CEQA INITIAL STUDY AND

SUBSEQUENT NEGATIVE DECLARATION

ORGANIC LIBERTY CA, LLC

CONDITIONAL USE PERMIT MODIFICATION

MODIFICATION TO EXPAND OPERATION AND ALLOW MIXED-LIGHT AND LIGHT DEPRIVATION CANNABIS CULTIVATION AND TO ADD CANNABIS DISTRIBUTION, CANNABIS MANUFACTURING, CANNABIS PROCESSING AND COMMERCIAL CANNABIS NURSERY

Applicant:

Organic Liberty CA, LLC
C/O Matthew Primm
P.O. Box 94825
Las Vegas, NV 89193

Lead Agency:

Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

October 2024

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1.0 INTRODUCTION

1.1 Background

Organic Liberty, LLC ("Organic Liberty" or "Applicant") owns and operates a fully permitted outdoor cannabis cultivation operation located near the junction of Friday Ridge Road and California State Route 299, south/southeast of the community of Willow Creek, in Humboldt County, California ("Existing Operation"). In 2020, the Existing Operation received project approval under PLN-12376-CUP, which consisted of four Conditional Use Permits (CUP16-656, CUP17-042, CUP17-043, and CUP17-044) that allow for ±3.3 acres of outdoor full-sun cannabis cultivation under Humboldt Ordinance No. 2559 ("Ordinance 1.0"). As Lead Agency, the County prepared and adopted a Mitigated Negative Declaration (https://ceqanet.opr.ca.gov/2020060372/3) (herein referred to as the "2020 MND") pursuant to the California Environmental Quality Act ("CEQA"), adopted Findings of Fact, and adopted a Mitigation Monitoring and Reporting Program.

1.2 Environmental Review

In accordance with CEQA, when a Lead Agency considers further discretionary approval on a previously approved project, the Lead Agency is required to consider if the previously certified CEQA document provides an adequate basis for rendering a decision on the proposed discretionary action. When making such a decision, the Lead Agency must consider any changes to the project or its circumstances that have occurred and any new information that has become available since the project's CEQA document was certified.

In accordance with State CEQA Guidelines Sections 15162–15164, prior to approving a further discretionary action, and depending on the situation, the Lead Agency must either: (1) prepare a Subsequent EIR; (2) prepare a Supplemental EIR; (3) prepare a Subsequent Negative Declaration; (4) prepare an Addendum to the EIR or Negative Declaration; or (5) prepare no further documentation.

As demonstrated in Section 3.0, CEQA Evaluation, this Initial Study / Subsequent ND supports the conclusion that the proposed Project will not result in any new significant environmental effects. As a result, this Initial Study / Subsequent ND is an appropriate CEQA document for analysis and consideration of the proposed Project.

2.0 PROJECT DESCRIPTION

2.1 Project Title

Organic Liberty, LLC, Modification to Allow Mixed-Light and Light Deprivation Cultivation and To Add Distribution, Manufacturing, Processing and Nursery Facilities.

2.2 Lead Agency Name and Address

Lead Agency Name: Humboldt County Planning & Building Department
Lead Agency Address: 3015 H Street, Eureka, CA 95501
Contact Person: Rodney Yandell
Phone Number: 707.445.7541

2.3 Project Location

The Project is located approximately four (4) miles south/southeast of the community of Willow Creek near the junction of State Highway 299 and Friday Ridge Road in an unincorporated area of Humboldt County, California.

2.4 Project Sponsor's Name and Address

Owner / Applicant:
Attn: Matthew Primm
Organic Liberty, LLC
P.O. Box 94825
Las Vegas, NV 89193

Agent:
Attn: Jordan Main
Compass Land Group
4235 Forcum Ave, Suite 100
McClellan Park, CA 95652

2.5 Assessor Parcels, Ownership, Zoning, and General Plan Designations

In July of 2020, Humboldt County approved a lot line adjustment and merger (PLN-2020-16443) between 12 assessor parcels (6 legal parcels) known as APNs 524-073-003, 524-074-001, 524-091-002, 524-091-003, 524-091-005, 524-091-006, 524-101-008, 524-101-009, 524-101-011, 524-101-013, 524-101-015 and 524-101-017 to consolidate the parcels into four logical management units. The Project site is now located on one ±400-acre legal parcel (two assessor parcels), described in **Table 1, Assessor's Parcels and Ownership.**

TABLE 1
ASSESSOR'S PARCELS & OWNERSHIP

APN[1]	Ownership	Zoning[2]	General Plan[3]	Acreage
524-101-025	Organic Liberty, LLC	AE	RA40; AG	±400
524-091-009	Organic Liberty, LLC	AG-B-5(5)	RA5-20	

Notes:

1. Source: Humboldt County Web GIS, accessed September, 2024.
2. Source: Humboldt County Zoning Code, with verification thru Humboldt County Web GIS. AE = Agriculture Exclusive. AG = Agriculture General.
3. Source: Humboldt County General Plan, with verification thru Humboldt County Web GIS. RA = Residential Agriculture. AG = Agricultural Grazing.

2.6 Surrounding Land Uses and Setting

The Project site consists of ±3.3 acres of active commercial outdoor full-sun cannabis cultivation operations. The Project site is situated between approximately 700- and 750-feet elevation above mean sea level on predominantly east-facing slopes approximately 275 feet above the main stem of the Trinity River. The parcel is located on a moderately sloped hillside (less than 15%) that is mostly wooded areas.

The predominant land uses in the vicinity of the Project include additional land holdings of the Project applicant, State Highway 299 (east), scattered rural residential (further east of Highway 299), and open space/recreation associated with the Six Rivers National Forest and Trinity River (south and west). The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change. No schools, school bus stops, churches, or other places of religious worship are known to exist within any applicable regulatory setback from the Project site.

2.7 Description of Project

Organic Liberty, LLC operates a permitted outdoor cannabis cultivation operation located near the junction of Friday Ridge Road and California State Route 299, south/southeast of the community of Willow Creek, in Humboldt County, California. The existing project approval (PLN-12376-CUP) consists of four Conditional Use Permits (CUP16-656, CUP17-042, CUP17-043, and CUP17-044) that allow for ±3.3 acres (143,748 square feet) of outdoor full-sun cannabis cultivation. Organic Liberty CA, LLC proposes a modification to the approved permits to adjust the cultivation boundary and expand the cultivation area by ±0.7 acres (±4 acres total). As a result of the Project, cultivation at the facility would now comprise ±2.4 acres of outdoor full-sun cultivation in raised beds, ±0.7 acres (31,500 square feet) of enclosed outdoor light deprivation cultivation in hoop houses, and ±0.9 acres (37,900 square feet) of mixed-light cultivation in greenhouses. In addition, Organic Liberty CA, LLC requests authorization for onsite commercial nursery, processing, non-flammable manufacturing, and distribution uses within new steel buildings (±11,700 square feet). These requests are collectively referred to as the "Project".

The Project will include the removal of ±1.6 acres of existing raised cultivation beds to allow for reconfigured raised beds for outdoor light deprivation within new hoop houses and rolling bench tops with pots for mixed-light cultivation within new greenhouse structures. Power for the Project will be supplied via an existing PG&E connection and heat will be provided to greenhouse structure by two new 1,000-gallon propane tanks. Up to three 150 kW backup generators will be located onsite in case of power failure to key operational facilities. The Project's soil needs will be serviced by two new contained soil storage areas comprising ±3,400 square feet. The soil storage area north of the access road will be contained using wood from removed cultivation raised beds, while the soil storage south of the access road will occur on a new 3,000 square foot concrete pad to prevent sediment transport.

Incidental grading to prepare a level surface for the new metal building foundations, the concrete soils storage area south of the access road, and the concrete foundation for emergency generator and propane tank facilities is anticipated. To better accommodate new uses at the site, the Project's fence line will require realignment along its western portion and will align more closely with the greater approved project boundary. Further, the existing access road will be extended by ±650 linear feet to reach the newly proposed facilities.

Water demand will continue to be supplied by three existing permitted groundwater wells, which will be supplemented by 60,000 gallons of new rain catchment water storage.

The Project proposes 4 additional full-time equivalent employees and 20 seasonal employees. No change to the typical hours of operation is requested; however, extended hours may be required for select employees during peak production seasons to manage greenhouse and nursery facilities.

2.8 Cultivation and Operations Plan

Organic Liberty CA, LLC has developed a detailed updated Cultivation and Operations Plan to address the requirements of Humboldt Ordinance 2599 ("Ordinance 2.0") and operational changes as a result of the Project. The following items are outlined within the Cultivation and Operations Plan:

- General Operational Information
- Cultivation Plan
- Water Source, Storage Irrigation and Estimated Use
- Summary of Specific Measures for Compliance with SWRCB General Order
- Stormwater Management Plan
- Invasive Species Control Plan
- Materials Management Plan
- Sewage Disposal Plan
- Soils Management Plan
- Processing Plan
- Parking Plan
- Energy Plan
- Security Plan
- Noise Source Assessment and Mitigation Plan
- Light Pollution Control Plan

The following sections from the Cultivation and Operations Plan were selected to highlight areas that were updated and require CEQA consideration:

2.8.1 Vehicle Trips

The combination of employees, delivery, and other traffic is expected to result in up to forty-five (45) trips per day depending upon the season and stage of development.

2.8.2 Days and Hours of Operation

The facility is not open to the public and will not accept visitors without a specific business purpose. Hours of operation will typically be from 7:00 AM to 7:00 PM; however, during periods of seasonally high workload, the hours of operations within the facility may increase to sixteen (16) hours per day (5:00 AM to 9:00 PM). In addition, further extended hours may be required for select employees during peak production seasons to manage greenhouse and nursery facilities.

2.8.3 Cultivation Plan

Pursuant to the definitions of Humboldt Ordinance No. 2599 ("Ordinance 2.0"), cultivation activities at the facility under the proposed Project would include ±2.4 acres of outdoor full-sun cultivation within raised cultivation beds or a suitable equivalent (e.g., pots), ±0.7 acre of enclosed outdoor light deprivation within hoop houses, and ±0.9 acres of enclosed mixed-light cultivation within greenhouses. Clones and seedlings for cultivation will primarily be supplied by the new ±3,150 square foot commercial nursery; however, the Applicant may source genetic inventory from licensed off-site vendors to diversify its cultivation inventory. Artificial lighting will be utilized both in the mixed-light cultivation greenhouses and the commercial nursery to allow for seasonal control of the plants' vegetative and reproductive growth cycles. A description of the cultivation cycles by type is described below in **Table 2, Cultivation Cycles**.

TABLE 2
CULTIVATION CYCLES

Cultivation Type	No. of Cycles	General Cultivation Cycle
Nursery	N/A	Year Round
Outdoor Full-Sun	1	June - November
Light-Deprivation	2 to 3	April - November
Mixed-Light	4	Year Round

2.8.4 Water Source, Storage, Irrigation, and Estimated Use

Consistent with existing conditions, water for irrigation and fire suppression will primarily be supplied by three existing permitted on-site groundwater wells:

- Well #1 (County Permit Number 17/18-1216) is located east of Friday Ridge Road within the Project Area. Well #1 is completed to a depth of 220 feet and has an estimated yield of 5 gallons per minute according to the Well Completion Report.
- Well #2 (County Permit Number 17/18-1401) is located on the western edge of current APN 524-073-003. Well #2 is completed to a depth of 220 feet and has an estimated yield of 15 gallons per minute according to the Well Completion Report.
- Well #3 (County Permit Number 17/18-1636) is located on the western edge of current APN 524-073-003, south of Well #2. Well #3 is completed to a depth of 200 feet and has an estimated yield of 20 gallons per minute according to the Well Completion Report.

Water is pumped from the wells to temporary holding tanks for regulating water pressure, and then piped from the tanks to the area of cultivation. At all times, water is applied using no more than the agronomic rates using an automated irrigation system. Well water usage will be supplemented with newly proposed rain catchment from 12 new 5,000-gallon tanks (60,000 gallons). These tanks will be filled during the wet season and their usage will be prioritized over well supplies, when possible, to minimize pressures from groundwater extraction.

The existing approved project was analyzed assuming annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons). An updated assessment of the Project's water demand, integrating actual historical irrigation data and more accurate irrigation assumptions, found that the Project's annual water demand is estimated to be approximately 7 acre-feet (2.3 million gallons), with a monthly maximum of approximately 1.34 acre-feet (437,000 gallons). See **Table 3, Projected Irrigation Water Usage**, for a breakdown of anticipated monthly water demand by use type.

TABLE 3
PROJECTED IRRIGATION WATER USAGE
(ACRE-FEET)

	Month											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Full-Sun Outdoor	-	-	-	0.22	0.44	0.88	0.44	0.26	0.43	0.45	-	-
Light Deprivation	-	-	-	0.07	0.17	0.22	0.13	0.08	0.13	0.12	-	-
Mixed-light	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Nursery	0.003	0.003	0.003	0.009	0.009	0.009	0.009	0.009	0.003	0.003	0.003	0.003
Total:	0.24	0.24	0.24	0.53	0.85	1.34	0.82	0.59	0.81	0.81	0.24	0.24

The combined output of the three existing on-site groundwater wells is approximately 0.18 acre-feet (58,000 gallons) per day, indicating sufficient water supply to service the irrigation demands of the Project.

2.8.5 Grading and Drainage

The Project site's hydrology has been historically altered by the stormwater drainage from Friday Ridge Road (to the west) being diverted onto site's existing hillslope. A portion of the Friday Ridge

Road stormwater runoff is conveyed through an in-board roadside ditch diverting water east under the road through a culvert into the Project area on the south side of the main entry and east-west site access road. On the northwest side of the Project area an existing ditch conveys intercepted runoff around the project site so that it does not run onto the Project area. Existing slopes across the site range from 4 to 15 percent with runoff generally flowing from west to east.

The Project site is currently enrolled (WDID:1_12CC428884) in the State Water Resources Control Board (SWRCB) General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Order WQ 2019-0001-DWQ).

Incidental grading to prepare a level surface for the new metal building foundations, the concrete soils storage area south of the access road, and the concrete foundation for emergency generator and propane tank facilities is anticipated.

A licensed engineer was retained to prepare an assessment of existing and proposed drainage conditions, including recommendations for stormwater control measures. Runoff from new impervious surfaces will be managed through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. Based on the hydrology assessment, a total of twelve 5,000-gallon tanks have been incorporated into the project design to retain site runoff.

2.8.6 Invasive Species Control Plan

A professional biological consulting firm was retained to prepare an Invasive Species Control Plan for the Project. A field survey was conducted and observations of any invasive species present were recorded. A total of 18 invasive species were identified, primarily within the walkways of raised beds. Management and removal recommendations were provided for each of the invasives species, and included a variety of biological (e.g. reintroduction of native species) and mechanical (e.g. mowing, tillage, grazing, and hand pulling) control methods.

2.8.7 Hazardous Material Storage

The project will utilize conventional agricultural products such as fuels, propane, fertilizers, pesticides, and other potentially hazardous materials. These materials will be stored consistent with the requirements of the Humboldt County Environmental Health Department. Fertilizer, fuels, and pesticides will be stored in locked Conex type shipping containers located south of the existing central access road. In a single month, it is anticipated that the project may store up to 200 pounds of nitrogen and up to 55 pounds of phosphorous. The Operator does not anticipate the storage of pesticides or fertilizers in threshold quantities requiring a Hazardous Materials Business Plan (“HMBP”); however, the propane tanks will likely trigger the threshold quantities for a HMBP. Liquid propane deliveries will be handled by a licensed propane distributor. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed.

2.8.8 Sewage Disposal Plan

Bathrooms will be provided for facility workers within the new distribution and processing buildings. These facilities will be equipped with a septic system properly sized for the number of employees operating within these structures. A licensed engineer was retained to perform a soils suitability study and prepare a draft onsite wastewater treatment system design.

Consistent with existing conditions, the Project will continue to contract with a professional temporary sanitation facilities services provider to provide and maintain toilet and hand washing facilities for the remaining seasonal cultivation employees.

2.8.9 Parking Plan

The facility has been designed to provide 44 standard (8' x 20') onsite gravel parking spaces. In addition, two ADA compliant parking spots will be provided to service the new processing and distribution/manufacturing buildings.

2.8.10 Energy Plan

Power for the new greenhouse, processing, distribution/manufacturing, and nursery buildings will be provided by an existing PG&E connection. The Project will obtain renewable energy through the Redwood Coast Energy Authority or a suitable equivalent source. Lighting used within the new structures and for security purpose will utilize energy efficient light bulbs and motion sensors to help minimize energy demand. Further, lighting used for mixed-light cultivation within the greenhouses will utilize energy efficient light bulbs, such as LED, and operated to the minimum extent practicable. Heaters for the new greenhouses will be operated using propane and will be supplied via two 1,000-gallon liquid propane tanks. In case of emergency, up to three emergency backup generators will be available to power key facility operations that have a risk of lost product in the event of a power failure.

2.8.11 Video Surveillance and Lighting

The existing outdoor video surveillance system can effectively monitor the space in and around the general facility. New buildings, greenhouses, and hoophouses will be equipped with additional indoor and outdoor video surveillance. In additions, these structures will be equipped shielded motion sense exterior lighting that is directed so as to not pose a nuisance to neighboring properties.

2.8.12 Noise Source Assessment

A noise assessment was prepared by a licensed engineer analyzing existing conditions at the facility in comparison to proposed project activities. The noise study determined that the proposed structures and existing topography, vegetation, and contours are anticipated to attenuate project sound to below the requirements of the CCLUO and that the proposed sound levels do not exceed the maximum allowable within the HCGP for an AG zoned parcel.

2.8.13 Light Pollution Control Plan

New security lighting for the Project will be shielded to prevent light from going outside of the Project boundary. In addition, lighting for mixed-light cultivation will not be turned on until greenhouse shade curtains have been drawn to prevent light from escaping between sunset and sunrise.

2.9 Site-Specific Technical Reports

The following technical reports have been prepared in support of this application:

Noise Impact Study

Invasive Species Control Plan

Onsite Wastewater Treatment System Design

Preliminary Hydrology Report

Biological Resources Evaluation

2.10 Requested Entitlements

2.10.1 County Entitlements

Organic Liberty CA, LLC anticipates needing to obtain the following Humboldt County permits/authorizations for the Project:

- Approval of a **Modification to Conditional Use Permits** CUP16-656, CUP17-042, CUP17-043, and CUP17-044 to adjust the existing cultivation boundary and expand the cultivation area by ±0.7 acres (±4 acres total), convert ±0.7-acres of existing cultivation area to enclosed outdoor light deprivation within hoop structure (±31,500 square feet), and convert ±0.9-acres of existing cultivation area to enclosed mixed-light within greenhouses (±37,900 square feet).
- Approval of a **Zoning Clearance Certificate** to allow for onsite commercial nursery, processing, and distribution uses, and a **Special Permit** to allow for non-flammable manufacturing, all within new steel buildings (±11,700 square feet).
- Approval of a **Grading Permit** or **Agricultural Exemption** to allow general site grading for structures, onsite access roads, hoop walkways, and parking areas, as necessary.
- Approval of a **Building Permit** to allow for conditioned greenhouses and commercial structures, as necessary.

