repair facility, landfill, waste treatment, printing facility etc)? If yes, please describe.

Yes No Do not Know

2.6 Are any of the adjoining properties currently being used for industrial purposes? If yes, please describe.

Yes No Do not Know



Freshwater Environmental Services

2.7 Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes No Do not Know

2.8 If the subject property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system or that the well has been designated as contaminated by any government environmental/health agency? If an on-site well is present, please attach a copy of the most recent water quality testing report.

Yes No Do not Know

2.9 Are you aware of any past or current existence of hazardous substances, specific chemicals, or petroleum products on the subject property or any facility located on the property?

Yes No Do not Know

2.10 Are you aware of any past or current spills or other chemical releases that have taken place at the property?

Yes No Do not Know

2.11 Do you know of any clean ups (with respect to hazardous substances, specific chemicals, or petroleum products) that have occurred at the property?

Yes No Do not Know

2.12 Are you aware, based on your knowledge of the property, if there are any obvious indicators that point to the presence or likely presence of contamination at the property?

Yes No Do not Know

2.13 Do you have any knowledge of filed or recorded environmental cleanup liens under federals, state or local law or governmental notification relating to past or recurrent violations of environmental laws with respect to the subject property or any facility located on the property?

Yes No Do not Know

2.14 Are there any potential or pending lawsuits or administrative actions concerning a release or threatened release of hazardous substances or petroleum product involving the subject property or any facility located on the property?

Yes No Do not Know

2.15 Are you aware of any areas of activity or use limitations (AULs) such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been recorded or filed in a registry under federal, state or tribal law?

Yes No Do not Know

2.16 (Answer this question only if this is an acquisition) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If there is a difference, have you considered or determined whether the lower price is because contamination is known or believed to be present at the property?

Yes No Do not Know



3. STORAGE TANKS AND DRAINS

3.1 Are there currently or are you aware if there have ever previously been any registered or unregistered storage tanks, aboveground or underground, located on the subject property? If so, please attach copies of documentation such as tank closure/removal reports, tank tightness tests or registration/regulatory information.

Yes No Do not Know

3.2 Are there currently or are you aware if there have ever previously been any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the subject property?

Yes No Do not Know

3.3 Are there currently or are you aware if there have ever previously been any current evidence of leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the subject property?

Yes No Do not Know

4. TRANSFORMERS AND HYDRAULIC EQUIPMENT

4.1 Are there any transformers, capacitors, and/or hydraulic equipment on the subject property?

Yes No Do not Know

4.2 If yes, are there any records indicating the presence or absence of PCBs in this equipment. If so, please attach copies of this documentation.

Yes No Do not Know

4.3 Are the transformers owned by the subject property or by the local utility? If owned by the utility, please note the name of the utility.

5. ASBESTOS CONTAINING MATERIALS

5.1 Has the subject property ever been tested for the presence of asbestos containing materials (ACM)?

Yes No Do not Know

5.2 If yes, are you aware if asbestos containing materials were identified? If so, please note what asbestos containing materials were identified and their locations or please attach a copy of the test results?

Yes No Not Applicable

5.3 Is there an Asbestos Operations and Maintenance Program in place at the subject property?

Yes No Do not Know



6. RADON

6.1 Has the subject property ever been tested for the presence of radon?
 Yes No Do not Know

6.2 If yes, please attach test results?

7. LEAD BASED PAINT

7.1 Has the subject property ever been tested for the presence of lead based paint (LBP)?
 Yes No Do not Know

7.2 If yes, are you aware if lead based paint was identified? If so, please note where it was identified or please attach a copy of the test results?
 Yes No Not Applicable

7.3 Is there a Lead Based Paint Operations and Maintenance Program in place at the subject property?
 Yes No Do not Know

7.4 If the property was constructed prior to 1979, do you provide Lead Based Paint Notification to the tenants? If yes, please attach a copy of the notification.
 Yes No Not Applicable

8. MOLD

8.1 Is there any evidence of mold and/or mildew on the subject property? If yes, please provide information as to the location, extent and the cause of the mold/mildew. Please note what actions are currently or have formerly been taken to address this concern.
 Yes No

8.2 Is there a Mold and Moisture Minimization Program in place at the subject property?
 Yes No Do not Know



Freshwater Environmental Services

COMMENTS / ADDITIONAL INFORMATION (If necessary, please provide any additional relevant environmental information that has not been discussed above.)

Use the space below for additional comments:

1.3 - Ryan Rice (707-845-7423)

2.1 - Sawmill, Aggregate processing

2.5 - Sawmill



Freshwater Environmental Services

Mr. Jack Wheeler
Humboldt Reserve, LLC
4798 Hwy 36
Hydesville, CA 95547

May 25, 2022

Re: Phase II Environmental Site Assessment Report of Findings
Humboldt Reserve, LLC
4798 Hwy 36, Hydesville, CA 95547
APNs 204-251-001, 204-121-005, & 204-121-006
Freshwater Project # FES-105

Dear Mr. Wheeler,

This report presents the results of the Phase II Environmental Site Assessment (Phase II ESA) activities at 4798 Hwy 36, Hydesville, Humboldt County, California (Site) (Figure 1), and was prepared on behalf of Humboldt Reserve, LLC by Freshwater Environmental Services, Inc. (Freshwater).

Background

Site Description

The Site is located at 4798 Hwy 36, in Hydesville, Humboldt County, California (Figure 1). A site plan is attached as Figure 2. The Site is currently used as a landscape contractor's office and equipment yard. The Site is served by public utilities for electricity. An onsite water well is used for drinking water and an onsite septic system is used for sewage disposal. The surrounding property use is a mix of commercial, residential, and agricultural use.

Site History

On May 9, 2022, Freshwater conducted a Phase I Environmental Site Assessment (Phase I ESA) which identified three recognized environmental conditions (RECs) at the Site. The RECs were identified as: (1) the former presence of two conical burners on APN 205-251-001, (2) the former presence of a lumber mill green chain where wood-treatment chemicals may have been used on APN 204-251-001, and (3) the former presence of several large electrical transformers that may have contained PCBs on APN 204-121-005.

Purpose

The purpose of this Phase II ESA was to assess potential subsurface impacts at the Site related to the three RECs identified in Freshwater's *Phase I Environmental Site Assessment Report* dated May 9, 2022. To complete this task, limited Phase II investigation activities were conducted at

the three REC locations. The following is a detailed summary of site investigation activities and the results of soil samples collected in the areas of the three previously identified RECs.

Subsurface Investigation Activities

A total of five shallow test pits (CB-1, CB-2, GC-1, GC-2, and TP-1) (Figures 2 and 3) were dug in the REC locations to determine if soil has been impacted. Test pits CB-1 and CB-2 were to evaluate potential impact in the area of the former conical burners. Test pits GC-1 and GC-2 were to evaluate potential impact in the area of the former lumber mill green chain. Test pit TP-1 was to evaluate potential impact in the area of the former electrical transformer pad.

Soil Sampling Activities

On May 3, 2022, a Freshwater scientist, working under the supervision of a California Professional Geologist, performed the test pit excavation and sampling activities. The test pits were hand dug using a digging bar and shovel to a depth of one foot below ground surface (ft bgs). Portions of each soil sample were retained for visual sedimentologic description by a Freshwater scientist using the Unified Soil Classification System (USCS).

A total of five soil samples were retained for laboratory analysis. Soil was collected at a depth of 1.0 ft bgs. Soil samples were placed in laboratory-supplied containers, labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Upon completion of sampling, all test pits were backfilled.

Soil Sample Analysis

California ELAP-certified laboratories, Frontier Analytical Laboratory (Frontier) located in Eldorado Hills, CA, North Coast Laboratories, Ltd. (North Coast) located in Arcata, CA, and Excelchem Laboratories, Inc. (Excelchem), located in Rocklin, CA analyzed the soil samples for:

- Dioxins/furans (dioxin) by EPA Method 1613B analyzed by Frontier; and
- Pentachlorophenol (PCP) and tetrachlorophenol (TCP) (2,3,4,6-tetrachlorophenol) were analyzed using the Canadian Pulp Report/NCASI 86.07 method by North Coast; and
- Polychlorinated Bi-Phenyls (PCBs) by EPA 8082 analyzed by Excelchem.

Soil Types

Soil types observed within one foot of the surface consisted primarily of gravel and sand.

Soil Sample Analytical Results

Dioxin TEQ concentrations: 0.0201 pg/g (CB-2-1ft) to 0.0266 pg/g (CB-1-1ft)

PCP concentrations: <1.0 mg/kg (GC-1-1ft & GC-2-1ft)

TCP concentrations: <1.0 mg/kg (GC-1-1ft & GC-2-1ft)

PCB concentrations: <0.05 mg/kg (TP-1)

Soil sample analytical data are summarized in Table 1 and shown on Figure 3. Copies of the laboratory report and chain-of-custody form are attached.

Conclusions

Dioxins were detected in the two soil samples (CB-1-1ft and CB-2-1ft) from the locations of the former conical burners (APN 204-251-001) at concentrations of 0.0266 pg/g TEQ and 0.0201 pg/g TEQ, respectively. The concentrations of dioxins are significantly less than the Department of Toxic Substances Control (DTSC, 2017) screening level for commercial/industrial land uses which ranges from 220 to 700 pg/g TEQ (WHO, 2005).

There were no detections of PCP/TCP in the two soil samples (GC-1-1ft and GC-2-1ft) collected in the former green chain area on APN 204-251-001. There were no detections of PCBs in the soil sample (TP-1-1ft) collected in the former transformer area on APN 204-121-005.

The three RECs identified in the Phase I ESA (Freshwater, 2022) were evaluated by collecting soil samples from the former conical burner, former green chain area, and former transformer area. The only analytes detected were dioxins from the former conical burner areas at concentrations significantly less than the DTSC commercial/industrial screening level.

Recommendations

Freshwater recommends no further action related to the identified RECs in the Freshwater 2022 Phase 1 ESA report.

References

Freshwater. 2022. *Phase 1 Environmental Site Assessment*, 4798 Hwy 36, Hydesville, California. May 9, 2022.

Certification

This report was prepared under the supervision of a California Professional Geologist at Freshwater. Statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Freshwater, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Freshwater. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Freshwater has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact Scott Ferriman or Stan Thiesen at (707) 839-0091.

Sincerely,
Freshwater Environmental Services, Inc.



Scott Ferriman
Project Scientist



Stan Thiesen, PG
Professional Geologist

Attachments:

Table 1: Soil Analytical Data

Figure 1: Site Location Map

Figure 2: Site Plan

Figure 3: Soil Analytical Data

Field Activity Log

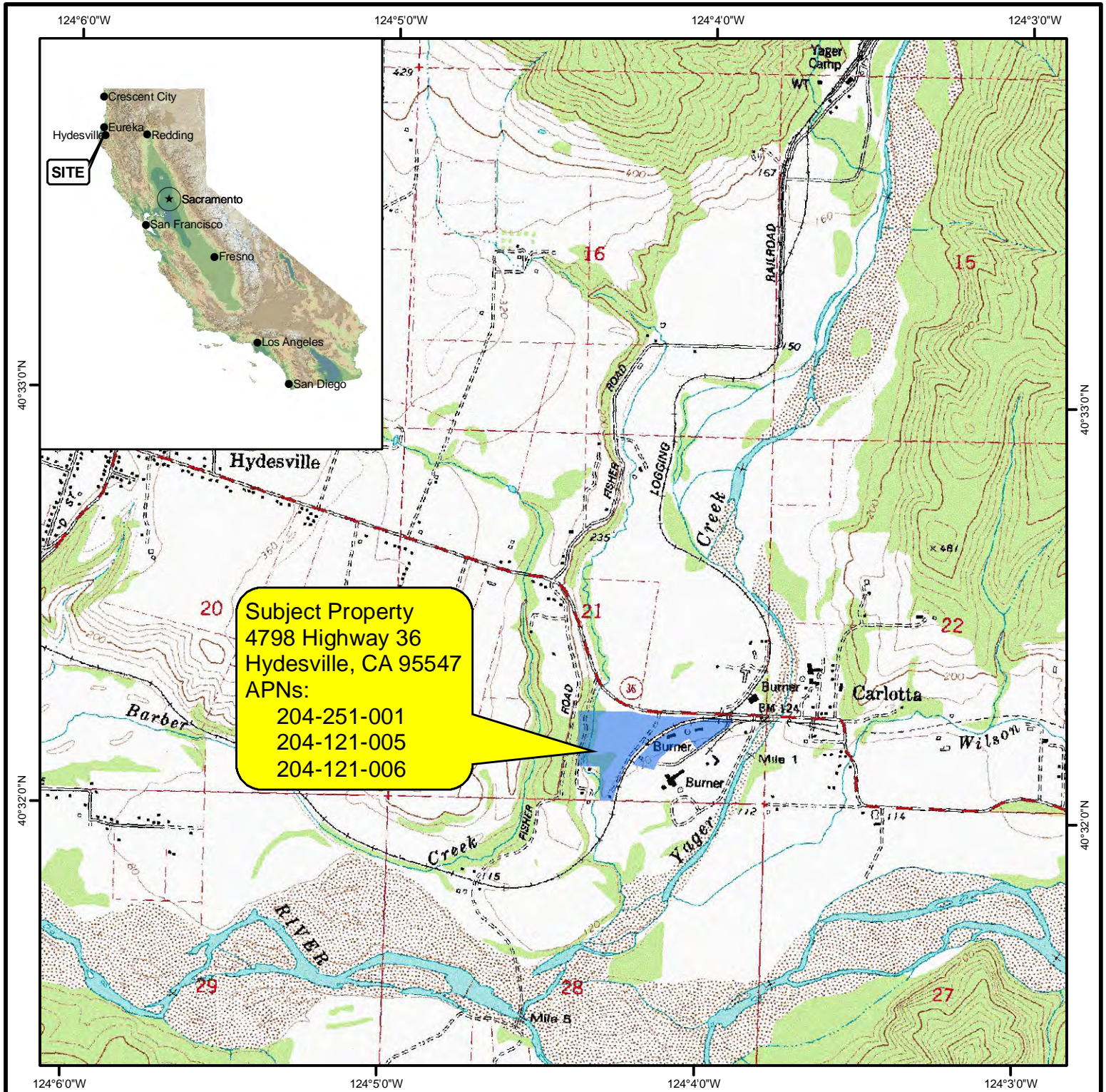
Laboratory Analytical Reports and Chain-of-Custody Forms

Table 1
SOIL ANALYTICAL DATA
Humboldt Reserve LLC
4798 Highway 36
Hydesville, California
Project # FES-105

Sample ID	Sample Depth (feet bgs)	Sample Date	PCP (mg/kg)	TCP (mg/kg)	Dioxin TEQ (pg/g)	PCBs (mg/kg)
CB-1-1 ft	1.0	5/3/22	--	--	0.0266	--
CB-2-1 ft	1.0	5/3/22	--	--	0.0201	--
GC-1-1 ft	1.0	5/3/22	<1.0	<1.0	--	--
GC-2-1 ft	1.0	5/3/22	<1.0	<1.0	--	--
TP-1	1.0	5/3/22	--	--	--	<0.05

Notes

bgs: below ground surface
mg/kg = milligrams per kilogram = ppm = parts per million
pg/g = picograms per gram = ppt = parts per trillion
<###: Not detected above the reporting limit as shown.
-- Not Analyzed
PCP: Pentachlorophenol by Canadian Pulp Method.
TCP: 2,3,4,6-Tetrachlorophenol by Canadian Pulp Method.
TEQ = Toxic Equivalency (WHO, 2005)
PCBs: Polychlorinated biphenyls by EPA Method 8082.



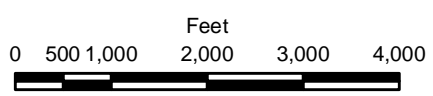
Subject Property
 4798 Highway 36
 Hydesville, CA 95547
 APNs:
 204-251-001
 204-121-005
 204-121-006

LEGEND

Approximate boundary of Subject Property

Base Image Data Source:
 1:24,000 Digital Raster Graph Mosaic of
 Humboldt County, California

ALL LOCATIONS APPROXIMATE



Phase II ESA - Humboldt Reserve LLC
 4798 Highway 36, Hydesville, CA

Figure 1
Subject Property Location Map
 4798 Highway 36
 Hydesville, California

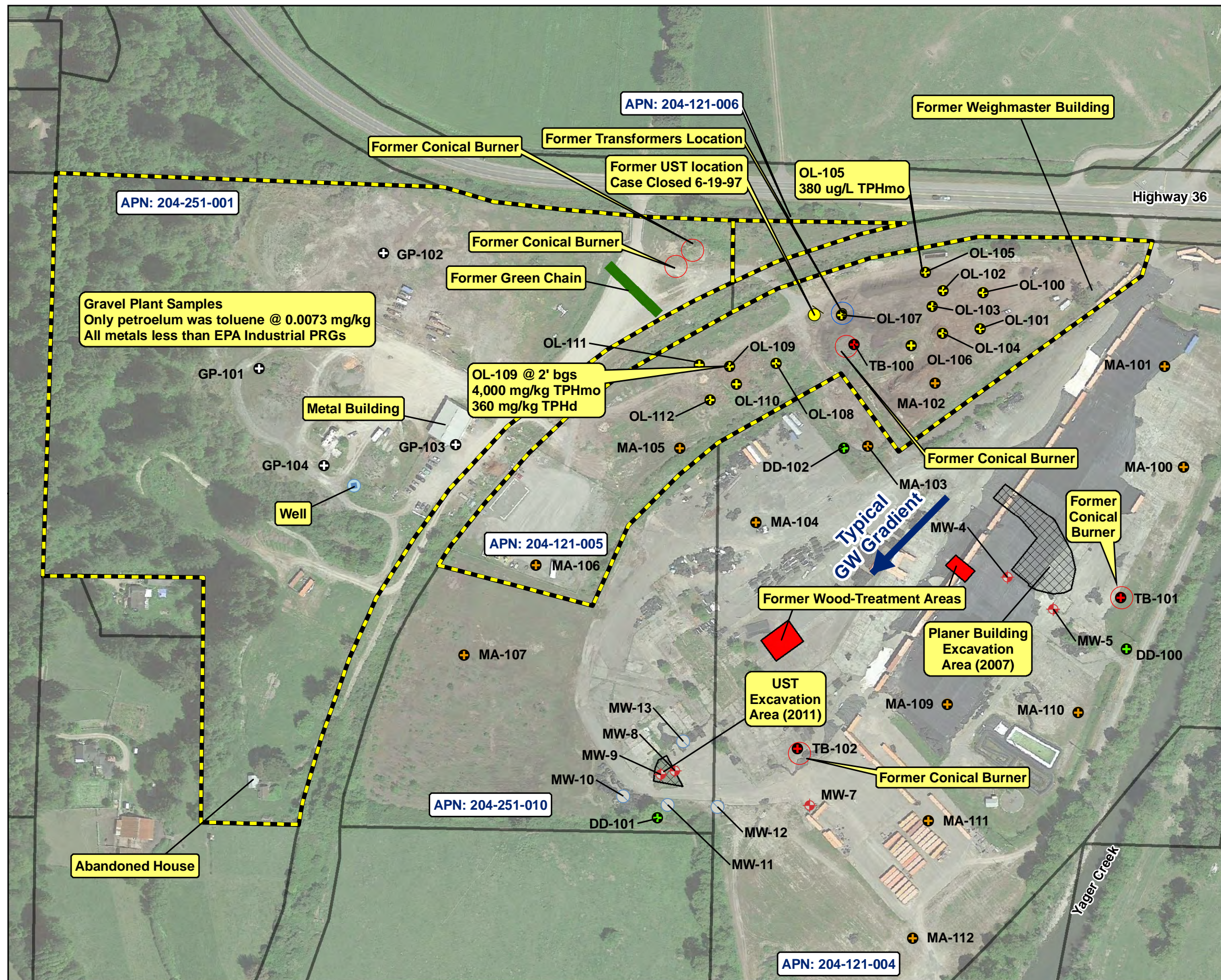


Freshwater Environmental Services

Project No.
 FES-105

Figure Date
 5-24-22

By
 SJT



LEGEND

- Subject Property
- Other Parcels
- Excavation Area
- Former Wood Treatment Area
- Former Green Chain
- Former Conical Burner
- Former Transformer Area
- Water Supply Well
- Monitoring Well
- Monitoring Well (destroyed)
- "Conical Burner" Sample
- "Orban Lumber" Sample
- "Gravel Plant" Sample
- "Drainage Ditch" Sample
- "Miscellaneous Area" Sample