- Approval of an **Environmental Health Permit** for a new onsite wastewater treatment system.

- Approval of an **Air Quality Authority to Construct / Permit to Operate** for the operation of propane heaters / boilers that will provide temperature control within the greenhouses and up to three emergency backup generators.

2.10.2 Other Permits, Licenses, and Approvals

Organic Liberty CA, LLC anticipates needing to obtain or update the following additional permits, licenses and approvals for the Project:

- Approval of **Licenses** for outdoor and/or mixed-light Tier 1 and Tier 2 cultivation (both light deprivation and artificial light assisted), nursery, processing, Type 6 manufacturing, and Type 11 distribution issued by the State of California in accordance with the Medicinal and Adult-Use Cannabis Regulation and Safety Act ("MAUCRSA").

- Updated **Site Plan** under the State Water Resources Control Board ("SWRCB") General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Order WQ 2019-0001-DWQ).

3.0 CEQA EVALUATION

3.1 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:

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

3.2 Determination

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed 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 proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed 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 proposed 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 proposed project, nothing further is required.

	10/7/2024
Signature	Date
Signature	Date

3.3 Evaluation of Environmental Impacts

The following checklist is taken from the Environmental Checklist Form presented in Appendix G of the CEQA Guidelines. The checklist is used to describe the impacts of the proposed Project and identify project-specific mitigation measures, as appropriate: For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The Project would not have any impact.

I. AESTHETICS. *Except as provided in Public Resources Code Section 21099, would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to aesthetics has occurred since the 2020 MND (e.g., nearby receptors, scenic designations).

a-b. The 2020 MND found that the existing operation would have no impact on scenic vistas and resources as no governmentally designated scenic vista or specific scenic view spots, recreational areas, or scenic highways are within the vicinity or visibility of the Project site. The closest recreational areas include the Main Stem and South Fork Trinity River and Six Rivers National Forest, which are located at significantly lower elevation from the Project area and are separated from the Project by dense, mature vegetation. ***No impact*** would occur.

c. The Project parcels are a component of a large private land holding (500 acres+) of the Project applicant. The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change. The predominant land uses in the vicinity of the Project include additional land holdings of the Project applicant, State Highway 299 (east), scattered rural

residential (further east of Highway 299), and open space/recreation associated with the Six Rivers National Forest and Trinity River (south and west).

The 2020 MND found that the Existing Operation would not substantially degrade the existing visual character or quality of the site and its surroundings and would result in a less than significant impact. Further, under Section 3.1-2 of Humboldt County 2017 Draft Environmental Impact Report ("Countywide 2017 DEIR") for Humboldt Ordinance No. 2599 ("Ordinance 2.0"), improvements to existing cannabis operations and new cannabis operations permitted under Ordinance 2.0 were found to be consistent with the existing rural and agricultural character of the County. The proposed Project, involving conversion of some outdoor full-sun cultivation to mixed-light within greenhouses and enclosed outdoor light deprivation within hoop houses, and the addition of three new ancillary structures for cultivation operation support facilities (i.e. processing, manufacturing, nursery, and distribution), would not substantially degrade the existing visual character of the site and its surroundings and would result in a ***less than significant impact***.

d. The 2020 MND found that the outdoor lighting for security and parking associated with the Existing Operation would have a less than significant impact resulting from light or glare. The proposed Project involves new exterior security lighting for structures and artificial lighting within greenhouses for mixed-light cultivation. Pursuant to Article 2 §16304 of the Department of Cannabis Control's regulations and §55.4.12.4 of Ordinance 2.0, all new outdoor security lighting will use the minimum lumens required for security purposes, be directed downward, and shielded to prevent lighting spillover onto adjacent properties.

Mixed-light cultivation operations within the proposed greenhouse structures will periodically use artificial lighting to extend the photoperiod of the cannabis plants. Prior to initiating any artificial light cycles, Organic Liberty CA, LLC will draw blackout curtains within the greenhouses to prevent light from escaping the structures, especially between sunset and sunrise. Outdoor security lighting and artificial lighting for mixed-light cultivation will be contained within the specific areas it is intended to illuminate. No new sources of glare that would impact surrounding land uses, drivers on Friday Ridge Road, or Route 299 are proposed.

Therefore, the Project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area and would result in a ***less than significant impact***.

II. AGRICULTURE AND FORESTRY RESOURCES. *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepare the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to agriculture and forestry resources has occurred since the 2020 MND.

a. According to the Humboldt County Web GIS, 18.7 acres of prime agricultural soils are mapped on the Project site. In addition, a site-specific Prime Agricultural Soil Assessment identified an additional 5 acres of prime agricultural soils bringing the total quantity of prime agricultural soils on the site to 23.7. The 2020 MND found that the Existing Operation would have no impact to agricultural lands by conversion to non-agricultural uses as Humboldt County is not included in the Farmland Mapping and Monitoring Program (https://www.conservation.ca.gov/dlrp/fmmp/Pages/county_info.aspx; verified September 26, 2022) and all of the proposed uses (outdoor cultivation, accessory access roads, parking, and storage) that would occur on the prime agricultural soils are agricultural uses or agricultural related uses.

Consistent with the findings of the Countywide 2017 DEIR, the Project's proposed elements located within the prime agricultural soils area delineated within the project boundary are either agricultural uses (e.g. greenhouses and hoop houses) or agriculturally related (e.g., soil storage, and composting). Distribution and manufacturing associated structures are located outside of the prime agricultural soils area. **No impact** to farmland as a result of the project would occur.

b. The Project area is zoned Agriculture General (AG). Under the County Zoning Regulations, Title III, Division 1, Chapter 4, principal permitted uses in the AG zone include general agriculture with accessory agricultural uses and structures. Outdoor, mixed-light, and light depravation cultivation and support cannabis facilities (i.e. nursery, processing, manufacturing, and distribution) are allowed on AG zoned parcels with the applicable clearance or permit under Ordinance 2.0.

The Project is located on a ±400-acre parcel, which includes a total of ±23.7 acres of prime agricultural soils. The total proposed cultivation area (±4 acres) is less than 20% of the available prime agricultural soils on the property, satisfying the requirement outlined within Ordinance 2.0 Section 55.4.6.4.3.

According to the County Web GIS mapping, there is no Williamson Act contract applicable to the Project site.

The Project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and therefore, ***no impact*** would occur relative to existing zoning for agricultural use.

c,d. The Project site is not identified as forest land (as defined in PRC section 12220[g]) or timberland (as defined by PRC section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Further, no trees will be removed as a result of Project

activities. Therefore, the Project would not result in the conversion of forest land and would not conflict with forest land, timberland, or Timberland Production zoning, and ***no impact*** would occur.

e. The 2020 MND found that the Existing Operation, consisting of 16 full-time equivalent employees primarily from Humboldt County, would not produce significant growth in the area that would result in the conversion of farmland or forest land. Growth inducing impacts are generally caused by projects that have an effect on economic growth, population growth, or land development.

The proposed Project anticipates requiring 4 additional full-time equivalent employees with a maximum of 20 seasonal employees during the peak harvest and processing season. It is anticipated that these employees (or the majority of them), especially the full-time employees, would be from within Humboldt County. Seasonal employees from outside of Humboldt County would be minimal and their impacts temporary in nature. Therefore, the Project is anticipated to have **no impact** that would indirectly convert farmland to non-agricultural land or forest land to non-forest land through growth in the area.

III. AIR QUALITY. *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to air quality has occurred since the 2020 MND.

a. NCUAQMD is one of three air districts responsible for overseeing compliance with State and Federal laws, regulations, and programs within the North Coast Air Basin. NCUAQMD includes Del Norte, Humboldt, and Trinity Counties. North Coast Air Basin is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour PM10 standard in Humboldt County only. In 1995, NCUAQMD provided a study to identify the major contributors of PM10, which were summarized in the Particulate Matter PM10 Attainment Plan. PM10 emissions in Humboldt County are generated by a variety of sources and the PM10 Attainment Plan includes control strategies that are intended to achieve attainment of the state's air quality standard. Control strategies include transportation control measures such as encouraging the use of public transit and replacing the diesel-powered bus fleet with natural gas fueled models, encouraging car-pooling and bicycle commuting, removal, or repair of vehicles with inefficient emission control systems, and traffic flow improvements that reduce idling and VMT. Land use control measures encourage mixed use or more dense development. The PM10 Attainment Plan also includes measures that limit residential burning as well as various measures to encourage the installation of EPA certified woodstoves.

The proposed project would not conflict with the PM10 Attainment Plan given that the construction and operation of the project has emissions below the BACT thresholds. Additionally, the project is required to comply with the rules and regulations established by the NCUAQMD. A **less than significant impact** would occur.

b. Humboldt County is considered a non-attainment area for the 24-hour PM10 standard under the California Clean Air Act. The area is in attainment or "unclassified" for all other criteria pollutants. In order to maintain ambient air quality in the County, NCUAQMD uses their BACT thresholds of significance for the applicable air pollutants and their precursors. Criteria pollutant thresholds include ozone (O3) precursor pollutants (ROG and NOx), PM10, and PM2.5, which apply to both the construction and operation of the proposed project.

The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.3 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while offsite activity includes worker, hauling, and vendor traffic.

Construction Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were estimated for removing raised bed materials and removing the eight existing shipping containers used for storage. Haul trips were also estimated for the new storage containers being brought to the site, the new above-ground storage tanks, and the concrete and road mix/aggregate being brought to the site. Demolition haul trips were estimated by CalEEMod. Total worker and vendor trips were computed by CalEEMod using default daily trip rates by the number of days in a given construction phase.

Annual emissions were predicted using CalEEMod. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. The table below shows daily construction emissions of ROG, NOX, PM10 exhaust, and PM2.5 exhaust estimated during construction of the project. As shown, predicted construction period emissions would not exceed the NCUAQMD BACT significance thresholds.

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions (tons)	0.8 tons	1.9 tons	0.1 tons	0.1 tons
BACT Thresholds (tons per year)	***40 tons***	***40 tons***	***15 tons***	***10 tons***
Exceed Threshold?	No	No	No	No
Daily Construction Emissions (pounds)	5.21 lbs./day	12.21 lbs./day	0.56 lbs./day	0.50 lbs./day
BACT Thresholds (pounds per day)	***50* lbs./day**	***50* lbs./day**	***80* lbs./day**	***50* lbs./day**
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM10 and PM2.5. Sources of fugitive dust would include disturbed soils at the construction site. In addition, unless properly controlled, vehicles entering and leaving the site would have the potential to deposit track out material on local streets, which could be an additional source of airborne dust after it dries. These impacts are less-than-significant if NCUAQMD Rule 104, Section D (Fugitive Dust Emissions) are followed. The rule requires best management practices be implemented to reduce these emissions. These include conducting agricultural practices in such a manner as to minimize the creation of airborne dust; 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; and 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. The project is required to follow Rule 104 during construction and operation of the site which will reduce fugitive dust (i.e., PM10 and PM2.5) emissions.

Operational Emissions

Criteria pollutant emissions from project operational activities would be generated primarily from energy use, autos driven by employees. and by delivery vehicles. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

The project-specific weekday trip generation of 90 (45 round trips) was used based on the estimates provided by the applicant. Energy use associated with the operation of the proposed project was estimated by the applicant to be 5,228,777 kilowatt-hours per year (kWhr/year). This was divided by the total building square footage of the project and input into CalEEMod to account for the project's energy use.

The PG&E CalEEMod default intensity factors for GHG pollutants were used for the analysis, as it was conservatively assumed that all power would be supplied by PG&E. Humboldt County Code Regulating Commercial Cannabis Activities requires cultivation projects receive 100 percent of their electricity from renewable sources.

The Project would obtain renewable energy through the Redwood Coast Energy Authority or a suitable equivalent source.

Annual emissions were predicted using CalEEMod and daily emissions were estimating assuming 365 days of operation. The table below shows average daily emissions of ROG, NOX, total PM10, and total PM2.5 during operation of the project. The operational period emissions would not exceed the NCUAQMD BACT thresholds.

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
2025 Project Operational Emissions (*tons/year*)	0.41 tons	0.62 tons	0.09 tons	0.05 tons
BACT Thresholds (tons /year)	*40 tons*	*40 tons*	*15 tons*	*10 tons*
Exceed Threshold?	No	No	No	No
2025 Project Operational Emissions (*lbs./day*)[1]	2.25 lbs.	3.40 lbs.	0.49 lbs.	0.27 lbs.
BACT Thresholds (lbs./day)	*50 lbs.*	*50 lbs.*	*80 lbs.*	*50 lbs.*
Exceed Threshold?	No	No	No	No

Notes: [1] Assumes 365-day operation.

Given that the project would not exceed applicable NCUAQMD thresholds during construction or operations, and with adherence to NCUAQMD rules related to control of fugitive dust, a **less than significant impact** would occur in relation to criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c. A sensitive receptor is a person who is particularly susceptible to health effects due to exposure to an air contaminant. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. With the exception of scattered rural residential, there are no sensitive land uses within the vicinity. As discussed above, the Project would not produce significant quantities of criteria pollutants during operation. As part of the proposed cultivation, State of California approved agricultural chemicals (pesticides/fungicides) would be applied to the cannabis plants to control pests and mold. The Project would apply the pesticides/fungicides at agronomic rates according to manufacturer's specifications. In addition, according to the California Department of Pesticide Regulation, pesticide application is generally advised a minimum of 300 feet from sensitive receptors (e.g. residences). The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change.

Given the limited quantities of chemicals proposed for use, and distance that pesticide/chemical use will occur from the nearest offsite residence, the Project would not expose sensitive receptors to substantial pollutant concentrations and a ***less than significant impact*** would occur.

d. There is the potential for odors from both the construction and operation of the project. However, the project's construction activities would not include any sources of significant odors that would cause complaints from nearby residents. During construction, the project would generate localized emissions of diesel exhaust from equipment operation and truck activity that are not likely to result in confirmed odor complaints or adversely affect people given the limited scale of construction activities and distance to nearby receptors. The cultivation of cannabis is a potential source of odors. The odor of cannabis could be described by some as an offensive skunk-like smell. This odor is produced by a variety of compounds, including terpenes, which are volatile unsaturated hydrocarbons found in the oils of various plants. Naturally, these oils are most present late in the budding cycle and at harvest and processing. Generally, the larger the size of the canopy area, the greater the potential for odor to be evident to off-site receptors.

The number of nearby receptors is limited. The Project parcels are a component of a large private land holding (500 acres+) of the Project applicant. The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change. The predominant land uses in the vicinity of the Project include additional land holdings of the Project applicant, State Highway 299 (east), scattered rural residential (further east of Highway 299), and open space/recreation associated with the Six Rivers National Forest and Trinity River (south and west).Fewer than 5 residential homes are located within ½ mile of the Project site, with the majority of them separated by Hwy. 299 and the Trinity River. Some recreational areas of the Six Rivers National Forest and Trinity River are also located within ½ mile of the Project site but are separated by mature vegetation and a significant elevation change.

Cannabis is currently being grown outdoors on the site. The project would reduce the amount of cannabis being grown outside and add hoop houses and greenhouses for growing, which could potentially reduce odors from the site. As a result, a **less than significant impact** would occur.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant 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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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 US Fish and Wildlife Service?	☐	☐	☒	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to biological resources has occurred since the 2020 MND.

a-d. The 2020 MND found that the existing outdoor cannabis operation would have a less than significant impact to candidate, sensitive, or special status species, sensitive natural communities, riparian habitats, federally protected wetlands, and migratory wildlife corridors with the implementation of site-specific mitigation measures. The Project is proposed within the existing permitted project boundary. The site is a fenced active cannabis operation with areas of proposed modification or expanded uses being largely disturbed. The Project will continue to observe a 50-foot setback from the top of bank or edge of riparian dripline (whichever is greater) of mapped ephemeral watercourses, consistent with the requirements of WQ 2019-0001-DWQ and the County's Streamside Management Areas and Wetland Ordinance. Further, The Project will also adhere to the water quality requirements of WQ 2019-0001-DWQ and the County's Ordinance 2.0 performance standards. This includes requiring that fertilizers and pesticides/herbicides be applied consistent with product labeling and managed to ensure that they will not enter or be released into surface or groundwater. More specifically, all fertilizers and pesticides will be applied at agronomic rates and stored within covered storage container so as to prevent their transport into surface waters. In addition, soils will be stored within designated soil storage areas designed with either concrete or wooden containment features.

The Project proposes to realign 280 linear feet of existing fencing and construct 128 linear feet of new perimeter fencing around a currently unfenced portion of the existing permitted project boundary. These fences and all Project elements will continue to observe a 50-foot setback from the top of bank or edge of riparian dripline and would not interfere with general movement corridors on the vast majority of the Project parcels which are located outside the Project area (e.g., the Project area occurs on ~1% of the larger 400-acre parcel).

In order to determine whether the proposed project could potentially result in new or different impacts than what was analyzed in the 2020 MND, an updated biological resources evaluation was prepared by a qualified biologist (Stringer; July 2024). The updated biological resources evaluation concludes the following:

- Special-Status Plant Species: The project area generally lacks suitable habitat for special-status plants due to the existing level of disturbance. No special-status plant species were observed in the project area during focused botanical surveys conducted by SHN (SHN 2020) or during the biological reconnaissance survey conducted in support of the updated report, which included a complete inventory of vascular plants that were evident and identifiable at the time of the survey. Based on the site conditions, combined with the lack of any detections of special-status plants during numerous biological surveys, it was concluded that no special-status plant species are present in the project area and no impacts to special-status plants are anticipated as a result of the proposed project.