Base Image Data Source:
Google Earth Pro: 4-30-19

ALL LOCATIONS APPROXIMATE

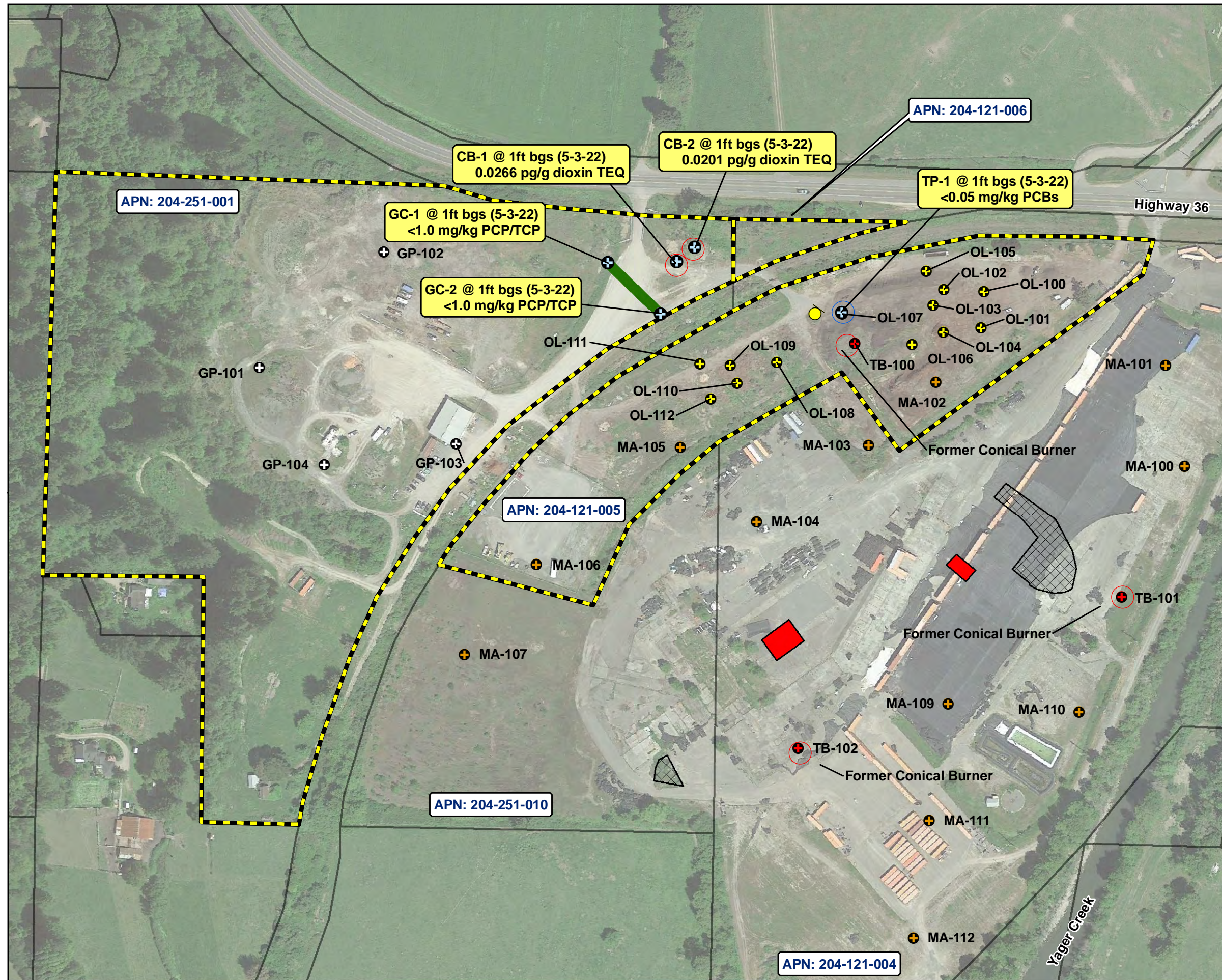
0 50 100 200 300 400 500
Feet

Phase II ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 2
Site Plan
2019 Aerial Photograph

Project No. FES-105	Figure Date 5-24-22	By SJT
------------------------	------------------------	-----------

**Freshwater
Environmental
Services**

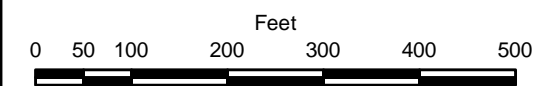
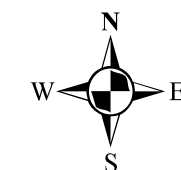


LEGEND

- Sample Location (5-3-22)
- Subject Property
- Other Parcels
- Excavation
- Former Wood Treatment Area
- Former Green Chain
- Former Conical Burner
- Former Transformer Location
- Conical Burner Sample
- "Orban Lumber" Sample
- "Gravel Plant" Sample
- "Miscellaneous Area" Sample

Base Image Data Source:
Google Earth Pro: 4-30-19

ALL LOCATIONS APPROXIMATE



Phase II ESA - Humboldt Reserve LLC
4798 Highway 36, Hydesville, CA

Figure 3
Soil Analytical Data
May 3, 2022
2019 Aerial Photograph

Project No. FES-105	Figure Date 5-24-22	By SJT
------------------------	------------------------	-----------



**Freshwater
Environmental
Services**

DAILY FIELD REPORT

Project Number: FRS-105 Date: 5/3/22

Site Name: Humboldt Reserve CCC Field Personnel: SF

Site Address: 4790 Hwy 36, Hydresville Proj. Manager: SF

Scope of work Phase 2 ESIA investigation

Drum Inventory Soil: _____ Water: _____ Free product: NA

Time Description of Activities

1010 Leave office

1105 Arrive onsite

1110 plotted sample locations and Assessed Surface Material

1125 Started Sample Excavate at CB-1, sampled at 1135

1135 Started Sample Excavate at CB-2, sampled at 1145

1145 Started sample Excavate at GC-1 " " 1155

1200 Started sample Excavate at GC-2 " " 1210

1220 Started sample Excavate at TP-1 " " 1230

1250 Left site to pack/ship samples to labs at FedEx

1420 Shipped samples to (2) labs

1450 Unloaded Gro at office

1510 Dropped off samples at NCL

1515 Done

Additional Comments: _____

May 23, 2022

FTR Project: 14416

Mr. Scott Ferriman
Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Dear Mr. Ferriman,

The following results are associated with Frontier Analytical Laboratory project **14416**. This corresponds to your project/Purchase order number **FES-105**. We received two soil samples on 5/4/2022 in good condition. These two samples were extracted and analyzed by EPA Method 1613 for tetra through octa chlorinated dibenzo dioxins and furans. The Toxic Equivalency (TEQ) for your samples has been calculated using the 2005 World Health Organization's (WHO's) toxic equivalency factors (TEFs). A turnaround time of ten business days was requested for project **14416**.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and a sample photo. The enclosed results and electronic data deliverable (EDD) are specifically for the samples referenced in this report only. These results meet all NELAP requirements and shall not be reproduced except in full. Frontier Analytical Laboratory's State of Oregon NELAP certificate number is **4041**, our State of California ELAP certificate number is **2934** and our State of Washington certificate number is **C844**. This report along with the associated EDD has been emailed to you. A hardcopy of this report will not be sent to you unless specifically requested.

If you have any questions regarding project **14416**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,



Bradley B. Silverbush
Laboratory Director

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: 14416

Received on: 05/04/2022

Project Due: 05/19/2022

Storage: R-4

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
14416-001-SA	0	Humboldt Reserve LLC	CB-1-1ft	EPA 1613 D/F	Soil	05/03/2022	11:35 am	05/03/2023
14416-002-SA	0	Humboldt Reserve LLC	CB-2-1ft	EPA 1613 D/F	Soil	05/03/2022	11:45 am	05/03/2023

EPA Method 1613
PCDD/F



FAL ID: 14416-001-MB
Client ID: Method Blank
Matrix: Soil
Batch No: X6082

Date Extracted: 05-19-2022
Date Received: NA
Amount: 10.0 g


ICal: PCDDFAL3-4-29-22
GC Column: DB5MS
Units: pg/g

Acquired: 05-21-2022
2005 WHO TEQ: 0.0
Basis: Dry Weight

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.0501		-	0.0286				
1,2,3,7,8-PeCDD	ND	0.107		-	0.0515				
1,2,3,4,7,8-HxCDD	ND	0.149		-	0.0555				
1,2,3,6,7,8-HxCDD	ND	0.156		-	0.0558	Total TCDD	ND	0.0501	
1,2,3,7,8,9-HxCDD	ND	0.142		-	0.0528	Total PeCDD	ND	0.107	
1,2,3,4,6,7,8-HpCDD	ND	0.252		-	0.0712	Total HxCDD	ND	0.156	
OCDD	ND	1.78		-	0.195	Total HpCDD	ND	0.252	
2,3,7,8-TCDF	ND	0.0656		-	0.0231				
1,2,3,7,8-PeCDF	ND	0.0746		-	0.0324				
2,3,4,7,8-PeCDF	ND	0.0838		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.0821		-	0.0339				
1,2,3,6,7,8-HxCDF	ND	0.0963		-	0.0340				
2,3,4,6,7,8-HxCDF	ND	0.104		-	0.0353				
1,2,3,7,8,9-HxCDF	ND	0.118		-	0.0451	Total TCDF	ND	0.0656	
1,2,3,4,6,7,8-HpCDF	ND	0.128		-	0.0350	Total PeCDF	ND	0.0838	
1,2,3,4,7,8,9-HpCDF	ND	0.156		-	0.0421	Total HxCDF	ND	0.118	
OCDF	ND	0.792		-	0.0820	Total HpCDF	ND	0.156	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	81.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	84.3	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	103	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	94.8	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	95.9	23.0 - 140	
13C-OCDD	74.2	17.0 - 157	
13C-2,3,7,8-TCDF	94.5	24.0 - 169	
13C-1,2,3,7,8-PeCDF	99.5	24.0 - 185	
13C-2,3,4,7,8-PeCDF	97.7	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	120	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	103	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	99.9	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	99.8	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	101	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	102	26.0 - 138	
13C-OCDF	87.8	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	80.7	35.0 - 197	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 5/23/2022

Reviewed By: DPV
Date: 5/23/2022

EPA Method 1613
PCDD/F



FAL ID: 14416-001-OPR
Client ID: OPR
Matrix: Soil
Batch No: X6082


Date Extracted: 05-19-2022
Date Received: NA
Amount: 10.00 g


ICal: PCDDFAL3-4-29-22
GC Column: DB5MS
Units: ng/ml

Acquired: 05-21-2022
2005 WHO TEQ: NA

Compound	Conc	QC Limits	Qual
2,3,7,8-TCDD	9.61	6.70 - 15.8	
1,2,3,7,8-PeCDD	52.8	35.0 - 71.0	
1,2,3,4,7,8-HxCDD	56.6	35.0 - 82.0	
1,2,3,6,7,8-HxCDD	57.7	38.0 - 67.0	
1,2,3,7,8,9-HxCDD	55.3	32.0 - 81.0	
1,2,3,4,6,7,8-HpCDD	55.8	35.0 - 70.0	
OCDD	116	78.0 - 144	
2,3,7,8-TCDF	11.0	7.50 - 15.8	
1,2,3,7,8-PeCDF	52.3	40.0 - 67.0	
2,3,4,7,8-PeCDF	54.5	34.0 - 80.0	
1,2,3,4,7,8-HxCDF	52.7	36.0 - 67.0	
1,2,3,6,7,8-HxCDF	53.5	42.0 - 65.0	
2,3,4,6,7,8-HxCDF	54.9	35.0 - 78.0	
1,2,3,7,8,9-HxCDF	54.4	39.0 - 65.0	
1,2,3,4,6,7,8-HpCDF	56.8	41.0 - 61.0	
1,2,3,4,7,8,9-HpCDF	54.9	39.0 - 69.0	
OCDF	108	63.0 - 170	
Internal Standards			
13C-2,3,7,8-TCDD	80.3	20.0 - 175	
13C-1,2,3,7,8-PeCDD	80.7	21.0 - 227	
13C-1,2,3,4,7,8-HxCDD	95.7	21.0 - 193	
13C-1,2,3,6,7,8-HxCDD	90.8	25.0 - 163	
13C-1,2,3,4,6,7,8-HpCDD	89.7	26.0 - 166	
13C-OCDD	74.6	13.0 - 198	
13C-2,3,7,8-TCDF	87.4	22.0 - 152	
13C-1,2,3,7,8-PeCDF	94.5	21.0 - 192	
13C-2,3,4,7,8-PeCDF	92.2	13.0 - 328	
13C-1,2,3,4,7,8-HxCDF	111	19.0 - 202	
13C-1,2,3,6,7,8-HxCDF	99.1	21.0 - 159	
13C-2,3,4,6,7,8-HxCDF	97.1	22.0 - 176	
13C-1,2,3,7,8,9-HxCDF	96.6	17.0 - 205	
13C-1,2,3,4,6,7,8-HpCDF	96.7	21.0 - 158	
13C-1,2,3,4,7,8,9-HpCDF	98.2	20.0 - 186	
13C-OCDF	86.7	13.0 - 198	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	89.5	31.0 - 191	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 5/23/2022

Reviewed By: 
Date: 5/23/2022

EPA Method 1613
PCDD/F



FAL ID: 14416-001-SA
Client ID: CB-1-1ft
Matrix: Soil
Batch No: X6082

Date Extracted: 05-19-2022
Date Received: 05-04-2022
Amount: 10.1 g
% Solids: 93.81


ICal: PCDDFAL3-4-29-22
GC Column: DB5MS
Units: pg/g

Acquired: 05-21-2022
2005 WHO TEQ: 0.0266
Basis: Dry Weight

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.0345		-	0.0286				
1,2,3,7,8-PeCDD	ND	0.131		-	0.0515				
1,2,3,4,7,8-HxCDD	ND	0.294		-	0.0555				
1,2,3,6,7,8-HxCDD	ND	0.308		-	0.0558	Total TCDD	ND	0.0345	
1,2,3,7,8,9-HxCDD	ND	0.280		-	0.0528	Total PeCDD	ND	0.131	
1,2,3,4,6,7,8-HpCDD	2.06	-	J	0.0206	0.0712	Total HxCDD	ND	0.308	
OCDD	20.1	-		0.00603	0.195	Total HpCDD	3.80	-	
2,3,7,8-TCDF	ND	0.0381		-	0.0231				
1,2,3,7,8-PeCDF	ND	0.0569		-	0.0324				
2,3,4,7,8-PeCDF	ND	0.0603		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.161		-	0.0339				
1,2,3,6,7,8-HxCDF	ND	0.173		-	0.0340				
2,3,4,6,7,8-HxCDF	ND	0.191		-	0.0353				
1,2,3,7,8,9-HxCDF	ND	0.214		-	0.0451	Total TCDF	ND	0.0381	
1,2,3,4,6,7,8-HpCDF	ND	0.623		-	0.0350	Total PeCDF	ND	0.0603	
1,2,3,4,7,8,9-HpCDF	ND	0.747		-	0.0421	Total HxCDF	ND	0.214	
OCDF	ND	0.760		-	0.0820	Total HpCDF	ND	0.747	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	96.4	25.0 - 164	
13C-1,2,3,7,8-PeCDD	85.6	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	99.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	94.9	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	95.1	23.0 - 140	
13C-OCDD	77.5	17.0 - 157	
13C-2,3,7,8-TCDF	95.6	24.0 - 169	
13C-1,2,3,7,8-PeCDF	103	24.0 - 185	
13C-2,3,4,7,8-PeCDF	100	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	126	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	113	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	111	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	111	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	112	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	106	26.0 - 138	
13C-OCDF	94.7	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	95.4	35.0 - 197	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 5/23/2022

Reviewed By: DPV
Date: 5/23/2022

EPA Method 1613
PCDD/F



FAL ID: 14416-002-SA
Client ID: CB-2-1ft
Matrix: Soil
Batch No: X6082

Date Extracted: 05-19-2022
Date Received: 05-04-2022
Amount: 10.2 g
% Solids: 92.01


ICal: PCDDFAL3-4-29-22
GC Column: DB5MS
Units: pg/g

Acquired: 05-21-2022
2005 WHO TEQ: 0.0201
Basis: Dry Weight

Compound	Conc	DL	Qual	2005 WHO Tox	MDL	Compound	Conc	DL	Qual
2,3,7,8-TCDD	ND	0.0762		-	0.0286				
1,2,3,7,8-PeCDD	ND	0.150		-	0.0515				
1,2,3,4,7,8-HxCDD	ND	0.258		-	0.0555				
1,2,3,6,7,8-HxCDD	ND	0.277		-	0.0558	Total TCDD	ND	0.0762	
1,2,3,7,8,9-HxCDD	ND	0.207		-	0.0528	Total PeCDD	ND	0.150	
1,2,3,4,6,7,8-HpCDD	1.79	-	J	0.0179	0.0712	Total HxCDD	ND	0.277	
OCDD	7.49	-		0.00225	0.195	Total HpCDD	2.98	-	
2,3,7,8-TCDF	ND	0.0472		-	0.0231				
1,2,3,7,8-PeCDF	ND	0.0623		-	0.0324				
2,3,4,7,8-PeCDF	ND	0.0665		-	0.0322				
1,2,3,4,7,8-HxCDF	ND	0.152		-	0.0339				
1,2,3,6,7,8-HxCDF	ND	0.165		-	0.0340				
2,3,4,6,7,8-HxCDF	ND	0.183		-	0.0353				
1,2,3,7,8,9-HxCDF	ND	0.195		-	0.0451	Total TCDF	ND	0.0858	
1,2,3,4,6,7,8-HpCDF	ND	0.292		-	0.0350	Total PeCDF	ND	0.141	
1,2,3,4,7,8,9-HpCDF	ND	0.379		-	0.0421	Total HxCDF	ND	0.195	
OCDF	ND	0.599		-	0.0820	Total HpCDF	ND	0.379	

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	25.0 - 164	
13C-1,2,3,7,8-PeCDD	74.2	25.0 - 181	
13C-1,2,3,4,7,8-HxCDD	89.9	32.0 - 141	
13C-1,2,3,6,7,8-HxCDD	82.6	28.0 - 130	
13C-1,2,3,4,6,7,8-HpCDD	81.5	23.0 - 140	
13C-OCDD	66.7	17.0 - 157	
13C-2,3,7,8-TCDF	80.3	24.0 - 169	
13C-1,2,3,7,8-PeCDF	87.1	24.0 - 185	
13C-2,3,4,7,8-PeCDF	86.6	21.0 - 178	
13C-1,2,3,4,7,8-HxCDF	104	26.0 - 152	
13C-1,2,3,6,7,8-HxCDF	95.0	26.0 - 123	
13C-2,3,4,6,7,8-HxCDF	94.7	28.0 - 136	
13C-1,2,3,7,8,9-HxCDF	96.0	29.0 - 147	
13C-1,2,3,4,6,7,8-HpCDF	93.6	28.0 - 143	
13C-1,2,3,4,7,8,9-HpCDF	92.1	26.0 - 138	
13C-OCDF	80.9	17.0 - 157	
Cleanup Surrogate			
37Cl-2,3,7,8-TCDD	77.4	35.0 - 197	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- DNQ Analyte concentration is below calibration range
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- * Result taken from dilution or reinjection

Analyst: 
Date: 5/23/2022

Reviewed By: DPV
Date: 5/23/2022



Frontier Analytical Laboratory
 5172 Hillside Circle
 El Dorado Hills, CA 95762
 Tel: 916-934-0900
 Fax: 916-934-0999

FAL USE ONLY

Laboratory Project No.: 14416

Temperature: 0 °C

Chain of Custody

www.frontieranalytical.com

Please Print in Pen Page of

CLIENT INFORMATION	INVOICE INFORMATION (if different from client info)	PROJECT INFORMATION
Company Name: <u>Freshwater Env. Services</u> Contact Name: <u>Scott Ferriman</u> Address: <u>78 Sunny Base Center</u> Phone: <u>707-829-0091</u> Fax: <u> </u> Email: <u>scott@freshwaterenvironmental.com</u>	Company Name: <u> </u> Contact Name: <u> </u> Address: <u> </u> Phone: <u> </u> Fax: <u> </u> Email: <u> </u>	FAL Quote #: <u> </u> P.O. #: <u>FES-105</u> Project #: <u>FES-105</u> Project Name: <u>Humboldt Reserve LLC</u> TAT (business days): <input type="checkbox"/> 15 <input checked="" type="checkbox"/> 10 <input type="checkbox"/> 5* <input type="checkbox"/> 3* (√one) * FAL must agree with price and RUSH TAT in writing.

REPORT INFORMATION	REPORT DISTRIBUTION (email only is preferred)	ADDITIONAL INSTRUCTIONS
Report Level: <input checked="" type="checkbox"/> I/II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> EDD: <input type="checkbox"/> FAL Basic <input type="checkbox"/> Geotracker <input type="checkbox"/> Other: <u> </u> <input type="checkbox"/> Custom: Contact FAL <input type="checkbox"/> California State Drinking Water Form System #: <u> </u> Source #: <u> </u> Sampler: <u> </u> Employer: <u> </u>	<input type="checkbox"/> Hardcopy <input type="checkbox"/> CD (.pdf including EDDs if requested) <input checked="" type="checkbox"/> Email (.pdf including EDDs if requested)	

	Sample ID	Date	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/A	EPA 23/23A	EPA 1668	FAL 15	Other	**CONGENERs		**TEQ		Remarks	
																<input type="checkbox"/> 2,3,7,8-TCDD only	<input type="checkbox"/> 2,3,7,8-TCDD/F only	<input checked="" type="checkbox"/> PCDD/F (Cl ₄ -Cl ₈)	<input type="checkbox"/> 1998 WHO		<input checked="" type="checkbox"/> 2005 WHO
1	CB-1-1A	5/3/22	1135	Soil		X															
2	CB-2-1A	5/3/22	1145	Soil		X															
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)		Date	Time	Received by: (Signature and Printed Name)		Date	Time
<u>Scott Ferriman</u>		<u>5/3/22</u>	<u>14:20</u>	<u>FedEx</u> <u>Cathy JPP</u>		<u>5/7/22</u>	<u>14:20</u>
						<u>5/4/22</u>	<u>10:15</u>

Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed. FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

White Copy - Report
Yellow Copy - Laboratory
Pink Copy - Originator

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **14416**

Client:	Freshwater Environmental Services
Client Project ID:	Humboldt Reserve LLC
Date Received:	05/04/2022
Time Received:	10:15 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	2
Duplicates:	0
Storage Location:	R-4

Method of Delivery:	Fed-Ex
Tracking Number:	272730864385
Shipping Container Received Intact	Yes
Custody seals(s) present?	No
Custody seals(s) intact?	No
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test aqueous sample for residual Chlorine	No
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	N/A
Anomalies or additional comments:	
Please note that the samples were received in clear glass jars wrapped in aluminum foil.	



Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY

Laboratory Project No.: 14416
Temperature: 0 °C

Chain of Custody

www.frontieranalytical.com

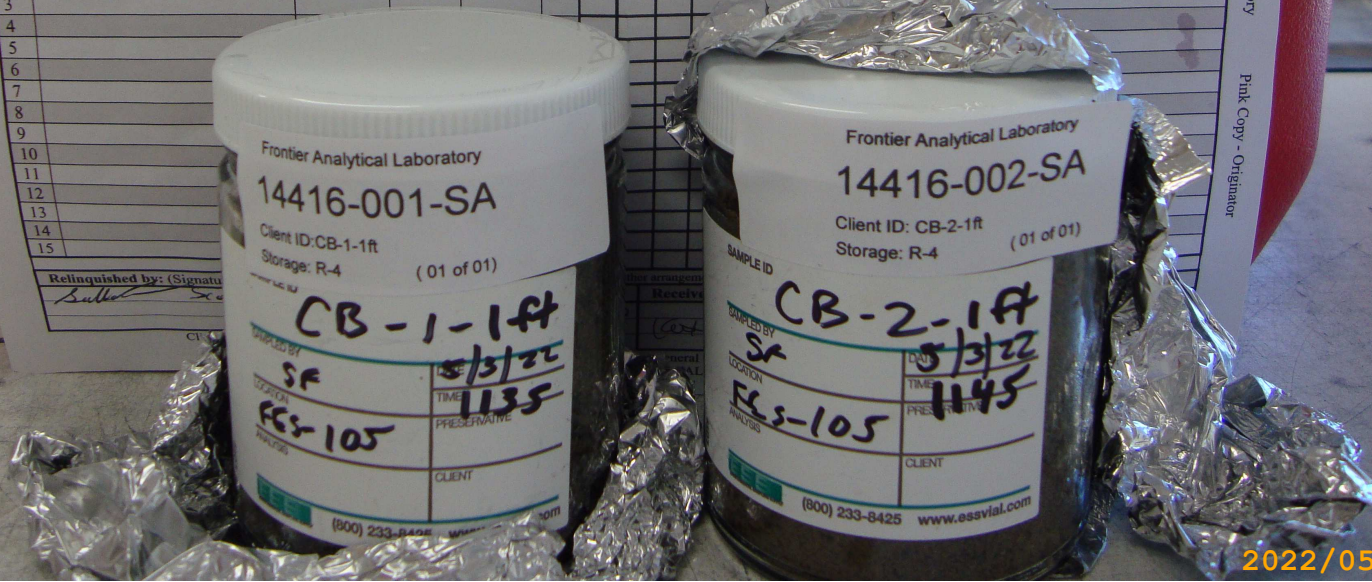
Please Print in Pen Page of

CLIENT INFORMATION	INVOICE INFORMATION (if different from client info)	PROJECT INFORMATION
Company Name: <u>Freshwater Env. Services</u>	Company Name: _____	FAL Quote #: _____
Contact Name: <u>Scott Ferriman</u>	Contact Name: _____	P.O. #: _____
Address: <u>78 Sunny Breeze Court</u>	Address: _____	Project #: <u>FES-105</u>
Phone: <u>927-829-0091</u> Fax: _____	Phone: _____ Fax: _____	Project Name: <u>Azambald Reserve LLC</u>
Email: <u>scott@freshwaterenvironmentalservices.com</u>	Email: _____	TAT (business days): <input type="checkbox"/> 15 <input checked="" type="checkbox"/> 10 <input type="checkbox"/> 5* <input type="checkbox"/> 3* (v one)
* FAL must agree with price and RUSH TAT in writing.		

REPORT INFORMATION	REPORT DISTRIBUTION (email only is preferred)	ADDITIONAL INSTRUCTIONS
Report Level: <input checked="" type="checkbox"/> I/II <input type="checkbox"/> III <input type="checkbox"/> IV	<input type="checkbox"/> Hardcopy	
<input type="checkbox"/> EDD: <input type="checkbox"/> FAL Basic <input type="checkbox"/> Geotracker <input type="checkbox"/> Other: <input type="checkbox"/> Custom: Contact FAL	<input type="checkbox"/> CD (.pdf including EDDs if requested)	
<input type="checkbox"/> California State Drinking Water Form	<input checked="" type="checkbox"/> Email (.pdf including EDDs if requested)	

Sample ID	Date	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/9A	EPA 2323A	EPA 1668	FAL 15	Other	**CONGENERS		**TEQ		Remarks
															<input type="checkbox"/> 2,3,7,8-TCDD only	<input type="checkbox"/> 1998 WHO	<input type="checkbox"/> 2,3,7,8-TCDD/F only	<input checked="" type="checkbox"/> 2005 WHO	
1	5/3/22	1135	S.L		<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>				
2	5/3/22	1145	S.L		<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>				
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: (Signature) Scott Ferriman



White Copy - Report
Yellow Copy - Laboratory
Pink Copy - Originator

2022/05/04



**NORTH COAST
LABORATORIES LTD.**

May 12, 2022

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Attn: Scott Ferriman

Order No.: 2205017
Invoice No.: 164479
PO No.:
ELAP No.1247-Expires July 2022

RE: FES-105 Humboldt Reserve LLC

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	GC-1-1ft
02A	GC-2-1ft

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

Flag = Explanation in Case Narrative

All solid results are expressed on a wet-weight basis unless otherwise noted.

Approved for release by:

Roxanne Golich, Project Manager

Date: 12-May-2022

WorkOrder: 2205017

CASE NARRATIVE

The samples were received on ice with a temperature above the EPA recommended temperature of less than or equal to 6° C.

Date: 12-May-2022

WorkOrder: 2205017

ANALYTICAL REPORT

Client Sample ID: GC-1-1ft

Lab ID: 2205017-01A

Received: 5/3/2022

Collected: 5/3/2022 11:55

Test Name: Chlorinated Phenols

Reference: Canadian Pulp Report/NCASI 86.07

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Prepared</u>	<u>Analyzed</u>
2,3,4,6-Tetrachlorophenol	ND		1.0	mg/kg	1.0	05/06/2022	5/11/2022
Pentachlorophenol	ND		1.0	mg/kg	1.0	05/06/2022	5/11/2022
Surrogate: 2,4,6-Tribromophenol	77.7		60-140	% Rec	1.0	05/06/2022	5/11/2022

Client Sample ID: GC-2-1ft

Lab ID: 2205017-02A

Received: 5/3/2022

Collected: 5/3/2022 12:10

Test Name: Chlorinated Phenols

Reference: Canadian Pulp Report/NCASI 86.07

<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Prepared</u>	<u>Analyzed</u>
2,3,4,6-Tetrachlorophenol	ND		1.0	mg/kg	1.0	05/06/2022	5/11/2022
Pentachlorophenol	ND		1.0	mg/kg	1.0	05/06/2022	5/11/2022
Surrogate: 2,4,6-Tribromophenol	105		60-140	% Rec	1.0	05/06/2022	5/11/2022

North Coast Laboratories, Ltd.

Date: 5/12/2022

CLIENT: Freshwater Environmental Services
Work Order: 2205017
Project: FES-105 Humboldt Reserve LLC

QC SUMMARY REPORT

Method Blank

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: MB-41274	Batch ID: 41274	Test Code: PCPTS	Units: mg/kg	Analysis Date: 5/11/2022 4:33:11 PM	Prep Date: 5/6/2022						
Client ID:	Run ID: ORGC18_220511A	SeqNo: 1580954									
2,3,4,6-Tetrachlorophenol	ND	1.0									
Pentachlorophenol	ND	1.0									
Surrogate: 2,4,6-Tribromophenol	4.63	0.10	5.00	0	92.6%	60	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/12/2022

CLIENT: Freshwater Environmental Services
Work Order: 2205017
Project: FES-105 Humboldt Reserve LLC

QC SUMMARY REPORT
 Sample Matrix Spike

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.102	1.0	5.00	0	82.0%	67	139	0			
Pentachlorophenol	4.220	1.0	5.00	0	84.4%	63	146	0			
Surrogate: 2,4,6-Tribromophenol	4.48	0.10	5.00	0	89.5%	60	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 5/12/2022

CLIENT: Freshwater Environmental Services
Work Order: 2205017
Project: FES-105 Humboldt Reserve LLC

QC SUMMARY REPORT
 Laboratory Control Spike

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:						
LCS-41274	41274	PCPTS	mg/kg	5/11/2022 4:59:41 PM	5/6/2022						
Client ID:	Run ID:	SeqNo: 1580955									
ORG18_220511A											
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	3.797	1.0	5.00	0	75.9%	67	139	0			
Pentachlorophenol	4.054	1.0	5.00	0	81.1%	63	146	0			
Surrogate: 2,4,6-Tribromophenol	4.22	0.10	5.00	0	84.5%	60	140	0			

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:						
LCSD-41274	41274	PCPTS	mg/kg	5/11/2022 5:26:12 PM	5/6/2022						
Client ID:	Run ID:	SeqNo: 1580956									
ORG18_220511A											
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,3,4,6-Tetrachlorophenol	4.446	1.0	5.00	0	88.9%	67	139	3.80	15.8%	30	
Pentachlorophenol	4.575	1.0	5.00	0	91.5%	63	146	4.05	12.1%	30	
Surrogate: 2,4,6-Tribromophenol	4.86	0.10	5.00	0	97.2%	60	140	4.22	14.0%	30	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



NORTH COAST LABORATORIES LTD.

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

P. 1 of 7

2205017

LABORATORY NUMBER: 2205017

Attention: Scott Ferriman
Results & Invoice to: Freshwater EDV
Address: 78 Sunny Brae Court
Arcata, CA 95521
Phone: 707-829-0091
Copies of Report to: _____
Sampler (Sign & Print): Scott Ferriman

TAT: STD (2-3 Wk) Other:
PRIOR AUTHORIZATION IS REQUIRED FOR
RUSH SAMPLES. 10-Day TAT

REPORTING REQUIREMENTS:
 State Forms
 Geotracker SWAMP Other EDD:
 Final Report PDF FAX By: _____

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl;
3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;
6—500 ml BG; 7—1 L BG; 8—40 ml VOA;
9—60 ml VOA; 10—125 ml VOA; 11—4 oz glass jar;
12—8 oz glass jar; 13—brass tube; 14—other
PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄;
d—Na₂S₂O₃; e—NaOH; f—C₂H₃O₂Cl; g—other

PROJECT INFORMATION

Project Number: FES-105
Project Name: Humboldt Reserve UC
Purchase Order Number: _____

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*
	<u>GC-1-1A</u>	<u>5/3/22</u>	<u>1155</u>	<u>S</u>
	<u>GC-2-1A</u>	<u>5/3/22</u>	<u>1210</u>	<u>S</u>

ANALYSIS	CONTAINER PRESERVATIVE																		
<u>PCP/TC c-PUP</u>	<u>None</u>																		
<u>X X</u>																			

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
7-2' L one

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
<u></u>	<u>5/3/22 1510</u>	<u>NAL</u>	<u>5/3/22 1509</u>

SAMPLE DISPOSAL
 NCL Disposal of Non-Contaminated
 Return Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Fed-Ex Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; WW=Waste Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

EXCELCHEM
Laboratories, Inc.
A Silver State Analytical Company
1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

12 May 2022

Scott Ferriman

Freshwater Environmental Services

78 Sunny Brae Center

Arcata, CA 95521

RE: Humboldt Reserve LLC

Work order number:2205034

Enclosed are the results of analyses for samples received by the laboratory on 05/04/22 15:35. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Joshua Cox, Lab Director

Excelchem Laboratories, Inc.

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Project: Humboldt Reserve LLC
Project Number: FES-105
Project Manager: Scott Ferriman

Date Reported:
05/12/22 12:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP-1	2205034-01	Soil	05/03/22 12:30	05/04/22 15:35

Excelchem Laboratories, Inc.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Laboratories, Inc.

Freshwater Environmental Services 78 Sunny Brae Center Arcata, CA 95521	Project: Humboldt Reserve LLC Project Number: FES-105 Project Manager: Scott Ferriman	Date Reported: 05/12/22 12:43
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**TP-1
2205034-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
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PCBs by GC/ECD

Aroclor 1016	ND	0.0500	mg/kg	A`E0032	05/06/22	05/09/22	PCBs BY EPA 8082	
Aroclor 1221	ND	0.0500	"	"	"	"	"	
Aroclor 1232	ND	0.0500	"	"	"	"	"	
Aroclor 1242	ND	0.0500	"	"	"	"	"	
Aroclor 1248	ND	0.0500	"	"	"	"	"	
Aroclor 1254	ND	0.0500	"	"	"	"	"	
Aroclor 1260	ND	0.0500	"	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>	62.7 %	% Recovery Limits		50-150				"
<i>Surrogate: Tetrachloro-meta-xylene</i>	83.2 %	% Recovery Limits		50-150				"

Excelchem Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Laboratories, Inc.

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Project: Humboldt Reserve LLC
Project Number: FES-105
Project Manager: Scott Ferriman

Date Reported:
05/12/22 12:43

PCBs by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A`E0032 - PCBs BY EPA 8082

Blank (A`E0032-BLK1)

Prepared: 05/06/22 Analyzed: 05/09/22

Surrogate: Decachlorobiphenyl	0.0123		mg/kg	0.0197		62.4	50-150			
Surrogate: Tetrachloro-meta-xylene	0.0153		"	0.0197		77.9	50-150			
Aroclor 1016	ND	0.0500	"							
Aroclor 1221	ND	0.0500	"							
Aroclor 1232	ND	0.0500	"							
Aroclor 1242	ND	0.0500	"							
Aroclor 1248	ND	0.0500	"							
Aroclor 1254	ND	0.0500	"							
Aroclor 1260	ND	0.0500	"							

LCS (A`E0032-BS1)

Prepared: 05/06/22 Analyzed: 05/09/22

Surrogate: Decachlorobiphenyl	0.0209		mg/kg	0.0199		105	50-150			
Surrogate: Tetrachloro-meta-xylene	0.0128		"	0.0199		64.4	50-150			
Aroclor 1260	1.03	0.0500	"	0.994		103	50-150			

LCS Dup (A`E0032-BS1)

Prepared: 05/06/22 Analyzed: 05/09/22

Surrogate: Decachlorobiphenyl	0.0215		mg/kg	0.0199		108	50-150			
Surrogate: Tetrachloro-meta-xylene	0.0124		"	0.0199		62.2	50-150			
Aroclor 1260	1.02	0.0500	"	0.996		102	50-150	1.23	50	

Matrix Spike (A`E0032-MS1)

Source: 2205022-01

Prepared: 05/06/22 Analyzed: 05/09/22

Surrogate: Decachlorobiphenyl	0.0165		mg/kg	0.0199		83.0	50-150			
Surrogate: Tetrachloro-meta-xylene	0.0170		"	0.0199		85.3	50-150			
Aroclor 1260	0.797	0.0500	"	0.995	ND	80.1	50-150			

Matrix Spike Dup (A`E0032-MSD1)

Source: 2205022-01

Prepared: 05/06/22 Analyzed: 05/09/22

Surrogate: Decachlorobiphenyl	0.0149		mg/kg	0.0200		74.4	50-150			
Surrogate: Tetrachloro-meta-xylene	0.0168		"	0.0200		84.2	50-150			
Aroclor 1260	0.776	0.0500	"	1.00	ND	77.6	50-150	2.69	50	

Excelchem Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Laboratories, Inc.