- Special-Status Animal Species: No special-status animal species were observed in the project area during multiple biological surveys conducted by SHN in 2017 and 2020 (SHN 2020). Additionally, no special-status animal species were observed in the project area during the biological reconnaissance survey conducted in support of the updated report. Due to the existing habitats and level of disturbance, the project area does not provide habitat for the majority of the regionally-occurring special-status species. The following special-status animal species were identified as having the potential to occur in the project area: white-headed woodpecker, red-breasted sapsucker, hoary bat, silver-haired bat, long-eared myotis, Yuma myotis, and fringed myotis. None of these species have any federal or state listing status but are tracked by the California Natural Diversity Database. In addition, the project area provides nesting habitat for a variety of migratory birds and other native birds. The updated biological resources evaluation found that impacts to animal species with the potential to occur are adequately mitigated through continued adherence to the existing conditions of approval pertinent to the protection of biological resources, including pre-operation bird surveys and special-status animal surveys.

- Impacts to the Oregon white oak woodland habitat in the project area should be avoided. Consistent with the existing project approvals, the proposed project has been designed to avoid impacts to white oak woodland areas, as no white oak trees will be removed.

Potential impacts to candidate, sensitive, or special status species, sensitive natural communities, riparian habitats, federally protected wetlands, and migratory wildlife corridors would be **less than significant** with continued implementation of the biological resource mitigation measures adopted in connection with the 2020 MND.

e. The Project does not conflict with local policies or ordinances protecting biological resources. The Project will not involve the removal of trees. In addition to the general biological resources policies in the County General Plan, the County's Streamside Management Areas and Wetlands Ordinance protects sensitive fish and wildlife habitats. The Project footprint has been designed to maintain a 50-foot setback from the top of bank or edge of riparian dripline (whichever is greater) of ephemeral watercourses onsite, consistent with the Streamside Management Areas and Wetland Ordinance. As a result, the Project will not conflict with any local policies or ordinances protecting biological resources, and **no impact** would occur.

f. According to the U.S. Fish & Wildlife Service Environmental Conservation Online System, the Project site is not located within the boundaries of a Habitat Conservation Plan. Habitat Conservation Plans in Humboldt County primarily apply to forest lands and include: 1) Green Diamond Resource Company California Timberlands & Northern Spotted Owl (formerly Simpson Timber Company); 2) Humboldt Redwood Company (formerly Pacific Lumber, Headwaters); and 3) Regli Estates.

According to the California Department of Fish & Wildlife website, the Project site is not located in the boundaries of a Natural Community Conservation Plan. Existing Conservation plans for Humboldt County include the Green Diamond and Humboldt Redwoods Company (previously Pacific Lumber Company) Habitat Conservation Plans.

In addition, to being located outside of the boundaries of a habitat conservation plan or natural community conservation plan, the Project is located on private property within an existing active cannabis operation, does not involve the removal of trees, and includes mitigation measures to further reduce potential impacts to special-status species and habitats.

Therefore, the Project will not conflict with any local policies or ordinances protecting biological resources or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Plan, or other approved plan applicable to the Project area, and **no impact** would occur.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to cultural resources has occurred since the 2020 MND.

a-c. In 2018, a Cultural Resources Investigation was prepared for the Existing Operation by Archaeological Research and Supply Company (updated April 2020). The investigation included a records search through the California Historical Resources Information System's regional Northwest Center (NWIC), Native American Heritage Commission (NAHC) inquiry, coordination with local tribes, and pedestrian survey of the site. In addition, Bob Benson of the Tsnungwe tribe conducted a field visit with Archaeological Research and Supply Company in May 2018.

No historic or prehistoric resources were identified during the investigation. There is one ethnographic village site (Tsunungwe village site) that is eligible for the California Registry of Historic Places on the adjacent parcel to the south of the current Project area, however; no artifacts or associated cultural resources were identified as a result of the investigation. The site has been subjected to past activities that may have disturbed evidence of prehistoric use.

The cultural resources study concluded that the site development will not impact significant historic or prehistoric archaeological resources as a result of ground disturbances if a heightened inadvertent discovery protocol is implemented, which is a current condition of approval. This conclusion is still applicable as the Project and all of its elements are proposed within the existing approved permit boundary.

An invitation for Tribal Consultation pursuant to AB 52 was sent to all tribes identified as potentially being affected by the NAHC on September 6, 2024. None of the tribes that

were solicited accepted the request. The Tsnungwe Council did however submit an email on August 22, 2024, stating that the Tribe has no objection to the proposed Project.

Potential impacts to cultural resources would be **less than significant** with continued implementation of the cultural resource mitigation measures adopted in connection with the 2020 MND.

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less Than Significant 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 resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to energy has occurred since the 2020 MND.

a-b. The Project involves ±0.7 acres of new outdoor light deprivation cultivation within enclosed automated hoop structures, ±0.9 acre of new mixed-light cultivation enclosed within automated greenhouses, and new onsite commercial nursery, processing, non-flammable manufacturing, and distribution uses within new steel buildings (±11,703 square feet). The Project will utilize energy resources primarily through the use of artificial lighting in the proposed greenhouses, fans within the greenhouse/hoop house structures, and manufacturing extraction equipment (e.g. rosin presses). To a lesser extent, energy usage will also come from fuel use in Project related vehicles, operational lighting and climate control in the support facilities/buildings (e.g. processing, nursery, and manufacturing/distribution buildings), outdoor lighting for security purposes, automated greenhouse and hoop house systems, propane use for greenhouse heaters, fuel use for up to three 150 kW emergency backup generators, and fuel use in Project vehicles. Energy use associated with the project is estimated at 5,228,777 kWh (or 5,229 MWh).

Power for the new greenhouse, processing, distribution/manufacturing, and nursery buildings will be provided by an existing PG&E connection. The Project will obtain renewable energy through the Redwood Coast Energy Authority or a suitable equivalent source. Lighting used within the new structures and for security purpose will utilize energy efficient light bulbs and motion sensors to help minimize energy demand. Further, lighting used for mixed-light cultivation within the greenhouses will utilize energy efficient light bulbs, such as LED, and operated to the minimum extent practicable. Heaters for the new greenhouses will be operated using propane and will be supplied via two 1,000-gallon liquid propane tanks. In case of emergency, the Operator will use up to three emergency backup generators for key facility operations with risk of lost product in the event of a power failure.

The automated hoop structures are proposed as enclosed outdoor light-deprivation, and will require no artificial lighting. The greenhouses will utilize a combination of natural and artificial lighting to improve cultivation yields. For Department of Cannabis Control (“DCC”), the outdoor

light-deprivation component of the Project is anticipated to be classified as Mixed-Light Tier 1 and the mixed-light component classified as Mixed-Light Tier 2. All new outdoor lighting will be the minimum lumens required for security purposes.

The property is serviced by an existing PG&E service line, and no new or expanded energy facilities are needed in connection with the Project. Further, the Project will only use the minimum amount of energy necessary for site activities and will not result in a wasteful consumption of energy. Therefore, a **less than significant impact** would occur with respect to energy.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less Than Significant 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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. 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?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to geology and soils has occurred since the 2020 MND.

a.i. There are no earthquake faults delineated on Alquist Priolo Fault Zone maps within the Project area according to online geologic maps produced by the California Division of Mine and Geology (https://maps.conservation.ca.gov). Since the Project area does not contain a known active fault and is not within 200 feet of an active fault trace, surface fault rupture is not considered to be a significant hazard for the Project site. Therefore, the Project will not expose people or structures to substantial adverse effects from a fault rupture, and ***no impact*** would occur.

a.ii. 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. Because the Project site is located within a seismically active area, some degree of ground motion resulting from seismic activity in the region could occur during the long-term operation of the Project; however, all new buildings will be required to meet the requirements of California Building Code, which addresses seismic requirements. The State of California provides minimum standards for building design through the California Building Code (CBC; California Code of Regulations Title 24). 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. Any structures proposed as part of the Project are required to be constructed in accordance with the California Building Code and comply with County building permit requirements. Therefore, a **less than significant impact** would occur relating to earthquake faults and strong seismic ground shaking.

a.iii. According to online geologic maps produced by the California Division of Mine and Geology (https://maps.conservation.ca.gov), the Project site is not designated as an area subject to liquefaction. The Project would not expose people or structures to potential substantial adverse effects related to seismic-related ground failure, including liquefaction, and **no impact** would occur.

a.iv. According to the Humboldt County Web GIS system, no historic landslides are designated in or near the Project area. The Project parcels and immediately surrounding area are designated with a stability rating of 1 (low instability) or 2 (moderate instability). The Project area itself does not contain any areas of known slope instability. Therefore, the Project will not expose people or

structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, and **no impact** will occur.

b. The Project does not involve the removal of any trees within the Project area, or vegetation outside of the Project footprint that could result in erosion. Incidental grading to prepare a level surface for the new metal building foundations, the concrete soils storage area south of the access road, and the concrete foundation for emergency generator and propane tank facilities is anticipated.

A licensed engineer was retained to prepare an assessment of existing and proposed drainage conditions, including recommendations for stormwater control measures. Runoff from new impervious surfaces will be managed through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. Based on the hydrology assessment, a total of twelve 5,000-gallon tanks have been incorporated into the project design to retain site runoff.

The Project will continue to maintain and update its coverage under SWRCB Order WQ 2019-0001-DWQ, which prescribes Best Practicable Treatment or Control measures to control runoff and erosion, including monitoring of erosion control measures during and after design storm events, and repair or replacement, as needed, of ineffective erosion control measures immediately.

Given the design elements of the Project, as well as implementation of BMPs and BPTC measures, the Project is not expected to result in significant soil erosion or loss of topsoil during the construction phase or for the life of the Project. Therefore, the Project will not result in substantial soil erosion or the loss of topsoil, and a **less than significant impact** would occur.

c. According to the Humboldt County Web GIS system, no historic landslides are designated in or near the Project area. The Project parcels and immediately surrounding area are designated with a stability rating of 1 (low instability) or 2 (moderate instability). The Project area itself does not contain any areas of known slope instability. According to online geologic maps produced by the California Division of Mine and Geology (https://maps.conservation.ca.gov), the Project site is not designated as an area subject to liquefaction. Therefore, 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 **no impact** would occur.

d. Expansive soils possess a “shrink-swell” characteristic. Shrink/swell potential is the relative change in volume to be expected with changes in moisture content, that is, the extent to which the soil shrinks as it dries out or swells when it gets wet. The 2020 MND found that no expansive soils were identified on the Project site; therefore, **no impact** from expansive soils is expected.

e. The Project will be served by a new on-site wastewater treatment system to be reviewed and approved by the County Department of Environmental Health. The system will be located on the northeastern boundary of the Project area, as shown on the proposed Site plan. The system was designed by Whitchurch Engineering, who conducted a septic suitability assessment and

determined that the soils at the Project Site are capable of supporting a new wastewater treatment system of adequate size for the Project. This septic system will service Project's 20 full time employees, while the remaining 20 seasonal employees will be serviced by the existing portable toilets, handwashing facilities, and bottled drinking water. Therefore, a **less than significant** relating to the use of septic tanks would occur.

f. In 2018, a Cultural Resources Investigation was prepared for the Existing Operation by Archaeological Research and Supply Company (updated April 2020). No historic or prehistoric resources were identified during the investigation. The 2020 MND found that no unique paleontological or geologic features are known to exist on the Project site and therefore a less than significant impact. Given the Project proposes ground disturbances from grading, the Applicant will continue to implement existing conditions of approval related to inadvertent discovery to address the unlikely event that buried paleontological resources are discovered during Project activities. Potential impacts to paleontological resources would be **less than significant** with continued implementation of the geological mitigation measures adopted in connection with the 2020 MND.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to greenhouse gas emissions has occurred since the 2020 MND.

a,b. The NCUAQMD does not have established significance thresholds for evaluating the impacts of a project's greenhouse gas (GHG) emissions. According to the NCUAQMD website, in 2011, the NCUAQMD adopted Rule 111 (Federal Permitting Requirements for Sources of Greenhouse Gases) into the District rules, to establish a threshold above which New Source Review and federal Title V permitting applies, and to establish federally enforceable limits on potential to emit greenhouse gases for stationary sources; however, according to the NCUAQMD, these are considered requirements for stationary sources and should not be used as a threshold of significance for CEQA evaluations.

GHG emissions associated with proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust, worker and vendor trips, and material haul trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. The hoop structures are proposed as outdoor light-deprivation and will require no artificial lighting. The greenhouses will utilize a combination of natural and artificial lighting to improve cultivation yields.

As noted above, neither the NCUAQMD nor Humboldt County has established thresholds of significance for evaluating a project's GHG emissions. Since there are no applicable thresholds for projects in the Air District or Humboldt County, the NCUAQMD recommends the use of thresholds and guidance provided by other air districts in the State such as the Bay Area Air Quality Management District (BAAQMD). The BAAQMD has developed project screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant impacts related to greenhouse gas emissions. Projects below the applicable screening criteria would not exceed the 1,100 metric tons (MT) of CO2e/yr GHG threshold established by the BAAQMD for land use projects, other than permitted

stationary sources. The BAAQMD has not established a threshold of significance for this type of project as it is agricultural rather than commercial or industrial.

CalEEMod was used to predict GHG emissions from operation of the project assuming full buildout.

Construction GHG Emissions

GHG emissions associated with construction were calculated to be 371 MT of CO2e. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the County nor NCUAQMD have an adopted threshold of significance for construction related GHG emissions. However, these emissions are being quantified and disclosed for informational purposes.

Operational GHG Emissions

The CalEEMod model, along with the project vehicle trip generation rate, were used to estimate daily emissions associated with operation of the proposed project. As shown in the table below, the annual emissions resulting from operation of the proposed project are estimated to be 1,165 MT of CO2e in 2025 and 1,148 MT of CO2e in 2030. By using 100-percent renewable energy, required by Humboldt County, the Project emissions would be below 200 MT of CO2e/year.

Source Category	Proposed Project (MT CO2e/yr)	
	2025	2030
Area	1	1
Energy Consumption	981	981
Mobile	161	144
Solid Waste Generation	19	19
Water Usage	1	1
Refrigeration	2	2
Total Emissions (MT CO2e/yr)	1,165	1,148
Reduction with 100% Renewable Energy Commitment	(981)	(981)
Total Mitigated Emissions (MT CO2e/yr)	184	167

As shown, approximately 84 percent of the project's GHG emissions are a result of energy consumption. The CalEEMod default PG&E intensity factors for GHG pollutants were used to develop the emissions estimates. The applicant proposes using 100 percent renewable energy through the RCEA CCE REpower+ Program. This commitment would effectively mitigate the project's GHG emissions impacts and a **less than significant impact** would occur.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e. For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to hazards and hazardous materials has occurred since the 2020 MND.

a,b. The 2020 MND found that the Existing Operation's use and storage of conventional agricultural products such as fuels, fertilizers, pesticides, and other potentially hazardous materials would have a less than significant impact. The analysis included vehicles and small farming equipment that use petroleum products (gasoline and diesel fuel), vehicle fluids and lubricants with these fuels and oil products being contained within the vehicles themselves, and a minimal amount (less than 110 gallons) of fuel/oils stored onsite within the existing approved Conex type storage containers located south of the access road. In addition, fertilizers were to be stored within these locked storage containers consistent with the County of Humboldt Environmental Health Department's hazardous materials storage requirements.

The proposed Project will continue to use small farm equipment and store gasoline/diesel in quantities analyzed by the 2020 MND; however, the six to eight 1,000-gallon manufactured propane tanks propose will be placed on concrete footings located throughout the site. Liquid propane deliveries and regular propane tank maintenance will be handled by a licensed propane distributor/professional. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed. If the Project begins to handle any individual hazardous material or mixture containing a hazardous material which has a quantity at any time during the reporting year equal to or greater than those listed CA Health & Safety Code § 25503.5, the Applicant will complete a Hazardous Material Business Plan ("HMBP") and submit a copy to the local agency (Humboldt County DHHS Division of Environmental Health).

Fertilizer and pesticides would continue to be stored in the existing locked Conex type shipping containers; however, given the expanded cultivation practices, fertilizers may need to be stored in greater quantities. In a single month, the project may store up to 200 pounds of nitrogen and up to 55 pounds of phosphorous. The Applicant does not anticipate the storage of pesticides or fertilizers in reportable quantities under a HMBP.

As part of the proposed cultivation, common agricultural chemicals (e.g., pesticides and fungicides) would be applied to the cannabis plants to address pest and mold issues. According to the California Department of Pesticide Regulation, pesticide application is generally advised a minimum of 300 feet from sensitive receptors (e.g. residences). Given the relatively remote location of the Project site, application of pesticides will be more than 300 feet from the nearest offsite residence located east of the Project site.

The Project would comply with the Ordinance 2.0 performance standards for the management of waste and hazardous material. In addition, the Project would comply with the hazardous materials control measures of SWRCB Order WQ 2019-0001-DWQ. The SWRCB program has terms 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 be consistent with product labeling and be managed to ensure that they will not enter or be released into surface or groundwater;
- Petroleum products and other liquid chemicals be stored in containers and under conditions appropriate for the chemical with impervious secondary containment;

- Implementation of spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite; and
- Irrigate and apply fertilizer consistent with crop needs (i.e. agronomic rates).

The Project activities will not produce wastewater discharge since the irrigation water and fertilizers will be administered at specific agronomic rates that will allow maximum uptake by the plants and prevent excess water beyond the root zone.

With limited handling and the appropriate storage, handling, and application practices that comply with the requirements of the SWRCB and Humboldt County, it is not anticipated that the use of these materials at the facility will pose a significant hazard. In the event of foreseeable upset and accident conditions, it is unlikely that these hazardous materials would be released in a manner that would create a significant hazard to the public or the environment.

Therefore, the Project will not create a significant hazard to the public or the environment through routine transport, use, and disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. A ***less than significant impact*** would occur.

c. There are no schools located within one-quarter mile of the Project site. Therefore, the Project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or pro-posed school, and ***no impact*** would occur.

d. The State's Hazardous Waste and Substances Sites List (Cortese List, Government Code Section 65962.5) identifies sites with leaking underground fuel tanks, hazardous waste facilities subject to corrective actions, solid waste disposal facilities from which there is a known migration of hazardous waste, and other sites where environmental releases have occurred.

According to review of the information available on the SWRCB Geotracker and the DTSC Envirostor websites, there are no open cases regarding impacted soil and groundwater from Leaking Underground Storage Tanks (LUSTs) or other sources located within the Project area. The SWRCB Geotracker website identifies a closed LUST case on an adjacent industrial parcel to the southeast (T0602300503) that was granted "Completed – Case Closed" status in August 2004 following remediation of contaminated soil associated with an underground storage tank formerly located adjacent to the existing commercial metal building in the southeastern portion of the adjacent industrial parcel.

Therefore, the Project is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. ***No impact*** would occur.

e. The Project is not within two miles of a public airport (Hoopa Airport is >10 miles to the north) and is not within the vicinity of a private airstrip (Mercer-Fraser Willow Creek is > 4 miles to the

north). Therefore, the Project would not result in a safety hazard for people residing or working in the Project area, and ***no impact*** would occur.

f. The Project would be required to comply with the State Minimum Fire Safe Regulations. The State Minimum Fire Safe Regulations provide specific standards for roads providing ingress and egress, signage, and setback distances for maintaining defensible space. The Project site is accessed by existing encroachments/roads off of Friday Ridge Road. As such, the Project would not impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a ***less than significant impact*** would occur.

g. Fire protection in Humboldt County is provided by local districts, cities, and CalFire. The Project site is located within the Willow Creek Fire Protection District. CalFire identifies fire hazard severity zones in State Responsibility Areas (SRA) throughout California. The Project site is located in a high fire hazard severity zone within the SRA (CalFire 2007). 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 2020 MND found that the Existing Operation and its associated activities would result in a less than significant impact related to wildland fires.

The Project has been designed to comply with State Minimum Fire Safe Regulations, which provide specific standards for roads providing ingress and egress, signage, and setback distances for maintaining defensible space. The Project includes 7 existing and 12 new 5,000-gallon water storage tanks that can be used for fire suppression. The site and access roads will be maintained in a state such that they are paved/graveled or free of vegetation during times of activity. Fuels and other potentially flammable chemicals will be stored in containers designed for fuel storage that includes secondary containment and a HMBP will be maintained (if applicable regulatory thresholds are exceeded) that outlines storage requirements and spill response procedures. Liquid propane will be stored in the appropriate industry manufactured tanks with deliveries and regular propane tank maintenance to be handled by a licensed propane distributor/professional. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed. The risk of causing a wildfire would not be significant as a result of cultivation operations.

New buildings at the site for distribution/manufacturing, processing, and nursery activities will be constructed to meet the State of California's standards for building design through the California Fire Code (CFC; California Code of Regulations Title 24 Chapter 9). These structures will be equipped with the appropriate fire detection, alarm, and suppression systems. Where no other fire codes apply, the CFC regulates buildings, structures, processes, premises, and a reasonable degree of life and property safeguards regarding the following:

1) The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices.

2) Conditions hazardous to life, property or public welfare in the use or occupancy of buildings, structures ore premises.
3) Fire hazards in the buildings, structures or on premises from us of, occupancy of, or operation.
4) Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.
5) Conditions affecting the safety of fire fighters and emergency responders during emergency operations.

Based on the Project's design, a **less than significant impact** related to wildland fires will occur.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant 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 groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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 result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or off-site	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to hydrology and water quality has occurred since the 2020 MND.

a, c. Two drainages containing Ordinary High Water Mark (OHWM) indicators have been mapped on the Project site. The OHWM areas are tributaries to the main stem of the Trinity River. These tributaries are seasonally flowing watercourses and do not contain water during the summer months. A 50-foot setback will be maintained from the top of bank or edge of riparian dripline (whichever is greater) from these ephemeral watercourses, consistent with the requirements of WQ 2017-0023-DWQ and the County's Streamside Management Areas and Wetland Ordinance.

The Project site's hydrology has been historically altered by the stormwater drainage from Friday Ridge Road (to the west) being diverted onto site's existing hillslope. A portion of the Friday Ridge Road stormwater runoff is conveyed through an in-board roadside ditch diverting water east under the road through a culvert into the Project area on the south side of the main entry and east-west site access road. On the northwest side of the Project area an existing ditch conveys intercepted runoff around the project site so that it does not run onto the Project area. Existing slopes across the site range from 4 to 15 percent with runoff generally flowing from west to east.

The Project site is currently enrolled (WDID:1_12CC428884) in the State Water Resources Control Board (SWRCB) General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Order WQ 2019-0001-DWQ).

Incidental grading to prepare a level surface for the new metal building foundations, the concrete soils storage area south of the access road, and the concrete foundation for emergency generator and propane tank facilities is anticipated.

A licensed engineer was retained to prepare an assessment of existing and proposed drainage conditions, including recommendations for stormwater control measures. Runoff from new impervious surfaces will be managed through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. Based on the hydrology assessment, a total of twelve 5,000-gallon tanks have been incorporated into the project design to retain site runoff.

The Project would comply with the CMMLUO performance standards. In addition, the Project would comply with the hazardous materials control measures of SWRCB Order WQ 2017-0023-DWQ. 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 be consistent with product labeling and be managed to ensure that they will not enter or be released into surface or groundwater.
- Petroleum products and other liquid chemicals be stored in containers and under conditions appropriate for the chemical with secondary containment.
- Implementation of spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.

In addition, SWRCB Order WQ 2017-0023-DWQ prescribes Best Practicable Treatment or Control measures to control runoff and erosion, including monitoring of erosion control measures during and after design storm events, and repair or replacement, as needed, of ineffective erosion control measures immediately.

Given the water quality protection measures implemented as part of the existing operation and to be modified in connection with the project changes, it is not anticipated that the Project would violate any water quality standards or waste discharge requirements or otherwise degrade water quality, and impacts would be ***less than significant***.

b, e. Consistent with existing conditions, water for irrigation and fire suppression will primarily be supplied by three existing permitted on-site groundwater wells

Water is pumped from the wells to temporary holding tanks for regulating water pressure, and then piped from the tanks to the area of cultivation. At all times, water is applied using no more than the agronomic rates using an automated irrigation system. Well water usage will be supplemented with newly proposed rain catchment from 12 new 5,000-gallon tanks (60,000 gallons). These tanks will be filled during the wet season and their usage will be prioritized over well supplies, when possible, to minimize pressures from groundwater extraction.

The currently approved project was analyzed assuming annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons). An updated assessment of the Project's water demand, using more accurate irrigation assumptions and historical irrigation data, found that the Project's annual water demand is estimated to be approximately 7 acre-feet (2.3 million gallons), with a monthly maximum of approximately 1.34 acre-feet (437,000 gallons).

The combined output of the three existing on-site groundwater wells is approximately 0.18 acre-feet (58,000 gallons) per day, indicating sufficient water supply to service the irrigation demands of the Project.

As documented by the well driller (Fisch Drilling), the wells are drilled into "perched bedrock with no hydraulic connection to any surface water or any part of a larger shallow homogeneous aquifer."

Given the design of the Project and demonstration of adequate water supply using existing groundwater wells, the Project is not anticipated to substantially deplete groundwater supplies or affect the production rate of nearby wells, and a ***less than significant impact*** would occur.

d. The Project is not located near a large body of water capable of producing a seiche, is not located near the coast in a tsunami inundation area, and is not located in a 100-year flood zone. As a result, the Project would have ***no impact*** from release of pollutants due to inundation from seiche, tsunami, or floods***.***

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to land use and planning has occurred since the 2020 MND.

a. The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change. The predominant land uses in the vicinity of the site include additional land holdings of the Project applicant, State Highway 299 (east), scattered rural residential (further east of Highway 299), and open space/recreation associated with the Six Rivers National Forest and Trinity River (south and west). The existing site does not block or impede Friday Ridge Road, which runs west and south of the site. The 2020 MND found that the existing operation and its greater boundary would not divide any established communities and no impact would occur as the site's parcels are a component of a large private land holding (500 acres+) of the Applicant.

The proposed Project and all of its elements will remain within the approved project boundary and would not result in new or different impacts that would divide any established communities. **No impact** would occur.

b. The 2020 MND found that the Existing Operation would not result in changes to existing land use, zoning, or specific plans in Humboldt County. The Existing Operation 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. Further, it established that the site is not located within the boundaries of a Humboldt County Habitat Conservation Plan (e.g. Green Diamond Resource Company California Timberlands & Northern Spotted Owl, Humboldt Redwood Company, or Regli Estates) or Natural Community Conservation Plan.

The Project area is zoned Agriculture General (AG). The proposed Project and all of its elements will remain within the approved project boundary. Under the County Zoning Regulations, Title III, Division 1, Chapter 4, principal permitted uses in the AG zone include general agriculture with accessory agricultural uses and structures. Outdoor, mixed-light, and light depravation cultivation and support cannabis facilities (i.e. nursery, processing, manufacturing, and distribution) are allowed on AG zoned parcels with the applicable clearance or permit under Ordinance 2.0. Land uses and zoning would continue to remain unchanged.

As a result, **no impact** would occur.

XII. MINERAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant 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 the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to mineral resources has occurred since the 2020 MND.

a-b. The 2020 MND found that the Existing Operation's site does not include any lands that are classified as MRZ-2 or any known locally important mineral resources. Implementation of the proposed Project within the existing approved site boundary would not result in the loss of availability of a known mineral resource, would not result in the loss of availability of a locally important mineral resource recovery site, and therefore ***no impact*** would occur.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less Than Significant 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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to noise has occurred since the 2020 MND.

a. The Project parcels are a component of a large private land holding (500 acres+) of the Project applicant. The surrounding vicinity is sparsely populated with the closest offsite residence located approximately 1,000 feet east, separated by Hwy. 299, significant vegetation, and greater than 200 feet in elevation change. The predominant land uses in the vicinity of the Project include additional land holdings of the Project applicant, State Highway 299 (east), scattered rural residential (further east of Highway 299), and open space/recreation associated with the Six Rivers National Forest and Trinity River (south and west).

Project activities are not expected to generate significant noise levels that will exceed the Humboldt County General Plan Noise Element standards. Vehicle use, fans, and small agricultural support equipment (e.g., ATVs and forklifts) would be the greatest source of noise from ongoing operations.

A noise assessment was prepared by a licensed engineer analyzing existing conditions at the facility in comparison to proposed project activities. The noise study determines that the proposed structures and existing topography, vegetation, and contours are anticipated to attenuate project sound to below the 3 dB increase required in the CCLUO

and that the proposed sound levels do not exceed the maximum allowable within the HCGP for an AG zoned parcel. Therefore, a ***less than significant impact*** would occur.

b. The closest land uses potentially impacted from groundborne vibration and noise are the single-family residential units located a minimum of 1,000 feet to the east of the Project site, separated by Hwy. 299 and a significant elevation change. No uses are proposed that would generate excessive groundborne vibration. ***No impact*** would occur.

c. The Project is not within two miles of a public airport and is not within an airport land use plan or the vicinity of a private airstrip. Therefore, the Project would expose people to excessive air traffic noise, and ***no impact*** would occur.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to population and housing has occurred since the 2020 MND.

a-b. Consistent with the 2020 MND, the proposed Project would not directly induce population growth because it proposes no residential development. It would not indirectly induce population growth because it would not increase roadway capacity, nor would it extend roads or other infrastructure into previously undeveloped areas. Further, the Project involves no displacement of existing housing or people, as neither occur on the Project site. Because the Project would not result in population growth in the area, does not involve the creation of, or necessity for, new housing, and would not displace existing housing or people, **no impact** related to population and housing would occur.

XV. PUBLIC SERVICES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provisions of 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:	☐	☐	☒	☐
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to public services has occurred since the 2020 MND.

a. Fire Protection: Fire protection in Humboldt County is provided by local districts, cities, and CalFire. The Project site is located within the Willow Creek Fire Protection District. CalFire identifies fire hazard severity zones in State Responsibility Areas (SRA) throughout California. The Project site is located in a high fire hazard severity zone within the SRA (CalFire 2007). 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 2020 MND found that the Existing Operation would not result in the need for new or physically altered fire protection facilities, and a less than significant impact would occur.

The Project has been designed to comply with State Minimum Fire Safe Regulations, which provide specific standards for roads providing ingress and egress, signage, and setback distances for maintaining defensible space. The Project includes 7 existing and 12 new 5,000-gallon water storage tanks that can be used for fire suppression. The site and access roads will be maintained in a state such that they are paved/graveled or free of vegetation during times of activity. Fuels and other potentially flammable chemicals will be stored in containers designed for fuel storage that includes secondary containment. Liquid propane will be stored in the appropriate industry manufactured tanks with deliveries and regular propane tank maintenance to be handled by a licensed propane distributor/professional. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed. The Applicant does not anticipate the storage of pesticides or fertilizers in reportable quantities; however, the propane storage tanks will require an HMBP that outlines storage requirements and spill response procedures.

New buildings at the site for distribution/manufacturing, processing, and nursery activities will be constructed to meet the State of California's standards for building design through the California Fire Code (CFC; California Code of Regulations Title 24 Chapter 9). These structures will be equipped with the appropriate fire detection, alarm, and suppression systems. Where no other fire codes apply, the CFC regulates buildings, structures, processes, premises, and a reasonable degree of life and property safeguards.

Based on the Project's Design and compliance with State fire safe requirements and the CFC, it is not anticipated that the Project will result in a significant increase in the number of calls-for-service related to fire. As such, the Project will not result in the need for new or physically altered fire protection facilities, and a ***less than significant impact*** would occur.

Police Protection: The Humboldt County Sheriff's Office is responsible for law enforcement in the unincorporated areas of the County. 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 50 minutes because of longer travel distances, varied topography, available resources, and the location of the Sheriff Deputy on patrol in relation to the incident.

The 2020 MND found that the existing outdoor cannabis operation would result in a less than significant impact to police protection facilities through the implementation of its security plan. To address potential security issues for the proposed Project, the Applicant will continue to implement the existing approved security measures (i.e. alarms, security cameras, etc.). In addition, the Applicant will implement the proposed security plan contained in the updated Operations Plans plan prepared for the Project. Implementation of the security plan measures will minimize impacts on local law enforcement. As such, the Project will not result in the need for new or physically altered law enforcement facilities, and a **less than significant** impact would occur.

Schools, Parks, Other Public Facilities: Since the Project does not propose residential development and will not significantly increase the population in the Willow Creek area, the Project would not create a need for new schools, increase any school population, or increase the

demand for public parks or other public facilities such as public health facilities and libraries. As a result, **no impact** would occur.

XVI. RECREATION.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project 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?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to recreation has occurred since the 2020 MND.

a-b. Consistent with the 2020 MND, the Project does not involve the creation of new housing and would not result in population growth in the area. Similarly, new recreational facilities are not proposed as part of the Project and the demand for such facilities would not increase with implementation of the Project. Therefore, because the Project would not result in any increase in the use of, or demand for, parks or recreation facilities, **no impact** related to recreation would occur.

XVII. TRANSPORTATION *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to transportation has occurred since the 2020 MND.

a,b. The existing site accessed from an existing driveway entrance off of State Highway 299 and Friday Ridge Road. The Existing Operation utilizes an existing unpaved access road with an approximate 30'+ wide entrance off of Friday Ridge Road (western portion of parcel) that extends through the cultivation area to the east and to the north. This internal access road also extends further to the east to the parcel boundary. The existing operation utilizes less than 0.4 miles of Friday Ridge Road (a Category 4 roadway) before reaching the intersection of Hwy. 299. Hwy. 299 near Friday Ridge Road is a two-lane highway. Its intersection at Friday Ridge Road-Martin Road is a four-way intersection. The north leg, Martin Road in the north and the south leg, Friday Ridge Road in the south are two-lane county roads and are both controlled by stop signs at the Hwy 299 intersection approaches. There are no traffic-controlled signs at the Hwy 299 approaches. All four approaches at the intersection are widened to accommodate left/through and right-turn vehicle movements side by side simultaneously. The terrain along this section of Hwy 299 is mostly flat and gentle. According to a traffic count obtained from Caltrans, Hwy 299 in the vicinity of Friday Ridge Road carries about 1,000 vehicles combined in both directions during the peak hour.

The 2020 MND found that the anticipated total of 24 round trips per day (comprising of 16 employee round trips, 4 transport trips, and 4 additional misc. service trips per day) during peak harvest time for the Existing Operation would not conflict with a program, plan, ordinance, or

policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities and a less than significant impact would occur. The amount of vehicle/truck traffic proposed by the existing operation equates to 2.4% of the traffic load during peak hours for Hwy 299.

The Project anticipates an increase in round trips of 21 trips per day depending upon the season and stage of development. The peak season traffic demand of 45 round trips per day is a combination of employees, delivery, and other traffic. The net result of the increased traffic demand equates to 2.1% of the peak vehicle/truck load for Hwy 299.

No changes to access or traffic routes are proposed. There are currently no public transit facilities serving the Project site, and no existing or proposed bicycle or pedestrian facilities in the Project area.

Due to the limited amount of traffic associated with the Project, it would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities or CEQA Guidelines section 15064.3(b). A **less than significant impact** would occur.

c. The 2020 MND found that the Existing Operation would not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersection) or incompatible uses (e.g. farm equipment), and a less than significant impact would occur.

The proposed Project and all of its elements would continue to use existing public roadways to access the Project site and would use the existing gravel access roads internal to the Project site. The existing access road would be expanded by approximately 650 linear feet to accommodate the newly proposed facilities. The new and existing internal access roads would be improved to standards consistent with the envisioned level of use. The Project does not include construction of roads outside of the Project site. All activities associated with operation of the Project would occur entirely within the Project site and would not involve driving or operating farm equipment external to the site. On public roads, delivery trucks and employee vehicles would use public roadways when traveling to and from the Project site. Therefore, the Project would not result in hazards due to incompatible uses.

The Project will not substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersection) or incompatible uses (e.g. farm equipment), and a **less than significant impact** would occur.

e. The Project would use existing roadways (Friday Ridge Road) and encroachments to access the Project site. The Project also proposes to improve existing access roads within the Project site and construct parking areas to serve the proposed cannabis use. The Project will be required to comply with State Minimum Fire Safe Regulations. The State Minimum Fire Safe Regulations provide specific standards for roads providing ingress and egress, signage, and setback distances for maintaining defensible space. Compliance with State Minimum Fire Safe Regulations will ensure

that adequate access for emergency vehicles is provided. Therefore, the Project will result in adequate emergency access, and **a less than significant impact** would occur.

XVIII. TRIBAL CULTURAL RESOURCES.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 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:	☐	☐	☒	☐
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	☐	☐	☒	☐
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 (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to tribal cultural resources has occurred since the 2020 MND.

a. In 2018, a Cultural Resources Investigation was prepared for the Existing Operation by Archaeological Research and Supply Company (updated April 2020). The investigation of tribal cultural resources potentially affected by the outdoor cannabis operation included a records search through the California Historical Resources Information System's regional Northwest Center (NWIC), Native American Heritage Commission (NAHC) inquiry, coordination with local tribes, and pedestrian survey of the site. In addition, Bob Benson of the Tsnungwe tribe conducted a field visit with Archaeological Research and Supply Company in May 2018.