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Project: Humboldt Reserve LLC
Project Number: FES-105
Project Manager: Scott Ferriman

Date Reported:
05/12/22 12:43

Notes and Definitions

ND Analyte not detected at reporting limit.
NR Not reported

Excelchem Laboratories, Inc.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Laboratories, Inc.

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Project: Humboldt Reserve LLC
Project Number: FES-105
Project Manager: Scott Ferriman

Date Reported:
05/12/22 12:43

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST		ANALYSIS REQUEST	
Excelchem Environmental Labs 1135 W. Sunset Blvd. Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Project Manager: <u>Scott Ferriman</u> Company/Address: <u>FES 78 Sunny Brae Center, Arcata</u> Project Number/PO: <u>FES-105</u>		Project Number: <u>FES-105</u> Sampler Name and Signature: <u>Scott Ferriman</u>	
Project Manager: <u>Scott Ferriman</u> Phone #: <u>707-839-0091</u> Fax #: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Project Manager: <u>Scott Ferriman</u> Email Address: <u>Scott.freshwater@env.com</u> <u>Marcus@freshwater.com</u>		Project Number: <u>FES-105</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Electronic Data Deliverables Request: <input checked="" type="checkbox"/> .PDF <input type="checkbox"/> Geotracker (Global ID) <input type="checkbox"/> Other (please specify)		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Requested TAT: 12hr/24hr/48hr/72hr/1wk <input checked="" type="checkbox"/>		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Bin# _____ Due Date: _____ Work Order: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Wet _____ Total _____ Metals = _____ Metals = _____ Metals = _____ Tphg/BTEX/5 Oxygenates (8260B) Lead Scavengers DCA/EDB (8260B) 5 Oxygenates (8260B) Methanol (8015m) Ethanol (8260B) MTBE (8021/8260B) circle the method VOC Full list (8260B) Semi Volatiles (8270C) Chlorinated Herbicides (8151) Organophosphorus Pesticides (8141) Pesticides (008/008A), PCBs (8082)		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Total Oil & Grease (SM-18th Ed 5520B.F/1664) TPH as Oil (8015m) TPH as Diesel (8015m) BTEX/TPH as Gasoline (602/8021/8015m)		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Matrix: AIR _____ SOIL _____ WATER _____ NONE / OTHER _____ ICE _____ HNO ₃ _____ HCl _____ Teflon or SUMMA _____ PLASTIC _____ TL GLASS _____ SLEEVE _____ VOA _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Sample ID: <u>TP-1</u> Date: <u>5/12/22</u> Time: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Relinquished by: <u>Scott Ferriman</u> Date: <u>5/12/22</u> Time: <u>1420</u>		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Relinquished by: <u>Scott Ferriman</u> Date: <u>5/12/22</u> Time: <u>1535</u>		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Received by: <u>FedEx</u> Date: _____ Time: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Received by: <u>Scott Ferriman</u> Date: <u>5/12/22</u> Time: <u>1535</u>		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Remarks/Condition of Sample: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	
Bill To: _____		Project Name: <u>Humboldt Reserve LLC</u> Project Location: <u>4798 Hwy 36, Humboldt, CA</u>	

2205034
BIN C-21

Excelchem Laboratories, Inc.

Freshwater Environmental Services
78 Sunny Brae Center
Arcata, CA 95521

Project: Humboldt Reserve LLC
Project Number: FES-105
Project Manager: Scott Ferriman

Date Reported:
05/12/22 12:43

Sample Integrity

WORK ORDER: 2205034

Date Received: 05/04/22

Company Name: Freshwater
New Client: Y N

Section 1 – Sample Arrival Information	
Sample Transport: ONTRAC UPS USPS Walk-In EXCELCHEM Courier Fed-Ex Other: _____	
Transported In: Ice Chest Box Hand	
Packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____	
Has chilling process begun? Y N	Samples Received: Chilled to Touch / Ambient / On Ice
Temperature of Samples (°C): <u>13.3/14.9</u> +1.6° CF	Ice Chest Temperature(s) (°C): <u>0.5/2.1</u> +1.6° CF

Section 2 – Bottle/Analysis Info.				
	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	✓			
Did all bottle labels agree with COC?	✓			
Were correct containers used for the tests requested?	✓			
Were correct preservations used for the tests requested?	✓			
Was a sufficient amount of sample sent for tests indicated?	✓			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			✓	
Is there head space in the VOA vials? (Volatile Methods Only)			✓	

Section 3– COC Information						
	Yes	No	Comments	Yes	No	
COC Received	✓			Analysis Requested	✓	
Date Sampled	✓			Samples arrived within holding time	✓	
Time Sampled		✓		Hold times less than 72 hours		✓
Sample ID	✓			Client Name	✓	
Rush Turn Around Time	✓			Client Contact Information	✓	

SHORT HOLD LIST (<72 hours)									
pH	Chlorine	Corrosivity	Coliform	Dissolved Oxygen	Odor	Nitrate	Nitrite	Ortho-phosphate	
MB	Asbestos	Settable Solids	Turbidity	Biochemical Oxygen Demand	HPC	Color	Tedlars	Ammonia/TKN (unpreserved)	
As									

Section 4 – Comments / Discrepancies	
Client notified of discrepancies: Yes / No	Notified by:
Comments:	

Bin Number/ Location:	<u>C-21</u>
COC Scanned/Attached by:	<u>SD</u>
Samples labeled by:	<u>SD</u>
Sample labels reviewed by:	<u>SD</u>

Filled out by: 	Date: <u>05/05/2022</u>
	Time: <u>8:15:35</u>



DATE: December 9, 2022

TO: Joey Whittlesey
Humboldt County Division of Environmental Health
100 H Street, Suite 100
Eureka, CA 95501

RE: Humboldt Reserve, LLC
Attn: Jack Wheeler
4798 HWY 36
Hydesville, CA 95547
APN: 204-251-001
Application: PLN-2022-17649

Dear Mr. Whittlesey,

The following report is being submitted for your review, demonstrating the suitability of an individual sewage disposal system for the above referenced project near Hydesville, CA. The proposed project is an indoor cannabis cultivation operation with a with a maximum of 74 full time and seasonal employees. Soil and percolation tests were performed during October 2022.

SITE DESCRIPTION

The site is located north of Van Duzen River and south of Highway 36, on a 23-acre parcel accessible from Highway 36. The parcel is predominately flat with an unnamed stream within the property near the western border and abandoned railroad tracks from the south turning to the east along the boundary line. An existing metal building is located near the eastern boundary line.

SOILS DESCRIPTION

On October 10, 2022, two test holes (TH#1, TH#2) were augered to depths of 24" and 28" respectfully, and one backhoe test hole (TH#3) was excavated to depths of 8 feet. Refer to the site plan for the test hole locations. An examination of the subsurface soils in TH#1 revealed 0"-24" light brown sandy loam zone 2 soils with many fine to 3" minus rock fragments and many fine root content to 3". TH#2 revealed 0"-28" light brown sandy clay loam zone 2 soils with many fine to 3" minus rock fragments and many fine root content to 4". TH#3 revealed 0"-22" compacted gravel with many fine to 3" minus rock fragments and many fine root contents to 3", then 22"-34" of brown sandy clay with many fine and some 3" minus rock fragments, no root content, and some redwood bark clumps, then 34"-8' of dark brown loam soil with some fine to 3" minus rock fragments and no root content. See the attached textural analysis sheets prepared by SHN Consulting Engineers.



Non-wet weather field percolation tests were performed at 24" in TH#1, 28" in TH#2, and 40" in TH#3. Stabilized percolation rates were found to be approximately 6 min/inch in TH#1, 5 min/inch in TH#2, and 35 min/inch for TH#3. The subsurface profile logs and percolation rate data are included in this report.

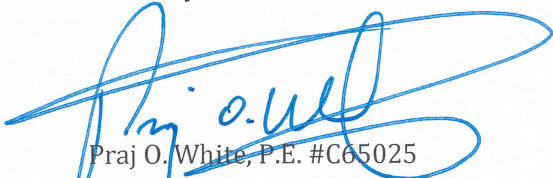
SUITABILITY RESULTS

Based on the standard 35 gallons/day/employee/shift with 74 employees and conservative load rate of 0.344 GPD/ft² (Table 2 of the RTM) from the most restrictive soil horizon encountered, an estimated 9,520 sq.ft. area is required for each primary and reserve leach fields. Two areas were located that meet the requirements set by DEH. An area of approximately 44,100 sq.ft. south of the existing metal building was located and an area of approximately 16,450 sq.ft. north of the existing metal building and south of Highway 36 was located. See the attached site plan for potential leach field areas. Our site investigation documents that the site is capable of treating sewage with an on-site wastewater treatment system for the proposed 74 employees.

This report contains the project location and a site map with septic suitability locations, subsurface profile logs, percolation test data, soil texture analysis data and the pertinent samples plotted on the soil percolation suitability chart.

If you have any questions regarding this matter, please call me at (707) 798-6438.

Sincerely,



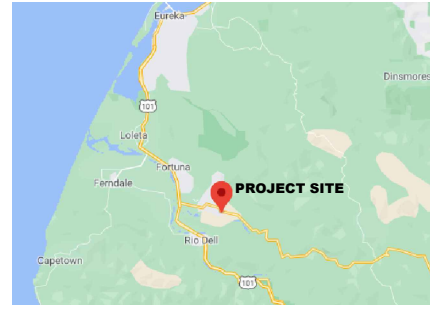
Praj O. White, P.E. #C65025
Senior Project Manager



HUMBOLDT RESERVE, LLC.

SEPTIC SUITABILITY

APN: 204-251-001



VICINITY MAP
NOT TO SCALE

DIRECTIONS TO SITE:
FROM EUREKA, CA
 - SOUTHBOUND ON US-101 (APPROX. 19.9 MILES)
 - TAKE EXIT 685 FOR CA-36E
 - TURN LEFT ONTO CA-36E (APPROX. 4.4 MILES)
 - SITE DRIVEWAY ON RIGHT

PROJECT DESCRIPTION:

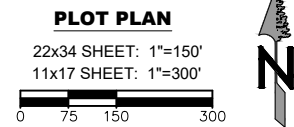
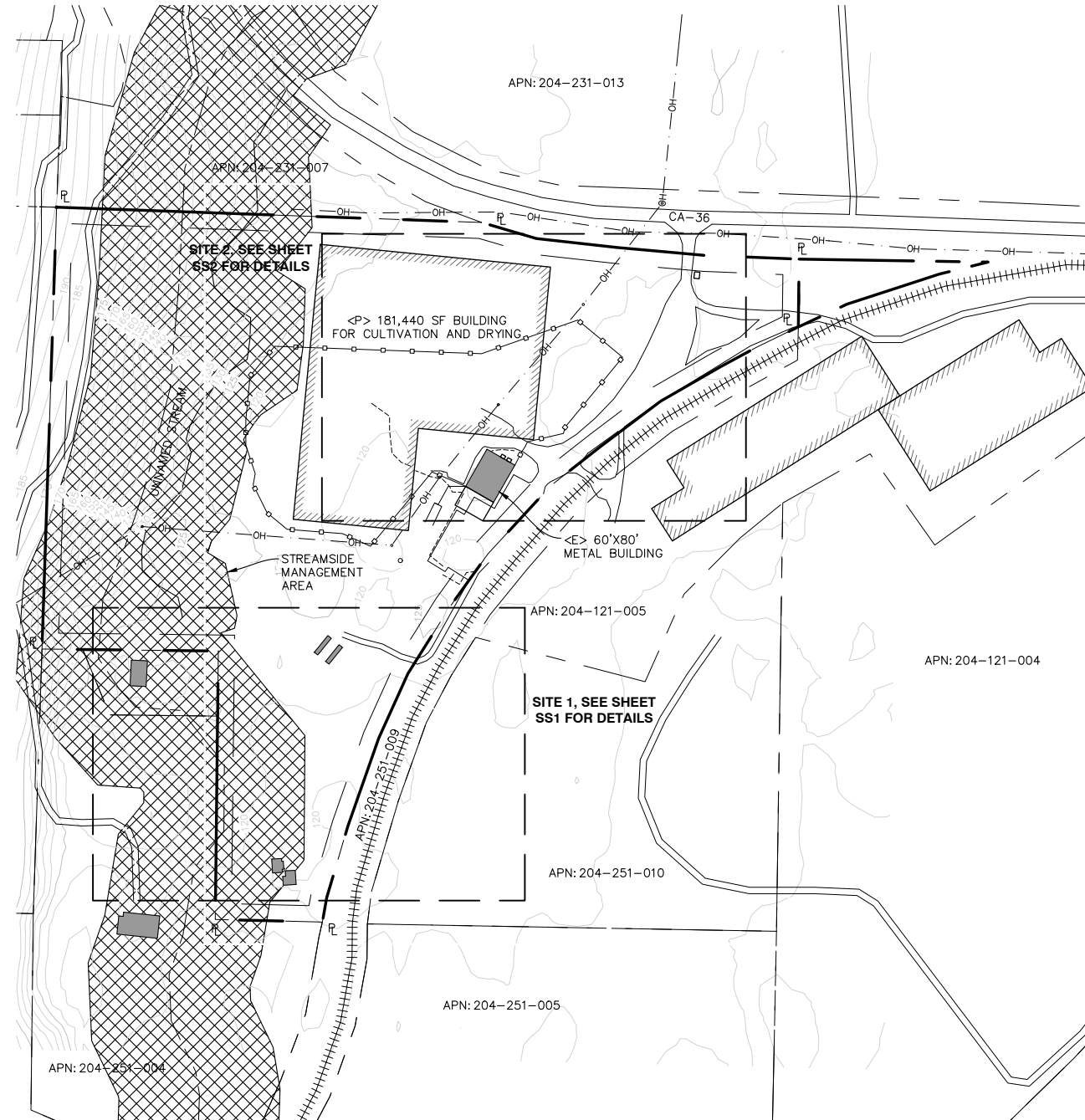
HUMBOLDT RESERVE, LLC. IS PROPOSING TO DEMONSTRATE SEPTIC SUITABILITY IN ACCORDANCE WITH THE STATE WATER RESOURCES CONTROL BOARD AND REGIONAL WATER QUALITY CONTROL BOARDS ONSITE WASTEWATER TREATMENT SYSTEM (OWTS), AND THE HUMBOLDT COUNTY REGULATIONS AND TECHNICAL MANUAL (RTM).

GENERAL NOTES:

1. DRAWING SCALE AS NOTED. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. THIS IS NOT A BOUNDARY SURVEY. BOUNDARY INFORMATION DEPICTED HAS BEEN OBTAINED FROM HUMBOLDT COUNTY 2015 GIS DATA. NORTHPOINT CONSULTING GROUP, INC. HAS NOT VERIFIED THIS PROPERTY BOUNDARY.
3. ANY EXISTING DEVELOPMENT CONSTRUCTED WITHOUT THE BENEFIT OF COUNTY REVIEW WILL BE SUBJECT TO THE HUMBOLDT COUNTY BUILDING DEPARTMENT.
4. ALL NEW AND REPLACED ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS) SHALL BE INSTALLED BY A STATE OF CALIFORNIA LICENSED CONTRACTOR OR PROPERTY OWNER UNDER APPROVAL OF HUMBOLDT COUNTY DIVISION OF ENVIRONMENTAL HEALTH (DEH).

SITE SEPTIC NOTES:

1. PRIVATE WATER
2. NO TREES TO BE REMOVED.
3. NO STREAMS, SPRINGS, OR WETLANDS WITH IN 100' OF SEPTIC LEACH FIELDS.
4. SEPTIC TANK MUST BE AT LEAST 50' FROM ALL PROPERTY LINES AND TOP OF SLOPES GREATER THAN 30%, AND 5' FROM BUILDING FOUNDATIONS AND DECK FOOTINGS.
5. SEPTIC LEACH FIELD LINES MUST BE AT LEAST 50' FROM ALL PROPERTY LINES, 25' FROM TOP OF SLOPES GREATER THAN 30%, AND 10' FROM BUILDING FOUNDATIONS AND DECK FOOTINGS.
6. USE WIDTH OF SEPTIC FIELD LINES SPECIFIED IN SEPTIC CALCULATIONS OR ON THIS PLAN.
7. PLACE SEPTIC LINES PARALLEL TO CONTOUR LINES.
8. DO NOT DISTURB SOIL OR CONDUCT GRADING DOWNSLOPE OF SEPTIC LINES.
9. DIRECT ALL SURFACE DRAINAGE AWAY FROM SEPTIC FIELD.
10. DO NOT PLACE SYSTEM UNDER CURRENT OR FUTURE DRIVEWAYS.
11. TOTAL FEET OF SEPTIC FIELD LINES MAY BE MODIFIED FROM NUMBER AND SPACIFIED LENGTHS, VERIFY WITH ENGINEER PRIOR TO INSTALLATION.
12. CLEANOUTS SHALL BE PLACED IN EVERY BUILDING SEWER AT THE JUNCTION WITH THE BUILDING DRAIN AND AT INTERVALS NOT TO EXCEED ONE HUNDRED FEET IN STRAIGHT RUNS.
13. EVERY CHANGE IN ALIGNMENT OR GRADE IN EXCESS OF TWENTY-TWO AND ONE-HALF (22 1/2) DEGREES IN A BUILDING SEWER SHALL BE SERVED BY A CLEANOUT.