No historic or prehistoric resources were identified during the investigation. There is one ethnographic village site (Tsunungwe village site) that is eligible for the California Registry of

Historic Places on the adjacent parcel to the south of the current Project area, however; zero artifacts or associated cultural resources were identified as a result of the investigation. The site has been subjected to past activities that may have disturbed evidence of prehistoric use.

The cultural resources study concluded that the site development will not impact tribal cultural resources as a result of ground disturbances if a heightened inadvertent discovery protocol is implemented, which is a current condition of approval. This conclusion is still applicable as the Project and all of its elements are proposed within the existing approved permit boundary.

An invitation for Tribal Consultation pursuant to AB 52 was sent to all tribes identified as potentially being affected by the NAHC on September 6, 2024. None of the tribes that were solicited accepted the request.

Outreach to the Tsunungwe Tribe was performed by the project applicant, with the tribe responding that they had “no objection” to the proposed project (Benson; August 2024).

Potential impacts to tribal cultural resources would be **less than significant** with continued implementation of the cultural resource mitigation measures adopted in connection with the 2020 MND.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less Than Significant 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, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the waste water 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. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructures, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to utilities and service systems has occurred since the 2020 MND.

a. Water Supply: The 2020 MND found that the existing outdoor cannabis operation's estimated annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons) during the month of July, would have a less than significant impact.

Consistent with existing conditions, water for irrigation and fire suppression will primarily be supplied by three existing permitted on-site groundwater wells

Water is pumped from the wells to temporary holding tanks for regulating water pressure, and then piped from the tanks to the area of cultivation. At all times, water is applied using no more than the agronomic rates using an automated irrigation system. Well water usage will be supplemented with newly proposed rain catchment from 12 new 5,000-gallon tanks (60,000 gallons). These tanks will be filled during the wet season and their usage will be prioritized over well supplies, when possible, to minimize pressures from groundwater extraction.

The currently approved project was analyzed assuming annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons). An updated assessment of the Project's water demand, using more accurate irrigation assumptions and historical irrigation data, found that the Project's annual water demand is estimated to be approximately 7 acre-feet (2.3 million gallons), with a monthly maximum of approximately 1.34 acre-feet (437,000 gallons).

The combined output of the three existing on-site groundwater wells is approximately 0.18 acre-feet (58,000 gallons) per day, indicating sufficient water supply to service the irrigation demands of the Project.

Wastewater Treatment: The 2020 MND found that the 16 full-time equivalent employees could be serviced by portable toilets, handwashing facilities, and bottled water resulting in a less than significant impact.

The proposed Project's 20 full time employees will be served by a new on-site wastewater treatment system to be reviewed and approved by the County Department of Environmental Health, while the remaining 20 seasonal employees will be serviced by the existing portable toilets, handwashing facilities, and bottled drinking water. The septic system will be located on the northeastern boundary of the Project area, as shown on the proposed Site plan. The system was designed by Whitchurch Engineering, who conducted a septic suitability assessment and determined that the soils at the Project Site are capable of supporting a new wastewater treatment system of adequate size for the Project.

Stormwater: A licensed engineer was retained to prepare an assessment of existing and proposed drainage conditions, including recommendations for stormwater control measures. Runoff from new impervious surfaces will be managed through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. Based on the hydrology assessment, a total of twelve 5,000-gallon tanks have been incorporated into the project design to retain site runoff.

Electric: Power for the new greenhouse, processing, distribution/manufacturing, and nursery buildings will be provided by an existing PG&E connection. The Project will obtain renewable energy through the Redwood Coast Energy Authority or a suitable equivalent source. Lighting used within the new structures and for security purpose will utilize energy efficient light bulbs and motion sensors to help minimize energy demand. Further, lighting used for mixed-light

cultivation within the greenhouses will utilize energy efficient light bulbs, such as LED, and operated to the minimum extent practicable. Heaters for the new greenhouses will be operated using propane and will be supplied via two 1,000-gallon liquid propane tanks. In case of emergency, the Operator will use up to 3 emergency backup generators for key facility operations with risk of lost product in the event of a power failure.

Telecommunications: The Project will be serviced by existing telecommunication and internet lines, and no new or expanded telecommunications facilities are needed in connection with the Project.

The Project would not require relocation or construction of new utilities that may cause significant environmental impacts, and a ***less than significant impact*** would occur.

b. The 2020 MND found that the existing outdoor cannabis operation's estimated annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons) during the month of July, would have a less than significant impact.

Consistent with existing conditions, water for irrigation and fire suppression will primarily be supplied by three existing permitted on-site groundwater wells

Water is pumped from the wells to temporary holding tanks for regulating water pressure, and then piped from the tanks to the area of cultivation. At all times, water is applied using no more than the agronomic rates using an automated irrigation system. Well water usage will be supplemented with newly proposed rain catchment from 12 new 5,000-gallon tanks (60,000 gallons). These tanks will be filled during the wet season and their usage will be prioritized over well supplies, when possible, to minimize pressures from groundwater extraction.

The currently approved project was analyzed assuming annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons). An updated assessment of the Project's water demand, using more accurate irrigation assumptions and historical irrigation data, found that the Project's annual water demand is estimated to be approximately 7 acre-feet (2.3 million gallons), with a monthly maximum of approximately 1.34 acre-feet (437,000 gallons).

The combined output of the three existing on-site groundwater wells is approximately 0.18 acre-feet (58,000 gallons) per day, indicating sufficient water supply to service the irrigation demands of the Project.

The Project would therefore have sufficient water supply from the existing wells and new rain catchment tanks. A **less than significant impact would occur**.

c. The 2020 MND found that the 16 full-time equivalent employees could be serviced by portable toilets and handwashing facilities with a less than significant impact relating to capacity of a local wastewater treatment provider.

The proposed Project's 20 full time employees will be served by a new on-site wastewater treatment system to be reviewed and approved by the County Department of Environmental Health, while the remaining 20 seasonal employees will be serviced by the existing portable toilets, handwashing facilities, and bottled drinking water. The system was designed by licensed engineer, who conducted a septic suitability assessment and determined that the soils at the Project Site are capable of supporting a new wastewater treatment system of adequate size for the Project. The increase in demand of 4 seasonal employees during peak harvest for the portable waste facilities provider is minimal; therefore, a **less than significant impact** would occur relating to capacity of a local wastewater treatment provider.

d. The 2020 MND found that the solid waste disposal needs (i.e. cannabis and non-cannabis) of the existing operation would have in a less than significant impact to the local solid waste capacity or state/local reduction goals.

The Project involves ±0.72 acres of enclosed outdoor light deprivation within new hoop houses and ±0.87 acres of enclosed mixed-light cultivation within new greenhouses, with ±2.40 acres to remain as outdoor cannabis cultivation. In addition, the Project proposes commercial nursery, processing, non-flammable manufacturing, and distribution uses within new steel buildings (±11,703 square feet). Waste generation for the Project will continue to involve miscellaneous agricultural refuse and debris, and cannabis waste, empty soil, soil amendment, and fertilizer bags, empty plant pots or containers, and typical refuse; however, the expanded cultivation area and cannabis uses at the site will result in an increase in these waste items. Further, new non-cannabis waste generated as a result of the Project includes, but is not limited to, packaging for finished cannabis products.

To minimize waste generation from the expanded Project, packaging and refuse will be sorted to divert recyclables such as paper, plastic, glass, and metals from the waste stream and taken to a recycling center. The remaining solid wastes will be collected and deposited into a solid waste receptacle for temporary storage, which will be kept covered. The solid waste will be removed from the Site as needed and disposed of at an authorized waste transfer facility. The solid waste receptacle will be sized appropriately for the volume of waste generated and may be adjusted in size periodically as conditions warrant. It is anticipated that no more than two 5-yard dumpsters per week will be needed.

Cannabis and cannabis product waste types will include the following but are not limited to stems, stalks, degraded cannabis plant material, general cannabis biomass, extracted cannabis waste material, unusable manufactured cannabis, mispackaged cannabis products (i.e. broken cartridges with cannabis residue), cannabis or cannabis products that have failed internal quality or regulatory batch testing. Consistent with §17223 of the Department of Cannabis Control's regulations, cannabis and cannabis product waste will be managed through either or a combination of the following:

- On-site composting in designated compost area located within the fenced project boundary;

- Collection and processing of cannabis waste by a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency in conjunction with a regular organic waste collection route; or
- Self-hauling under the facilities distribution license.

According to the Humboldt County General Plan, the County, currently trucks its solid waste to a site near Medford, Oregon under a long-term contract. It has a subsequent contract to utilize a landfill located in Anderson, California. Together, the County has committed to contracts which meet its landfill disposal needs over the next 20 years. Therefore, the Project will be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs, and a **less than significant impact** would occur.

e. 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). 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 2012, the unincorporated area of Humboldt County met or exceeded the waste diversion mandate of 50 percent set by the Integrated Waste Management Act of 1989 (Humboldt County 2014).

The Project's construction and operation activities 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.

Vegetative matter such as root balls, branches, and leaves would be chipped and composted or hauled offsite and disposed of in accordance with County and State requirements.

Therefore, the Project will not violate any federal, state, and local statutes and regulations related to solid waste, and a **less than significant impact** would occur.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project. Since the 2020 MND, the site has been largely disturbed and developed to an active cannabis operation. Otherwise, no significant change to the environmental setting in relation to wildfire has occurred since the 2020 MND.

a-b. Fire protection in Humboldt County is provided by local districts, cities, and CalFire. The Project site is located within the Willow Creek Fire Protection District. CalFire identifies fire hazard severity zones in State Responsibility Areas (SRA) throughout California. The Project site is located in a high fire hazard severity zone within the SRA (CalFire 2007). 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 2020 MND found that the Existing Operation would not exacerbate wildlife risks and impacts would be less than significant.

The Project has been designed to comply with State Minimum Fire Safe Regulations, which provide specific standards for roads providing ingress and egress, signage, and setback distances for maintaining defensible space. The Project includes 7 existing and 12 new 5,000-gallon water

storage tanks that can be used for fire suppression. The site and access roads will be maintained in a state such that they are paved/graveled or free of vegetation during times of activity. Fuels and other potentially flammable chemicals will be stored in containers designed for fuel storage that includes secondary containment and a HMBP will be maintained (if applicable regulatory thresholds are exceeded) that outlines storage requirements and spill response procedures. Liquid propane will be stored in the appropriate industry manufactured tanks with deliveries and regular propane tank maintenance to be handled by a licensed propane distributor/professional. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed. The risk of causing a wildfire would not be significant as a result of cultivation operations.

New buildings at the site for distribution/manufacturing, processing, and nursery activities will be constructed to meet the State of California's standards for building design through the California Fire Code (CFC; California Code of Regulations Title 24 Chapter 9). These structures will be equipped with the appropriate fire detection, alarm, and suppression systems. Where no other fire codes apply, the CFC regulates buildings, structures, processes, premises, and a reasonable degree of life and property safeguards regarding the following:

6) The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices.
7) Conditions hazardous to life, property or public welfare in the use or occupancy of buildings, structures ore premises.
8) Fire hazards in the buildings, structures or on premises from us of, occupancy of, or operation.
9) Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.
10) Conditions affecting the safety of fire fighters and emergency responders during emergency operations.

Based on the Project's design, a **less than significant impact** related to wildland fires will occur.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially 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, substantially 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?	☐	☐	☒	☐
b. Does the project 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)?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

This Initial Study hereby incorporates by reference the prior 2020 MND and focuses solely on the potential environmental impacts of the proposed Project.

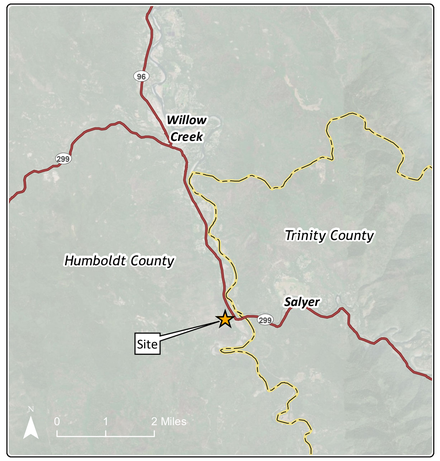
a-c. The Project generally consists of a reconfiguration of cultivation types within the permitted boundary of an existing cannabis cultivation operation. The site is fenced, and areas of proposed use are largely disturbed. The Project will continue to observe a 50-foot setback from the top of bank or edge of riparian dripline (whichever is greater) of mapped ephemeral watercourses, consistent with the requirements of WQ 2019-0001-DWQ and the County's Streamside Management Areas and Wetland Ordinance. Further, the Project will also adhere to the County's Ordinance 2.0 performance standards. All environmental effects to wildlife, cultural resources, and human beings have been analyzed, and no significant impacts will occur with continued adherence to the adopted conditions of approval and mitigation measures identified in the 2020 MND.

Further, the Project will not have impacts that are individually limited, but cumulatively considerable. This Negative Declaration documents the Project's design

features that eliminate the Project's potential impacts on the environment or minimize them to a less-than-significant level. "When there is no substantial evidence of any individual potentially significant effect by a project under review, the lead agency may reasonably conclude the effects of the project will not be cumulatively considerable." (L*eonoff v. Monterey County Bd. of Supervisors* (1990) 222 Cal.App.3d 1337, 1358; S*ierra Club v. West Side Irrigation Dist*. (2005) 128 Cal.App.4th 690, 701-702; *Hines v. California Coastal Comm'n* (2010) 186 Cal.App.4th 830, 858.)

The Project is consistent with the CCLUO and will continue to adhere to adopted conditions of approval and mitigation measures from the 2020 MND to lessen potentially significant impacts to less than significant. Therefore, impacts would be ***less than significant***.

Regional Map

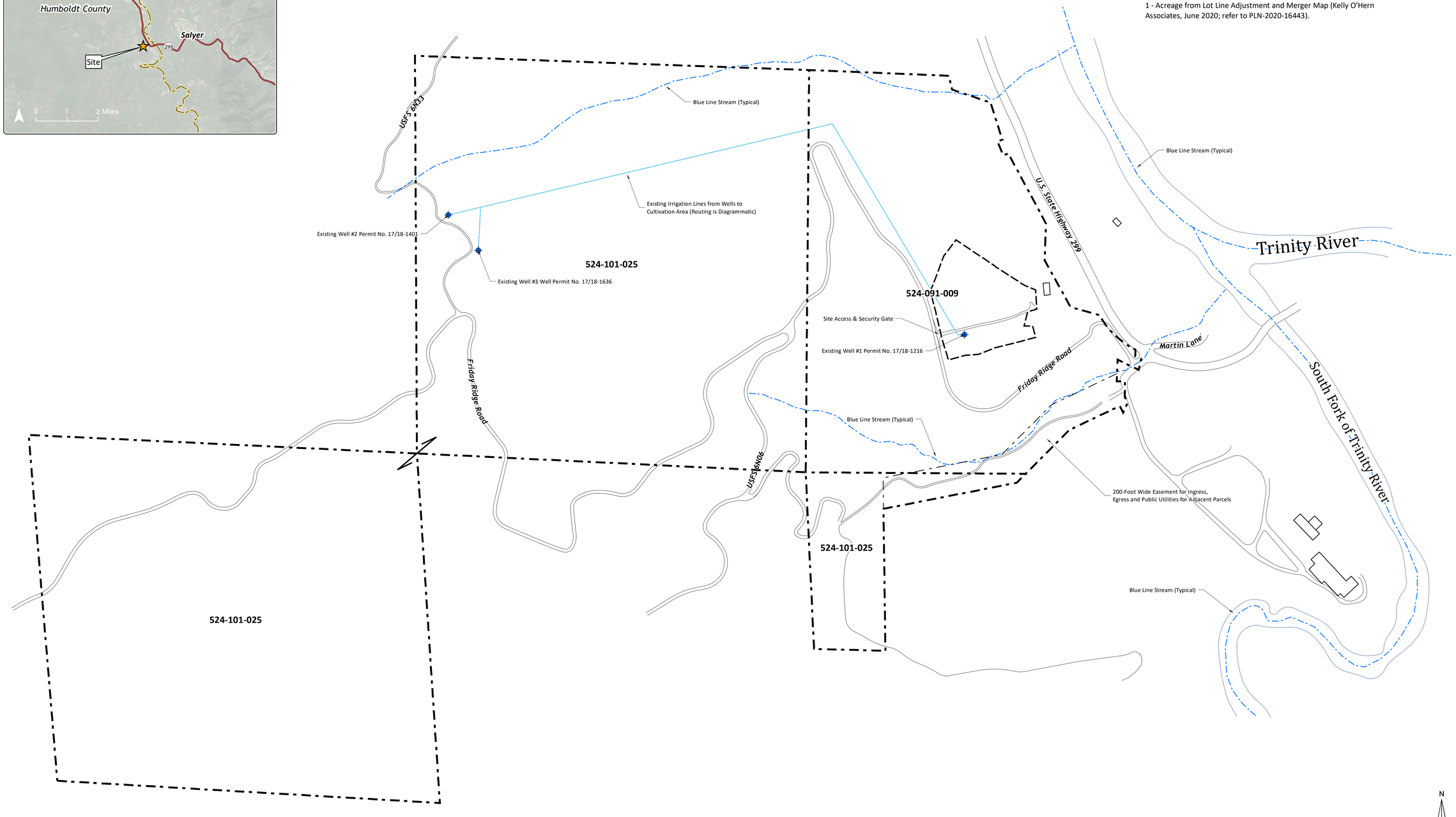


Notes

- According to FEMA Mapping there is no Flood Map for this area.
- Road and building locations shown on this site plan are per aerial mapping and are approximate.
- No trees to be removed in cultivation area. Where trees are located within the cultivation boundary, they will be avoided.
- Parcel lines indicated hereon are based on the Lot Line Adjustment and Merger Recorded in July 2020 (Refer to PLN-2020-16443).

Parcel	Acreage[1]
Parcel 1 (APNs 524-101-025 & 524-091-009)	400.01

1 - Acreage from Lot Line Adjustment and Merger Map (Kelly O'Hern Associates, June 2020; refer to PLN-2020-16443).