PROJECT INFORMATION:

APPLICANT:
 HUMBOLDT RESERVE, LLC.
 4798 HWY 36
 HYDESVILLE, CA 95547

PROPERTY OWNER:
 LOST COAST ORGANICS, LLC.
 4798 HWY 36
 HYDESVILLE, CA 95547

APPLICANTS AGENT:
 NORTHPOINT CONSULTING GROUP, INC
 1117 SAMOA BLVD.
 ARCATA, CA 95521
 (707) 798-6438

SITE ADDRESS:
 APN: 204-251-001
 4798 HWY 36
 HYDESVILLE, CA 95547

TREES TO BE REMOVED = NONE
 WATER = PRIVATE
 SEWER = PRIVATE
 PROPERTY SIZE = ±23.0 ACRES
 ZONING = MH;MH-Q
 GENERAL PLAN DESIGNATION = MU

BUILDING SETBACKS:

	MH	SRA
FRONT	50'	30'
SIDE	30'	30'
REAR	50'	30'

SRA AREA: = YES
 IN COASTAL ZONE: = NO
 IN 100 YR FLOOD ZONE: = NO

SHEET INDEX:

- SS0 - PLOT PLAN, VICINITY MAP, & PROJECT NOTES
- SS1 - PROPOSED SITE PLAN 1
- SS2 - PROPOSED SITE PLAN 2

DATE	
REVISIONS	

NORTHPOINT CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC / APN: 204-251-001
4798 HWY. 36, HYDESVILLE, CA 95547
PLOT PLAN, VICINITY MAP, AND PROJECT NOTES

PROJ MGR: POW
 DRAWN BY: TJS
 DATE: 11/29/22
 SCALE: AS SHOWN

SHEET
SS0
 21-013

November 29, 2022 - 11:55 Desi Nemez, P., V. East Coast Organics - Jack Wheeler - 21-013\CAD\East Coast Organics - Septic Submittal\video - Uploaded By Tori@klt



PROPOSED SITE PLAN 1
 22x34 SHEET: 1"=30"
 11x17 SHEET: 1"=60"



DATE	REVISIONS	DRAWN BY

NORTHPOINT
 CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC / APN:204-251-001
 4798 HWY. 36, HYDESVILLE, CA 95547
PROPOSED SITE PLAN 1

PROJ. MGR:	POW
DRAWN BY:	TJS
DATE:	11/29/22
SCALE:	AS SHOWN
SHEET	
SS1	
21-013	

November 29, 2022 - 11:55 Desi Name: P:\West Coast\Organics - Jack Wheeler - 21-013\CAD\West Coast\Organics - Septic Submittal.dwg, Updated By: Tor6/akt



PROPOSED SITE PLAN 2
 22x34 SHEET: 1"=30'
 11x17 SHEET: 1"=60'

DATE	
REVISIONS	

NORTHPOINT CONSULTING GROUP, INC.
 1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC / APN:204-251-001
 4798 HWY. 36, HYDESVILLE, CA 95547
PROPOSED SITE PLAN 2

PROJ MGR: POW
 DRAWN BY: TJS
 DATE: 11/29/22
 SCALE: AS SHOWN

SHEET
SS2
 21-013

Percolation Test Data

Project: Wheeler
Job#: 21-013
APN# 204-251-001
Test Date: 10/10/2022

Test Hole	#1					
Water Table	> 24 inches					
Soil Type	Sandy Loam Zone 2					
Presoak	Four Refills					
Depth	24"					
Test #	Time	Fill (in)	Meas. (in)	Min.	Drop (in)	Rate (min/inch)
1	12:26	9				
	12:31		8	0:05	1	5.0
2	12:33	10				
	12:38		9	0:05	1	5.0
3	12:38	9				
	12:44		8	0:06	1	6.0

STABILIZED RATE FOR DESIGN = 6 MIN/INCH

Test Hole	#2					
Water Table	> 28 inches					
Soil Type	Sandy Clay Loam Zone 2					
Presoak	Four Refills					
Depth	28"					
Test #	Time	Fill (in)	Meas. (in)	Min.	Drop (in)	Rate (min/inch)
1	13:07	11				
	13:11		10	0:04	1	4.0
2	13:11	10				
	13:16		9	0:05	1	5.0
3	13:16	9				
	13:21		8	0:05	1	5.0

STABILIZED RATE FOR DESIGN = 5 MIN/INCH

Test Hole	#3					
Water Table	> 8 feet					
Soil Type	Loam Zone 2					
Presoak	Four Refills					
Depth	40"					
Test #	Time	Fill (in)	Meas. (in)	Min.	Drop (in)	Rate (min/inch)
1	14:10	8				
	14:40		7	0:30	1	30.0
2	14:40	7				
	15:15		6	0:35	1	35.0
3	15:23	8				
	15:58		7	0:35	1	35.0

STABILIZED RATE FOR DESIGN = 35 MIN/INCH

SUBSURFACE PROFILE LOG
Test Hole #1

Depth	Descriptions and Observations	Sample	Classification
0 - - - 1 - - - 2	Topsoil removed 7.5yr 5/4 Light Brown Sandy Loam, dry, fine angular blocky, w/ many fine to 3" minus rock fragments, w/ many fine root content to 3".		
- - - 3 - - - 4 - - - 5 - - - 6 - - - 7 - - - 8 - - - 9 - - 10	bottom of test hole No ground water or mottling observed during testing	TH#1	Zone 2

logged by tjs

Profile Logs show subsurface conditions by observations at the dates and locations indicated and it is not warranted that they are representative of subsurface conditions at other locations and times.

SUBSURFACE PROFILE LOG
Test Hole #2

Depth	Descriptions and Observations	Sample	Classification
0 - - - 1 - - - 2 -	Topsoil removed 7.5yr 5/4 Light Brown Sandy Clay Loam, dry, fine agular blocky, w/ many fine to 3" minus rock fragments, w/ many fine root content to 4".		
- - 3 - - - 4 - - - 5 - - - 6 - - - 7 - - - 8 - - - 9 - - 10	bottom of test hole No ground water or mottling observed during testing	TH#2	Zone 2

logged by tjs

Profile Logs show subsurface conditions by observations at the dates and locations indicated and it is not warranted that they are representative of subsurface conditions at other locations and times.

SUBSURFACE PROFILE LOG
Test Hole #3

Depth	Descriptions and Observations	Sample	Classification
0 - - - 1 - - -	Topsoil removed Compacted Gravel, dry, w/ many fine to 3" minus rock fragments, w/ many fine root content to 3".		
2 - - -	Brown sandy clay soil, dry, fine agular blocky, w/ many fine and some 3" minus rock fragments, w/ no root content, w/ some redwood bark clumps.		
3 - - - 4 - - - 5 - - - 6 - - - 7 - - - 8	Dark Brown Loam soil, dry, fine agular blocky, w/ some fine to 3" minus rock fragments, w/ no root content.	TH #3	Zone 2
- - - 9 - - 10	bottom of test hole No ground water or mottling observed during testing		

logged by tjs

Profile Logs show subsurface conditions by observations at the dates and locations indicated and it is not warranted that they are representative of subsurface conditions at other locations and times.



Reference: 022031

November 19, 2022

NorthPoint Consulting Group, Inc.
117 Samoa Blvd
Arcata, CA 95521

SOIL PERCOLATION SUITABILITY / TEXTURAL ANALYSIS RESULTS

Job Name: NorthPoint-Wheeler Sampled By: TORI
Date Sampled: 10/10/22 Date Tested: 10/27/22
Date Received: 10/12/22 AP Number: 204-251-001

Sample ID	Depth	% Sand	% Clay	% Silt	% Coarse Fragments by		Bulk Density
					Volume	Zone	
TH-1	24"	56.0	21.1	22.9	22.9	2	*
	Material: Sandy Loam						
TH-2 28"	28"	52.8	22.0	25.2	1.1	2	*
	Material: Sandy Clay Loam						
TH-3	40"	42.7	21.5	35.8	4.8	2	*
	Material: Loam						

* = no peds provided

Regional Water Quality Control Board Zone Descriptions:

Zone 1 - Soils in this zone are very high in sand content. They readily accept effluent, but because of their low silt and clay content they provide minimal filtration. These soils demand greater separation distances from groundwater.

Zone 2 - Soils in this zone provide adequate percolation rates and filtration of effluent. They are suitable for use of a conventional system without further testing.

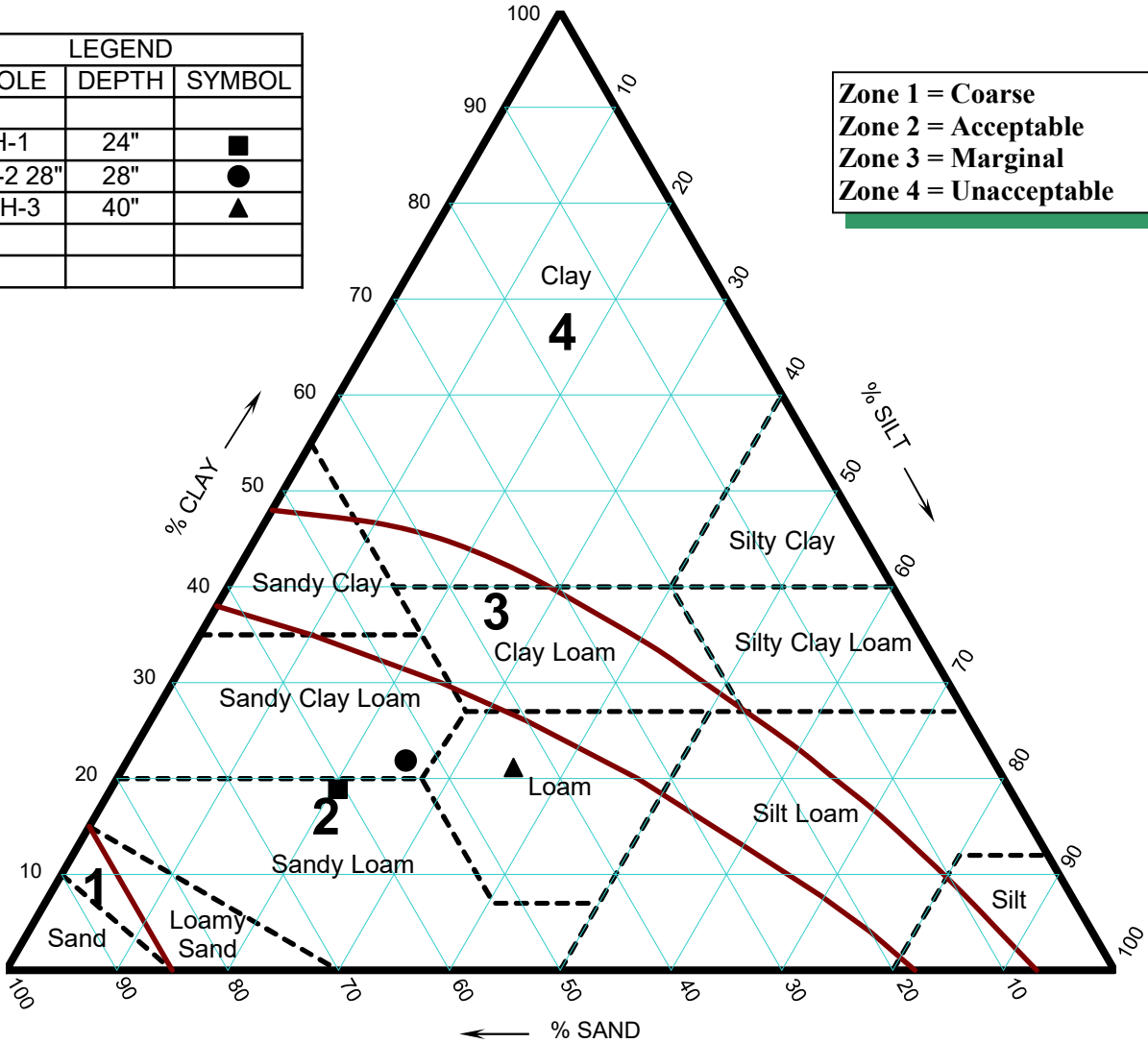
Zone 3 - Soils in this zone are expected to provide good filtration of effluent, but their ability to accept effluent at a suitable rate is questionable. These soils require wet-weather percolation tests to verify their suitability for effluent disposal by conventional leachfield methods.

Zone 4 - Soils in this zone are unsuitable for a conventional leachfield because of their severe limitations for accepting effluent.

SOIL PERCOLATION SUITABILITY CHART

LEGEND		
HOLE	DEPTH	SYMBOL
TH-1	24"	■
TH-2	28"	●
TH-3	40"	▲

Zone 1 = Coarse
Zone 2 = Acceptable
Zone 3 = Marginal
Zone 4 = Unacceptable



NOTES

1. Soil texture is plotted on triangle based on percent sand, silt, and clay as determined by hydrometer analysis.
2. Adjustment for coarse fragments has been made by moving the plotted point in the sand direction an additional 2% for each 10% (by volume) of fragments greater than 2mm in diameter.
3. Adjustment for compactness of soil has been made by moving the plotted point in the clay direction an additional 15% for soils having a bulk-density greater than 1.7 gm/cc, when analyzed.
4. For soils falling in sand, loamy sand, or sandy loam, classification adjustment for bulk density will generally not affect suitability and a bulk-density analysis was not necessary.

JOB NUMBER: 022031
JOB NAME: NorthPoint-Wheeler

DATE: 10/27/22
APN: 204-251-001





1665 Gwin Road
McKinleyville, CA 95519
(707) 839-5002 phone
(707) 839-5094 fax
main@jacobsonengineering.com

Humboldt Reserve, LLC
4798 State Highway 36
Hydesville, CA 95547

December 2, 2022

APN 204-251-001

Planning Application #2022-17649

Attention: Jack Wheeler

Gentlemen,

I am in receipt of your correspondence of November 30, 2022, regarding capacity of the former PALCO Carlotta Mill Substation. The Substation can supply 9,375 KVA of connected load capacity without exceeding the rated 65 degree C average temperature rise. Therefore, the stated maximum peak load of 7,861 KVA is well within tolerance at approximately 84% of rated load. See attached equipment list and associated power demand for the Proposed Project from the applicant.

In conclusion, per my review of the project components, the Substation has adequate capacity to supply electrical power to the Proposed Project. If you have any questions, or if I can be any further assistance, please call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Fred Jacobson', with a long horizontal flourish extending to the right.

Fred Jacobson, P.E.
No. E 12524

Equipment List:

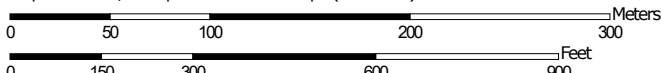
- (8600) Gavita CT1930e 480v LED lights
 - 780w ea (1.6A 480v)
- (130) Quest 746 480v dehumidifiers
 - 4266w ea (6.5A 480v)
- (720) Schaefer VK20 460v HAF fans
 - 276w each (0.6A 460v)
- Estimated 330,000w allowance for HVAC
- Estimated 70,000w allowance for small irrigation pumps, controllers, security system, miscellaneous 120v equipment...

Maximum peak load with all equipment energized simultaneously= 7.86MW

Map Unit Name—Humboldt County, Central Part, California
(wheeler)



Map Scale: 1:3,780 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84




MAP LEGEND

Area of Interest (AOI)




 Area of Interest (AOI)

Soils




Soil Rating Polygons

-  Ferndale, 0 to 2 percent slopes
-  Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes
-  Not rated or not available

Soil Rating Lines

-  Ferndale, 0 to 2 percent slopes
-  Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes
-  Not rated or not available





Soil Rating Points

-  Ferndale, 0 to 2 percent slopes
-  Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Humboldt County, Central Part, California
Survey Area Data: Version 9, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2022—Jun 19, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Name

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
220	Ferndale, 0 to 2 percent slopes	Ferndale, 0 to 2 percent slopes	30.3	91.0%
341	Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes	Fiedler-Petellen-Nanningcreek complex, 30 to 50 percent slopes	3.0	9.0%
Totals for Area of Interest			33.3	100.0%

Description

A soil map unit is a collection of soil areas or nonsoil areas (miscellaneous areas) delineated in a soil survey. Each map unit is given a name that uniquely identifies the unit in a particular soil survey area.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Humboldt Reserve, LLC Cannabis Project Summary Report

Table of Contents

1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.4. Operations Emissions Compared Against Thresholds
6. Climate Risk Detailed Report
 - 6.2. Initial Climate Risk Scores
 - 6.3. Adjusted Climate Risk Scores
7. Health and Equity Details
 - 7.3. Overall Health & Equity Scores
 - 7.5. Evaluation Scorecard

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Humboldt Reserve, LLC Cannabis Project
Construction Start Date	9/1/2023
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	56.8
Location	40.53708011461029, -124.07025069148327
County	Humboldt
City	Unincorporated
Air District	North Coast Unified APCD
Air Basin	North Coast
TAZ	115
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.12

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
------------------	------	------	-------------	-----------------------	------------------------	--------------------------------	------------	-------------

General Light Industry	7.00	1000sqft	0.16	7,200	0.00	—	—	—
Unrefrigerated Warehouse-No Rail	305	1000sqft	7.00	304,992	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-3	Use Local Construction Contractors
Construction	C-9	Use Dust Suppressants
Construction	C-13	Use Low-VOC Paints for Construction
Water	W-1	Use Reclaimed Non-Potable Water

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	4.15	66.5	32.2	34.6	0.05	1.50	3.01	4.50	1.38	1.39	2.77	—	5,747	5,747	0.23	0.24	6.70	5,778
Mit.	4.15	13.4	32.2	34.6	0.05	1.50	3.01	4.50	1.38	1.39	2.77	—	5,747	5,747	0.23	0.24	6.70	5,778
% Reduced	—	80%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	4.15	3.49	32.3	34.7	0.05	1.50	3.01	4.50	1.38	1.39	2.77	—	5,747	5,747	0.24	0.09	0.04	5,779
Mit.	4.15	3.49	32.3	34.7	0.05	1.50	3.01	4.50	1.38	1.39	2.77	—	5,747	5,747	0.24	0.09	0.04	5,779
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	2.83	2.54	3.17	0.01	0.12	0.25	0.37	0.11	0.12	0.23	—	717	717	0.03	0.04	0.44	729
Mit.	0.34	0.79	2.54	3.17	0.01	0.12	0.25	0.37	0.11	0.12	0.23	—	717	717	0.03	0.04	0.44	729
% Reduced	—	72%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.52	0.46	0.58	< 0.005	0.02	0.05	0.07	0.02	0.02	0.04	—	119	119	< 0.005	0.01	0.07	121
Mit.	0.06	0.14	0.46	0.58	< 0.005	0.02	0.05	0.07	0.02	0.02	0.04	—	119	119	< 0.005	0.01	0.07	121
% Reduced	—	72%	—	—	—	—	—	—	—	—	—	—	> -0.5%	> -0.5%	—	—	—	> -0.5%

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.	2.89	2.67	0.80	15.0	< 0.005	0.06	0.06	0.13	0.07	0.01	0.08	297	2,710	3,008	30.5	0.39	1.91	3,886
Mit.	2.89	2.67	0.80	15.0	< 0.005	0.06	0.06	0.13	0.07	0.01	0.08	297	2,710	3,008	30.5	0.39	1.91	3,886
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.49	0.44	0.69	1.64	< 0.005	0.04	0.06	0.11	0.04	0.01	0.05	297	2,655	2,952	30.5	0.39	1.88	3,831
Mit.	0.49	0.44	0.69	1.64	< 0.005	0.04	0.06	0.11	0.04	0.01	0.05	297	2,655	2,952	30.5	0.39	1.88	3,831
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	1.45	0.72	7.97	< 0.005	0.05	0.06	0.12	0.06	0.01	0.07	297	2,678	2,975	30.5	0.38	1.89	3,853
Mit.	1.58	1.45	0.72	7.97	< 0.005	0.05	0.06	0.12	0.06	0.01	0.07	297	2,678	2,975	30.5	0.38	1.89	3,853
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	0.26	0.13	1.45	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	49.2	443	493	5.05	0.06	0.31	638
Mit.	0.29	0.26	0.13	1.45	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	49.2	443	493	5.05	0.06	0.31	638
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

6. Climate Risk Detailed Report

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	25.0
Healthy Places Index Score for Project Location (b)	53.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.



NorthPoint Consulting Group, Inc.
1117 Samoa Blvd,
Arcata, CA 95521
(707) 798-6438

May 3, 2023

To: Jack Wheeler
P.O. Box 752
Hydesville, CA 95547

Re: Humboldt Reserve, LLC
Limited Scope Geo-Hazard Assessment
APN: 204-251-001, 204-121-005, and 204-121-006
4798 Hwy 36
Hydesville, CA 95547

A limited scope geo-hazard assessment for the proposed site grading, pond, and structures has been conducted following review of the subject parcels in Hydesville, California. This assessment is limited to the proposed grading and pond on the Subject Parcels.