N
W E
S

0 300 600 1,200 Feet

1 inch = 300 feet

ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification

Site Plan

Sheet 1
Regional & Vicinity Map

April 2024

Address: 229 Friday Ridge Road, Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:

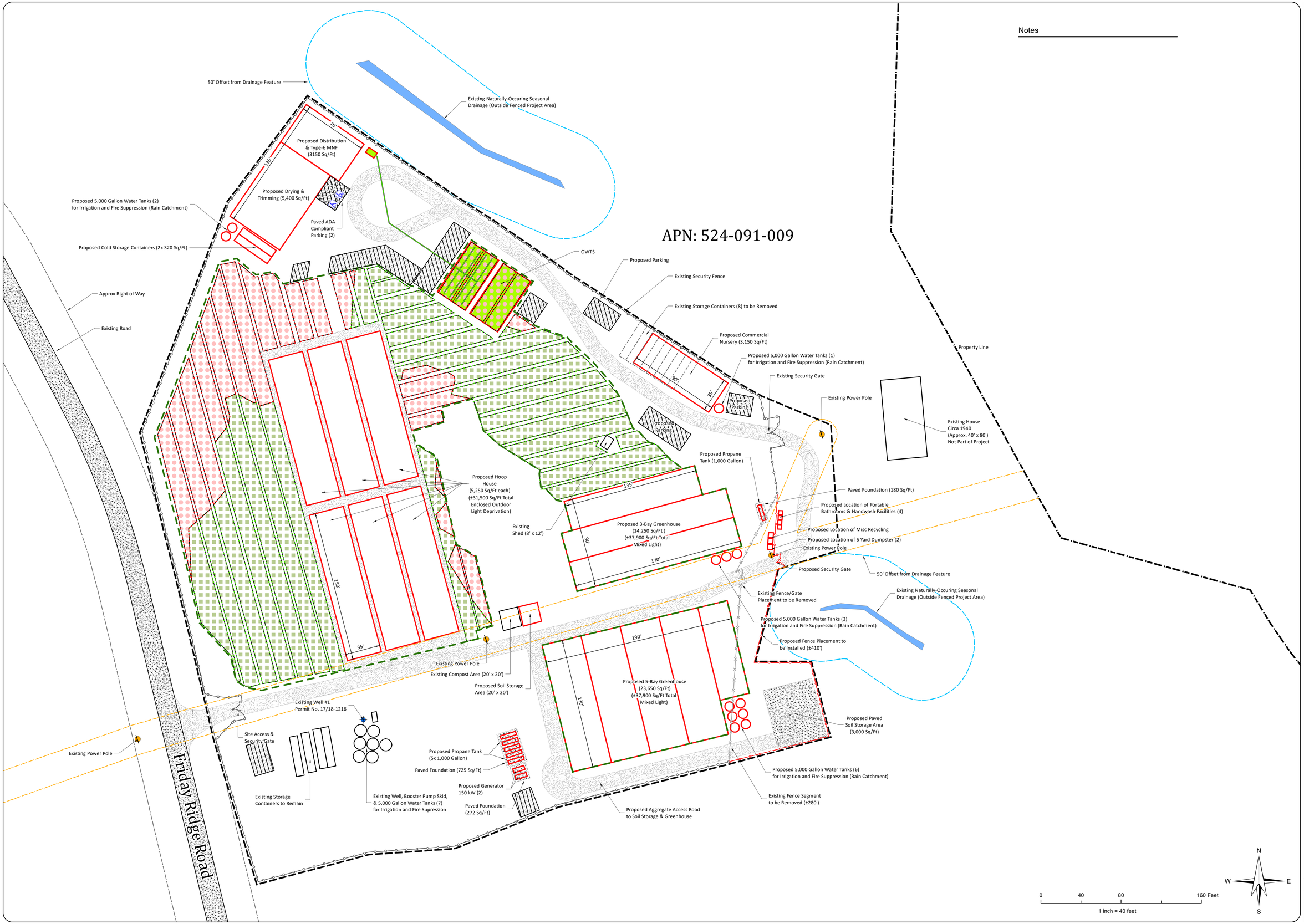
- Project Boundary
- Parcel Boundary (Parcel 1)
- Blue Line Feature
- Irrigation Lines
- Well

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave, Suite 100, McClellan Park, CA 95652

COMPASS LAND GROUP



Notes

ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification
Site Plan

Sheet 2
Site Overview

September 2024

Address: 229 Friday Ridge Road,
Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:

- Project Boundary
- Parcel Boundary
- Cultivation Area (±4.0 Acres)
- Existing Uncovered Cultivation
- Proposed Uncovered Cultivation
- Existing Structure
- Proposed Structure
- Structure to be Removed
- Concrete Surface
- C-2 Aggregate
- Existing Fence
- Existing Fence to be Removed
- Proposed Fence Placement
- Seasonal Drainage
- 50' Setback from Seasonal Drainage
- Parking (44)
- ADA Parking (2)
- Existing Well
- Power Pole
- 15' Structure Setback from PG&E Power Line
- On-Site Wastewater Treatment System (OWTS)
- OWTS Pipe

Existing road and building locations shown on this site plan are per aerial mapping and are approximate.

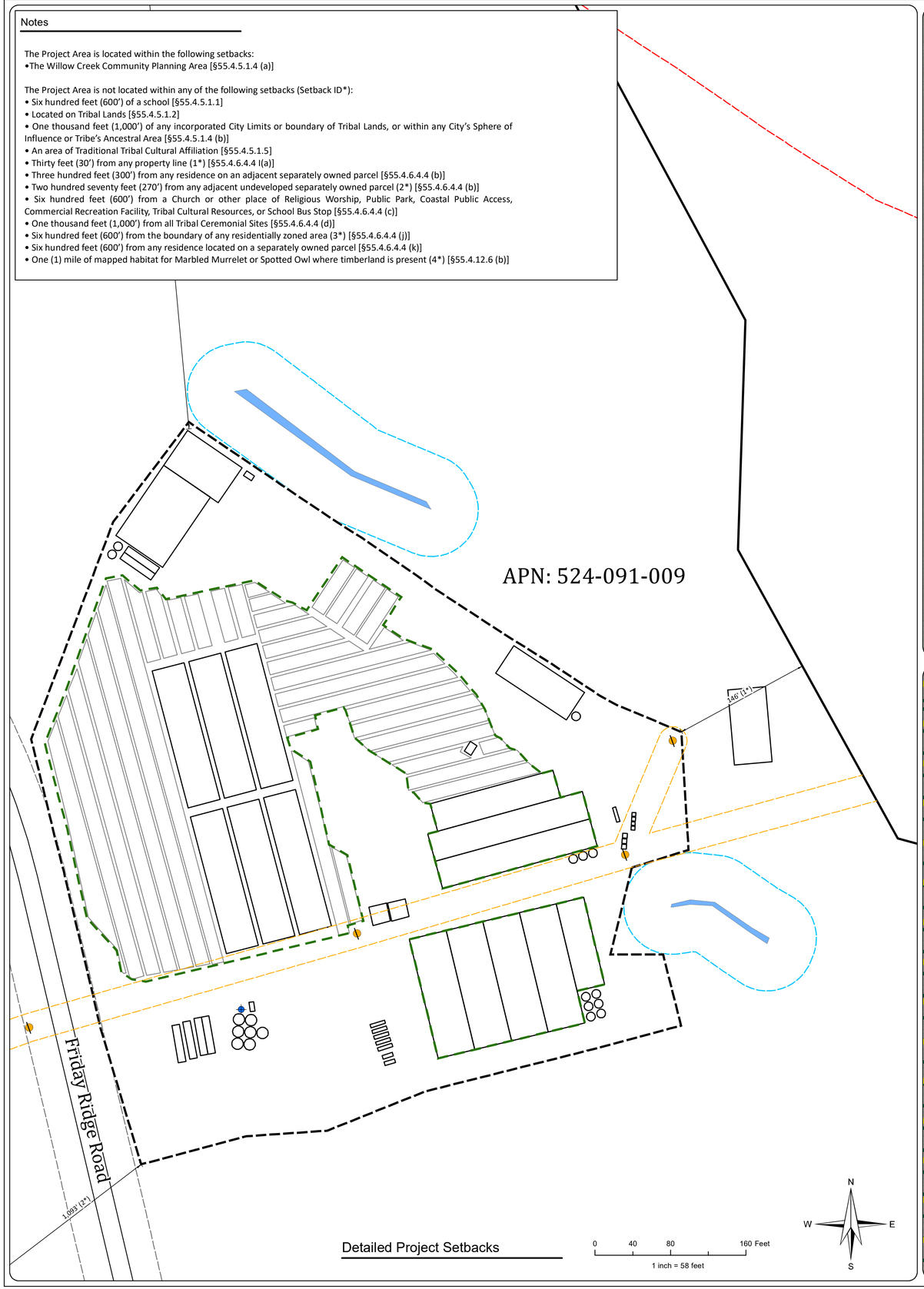
Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave, Suite 100, McClellan Park, CA 95652

COMPASS LAND GROUP

Notes

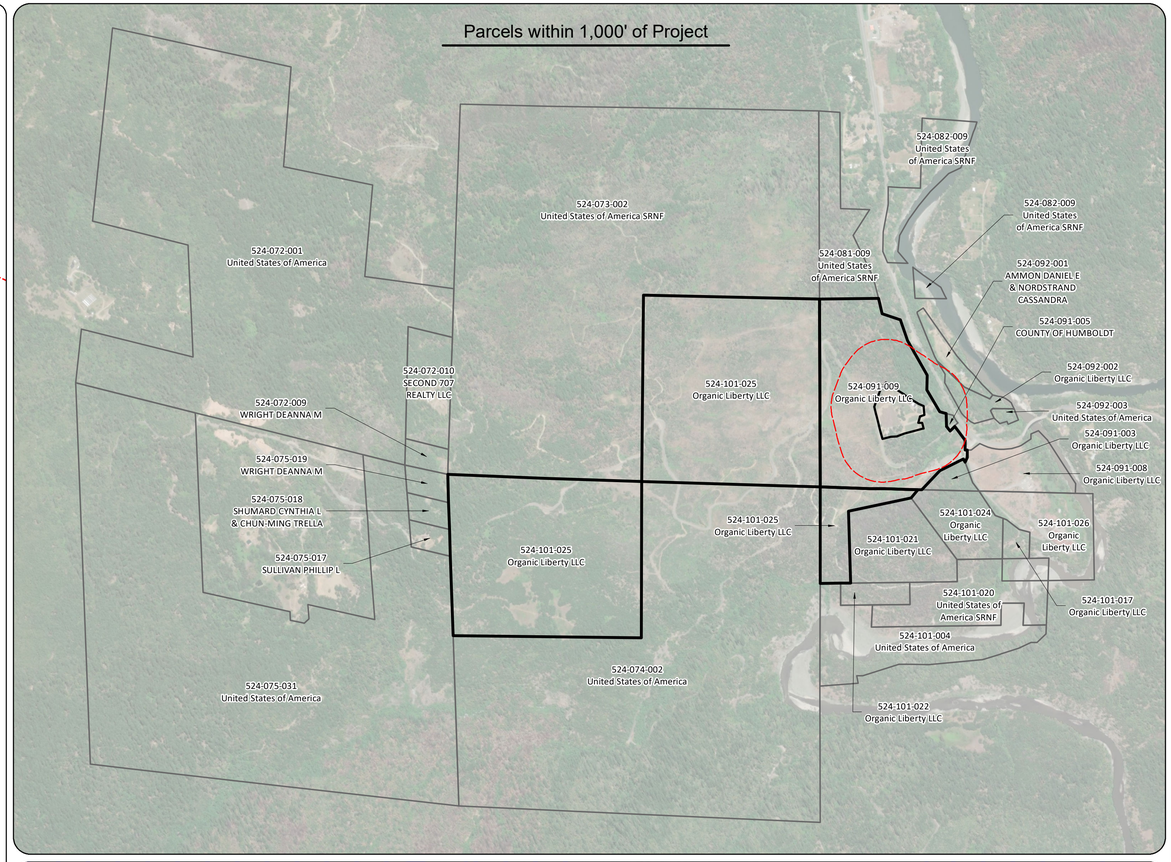
The Project Area is located within the following setbacks:
•The Willow Creek Community Planning Area [§55.4.5.1.4 (a)]

The Project Area is not located within any of the following setbacks (Setback ID*):
• Six hundred feet (600') of a school [§55.4.5.1.1]
• Located on Tribal Lands [§55.4.5.1.2]
• One thousand feet (1,000') of any incorporated City Limits or boundary of Tribal Lands, or within any City's Sphere of Influence or Tribe's Ancestral Area [§55.4.5.1.4 (b)]
• An area of Traditional Tribal Cultural Affiliation [§55.4.5.1.5]
• Thirty feet (30') from any property line (1*) [§55.4.6.4.4 l(a)]
• Three hundred feet (300') from any residence on an adjacent separately owned parcel [§55.4.6.4.4 (b)]
• Two hundred seventy feet (270') from any adjacent undeveloped separately owned parcel (2*) [§55.4.6.4.4 (b)]
• Six hundred feet (600') from a Church or other place of Religious Worship, Public Park, Coastal Public Access, Commercial Recreation Facility, Tribal Cultural Resources, or School Bus Stop [§55.4.6.4.4 (c)]
• One thousand feet (1,000') from all Tribal Ceremonial Sites [§55.4.6.4.4 (d)]
• Six hundred feet (600') from the boundary of any residentially zoned area (3*) [§55.4.6.4.4 (j)]
• Six hundred feet (600') from any residence located on a separately owned parcel [§55.4.6.4.4 (k)]
• One (1) mile of mapped habitat for Marbled Murrelet or Spotted Owl where timberland is present (4*) [§55.4.12.6 (b)]

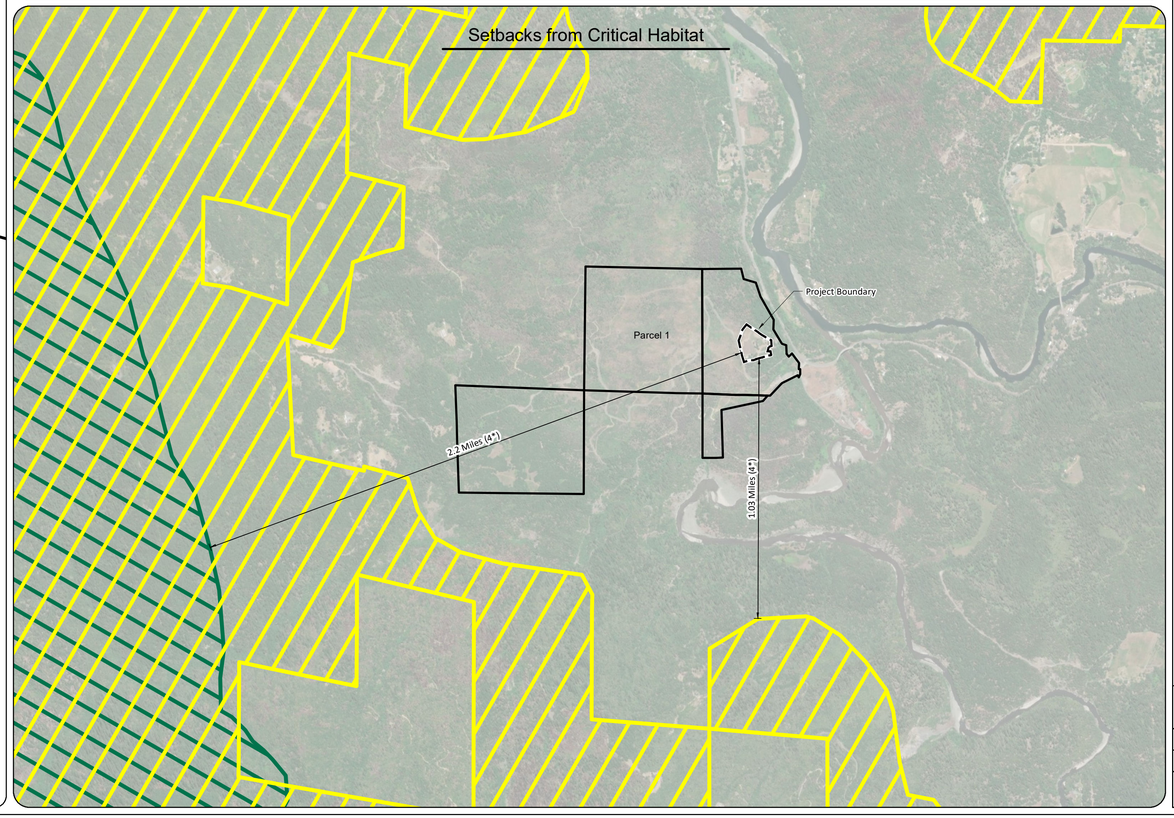


Detailed Project Setbacks

Parcels within 1,000' of Project



Setbacks from Critical Habitat



ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification

Site Plan

Sheet 3
Setback Maps

September 2024

Address: 229 Friday Ridge Road, Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:
- Project Boundary
- Cultivation Area (±4.0 Acres)
- Project Parcel
- Parcels within 1,000' of Project Parcel
- 600' Setback from Project
- BedCultivation
- Structure
- Seasonal Drainage
- 50' Setback from Seasonal Drainage
- Existing Well
- Power Pole
- 15' Structural Setback from Electrical
- Northern spotted owl Designated Critical Habitat
- Marbled Murrelet Designated Critical Habitat

Existing road and building locations shown on this site plan are per aerial mapping and are approximate.

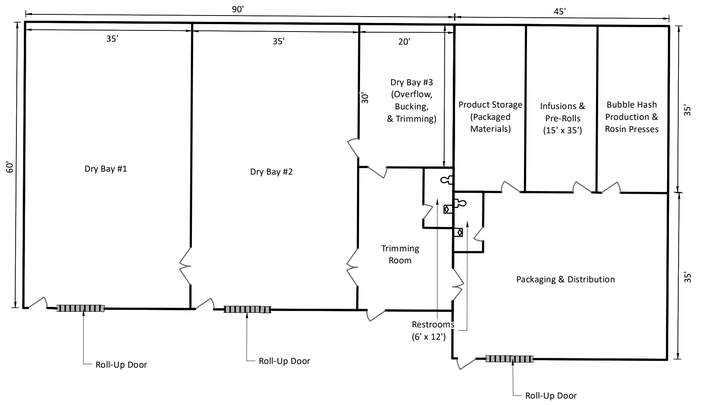
Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

Prepared by: Sage Thurmond, Compass Land Group
3140 Peacekeeper Way #102, McClellan Park, CA 95652

COMPASS LAND GROUP

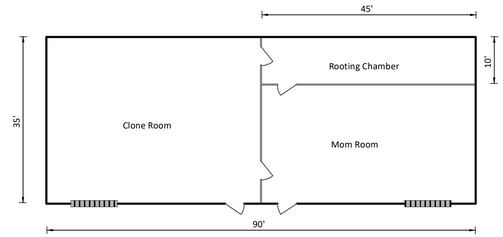
Processing, Non-Flammable Manufacturing, & Distribution Building

0 5 10 20 Feet
1 inch = 15 feet



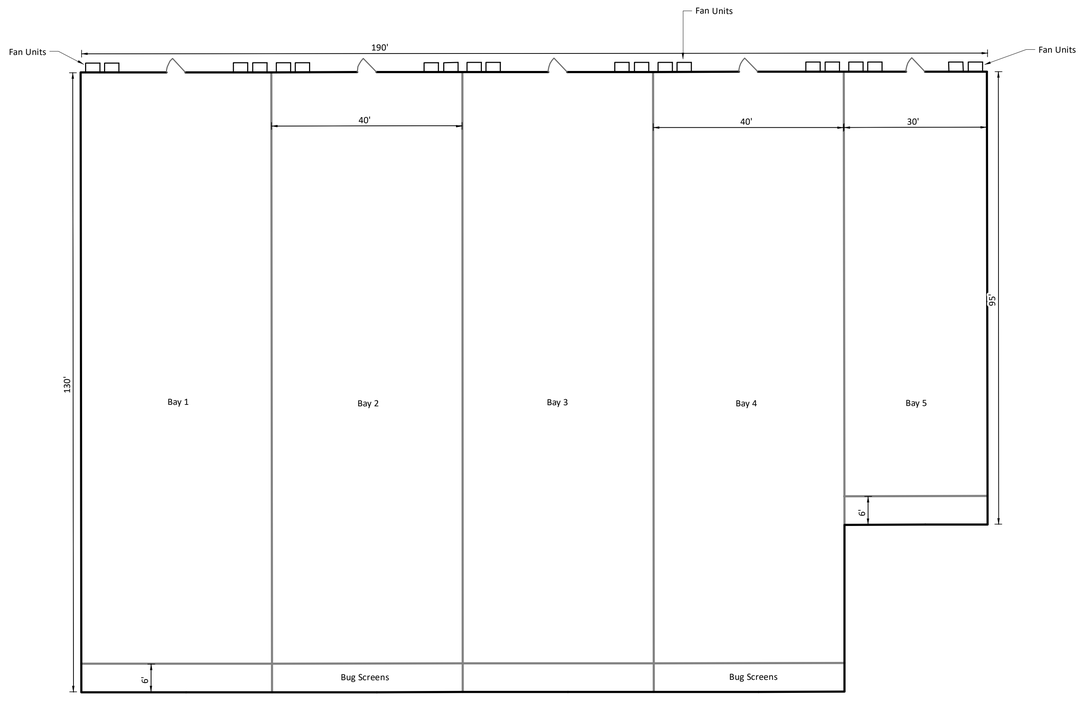
Nursery

0 5 10 20 Feet
1 inch = 15 feet



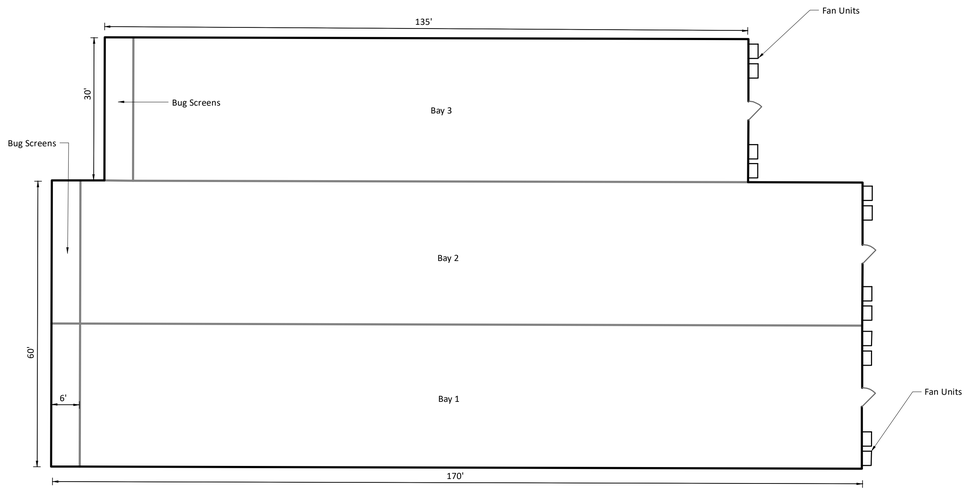
South Greenhouse

0 5 10 20 Feet
1 inch = 15 feet



North Greenhouse

0 5 10 20 Feet
1 inch = 15 feet



ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification

Site Plan

Sheet 4
Floor Plan

April 2024

Address: 229 Friday Ridge Road, Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:

- Structure
- Roll-up Door

Existing road and building locations shown on this site plan are per aerial mapping and are approximate.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave, Suite 100, McClellan Park, CA 95652

COMPASS LAND GROUP

APPENDIX A
GRANT DEED

RECORDING REQUESTED BY
Humboldt Land Title Company
WHEN RECORDED RETURN TO
AND MAIL TAX STATEMENTS TO:

Name Organic Liberty, LLC
Address 501 West Broadway, Suite 1750
San Diego, CA 92101

Order No. 152366-SB

2017-001723

Recorded - Official Records
Humboldt County, California
Kelly E. Sanders, Recorder
Recorded by: HLTCO

Pages: 13

Recording Fee: $ 59.00
Tax Fee: $4400.00
Clerk: lh Total: $4459.00
Jan 26, 2017 at 10:00:06

GRANT DEED

THE UNDERSIGNED GRANTOR(s) DECLARE(s)
unincorporated area
Parcel No. 524-073-003 & 524-074-001 & 524-091-002
524-091-003 & 524-092-002 & 524-101-015 & 524-101-017
524-091-006 & 524-101-008 & 524-101-009 & 524-101-011 & 524-101-013

Documentary Transfer Tax is $4,400.00
☑ computed on full value of interest or property conveyed, or
☐ full value less value of liens or encumbrances remaining at the time of sale

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

Maureen O'Neil, as successor trustee, Jean A. O'Neil and Kristin O'Neil, as Trustees of the Gleason Trust under the Will of Walter Martin Gleason, deceased and Camilla A. Wells, as successor trustee, Diana L. Wells and Paul Wells, as Trustees of the Gerber Trust under the Will of Walter Martin Gleason, deceased, and Swanson Mining Corporation, a Delaware corporation

hereby GRANT(s) to

Organic Liberty, LLC, a California limited liability comany

the following real property in the unincorporated area of the County of **Humboldt**, State of **California**:

See Exhibit A attached hereto and made a part hereof.

Dated: JANUARY 18, 2017

The Gerber Trust Under the Will of Walter Martin Gleason, Deceased

BY: _____
Camilla A. Wells, Trustee

BY: _____
Diana L. Wells, Trustee

BY: _____
Paul Wells, Trustee

Swanson Mining Corporation, a Delaware corporation

BY: _____
Diana L. Wells, President

BY: _____
Jean A. O'Neil, Secretary

The Gleason Trust Under the Will of Walter Martin Gleason, Deceased

BY: _____
Maureen O'Neil, Trustee

BY: _____
Jean A. O'Neil, Trustee

BY: _____
Kristin O'Neil, Trustee

RECORDING REQUESTED BY
Humboldt Land Title Company
WHEN RECORDED RETURN TO
AND MAIL TAX STATEMENTS TO:

Name Organic Liberty, LLC
Address 501 West Broadway, Suite 1750
San Diego, CA 92101

Order No. 152366-SB

GRANT DEED

THE UNDERSIGNED GRANTOR(s) DECLARE(s)
unincorporated area
Parcel No. 524-073-003 & 524-074-001 & 524-091-002
524-091-003 & 524-092-002 & 524-101-015 & 524-101-017
524-091-006 & 524-101-008 & 524-101-009 & 524-101-011 & 524-101-013

Documentary Transfer Tax is $4,400.00
☑ computed on full value of interest or property conveyed, or
☐ full value less value of liens or encumbrances remaining at the time of sale

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

Maureen O'Neil, as successor trustee, Jean A. O'Neil and Kristin O'Neil, as Trustees of the Gleason Trust under the Will of Walter Martin Gleason, deceased and Camilla A. Wells, as successor trustee, Diana L. Wells and Paul Wells, as Trustees of the Gerber Trust under the Will of Walter Martin Gleason, deceased, and Swanson Mining Corporation, a Delaware corporation

hereby GRANT(s) to

Organic Liberty, LLC, a California limited liability comany

the following real property in the unincorporated area of the County of **Humboldt**, State of **California**:

See Exhibit A attached hereto and made a part hereof.

Dated: _____

The Gerber Trust Under the Will of Walter Martin Gleason, Deceased

BY: _____
Camilla A. Wells, Trustee

BY: _____
Diana L. Wells, Trustee

BY: _____
Paul Wells, Trustee

The Gleason Trust Under the Will of Walter Martin Gleason, Deceased

BY: _____
Maureen O'Neil, Trustee

BY: _____
Jean A. O'Neil, Trustee

BY: Kristin O'Neil, Trustee
Kristin O'Neil, Trustee

Swanson Mining Corporation, a Delaware corporation

BY: _____
Diana L. Wells, President

BY: _____
Jean A. O'Neil, Secretary

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of CONTRA COSTA

On JANUARY 18, 2017 before me, SUSAN J. CUNNINGHAM a Notary Public,
personally appeared **Camilla A. Wells**
who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~) and that by ~~his~~/her/~~their~~ signature(~~s~~)on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: 8-11-2019

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019
NRO1

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of CONTRA COSTA

On JANUARY 18, 2017 before me, SUSAN J. CUNNINGHAM a Notary Public,
personally appeared **Diana L. Wells**
who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~) and that by ~~his~~/her/~~their~~ signature(~~s~~)on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: 8-11-2019

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019
NRO1

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State of California
County of CONTRA COSTA

On JANUARY 18, 2017 before me, SUSAN J. CUNNINGHAM a Notary Public,
personally appeared **Paul Wells**
who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~) and that by his/~~her/their~~ signature(~~s~~)on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: 8-11-2019

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019
NRO1

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of CALIFORNIA

County of CONTRA COSTA

On JANUARY 18 2017 before me, SUSAN J. CUNNINGHAM, NOTARY PUBLIC
DATE NAME, TITLE OF OFFICER – E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared DIANA L. WELLS
NAME(S) OF SIGNER(S)

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~) and that by ~~his~~/her/~~their~~ signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019

WITNESS my hand and official seal.

Signature _____

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the documents and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNED

- ☐ INDIVIDUAL
- ☐ CORPORATE OFFICER

TITLE(S)

- ☐ LIMITED PARTNER(S)
- ☐ GENERAL PARTNER(S)
- ☐ ATTORNEY-IN-FACT
- ☐ TRUSTEE(S)
- ☐ GUARDIAN/CONSERVATOR
- ☐ OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

GRANT DEED
TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER(S) OTHER THAN NAMED ABOVE
SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

ACKNOW (DSI Rev. 10/30/14)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of CONTRA COSTA

On JANUARY 18, 2017 before me, SUSAN J. CUNNINGHAM a Notary Public,

personally appeared **Maureen O'Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~) and that by ~~his~~/her/~~their~~ signature(~~s~~)on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: 8-11-2019

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019

NRO1

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of CONTRA COSTA

On JANUARY 18, 2017 before me, SUSAN J. CUNNINGHAM a Notary Public,

personally appeared **Jean A. O' Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~) and that by ~~his~~/her/~~their~~ signature(~~s~~)on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: 8-11-2019

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019

NRO1

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____ a Notary Public,

personally appeared **Kristin O'Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of CALIFORNIA

County of CONTRA COSTA

On JANUARY 18, 2017 (DATE) before me, SUSAN J. CUNNINGHAM, NOTARY PUBLIC (NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC")

personally appeared JEAN A. O'NEIL (NAME(S) OF SIGNER(S))

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(ies) and that by ~~his~~/her/~~their~~ signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

SUSAN J. CUNNINGHAM
COMM. #2119677
Notary Public - California
Contra Costa County
My Comm. Expires Aug. 11, 2019

WITNESS my hand and official seal.

Signature _____

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the documents and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNED

- ☐ INDIVIDUAL
- ☐ CORPORATE OFFICER

TITLE(S)

- ☐ LIMITED PARTNER(S)
- ☐ GENERAL PARTNER(S)
- ☐ ATTORNEY-IN-FACT
- ☐ TRUSTEE(S)
- ☐ GUARDIAN/CONSERVATOR
- ☐ OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

GRANT DEED
TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DATE OF DOCUMENT

SIGNER(S) OTHER THAN NAMED ABOVE
SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____ a Notary Public,

personally appeared **Maureen O'Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of _____

On _____ before me, _____ a Notary Public,

personally appeared **Jean A. O' Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ Oregon
County of Multnomah

Hyosim Nancy Collins

On January 17, 2017 before me, ~~Kristin Felicia O'Neil~~ a Notary Public,

personally appeared **Kristin O'Neil**

who proved to me on the basis of satisfactory evidence to be the person(s)whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s)on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

My commission expires: September 01, 2020

OFFICIAL STAMP
HYOSIM NANCY COLLINS
NOTARY PUBLIC-OREGON
COMMISSION NO. 954036
MY COMMISSION EXPIRES SEPTEMBER 01, 2020

Exhibit A

DESCRIPTION

That real property situate in the County of Humboldt, State of California, described as follows:

TRACT A:

PARCEL ONE:

That parcel of land in the County of Humboldt, State of California, bounded and described as follows:

BEGINNING at the section corner common to Sections 15, 16, 21, and 22 in Township 6 North of Range 5 East of Humboldt Meridian;

thence running East on the section line 1110 feet;
thence North 59 degrees East 495 feet to a point in Martin Creek;
thence down Martin Creek, North 36 degrees East 36.5 feet;
thence North 57 degrees East 525 feet;
thence North 27 degrees East 170 feet;
thence North 43 degrees East 300 feet;
thence North 71 degrees East 142 feet;
thence North 76 degrees East 75 feet;
thence (leaving Martin Creek) East 180 feet to a point on the East line of the Southwest Quarter of said Section 15;
thence North with said East line of Southwest Quarter of Section 15 to the low water mark on the left bank of Trinity River;
thence downstream along the low water mark of said left bank of Trinity River to the North line of said Southwest Quarter of Section 15;
thence Westerly along the quarter section line to the Northwest corner of said Southwest Quarter of Section 15;
thence Southerly with the West line of said Section 15, one-half mile, more or less, to the point of beginning.

EXCEPTING therefrom the several tracts bounded and described as follows:

FIRST EXCEPTION:

BEGINNING at a point which bears North 11 degrees 32 minutes West 1373 feet from the quarter section corner common to above mentioned Sections 15 and 22, said point of beginning being marked by an automobile axle driven into the ground;

running thence North 44 degrees 9 minutes West 216.1 feet to a point marked by an iron pipe driven into the ground;
thence North 41 degrees 17 minutes West 181.1 feet to a point marked by an iron pin driven into the ground;
thence North 44 degrees 44 minutes West 114.2 feet to a point marked by a ford axle driven into the ground;
thence North 40 degrees 30 minutes West 87 feet to a point marked by an iron pin driven into the ground;
thence North 27 degrees 32 minutes West 138 feet to a point marked by an iron pipe driven into the ground;
thence North 34 degrees 57 minutes West 813.5 feet to a point marked by an iron pipe driven into the ground;
thence South 55 degrees 30 minutes West to a point on the Northeasterly boundary of the State Highway (as laid out and deeded in 1924) in a Southeasterly direction to a point which bears South 34 degrees 11 minutes West from the first named point of this parcel which was marked as aforesaid by an automobile axle;
thence North 34 degrees 11 minutes East to said first mentioned point, being the point of beginning.

SECOND EXCEPTION:

BEGINNING at a point which bears North 1081.6 feet form the quarter section corner common to above mentioned Sections 15 and 22;

running thence North 72.8 feet;
thence South 88 degrees 3 minutes West 136.3 feet;
thence south 27 degrees 3 minutes West 31.4 feet;
thence South 43 minutes East 84 feet to the Northerly boundary of the State Highway;

thence with said highway boundary South 51 degrees 32 minutes East to a point which bears South 55 degrees 11 minutes West from the point of beginning;
and thence North 55 degrees 11 minutes East 133.2 feet to the point of beginning.

THIRD EXCEPTION:

BEGINNING at a point which bears North 1008.8 feet from the quarter section corner common to the above mentioned Sections 15 and 22;
running thence North 97.8 feet;
thence South 55 degrees 11 minutes West 133.2 feet to Northerly boundary of the State Highway right of way, as surveyed in or prior to 1921 (Preliminary Survey);
thence along the Northerly boundary of the State Highway, South 51 degrees 32 minutes East to a point directly West from the point of beginning;
and thence East to said point of beginning.

FOURTH EXCEPTION:

Any portion of said land which lies within the land conveyed to A. Brizard Inc., by Deed recorded in Book 153 of Deeds, Page 227, Humboldt County Records.

PARCEL TWO:

Those parcels of land in the County of Humboldt, State of California, described as follows:

The South Half of the Southwest Quarter of Section 15;
the Southwest Quarter of the Northwest Quarter of the Southwest Quarter of the Southeast Quarter of Section 15;
the Southwest Quarter of the Southwest Quarter of the Southeast Quarter of Section 15;
the North Half of the Northwest Quarter of Section 22;
the Northwest Quarter of the Northwest Quarter of the Northeast Quarter of Section 22;
the West Half of the Northeast Quarter of the Northwest Quarter of the Northeast Quarter of Section 22;
the West Half of the Southwest Quarter of the Northwest Quarter of the Northeast Quarter of Section 22;
the Northwest Quarter of the Northwest Quarter of the Southwest Quarter of the Northeast Quarter of Section 22;
the North Half of the Southeast Quarter of the Northwest Quarter of Section 22;
the Northeast Quarter of the Southwest Quarter of the Northwest Quarter of Section 22;
the Northeast Quarter of the Northwest Quarter of the Southwest Quarter of the Northwest Quarter of Section 22;
all in Township 6 North of Range 5 East, Humboldt Meridian.

EXCEPTING from the above lands the following:

FIRST EXCEPTION:

The tract conveyed to William Campbell by Flomena Martin by Deed dated December 4, 1923 and recorded in Book 167 of Deeds, Page 237, Humboldt County Records, which is bounded as follows:

BEGINNING at an iron stake 1320 feet South and 330 feet East of the section corner common to Sections 15, 16, 21 and 22 in said Township;
running thence East 223 feet to an iron stake;
thence South 81 degrees East 500 feet;
thence South 52 degrees East 650 feet (this line being along the South rim of the lower Martin flat);
thence South 182 feet;
thence West 920 feet;
thence North 330 feet;
thence West 330 feet;
thence North 330 feet to the point of beginning.