The proposed project site is located on a previously disturbed industrial site with slopes under 15%. The site is located just south of Highway 36, east of Yager Creek and north of the Van Duzen River. The proposed project is to construct three cultivation structures, site improvements, and an approximately 3,120,000-gallon capacity rainwater catchment pond that will require approximately 20,000 cubic yards of onsite grading. No soil will be removed from the project site. Excess soil from the pond construction will be placed on site in the vicinity of building #3. All structural fills shall be compacted to a minimum of 90%, except where 95% relative compaction is required within 24" of finished grade, as specified in Section 19-5.03 of CalTrans Standard Specifications. All structural design shall be in conformance with the requirements of the 2019 California Building Code for seismic design category (SDC) D, risk category II, or as allowed by Humboldt County Building and Grading Ordinances.

Existing site soil conditions were observed during a site septic suitability investigation. The investigation identified that the site had been disturbed from previous industrial uses on the parcel. The observed soil conditions identified approximately 4" of dark brown silty clay organics with medium and fine annual plant roots throughout, underlain by light-brown silty clay loam (CL-ML). The light-brown silty clay loam is the target bearing soil. See chapter 18 of the California Building Code for soil design parameters. No groundwater was observed in the Test Hole on the date of observation.

Earthquakes capable of creating intense ground shaking and structural damage can be expected to occur within the expected life of the proposed project (50 years). There is a very high level of risk due to regional seismic hazards that is typical for Humboldt County, and property owners assume this risk when they choose to build in this area. Owners should be aware of these associated risks and be aware that these risks cannot be completely remedied with engineered design.



LIQUEFACTION HAZARDS

According to Humboldt County Web GIS Hazard Mapping, the site is located outside of mapped potential liquefaction areas. The risk of impacts from liquefaction potential is very low due to the existing site soils.

SLOPE STABILTY

The project parcels are mapped as areas of "Low Instability". There are no mapped historic landslides in the vicinity of the proposed project on the Humboldt Web GIS Hazards Mapping layers. Due to the distance to the nearest mapped landslides and the existing site slopes that are less than 15%, the risk of slope failure at the project site is considered low.

SURFACE RUPTURE

The subject parcel is not located within a mapped Alquist-Priolo earthquake fault zone. The project site is located approximately 2,000 feet south of and approximately 1,000 feet east of mapped Alquist-Priolo Faults associated with the Little Salmon Fault Zone. There is a portion of a Historic Quaternary Fault located near the southern boundary of the subject parcel. Surface rupture due to faults or lateral spreading resulting from earthquake motion is not likely due to the distance to the mapped Active Alquist-Priolo fault zones.

FLOOD HAZARDS

The project site is not located in a flood prone area and the area proposed for development is not located in the 100-year flood zone according to the Humboldt County Web GIS Hazard Mapping and FEMA, therefore, the risk of flooding at the project site is considered low.

The proposed structures and pond construction are a suitable use for this site, provided that the development conforms to the requirements of the California Building Code, all County, State, and local requirements.

Based upon the review of the site and surrounding terrain, no further geological evaluation is required; therefore, no geological consultation is warranted. However, I do recommend that an R2 Soils report be prepared to provide construction recommendations and details for all proposed earthwork of foundations, in conjunction with final grading design and permits.

If there are any questions regarding this report, please contact our office at (707) 798-6438.

Sincerely,



Praj O. White, P.E.
Senior Project Manager



ATTACHMENTS

1. Conceptual Site grading plans.
2. Humboldt WebGIS slopes, slope stability, and flood hazard mapping.
3. USGS Quaternary Faults and Folds Database
4. ASCE 7 Hazard Report



Attachment 1:
Site grading plans



HUMBOLDT RESERVE, LLC

EROSION CONTROL NOTES

204-251-001, 204-121-006, 204-121-005

CONSTRUCTION SITE STORM WATER SOIL LOSS & POLLUTION PREVENTION PLAN (SLPPP)

ENGINEER'S DECLARATION

THIS SLPPP WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON CURRENT KNOWLEDGE OF AVAILABLE CONSTRUCTION SITE BEST MANAGEMENT PRACTICES (BMPS) FOR EROSION CONTROL, SEDIMENT CONTROL, AND POLLUTION PREVENTION.

PRAJ O. WHITE, PE #C65025

DATED:

GENERAL INFORMATION AND REQUIREMENTS

1. EROSION CONTROL, SEDIMENT CONTROL, AND POLLUTION PREVENTION MEASURES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS OF THE CONSTRUCTION SITE EROSION CONTROL ORDINANCE.
2. FOR PURPOSES OF THIS SLPPP, THE SITE CONTRACTOR IS ASSUMED TO BE THE LANDOWNER'S REPRESENTATIVE AND THE ENTITY RESPONSIBLE FOR IMPLEMENTATION OF ALL BMPS.
3. THE SITE CONTRACTOR OWNER SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL BMPS FOLLOWING EACH SIGNIFICANT RAINFALL EVENT (AT A MINIMUM) TO VERIFY THAT ALL MEASURES ARE IN PROPER WORKING ORDER.
4. IN THE EVENT THAT ANY EROSION OR SEDIMENT CONTROL BMP FAILS, THE SITE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY REPORTING SUCH A FAILURE TO THE ENGINEER. THE ENGINEER SHALL ADVISE THE SITE CONTRACTOR OF NECESSARY REMEDIAL ACTIONS, AND THE SITE CONTRACTOR SHALL CORRECT THE SITUATION.

EROSION CONTROL BMPS

PROJECT SCHEDULING:

1. SITE GRADING WORK AND OTHER LAND DISTURBING ACTIVITIES SHOULD BE SCHEDULED SO AS TO MINIMIZE THE AMOUNT OF SOIL EXPOSURE AND THE DURATION OF SOIL EXPOSURE TO WIND, RAIN AND VEHICLE TRACKING.
2. SITE CLEARING, GRADING, EXCAVATION, FOUNDATION WORK AND UTILITY INSTALLATION SHOULD BE SEQUENCED SUCH THAT THE AMOUNT OF SOIL EXPOSED TO WIND, RAIN AND VEHICLE TRACKING IS MINIMIZED AT ALL TIMES.
3. ALL GRADING WORK SHALL OCCUR BETWEEN APRIL 15TH AND OCTOBER 15TH. ALL OTHER LAND DISTURBING ACTIVITIES SHOULD BE MINIMIZED OUTSIDE OF THESE DATES.
4. UNLESS OTHERWISE NOTED, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH AND/OR PRIOR TO ANY RAIN EVENT WITH A 72-HOUR FORECAST OF 40% CHANCE OR GREATER. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING DAILY FORECASTS FOR RAINFALL AS NECESSARY TO COMPLY WITH THIS PROVISION.
5. ALL SOIL STABILIZATION MEASURES INVOLVING THE INSTALLATION OF PHYSICAL DEVICES OR THE PLANTING OF VEGETATION SHALL BE INSTALLED IN ADVANCE OF PREDICTED OR PROBABLE RAINFALL EVENTS AS NECESSARY FOR THOSE MEASURES TO BE EFFECTIVE.

HYDRO-MULCHING / HYDRO-SEEDING:

1. HYDRO-MULCHING AND/OR HYDRO-SEEDING SHOULD BE USED ON DISTURBED AREAS TO PROMOTE SOIL PROTECTION AND RAPID PLANT GROWTH.
2. ALL EXPOSED AREAS SHALL BE HYDRO-MULCHED, HYDRO-SEEDED OR OTHERWISE LANDSCAPED PRIOR TO OCTOBER 15TH.
3. MULCH AND SEED MIXTURES INCLUDE, BUT ARE NOT LIMITED TO WET SLURRIES OF SEED, MULCH FIBER, FERTILIZER AND WATER. ACCEPTABLE MULCH FIBERS INCLUDE: VEGETABLE FIBERS, WOOD BARK CHIPS, HYDRAULIC MULCHES FROM RECYCLED PAPER, HYDRAULIC MULCHES FROM WOOD FIBER AND HYDRAULIC BONDED FIBER MATRICES.
4. ALL MULCH OR SEED MIXTURES SHALL BE APPLIED SUCH THAT COVERAGE IS CONSISTENT, DEEP ENOUGH TO HOLD SEEDS IN PLACE AND TO RETAIN MOISTURE, AND AS OTHERWISE SPECIFIED BY THE MANUFACTURER.
5. ON STEEP SLOPES AND SLOPES SUSCEPTIBLE TO WIND, MULCH AND SEED MIXTURES SHOULD BE HYDRAULICALLY APPLIED OR OTHERWISE APPROPRIATELY ANCHORED.
6. TO PREVENT DISPLACEMENT BY WIND, HYDRAULIC FIBER MULCHES AND/OR TACKIFYING AGENTS MAY BE USED.
7. MULCH AND SEED MIXTURES SHALL BE APPLIED TO ALL EXPOSED AREAS AT LEAST 24-48 HOURS BEFORE EROSION PROTECTION IS NEEDED, OR AS OTHERWISE SPECIFIED BY THE MANUFACTURER.

PRESERVATION OF EXISTING VEGETATION:

1. EXISTING VEGETATION SHOULD BE PRESERVED FOR EROSION AND SEDIMENT CONTROL WHENEVER AND WHEREVER POSSIBLE.
2. AREAS NOT TO BE DISTURBED SHALL BE CLEARLY MARKED AND/OR FENCED PRIOR TO THE COMMENCEMENT OF SOIL-DISTURBING ACTIVITIES, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF THESE AREAS.

SEDIMENT CONTROL BMPS

FIBER ROLLS:

1. FIBER ROLLS SHALL BE INSTALLED AT ALL LOCATIONS INDICATED ON THE SLPPP, AND AT ANY OTHER LOCATION DEEMED NECESSARY BY THE SITE CONTRACTOR.
2. FIBER ROLLS SHOULD BE USED ALONG THE FACE OF EXPOSED SLOPES TO SHORTEN SLOPE LENGTH AND DECREASE FLOW VELOCITY; AT GRADE BREAKS WHERE SLOPES TRANSITION TO STEEPER SLOPES; ALONG STREAM BANKS TO ASSIST STABILIZATION; AND IN DRAINAGE SWALES TO SLOW FLOWS. ON 1:1 SLOPES PLACE FIBER ROLLS SPACED AT 10' INTERVALS PARALLEL TO SLOPE, ON 1.5:1 SLOPES PLACE FIBER ROLLS SPACED AT 15' INTERVALS PARALLEL TO SLOPE, AND ON 2:1 SLOPES PLACE FIBER ROLLS SPACED AT 20' INTERVALS PARALLEL TO SLOPE.
3. FIBER ROLLS SHALL CONSIST OF BIODEGRADABLE FIBERS STUFFED INTO A PHOTO-DEGRADABLE OPEN WEAVE NETTING. THEY SHALL BE DESIGNED TO ALLOW WATER TO PASS THROUGH THE FIBERS; TO TRAP SUSPENDED SEDIMENT; INCREASE FILTRATION RATES; AND TO SLOW RUNOFF.
4. FIBER ROLLS SHALL BE PLACED SUCH THAT THEY OVERLAP AND FOLLOW THE CONTOUR LINES OF THE SLOPE ON WHICH THEY ARE PLACED.
5. FIBER ROLLS SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, ONCE AFTER EACH RAINFALL EVENT, AND ONCE EVERY 24 HOURS DURING EXTENDED RAINFALL EVENTS. ANY SPLIT, TORN, UNRAVELED OR SLUMPING FIBER ROLLS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

SILT FENCES: (IF NECESSARY)

1. SILT FENCES SHALL BE INSTALLED AT ANY LOCATION DEEMED NECESSARY BY THE SITE CONTRACTOR.
2. SILT FENCES SHOULD BE USED ALONG THE PERIMETER OF THE PROJECT SITE, ALONG STREAMS AND WATERCOURSES, AT THE BOTTOM OF EXPOSED SLOPES, AND AROUND TEMPORARY SOIL STOCKPILES TO ACT AS A FILTER AND TO SLOW THE FLOW OF SEDIMENT-LADEN RUNOFF. SILT FENCES SHALL NOT BE USED IN STREAMS, CHANNELS OR ON SLOPES.
3. SILT FENCES SHALL BE INSTALLED ALONG LEVEL CONTOURS, WITH THE BOTTOM EDGE OF THE FENCE BELOW GRADE, BACKFILLED, AND POINTING UPSLOPE.
4. THE LENGTH OF SLOPE DRAINING INTO A STRETCH OF SILT FENCING SHOULD BE NO GREATER THAN 100 FEET.
5. ANY SINGLE STRETCH OF SILT FENCING SHOULD BE LIMITED TO 500 FEET IN LENGTH. INDIVIDUAL SILT FENCE SEGMENTS SHOULD NOT BE CONNECTED.
6. THE LAST 6 FEET ON EITHER SIDE OF A SILT FENCE SHOULD BE ORIENTED UPSLOPE IN A "J" OR "L" SHAPE TO ALLOW FOR PONDING.
7. WHEN SEDIMENT BUILD-UP BEHIND A SILT FENCE REACHES ONE-THIRD OF FENCE HEIGHT, THE SEDIMENT SHALL BE REMOVED AND PLACED IN A LOCATION WHERE IT WILL NOT BE CONVEYED TO A WATERCOURSE OR STORMDRAIN SYSTEM.
8. SILT FENCES SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, ONCE AFTER EACH RAINFALL EVENT, AND ONCE EVERY 24 HOURS DURING EXTENDED RAINFALL EVENTS. ANY UNDERCUT, SPLIT, TORN, OR SLUMPING FENCE SEGMENTS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

GRAVEL / SAND BAG BARRIERS: (IF NECESSARY)

1. GRAVEL AND/OR SAND BAG BARRIERS SHALL BE INSTALLED AT ANY LOCATION DEEMED NECESSARY BY THE SITE CONTRACTOR.
2. GRAVEL OR SAND BAGS SHOULD BE USED ALONG THE PERIMETER OF A CONSTRUCTION SITE OR PARALLEL TO ROADWAYS TO INTERCEPT AND SLOW THE FLOW OF SEDIMENT-LADEN WATER, AND TO KEEP SEDIMENT OFF OF PAVED AREAS. THEY MAY ALSO BE USED TO DIVERT RUNOFF FLOW, OR TO CREATE CHECK DAMS OR TEMPORARY SEDIMENT BASINS.
3. GRAVEL BAGS - NOT SAND BAGS - SHOULD BE USED NEAR STORM DRAIN INLETS TO FILTER WATER WITHOUT PREVENTING IT FROM ENTERING THE STORM DRAIN.
4. GRAVEL OR SAND BAGS SHOULD NOT BE USED TO DETAIN RUNOFF FLOWS WITH HIGH SEDIMENT CONCENTRATIONS.
5. GRAVEL OR SAND BAGS PLACED IN THE FLOW-LINE OF A CURB AND GUTTER SHOULD BE PLACED SUCH THAT THEY CREATE AN L OR J SHAPE FROM THE CURB POINTING UPSLOPE TO CAUSE A PONDING EFFECT.
6. GRAVEL AND SAND BAGS SHOULD NEVER BE PLACED ABOVE THE LEVEL OF A CURB.
7. WHEN SEDIMENT BUILD-UP BEHIND A GRAVEL OR SAND BAG BARRIER REACHES ONE-THIRD OF BARRIER HEIGHT, THE SEDIMENT SHALL BE REMOVED AND PLACED IN A LOCATION WHERE IT WILL NOT BE CONVEYED TO A WATERCOURSE OR STORMDRAIN SYSTEM.
8. GRAVEL AND SAND BAGS SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, ONCE AFTER EACH RAINFALL EVENT, AND ONCE EVERY 24 HOURS DURING EXTENDED RAINFALL EVENTS. ANY SPLIT, TORN, WASHED OUT OR OTHERWISE DAMAGED BAGS SHOULD BE REPAIRED OR REPLACED IMMEDIATELY.

STORM DRAIN INLET PROTECTION:

1. STORM DRAIN INLET PROTECTION SHALL BE INSTALLED AT ALL LOCATIONS INDICATED ON THE SLPPP, AND AT ANY OTHER LOCATION DEEMED NECESSARY BY THE SITE CONTRACTOR.
2. ALL STORM DRAIN INLETS RECEIVING RUNOFF FROM THE PROJECT SITE SHOULD BE PROTECTED TO PREVENT SEDIMENT-LADEN SURFACE RUNOFF FROM ENTERING THE STORMDRAIN SYSTEM WITHOUT FIRST BEING FILTERED.
3. INLET PROTECTION MAY BE ACHIEVED BY MEANS OF FIBER ROLLS, SILT FENCES, AND/OR GRAVEL BAGS, BASED ON THE STRENGTH OF EXPECTED STORMFLOWS, AND ON EXPECTED AMOUNT OF FILTERING OR SETTLING REQUIRED TO PREVENT SEDIMENT TRANSPORT. DRAIN INLETS SHALL NOT BE COMPLETELY SURROUNDED WITH GRAVEL OR SAND BAGS.
4. ALL BARE GROUND AROUND EACH INLET SHALL BE STABILIZED, SMOOTH, COMPACT AND BROUGHT UP TO THE GRADE OF THE INLET.
5. ANY AMOUNT OF BUILT-UP SEDIMENT BEHIND AN INLET PROTECTION DEVICE SHALL BE REMOVED UPON DISCOVERY AND PLACED IN A LOCATION WHERE IT WILL NOT BE CONVEYED TO A WATERCOURSE OR STORMDRAIN SYSTEM.
6. ALL STORM DRAIN INLETS RECEIVING RUNOFF FROM THE PROJECT SITE SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, ONCE AFTER EACH RAINFALL EVENT, AND ONCE EVERY 24 HOURS DURING EXTENDED RAINFALL EVENTS. ANY FAILED INLET PROTECTION MEASURES SHOULD BE REPAIRED, REPLACED, OR UPGRADED IMMEDIATELY.

DUST CONTROL:

1. DUST CONTROL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT SOILS AND DUSTS FROM BEING TRANSPORTED BY WIND. DUST CONTROL MAY BE ACHIEVED BY CHEMICAL AND/OR STRUCTURAL MEANS.
2. CHEMICAL DUST CONTROL MEASURES INCLUDE APPLYING WATER, SALTS OR ORGANIC SPRAY-ON ADHESIVES TO EXPOSED AREAS. EXCESSIVE OR IMPROPER USE OF CHEMICAL DUST CONTROL MEASURES MAY CAUSE UNWANTED NON-STORM WATER DISCHARGES, AND MUST THEREFORE BE AVOIDED.
3. STRUCTURAL DUST CONTROL MEASURES INCLUDE COVERING EXPOSED AREAS WITH BLANKETS, GEOTEXTILES OR TARPS. SUCH COVERINGS MUST BE PROPERLY ANCHORED TO RESIST HIGH WINDS.
4. DUST CONTROL MEASURES SHALL BE APPLIED TO ALL EXPOSED AREAS AND MATERIAL STOCKPILES DURING ALL PHASES OF CONSTRUCTION BETWEEN INITIAL GROUND DISTURBANCE AND THE COMPLETION OF PAVING, LANDSCAPING, AND SITE CLEANUP.
5. ALL AREAS AND MATERIAL STOCKPILES EXPOSED TO EXCESSIVE WINDS OR VEHICLE TRAFFIC SHOULD BE INSPECTED DAILY FOR ADEQUATE DUST CONTROL. ANY MEASURES DEEMED NECESSARY TO PROTECT SUCH AREAS FROM AIRBORNE DUST AND SOIL LOSS SHOULD BE IMPLEMENTED IMMEDIATELY.

CONSTRUCTION SITE ENTRANCE / EXIT:

1. A STABILIZED CONSTRUCTION SITE ENTRANCE / EXIT SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE SLPPP, AND AT ANY OTHER LOCATION WHERE MUD OR DIRT CAN BE TRACKED ONTO PUBLIC ROADS, OR AS DEEMED NECESSARY BY THE SITE CONTRACTOR TO REDUCE OR ELIMINATE SEDIMENT BEING TRACKED ONTO PUBLIC ROADWAYS BY CONSTRUCTION VEHICLES.
2. ACCESS TO THE CONSTRUCTION SITE SHALL BE LIMITED TO THE DESIGNATED ENTRANCE / EXIT. SHALL BE CLEARLY MARKED AT ALL TIMES, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH DESIGNATED ACCESS.
3. IF A STABILIZED CONSTRUCTION SITE ENTRANCE / EXIT FAILS TO SUFFICIENTLY REDUCE OR ELIMINATE SEDIMENT BEING TRACKED ONTO PUBLIC ROADWAYS BY CONSTRUCTION VEHICLES, ADDITIONAL MEASURES, INCLUDING, BUT NOT LIMITED TO A TIRE WASH MAY BE NECESSARY.
4. ALL STABILIZED CONSTRUCTION ENTRANCES / EXITS SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, ONCE AFTER EACH RAINFALL EVENT, AND ONCE EVERY 24 HOURS DURING EXTENDED RAINFALL EVENTS. ANY NECESSARY REPAIRS, UPGRADES, OR ADDITIONAL TOPPING MATERIALS SHALL BE APPLIED IMMEDIATELY.

LANDSCAPE MANAGEMENT:

1. LANDSCAPE MANAGEMENT MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO REDUCE EROSION, DECREASE SEDIMENT RUNOFF, AND TO PREVENT THE DISCHARGE OF SEDIMENT INTO STORMDRAINS AND WATERCOURSES.
2. ALL LANDSCAPE-RELATED GRADING AND EXCAVATION SHALL BE SCHEDULED FOR DRY WEATHER.
3. ALL EXPOSED AREAS SHALL BE HYDRO-MULCHED, HYDRO-SEEDED OR OTHERWISE LANDSCAPED PRIOR TO OCTOBER 15TH.
4. NATIVE, NON-INVASIVE, DROUGHT-TOLERANT AND PEST-TOLERANT VEGETATION SHOULD BE USED WHENEVER POSSIBLE.
5. NON-TOXIC CHEMICALS SHOULD BE USED WHENEVER POSSIBLE. CHEMICAL USE SHOULD BE LIMITED TO THE MINIMUM AMOUNT NECESSARY.
6. ALL LANDSCAPING AND OTHER STOCKPILED MATERIALS SHALL BE STORED UNDER PROPERLY-ANCHORED TARPS OR OTHER COVERINGS AT ALL TIMES TO PROTECT THEM FROM EXPOSURE TO WIND AND RAIN.
7. ALL RE-VEGETATED AREAS SHALL BE INSPECTED PERIODICALLY THROUGHOUT THE COURSE OF CONSTRUCTION, AND ONCE AFTER EACH RAINFALL EVENT. ANY UNDER-ESTABLISHED AREAS SHOULD BE REPLANTED AS NECESSARY.

POLLUTION PREVENTION BMPS

SPILL PREVENTION AND CONTROL:

1. SPILL PREVENTION AND CONTROL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT THE DISCHARGE OF HAZARDOUS AND NON-HAZARDOUS MATERIALS INTO SITE SOILS, STORM DRAINS, WATERCOURSES. HAZARDOUS AND NON-HAZARDOUS MATERIALS INCLUDE, BUT ARE NOT LIMITED TO FUELS, LUBRICANTS, PAINTS, SOLVENTS, CEMENT, MORTAR, HERBICIDES AND FERTILIZERS.
2. DESIGNATED STORAGE AREAS FOR ALL HAZARDOUS AND NON-HAZARDOUS MATERIALS SHALL BE PROVIDED ON-SITE AS INDICATED ON THE SLPPP, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH AREAS.
3. ALL ON-SITE FLUID CONTAINERS SHALL BE LEAK-PROOF.
4. ANY FUELING AREAS (IF PRESENT) SHALL BE DESIGNATED BY THE SITE CONTRACTOR, SHALL BE LOCATED AWAY FROM STORMDRAINS AND WATERCOURSES, SHALL BE PROPERLY CONTAINED WITH BERMS, SANDBAGS OR OTHER APPROPRIATE BARRIERS, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH AREAS.
5. ANY CONTAINMENT FACILITIES FOR HAZARDOUS MATERIAL STORAGE (IF PRESENT) SHALL BE DESIGNATED BY THE SITE CONTRACTOR, SHALL BE LOCATED AWAY FROM STORMDRAINS AND WATERCOURSES, SHALL BE PROPERLY CONTAINED WITH BERMS, SANDBAGS OR OTHER APPROPRIATE BARRIERS, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH FACILITIES.
6. APPROPRIATE SPILL CONTROL PLANS AND CLEANUP MATERIALS FOR EACH FUEL AND CHEMICAL ON-SITE SHALL BE LOCATED NEAR MATERIAL STORAGE, USE AREAS AND FUELING AREAS. CONTROL PLANS AND CLEANUP MATERIALS SHALL BE UPDATED REGULARLY, BASED ON WHICH FUELS AND CHEMICALS ARE PRESENT AND IN USE ON-SITE.
7. WHEN A HAZARDOUS SPILL OCCURS, IMMEDIATELY NOTIFY THE STATE OFFICE OF EMERGENCY SERVICE (OES) AT 1.800.852.7550.

VEHICLE AND EQUIPMENT MAINTENANCE:

1. ALL MAJOR MAINTENANCE, FUELING AND WASHING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE CONDUCTED OFF-SITE WHENEVER FEASIBLE.
2. ALL CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE REGULARLY MAINTAINED AND INSPECTED FOR DAMAGED HOSES, LEAKY GASKETS AND OTHER SERVICE PROBLEMS. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
3. VEHICLE AND EQUIPMENT SERVICE AND STORAGE AREAS (IF PRESENT) SHALL BE DESIGNATED BY THE SITE CONTRACTOR. SHALL BE LOCATED AWAY FROM STORMDRAINS AND WATERCOURSES, SHALL BE PROPERLY CONTAINED WITH BERMS, SANDBAGS OR OTHER APPROPRIATE BARRIERS, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH AREAS.
4. ANY DRAINING OR REPLACING OF FLUIDS ON-SITE FOR CONSTRUCTION VEHICLES AND EQUIPMENT SHALL EMPLOY DRIP PANS, DRIP CLOTHS, AND OTHER APPROPRIATE EQUIPMENT AS NECESSARY TO COMPLETELY CONTAIN AND TO PROPERLY DISPOSE OF ALL SUCH FLUIDS.
5. VEHICLE AND EQUIPMENT SERVICE AND STORAGE AREAS (IF PRESENT) SHALL BE INSPECTED AT LEAST TWICE WEEKLY. ANY NECESSARY REPAIRS OR UPGRADES TO THESE AREAS OR THEIR ASSOCIATED CONTAINMENT BARRIERS SHALL BE MADE IMMEDIATELY.
6. CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE WASHED AT COMMERCIAL WASHING FACILITIES WHENEVER POSSIBLE. ANY NECESSARY ON-SITE VEHICLE AND EQUIPMENT WASHING SHALL BE CONDUCTED AT THE DESIGNATED CONCRETE WASHOUT FACILITY, OR OTHER APPROPRIATELY DESIGNATED AND CONTAINED FACILITIES. SOAPS AND CHEMICALS SHALL NOT BE USED FOR SUCH PURPOSES, AND ALL ASSOCIATED RUNOFF SHALL BE DIRECTED TO AREAS WHERE IT WILL BE CONTAINED AND PROPERLY DISPOSED OF, OR WHERE IT WILL SAFELY INFILTRATE INTO THE GROUND.

CONCRETE AND CEMENT DISPOSAL:

1. CONCRETE AND CEMENT DISPOSAL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT THE DISCHARGE OF CEMENTOUS MATERIALS INTO STORM DRAINS AND WATERCOURSES.
2. A DESIGNATED CONCRETE WASHOUT FACILITY PER CALTRANS 2006 STANDARD PLAN T59 SHALL BE PROVIDED AS INDICATED ON THE SLPPP. SHALL BE CLEARLY MARKED AT ALL TIMES, AND ALL CONTRACTORS ON-SITE SHALL BE NOTIFIED OF SUCH A FACILITY.
3. THE DESIGNATED CONCRETE WASHOUT FACILITY SHALL BE SIZED APPROPRIATELY TO CONTAIN THE MAXIMUM AMOUNT OF EXCESS CONCRETE AND WASH-WATER TO BE GENERATED.
4. EQUIPMENT EXPOSED TO CONCRETE AND OTHER CEMENTOUS MATERIALS ON-SITE SHALL ONLY BE WASHED IN THE DESIGNATED CONCRETE WASHOUT FACILITY.
5. CONCRETE WASHOUT FACILITIES SHALL BE SHALL BE INSPECTED AT LEAST TWICE WEEKLY OR MORE FREQUENTLY AS USE OF THE FACILITIES DICTATES. ANY NECESSARY REPAIRS OR UPGRADES TO SUCH FACILITIES SHALL BE MADE IMMEDIATELY.
6. AT THE END OF CONSTRUCTION ACTIVITIES, OR AS OTHERWISE APPROPRIATE DUE TO PREDICTED RAINFALL, CONCRETE WASHOUT FACILITIES SHALL BE DISMANTLED AND ANY RELATED FLUID OR SOLID WASTES SHALL BE PROPERLY DISPOSED OF.

WATER / RUNOFF CONSERVATION MEASURES:

1. ALL WATER EQUIPMENT SHALL BE KEPT IN GOOD WORKING CONDITION, AND SHALL BE INSPECTED AT LEAST TWICE WEEKLY. ANY LEAKY EQUIPMENT SHALL BE REPAIRED IMMEDIATELY.
2. IRRIGATION CONTROLLERS, IF ANY, SHALL BE SET ACCORDING TO SEASONAL NEEDS.
3. THE SITE CONTRACTOR SHALL AVOID CLEANING CONSTRUCTION AREAS WITH WATER, WHENEVER PRACTICAL, AND SHALL NOT USE SOAPS OR CHEMICALS FOR SUCH PURPOSES. ANY CONSTRUCTION WASH-WATER RUNOFF SHOULD BE DIRECTED TO AREAS WHERE IT WILL BE CONTAINED AND PROPERLY DISPOSED OF, OR WHERE IT WILL SAFELY INFILTRATE INTO THE GROUND.

DATE										
REVISIONS										

NORTHPOINT CONSULTING GROUP, INC.
1117 Samoa Blvd., Arcata, CA 95521

HUMBOLDT RESERVE, LLC

4798 HWY 36 HYDESVILLE, CA 95547

EROSION CONTROL NOTES

PROJ MGR: PS
DRAWN BY: LJM
DATE: 05/02/23
SCALE: AS SHOWN

SHEET

C5

21-013

Attachment 2:

Humboldt Web GIS a) slopes b) slope stability, and c) flood hazard mapping

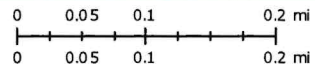




Humboldt County WebGIS

Humboldt County Planning and Building Department

- Highways and Roads
 - Private or Unclassified
 - Subsurface
 - Principal Arterials
 - Major River or Stream
 - Parcels (no APN labels)
 - Minor Arterials
 - Major Collectors
 - Minor Collectors
 - Local Roads
- Blue Line Streams
 - Perennial 1-3
 - Perennial >4
 - Intermittent
- Slope less than 15%
 - <15%



RF = 1:9,028

1 in = 752 ft



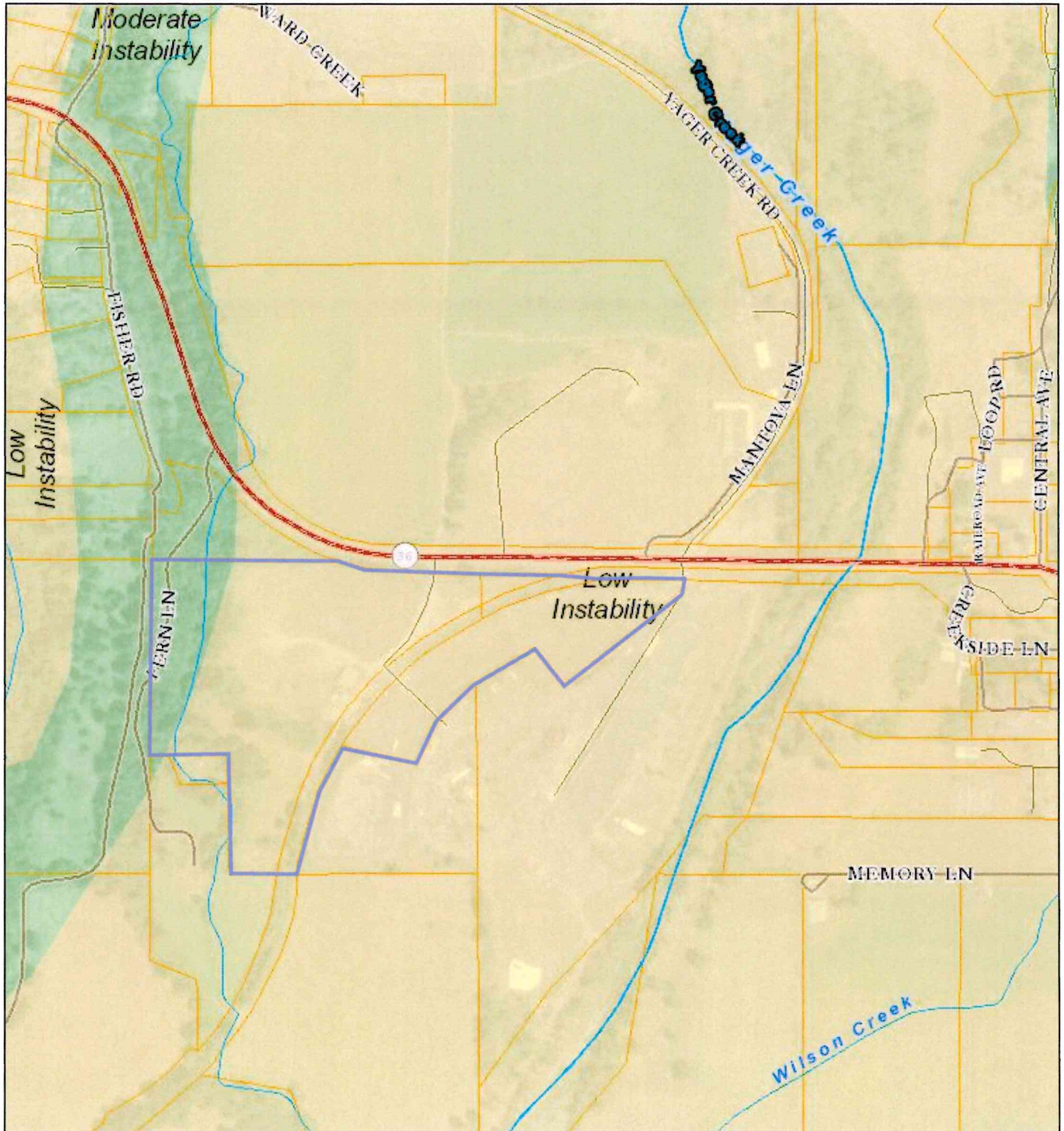
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Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:

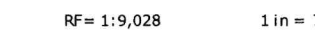
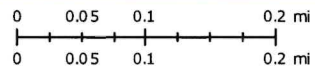
While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Source: Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, FRAP, FEMA, USGS, ESA, CGS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Humboldt County WebGIS

Humboldt County Planning and Building Department



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1 in = 752 ft



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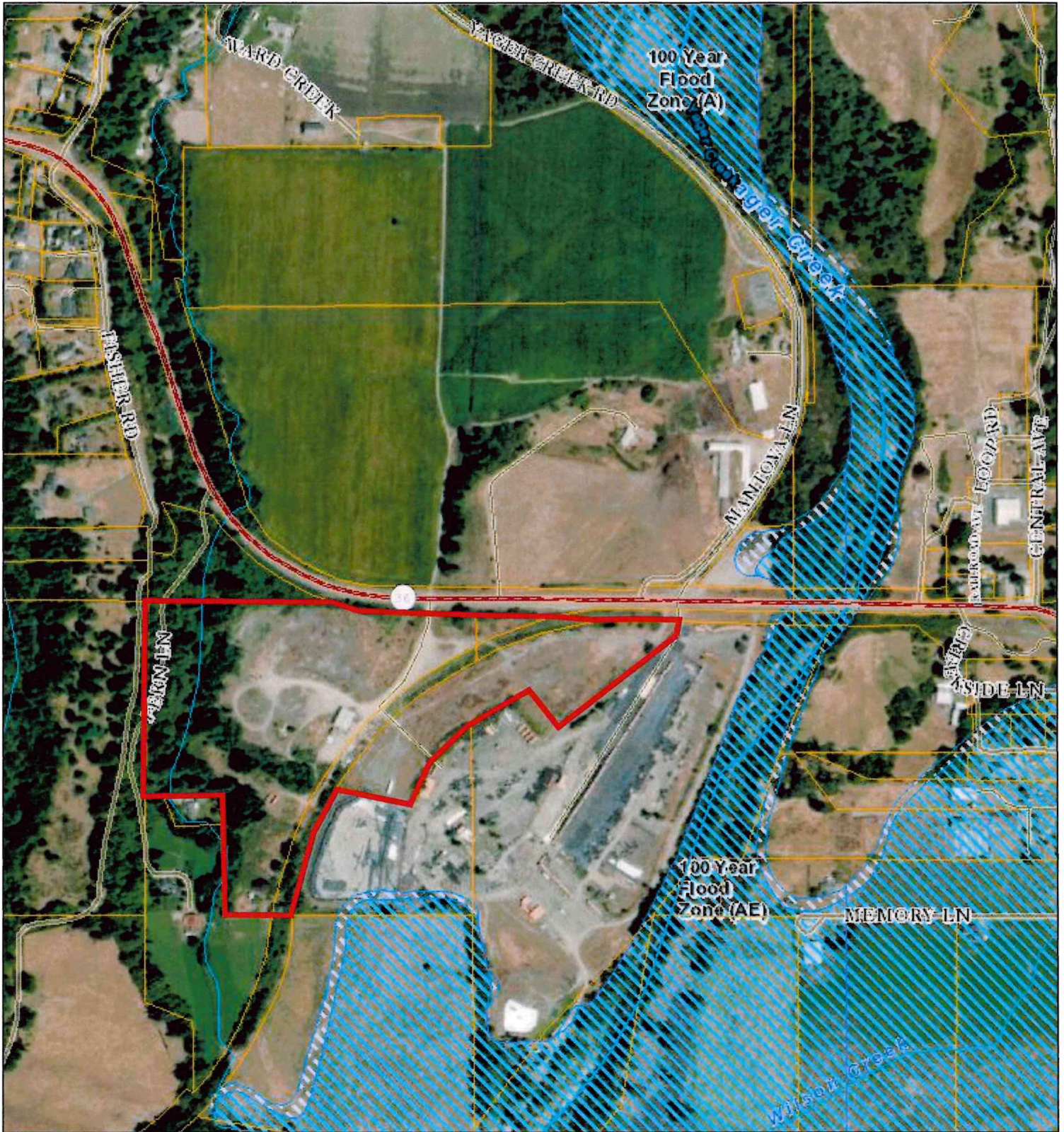
Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:

While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Source: Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, FRAP, FEMA, USGS, ESA, CGS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

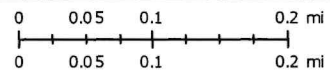
- | | | | |
|---------------------------|---------------------------|--------------------------|---------------------------|
| Highways and Roads | — Local Roads | Blue Line Streams | — Subsurface |
| — Principal Arterials | — Private or Unclassified | — Perennial 1-3 | — Parcels (no APN labels) |
| — Minor Arterials | — Major River or Stream | — Perennial >4 | |
| — Major Collectors | | — Intermittent | |
| — Minor Collectors | | | |



Humboldt County WebGIS

Humboldt County Planning and Building Department

- | | | |
|---------------------|---------------------------|---------------------------|
| Highways and Roads | — Private or Unclassified | — Intermittent |
| Principal Arterials | — Major River or Stream | — Subsurface |
| Minor Arterials | Blue Line Streams | — City Boundary |
| Major Collectors | — Perennial 1-3 | — Counties |
| Minor Collectors | — Perennial >4 | — Parcels (no APN labels) |
| Local Roads | | |



RF= 1:9,028

1 in = 752 ft



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Web AppBuilder 2.0 for ArcGIS

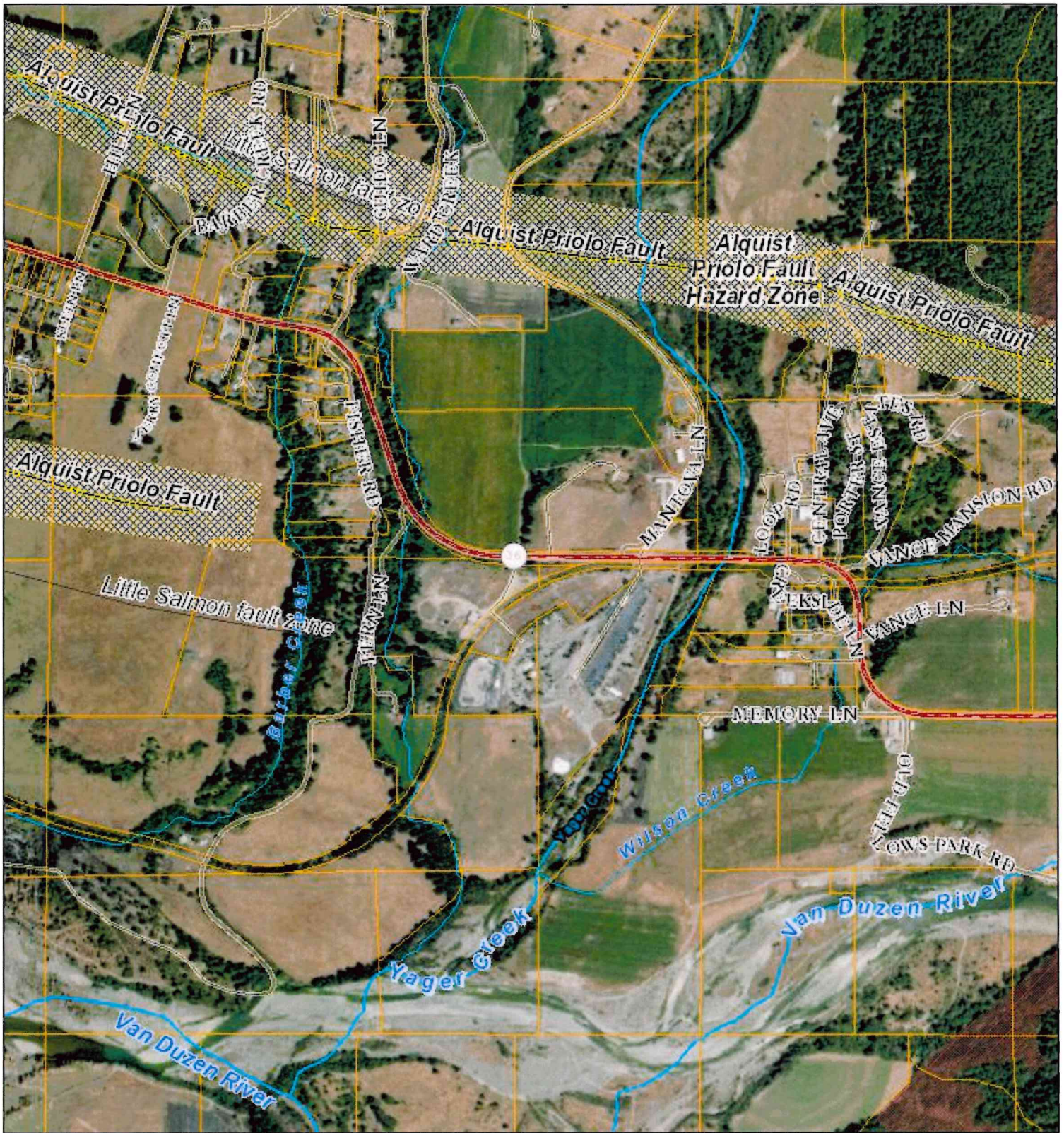
Map Disclaimer:

While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

Source: Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, FRAP, FEMA, USGS, ESA, CGS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Attachment 3:
USGS Quaternary Faults and Folds
Database

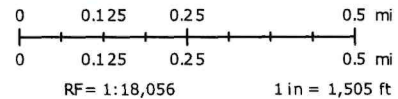




Humboldt County WebGIS

Humboldt County Planning and Building Department

- | | | |
|---------------------|---------------------------|---------------------------|
| Highways and Roads | — Private or Unclassified | — Intermittent |
| Principal Arterials | — Major River or Stream | — Subsurface |
| Minor Arterials | Blue Line Streams | — City Boundary |
| Major Collectors | — Perennial 1-3 | — City Boundary (750K) |
| Minor Collectors | — Perennial >4 | — Counties |
| Local Roads | | — Parcels (no APN labels) |



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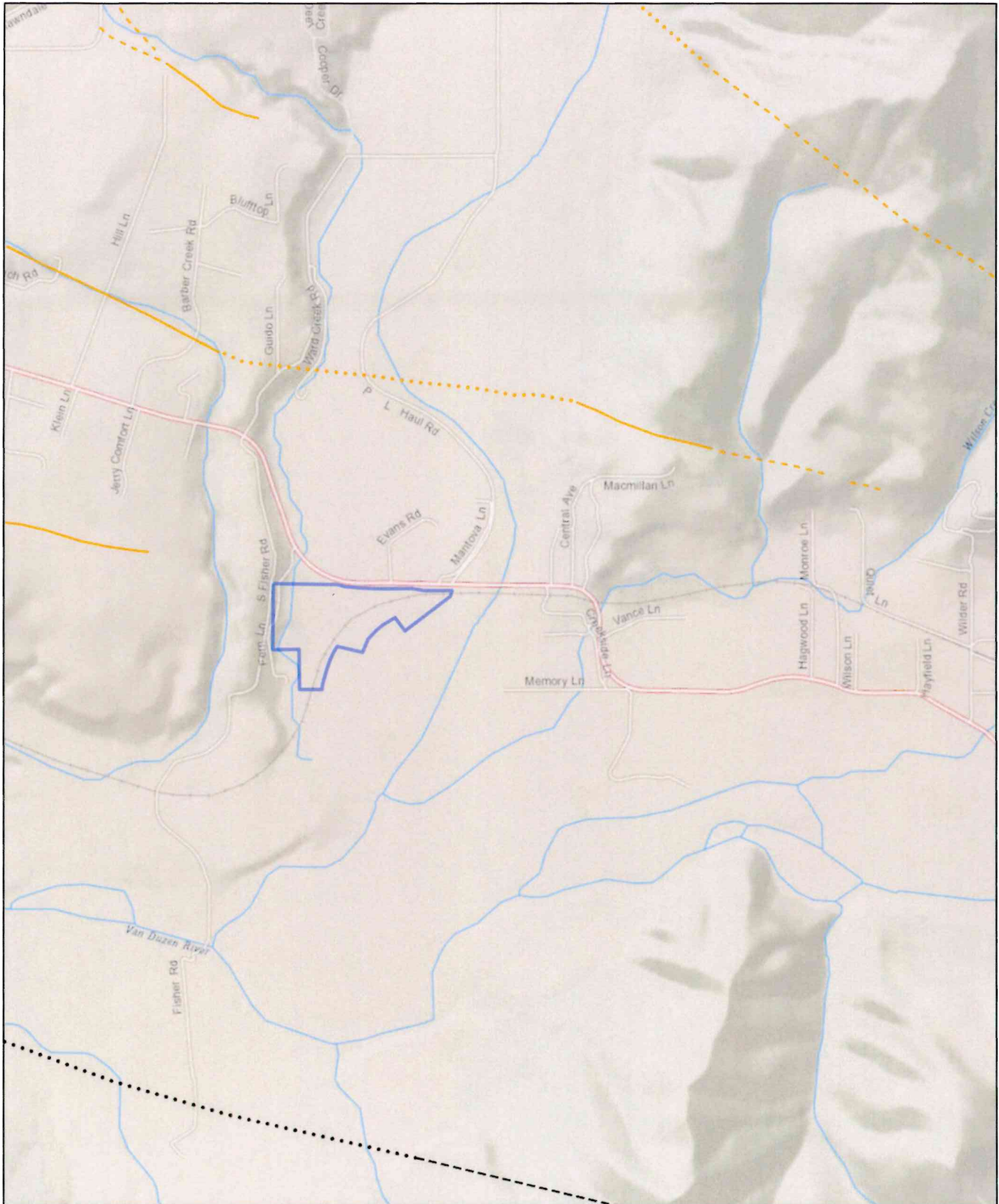
Web AppBuilder 2.0 for ArcGIS

Map Disclaimer:

While every effort has been made to assure the accuracy of this information, it should be understood that it does not have the force & effect of law, rule, or regulation. Should any difference or error occur, the law will take precedence.

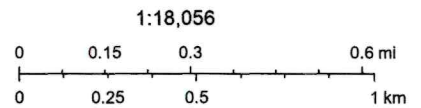
Source: NRCS, Humboldt County GIS, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, FRAP, FEMA, USGS, ESA, CGS, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

U.S. Geological Survey Quaternary Faults



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- | | |
|--|---|
| <ul style="list-style-type: none"> style0 Fault Areas Class B historic late Quaternary latest Quaternary middle and late Quaternary | <p>National Database</p> <ul style="list-style-type: none"> Historic (< 150 years), well constrained location Historic (< 150 years), moderately constrained location Historic (< 150 years), inferred location Latest Quaternary (<15,000 years), well constrained location Latest Quaternary (<15,000 years), moderately constrained location Latest Quaternary (<15,000 years), inferred location Late Quaternary (< 130,000 years), well constrained location |
|--|---|



National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Attachment 4:
ASCE 7 Hazard Report



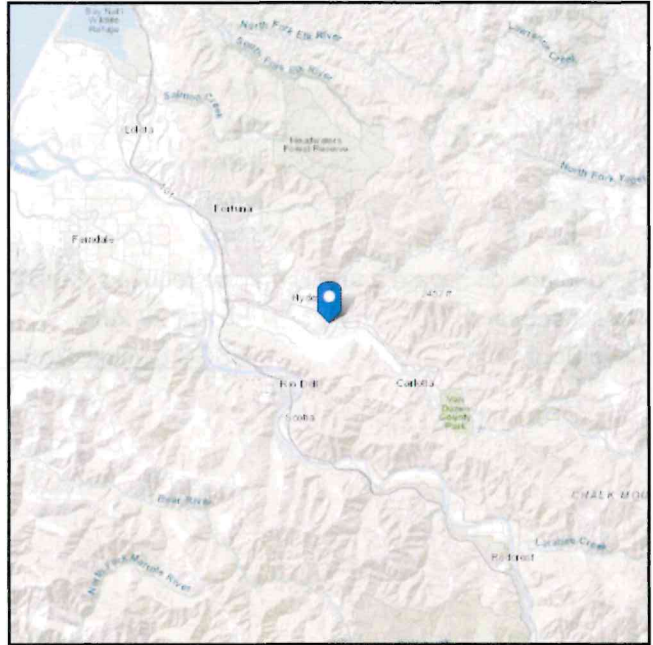
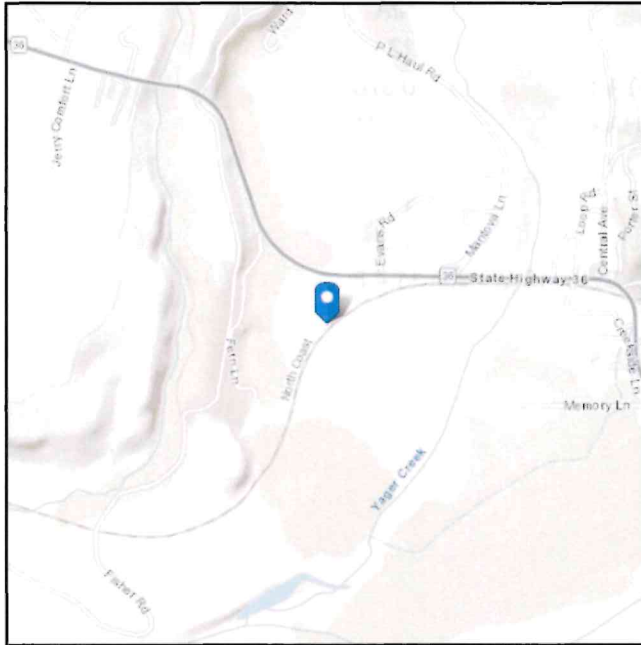


ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 40.53617
Longitude: -124.069818
Elevation: 123.63703314929833 ft (NAVD 88)



Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	2.204	S_{D1} :	N/A
S_1 :	1.058	T_L :	12
F_a :	1.2	PGA :	0.976
F_v :	N/A	PGA _M :	1.171
S_{MS} :	2.644	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.763	C_v :	1.5

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Fri Apr 28 2023

Date Source: [USGS Seismic Design Maps](#)

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



MEMORANDUM

FROM: NorthPoint Consulting Group, Inc.

TO: Humboldt County Planning & Building Department

RE: Plan for Adaptive Reuse of Developed Industrial Site
 Humboldt Reserve, LLC – Carlotta Palco Mill Site
 4798 HWY 36, Hydesville, CA 95547
 APN: 204-251-001, 204-121-006, 204-121-005
 Conditional Use Permits and Coastal Development Permit Application for
 Commercial Cannabis Activities

DATE: February 23, 2022

Humboldt Reserve, LLC is proposing to permit commercial cannabis activities in accordance with the County of Humboldt’s (County) *Commercial Cannabis Land Use Ordinance* (CCLUO), aka “Ordinance 2.0” on one legal parcel APN 204-251-001, 204-121-006, and 204-121-005 near the community of Carlotta in Humboldt County, California. The project requires a Conditional Use Permit for 216,048 square feet (sq. ft.) of enclosed indoor cannabis cultivation, 44,064 sq. ft. of enclosed commercial nursery, and 2,400 sq. ft. of distribution activities (Table 1). Drying and processing would occur onsite. Activities would occur in three (3) proposed new commercial buildings and one (1) existing onsite building proposed to be modified (Table 1).

<i>Table 1. Proposed Cannabis Activities and Associated Locations</i>			
<u>Location</u>	<u>Indoor Cannabis Cultivation (sq. ft.)</u>	<u>Enclosed Commercial Nursery (sq. ft.)</u>	<u>Distribution (sq. ft.)</u>
<p> Building 1 (61,344 sq. ft.)	42,240	8,640	-
<p> Building 2 (62,208 sq. ft.)	40,320	9,504	-
<p> Building 3 (181,440 sq. ft.)	133,488	25,920	-
<e> 60’ x 80’ Processing Building w/ <p> 40’ x 60’ expansion (<e> 4,800 sq. ft., <p> 7,200 sq. ft.)	-	-	2,400
Totals	216,048 sq. ft. (4.96 acres)	44,064 sq. ft.	2,400 sq. ft.

Water for the proposed project would be sourced from rainwater stored in engineered rainwater catchment tanks plumbed to surfaces, and from reclaimed water from dehumidifiers in the proposed buildings. Power would be renewably sourced from an existing PG&E Service and associated substation.



The site has historically been used for industrial and commercial activities, dating back to the 1950s, including the former PALCO Carlotta Sawmill, gravel extraction/crushing facility, and lumber support facilities. Historically, these facilities consisted of a log deck, lumber storage yard, shipping yard, fueling area, oil house, sawmill equipment, millwright shop, electrician shop, truck shop, equipment boneyard, and a rock processing/crushing area. Most of this infrastructure has been removed and is no longer present onsite.

The site is currently developed with a 60'x80' building, a 13'x37' trailer (to be removed), two shipping containers (to be removed), and a residence (unrelated to the proposed cannabis application). An existing, unpermitted well is located near the existing onsite building on APN 204-251-001. The residence, trailer, and shipping containers are unrelated to both the historic millyard operation and the proposed cannabis operation and are not further discussed.

The 60' x 80' (4,800 sq. ft.) building is a metal-framed building in good condition (Figure 1). It was constructed prior to 1998, per Google Earth. The building is currently rented by a non-cannabis tenant. The building is proposed to be used for Distribution (2,400 sq. ft.) and processing (2,400 sq. ft.) activities. A 40' x 60' addition is proposed to the building for an additional 2,400 sq. ft. of processing activities and an ADA-compliant bathroom.



Figure 1: Existing 60' x 80' Onsite Metal Building



The proposed project would adhere to the Performance Standard for Adaptive Reuse of Developed Industrial Site(s) outlined in the CCLUO:

- Per Section 55.4.9, up to one acre of Commercial Cannabis Activities may be permitted in existing structures developed for a lawful heavy industrial operation use. The proposed uses of processing and distribution are commercial cannabis activities allowed by this section. The 4,800 sq. ft. of occupancy proposed in existing structures does not exceed the one acre of gross floor area as limited by the CCLUO.
- Per Section 55.4.12.12a), the existing onsite structure is being fully occupied with 2,400 sq. ft. of distribution activities and 2,400 sq. ft. of processing activities.
- Per Section 55.4.12.12b), the proposed exterior and interior modifications to the onsite building or additions to the building would not prevent future re-occupancy by new uses compatible with the Industrial General Zone. The proposed uses in these buildings are commercial uses, which are compatible with the existing Zone. In addition, these buildings would be able to be used for a non-cannabis related commercial or industrial use if needed in the future.
- Per Section 55.4.12.12c), the proposed new buildings (Buildings 1, 2, and 3) would comply with development standards of the Heavy Industrial (MH) zone. The proposed upgrade to the existing building would enhance the site and would be able to be used by a future industrial or commercial use if cannabis activities ceased onsite.

Therefore, the proposed project would meet the Performance Standards for Adaptive Reuse of Developed Industrial Sites and would not preclude future industrial uses onsite.