SECOND EXCEPTION:

The tract conveyed to John Martin by Flomena Martin by deed dated March 30, 1923 and recorded in Book 163 of Deeds, Page 344, Humboldt County Records, which is particularly described as being all that part of the South Half of the Southwest Quarter of said Section 15 which lies Northerly of the following described line:

BEGINNING at the corner common to Section 15, 16, 21 and 22 in said Township;
and running thence East along the section line 1110 feet;
thence North 59 degrees East 495 feet;
thence along a small creek as follows:
North 36 degrees East 36.5 feet;
thence North 57 degrees East 525 feet;
thence North 27 degrees East 170 feet;
thence North 43 degrees East 300 feet;
thence North 71 degrees East 142 feet;
thence North 76 degrees East 75 feet to the South line of the Northeast Quarter of the Northeast Quarter of the Southeast Quarter of the Southwest Quarter of said Section 15;
thence along said South line East 180 feet, more or less, to the East line of the Southwest Quarter of said Section 16.

THIRD EXCEPTION:

So much of the lot deeded to A. Brizard Inc. by John Martin and wife, and Flomena Martin, by Deed dated March 7, 1921 and recorded in Book 153 of Deeds, Page 227, Humboldt County Records, as lies within the above described lands;
said lot deeded to A. Brizard Inc. being North of a State Highway right of way referred to in said Deed, and between it and the West bank of South Fork of Trinity River.

FOURTH EXCEPTION:

Right of way for State Highway in the Northeastern portion of above lands, as granted to the State by Flomena Martin by Deed dated September 27, 1924 and recorded in Book 170 of Deeds, Page 251, Humboldt County Records.

PARCEL THREE:

That portion of the South Half of Section 15 and the North Half of Section 22, Township 6 North, Range 5 East, Humboldt Meridian, described as follows:

BEGINNING at a point which is 716.9 feet South and 729.6 feet East of the quarter corner between Sections 15 and 22, Township 6 North, Range 5 East, Humboldt Meridian;
thence North 74 degrees 54 minutes West, 579.4 feet;
thence North 46 degrees 41 minutes West, 807.5 feet to a point which is a witness corner to quarter (1/4) corner between Section 15 and Section 22;
thence North 16 degrees 23 minutes West, 728.8 feet (this is a corner fence post just West of the entrance road);
thence North 67 degrees 40 minutes East 290 feet to the Southerly line of State Highway 299;
thence following the South line of said Highway 299 Easterly to the South Fork of Trinity River center line;
thence following the center line of the South Fork of the Trinity River upstream Southeasterly approximately 1811 feet;
thence South 67 degrees 40 minutes West approximately 700 feet to the point of beginning. (This point lies South 6 degrees 20 minutes West 165.4 feet from the Southwest corner of the Pat Veneer Plant Building.)

EXCEPTING therefrom that portion, if any, lying within the boundaries of the Six Rivers National Forest.

PARCEL FOUR:

Northwest Quarter of Section 21, Township 6 North, Range 5 East, Humboldt Meridian.

PARCEL FIVE:

The Southeast Quarter of Section 16, Township 6 North, Range 5 East, Humboldt Meridian.

PARCEL SIX:

Any interest in the land described in the ABANDONMENT OF SUPERSEDED STATE HIGHWAY IN THE COUNTY OF HUMBOLDT, ROAD I-HUM-20-D recorded February 5, 1959 in Book 521 of Official Records, Page 115, under Recorder's Serial No. 2009, Humboldt County Records, which would be apportioned to the land described herein.

PARCEL SEVEN:

All of the rights, interest and easements reserved by Walter M. Gleason, a single man, in the Deed recorded January 6, 1969, in Book 987 of Official Records, Page 148, under Recorder's Serial No. 137, Humboldt County Records, and in the Deed recorded May 3, 1974, in Book 1237 of Official Records, Page 431, under Recorder's Serial No. 7807, Humboldt County Records.

EXCEPTING from the above parcels of land those portions thereof described as follows:

(A) That portion conveyed to the State of California by Deeds recorded January 25, 1957 under Recorder's Serial Nos. 1353 and 1355, Humboldt County Records.

(B) That portion conveyed to Carolina California Plywood, Inc. by Deed recorded January 6, 1969, in Book 987 of Official Records, Page 148, under Recorder's Serial No. 137, Humboldt County Records, and by Deed recorded May 3, 1974, in Book 1237 of Official Records, Page 431, under Recorder's Serial No. 7807, Humboldt County Records.

(C) That portion conveyed to the United States of America by Deed recorded August 22, 1972, in Book 1153 of Official Records, Page 62, under Recorder's Serial No. 14717, Humboldt County Records.

(D) That portion conveyed to the State of California by Deed recorded January 28, 1998, as Instrument No. 1998-2168-3, Humboldt County Records.

PARCEL EIGHT

The East Half of the Northeast Quarter of the Northwest Quarter of the Northeast Quarter, and the Northeast Quarter of the Southwest Quarter of the Northwest Quarter of the Northeast Quarter, and the Southeast Quarter of the Northwest Quarter of the Northeast Quarter of Section 22, Township 6 North, Range 5 East, Humboldt Meridian.

TRACT B:

PARCEL 1:

That certain parcel of real property located in Sections 15 and 22, Township 6 North, Range 5 East, Humboldt Meridian, bounded and described as follows:

COMMENCING at the section corner common to Sections 15, 16, 21, and 22, Township 6 North, Range 5 East, Humboldt Meridian, Humboldt County, California;

thence North 70 degrees 07 minutes 31 seconds East, 2216.64 feet to the point of beginning of this parcel;

thence from said point of beginning South 65 degrees 02 minutes 00 seconds East, 97.60 feet to Corner No. 37;

thence North 75 degrees 00 minutes 00 seconds East, 135.49 feet to Corner No. 36;

thence North 71 degrees 55 minutes 30 seconds East, 55.26 feet to Corner No. 35;

thence from a tangent that bears South 86 degrees 26 minutes 06 seconds East, along a 585 foot radius curve to the left, through an angle of 23 degrees 21 minutes 06 seconds a distance of 238.42 feet to Corner No. 34;

thence South 83 degrees 18 minutes 00 seconds East, 131.83 feet to Corner No. 33;

thence North 66 degrees 34 minutes 00 seconds East, 382.16 feet to Corner No. 22-A, said corner being in the center line of South Fork Trinity River;

thence along said center line the following Courses:

thence South 44 degrees 09 minutes 00 seconds East, 182.93 feet to corner No. 23;

thence South 32 degrees 00 minutes 00 seconds East, 782.93 feet to Corner No. 24;

thence leaving the center line of South Fork Trinity River South 01 degrees 54 minutes 00 seconds East, 303.39 feet to Point "B", from whence an iron pin Witness Corner bears, South 01 degrees 54 minutes East, 10.22 feet;

thence from Point "B", continuing South 01 degrees 54 minutes 00 seconds East, 415.80 feet to Corner No. 25, from whence an iron pin Witness Corner bears South 89 degrees 46 minutes 08 seconds West, 17.65 feet;

thence from said Corner No. 25 South 89 degrees 46 minutes 08 seconds West, 640.20 feet to Corner No. 26, from whence Point "A" bears North 89 degrees 46 minutes 08 seconds East, 132.00 feet;

thence from Corner No. 26 North 75 degrees 07 minutes 30 seconds West, 156.57 feet to Corner No. 29-B;
thence North 39 degrees 07 minutes 20 seconds West, 211.61 feet to Corner No. 29-A;
thence North 60 degrees 17 minutes 20 seconds West, 175.24 feet to Corner No. 29;
thence North 42 degrees 15 minutes 00 seconds West, 431.65 feet to Corner No. 30;
thence North 37 degrees 15 minutes 20 seconds West, 145.36 feet to Corner No. 31;
thence North 20 degrees 38 minutes 00 seconds West, 305.28 feet to Corner No. 32;
thence North 24 degrees 24 minutes 00 seconds East, 71.00 feet;
thence North 27 degrees 06 minutes 40 seconds West, 44.56 feet;
thence North 219.12 feet to the point of beginning.

This parcel is shown and delineated in a Record of Survey by Clair A. Hill, recorded in Book 24, Page 80 of Surveys, in the office of the County Recorder of said Humboldt County.

PARCEL 2:

That certain parcel of real property located in Sections 15 and 22, Township 6 North, Range 5 East, Humboldt Meridian, bounded and described as follows:

COMMENCING at the section corner common to Sections 15, 16, 21 and 22, Township 6 North, Range 5 East, Humboldt Meridian, Humboldt County, California;

thence North 70 degrees 07 minutes 31 seconds East, 2216.64 feet to the point of beginning of this parcel;
thence from said point of beginning South 219.12 feet;
thence South 27 degrees 06 minutes 40 seconds East, 44.56 feet;
thence South 24 degrees 24 minutes 00 seconds West, 71.00 feet to Corner No. 32;
thence North 27 degrees 06 minutes 40 seconds West, 48.82 feet to Corner No. 1;
thence South 63 degrees 30 minutes 00 seconds West, 367.56 feet to Corner No. 2;
thence South 43 degrees 48 minutes 00 seconds West, 487.75 feet to Corner No. 3;
thence South 77 degrees 50 minutes 00 seconds West, 251.25 feet to Corner No. 3-A;
thence North 75 degrees 07 minutes 30 seconds West, 205.69 feet to Corner No. 3-B;
thence North 25 degrees 35 minutes 15 seconds East, 482.16 feet to Corner No. 3-C, from whence an iron pin Witness Corner bears South 25 degrees 35 minutes 15 seconds West, 61.44 feet;

thence North 79 degrees 29 minutes 00 seconds East, 103.87 feet to Corner No. 11, from whence an iron pin Witness Corner bears South 50 degrees 12 minutes 20 seconds West, 12.48 feet;

thence along the center line of Friday Ridge Road the following Courses:
North 50 degrees 12 minutes 20 seconds East, 759.56 feet to Corner No. 12, from whence an iron pin Witness Corner bears North 27 degrees 06 minutes 40 seconds West, 16.12 feet;

thence North 40 degrees 19 minutes 40 seconds East, 91.68 feet to Corner No. 30-A, from whence an iron pin Witness Corner bears North 36 degrees 52 minutes 20 seconds West, 15.00 feet (said Witness Corner being Corner No. 39);

thence leaving said center line of Friday Ridge Road South 36 degrees 52 minutes 20 seconds East, 241.50 feet to Corner No. 38 marked by a chiseled cross on a large rock;

thence South 65 degrees 02 minutes 00 seconds East, 48.53 feet to the point of beginning.

This parcel is shown and delineated on a Record of Survey by Clair A. Hill recorded in Book 24, Page 80 of Surveys, in the office of the County Recorder of said Humboldt County.

EXCEPTING FROM the foregoing Parcels 1 and 2 herein described:

(A) An undivided one-half interest in the fee of that portion of said property which comprises or forms any part of the bed or banks of the South Fork of the Trinity River.

(B) An undivided one-half interest in the fee, in a strip of land 10 feet in width along and forming the Westerly bank of the South Fork of the Trinity River, and in any strip of land or area lying between said 10 foot strip (i.e., the Westerly bank) and the bed of said South Fork of the Trinity River.

(C) All minerals and mineral rights of every kind and description (including, but not limited to, oil and gas and other hydrocarbons) forming a part of or incident or appurtenant to the strips or parcels of land described or referred to hereinabove in subparagraph (B);

together with all rights, privileges and easements reasonably necessary to explore, develop and exploit said minerals and mineral rights.

(D) That certain parcel designated "Corridor Parcel" as described in Exhibit C – Paragraph A.

All as excepted and reserved by Walter M. Gleason, a single man, in the Deed to Carolina California Plywood, Inc., California corporation. recorded January 6, 1969, in Book 987, Page 148 of Official Records, under Recorder's Serial No. 137, Humboldt County Records, upon the terms and conditions therein set forth.

ALSO EXCEPTING FROM the foregoing Parcels 1 and 2 herein described, those portions thereof conveyed to the State of California by Deed recorded February 5, 1986, in Book 1789, Page 332, of Official Records, under Recorder's Serial No. 2297, Humboldt County Records.

APPENDIX B
CULTIVATION AND OPERATIONS PLAN

CULTIVATION AND OPERATIONS PLAN

ORGANIC LIBERTY CA, LLC

OUTDOOR, MIXED-LIGHT, AND LIGHT DEPRIVATION CULTIVATION AND DISTRIBUTION, MANUFACTURING, PROCESSING AND NURSERY FACILITY

Applicant:

Organic Liberty, LLC
Attn: Matthew Primm
P.O. Box 94825
Las Vegas, NV 89193

Prepared by:

4235 Forcum Ave, Suite 100
McClellan Park, CA 95652

COMPASS LAND GROUP

April 2024

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1.0 GENERAL OPERATIONAL INFORMATION

1.1 Contact Information

Name: Organic Liberty CA, LLC ("Operator" or "Employer")
Contact: Matthew Primm
Contact Address: P.O. Box 94825, Las Vegas, NV 89193
Phone Number: 858.245.3277

1.2 Facility Location

The facility is located approximately four (4) miles south/southeast of the community of Willow Creek near the junction of State Highway 299 and Friday Ridge Road in an unincorporated area of Humboldt County, California.

1.3 Staffing & Staff Screening Processes

It is anticipated that the facility will require up to 20 full-time equivalent employees ("FTE") and 20 additional seasonal employees depending on operational demands. All candidates for staff positions will undergo criminal background checks as part of the standard screening process (to the extent allowed by law). To the maximum effect allowed by California and federal employment law, candidates with a felony criminal history or a history of drug abuse will be screened from employment.

1.4 Vehicle Trips

The combination of employee trips, deliveries, and other traffic is anticipated to result in up to forty-five (45) round trips per day depending upon the season and stage of development.

1.5 Days and Hours of Operation

The facility is not open to the public and will not accept visitors without a specific business purpose. Hours of operation will typically be from 7:00 AM to 7:00 PM; however, during periods of seasonally high workload, the hours of operations within the facility may increase to sixteen (16) hours per day (5:00 AM to 9:00 PM). In addition, further extended hours may be required for select employees during peak production seasons to manage greenhouse and nursery facilities.

1.6 Agricultural Employer Statement

Pursuant to the Medicinal and Adult Use Cannabis Regulation and Safety Act ("MAUCRSA"), Health and Safety Code section 19322(a)(9), the Operator hereby declares that it is a an 'agricultural employer,' as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor

Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code), to the extent not prohibited by law."

1.7 County Access

All facility personnel will cooperate fully with the County, its agents, and employees, to grant access to the facility to seek verification of the information contained within the permit, permit applications, the Operations Plan, and the Operating Standards at any time before or after the permits are issued. The Humboldt County Sheriff's Department will be authorized to have access to the facility's security surveillance video.

1.8 Employee/Worker Safety

Pursuant to Labor Code Sections 1140-1166.3, the Employer hereby agrees to comply with all applicable federal, state, and local laws and regulations governing California agricultural employers, which may include: federal and state wage and hour laws, CAL/OSHA, OSHA, California Agricultural Labor Relations Act, and the Humboldt County Code (including the Building Code).

With respect to employees engaging in commercial cannabis cultivation, nursery, processing, distribution, and non-flammable manufacturing related activities, the Employer will comply with the following Employee Safety Practices:

1.8.1 Job Specific Safety Protocols and Training

- Emergency action response planning;
- Employee accident reporting and investigation policies;
- Fire prevention;
- Hazard communication policies, including maintenance of material safety data sheets (MSDS);
- Materials handling policies;
- Job hazard analyses; and
- Personal protective equipment policies, including respiratory protection.

1.8.2 Emergency Contact List

The Employer will visibly post and maintain an emergency contact list which includes at a minimum:

- Operation manager contacts;
- Emergency responder contacts; and

- Poison control contacts.

1.8.3 Safe Drinking Water

At all times, employees will have access to safe drinking water. Consistent with existing conditions, drinking water for site employees will be provided through bottled water or through a water delivery service.

1.8.4 On-Site Housing

There is no intent to provide on-site housing to workers at this time. On site-housing provided to employees, if any, will comply with all applicable federal, state, and local laws and regulations.

1.9 Consumer Health and Safety

1.9.1 Food Safety Training

The Operator will ensure applicable employees have successfully passed an approved and accredited food safety certification examination as specified in Sections 113947.2 and 113947.3 of the California Retail Food Code. Food safety certification will be achieved by successfully passing an examination from an accredited food protection manager certification organization. The certification organization will be accredited by the American National Standards Institute as meeting the requirements of the Conference for Food Protection's "Standards for Accreditation of Food Protection Manager Certification Programs."

1.9.2 Facility Inspection

The facility will accommodate inspection of the commercial cannabis cultivation area by the local fire department, building inspector, or code enforcement officer to confirm that no health or safety concerns are present. It is understood that the inspections may result in additional specific standards to meet local jurisdiction restrictions related to commercial cannabis.

1.9.3 Sanitary Conditions

The facility will take reasonable measures and precautions to ensure the following:

- That any person who, by commercial examination or supervisory observation, is shown to have, or appears to have, an illness, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination for whom there is a reasonable possibility of contact with commercial cannabis will be excluded from any operations which may be expected to result in contamination until the condition is corrected;
- Hand washing facilities will be clean, functional, and be furnished with running water. Hand washing facilities shall be located in close proximity to where good sanitary

practices require employees to wash or sanitize their hands, and provide effective hand-cleaning and sanitizing preparations and sanitary towel service or suitable drying devices;

Persons working in direct contact with commercial cannabis will conform to hygienic practices while on duty, including but not limited to:

- Maintaining adequate personal cleanliness;
- Washing hands thoroughly in an adequate hand washing area(s) before starting work and at any other time when the hands may have become soiled or contaminated;
- Refraining from having direct contact with commercial cannabis if the person has or may have an illness, open lesion(s), including boils, sores, or infected wounds, or any other abnormal source of microbial contamination, until such condition is corrected;
- That waste is properly removed and the operating systems for waste disposal are maintained in an adequate manner so that they do not constitute a source of contamination in areas where cannabis is exposed;
- That there is appropriate lighting in all areas where commercial cannabis is stored, and where equipment or utensils are cleaned;
- That there is adequate screening or other protection against the entry of pests. Rubbish will be disposed of so as to minimize the development of odor and minimize the potential for the waste becoming an attractant, harborage, or breeding place for pests;
- That facilities are maintained in a sanitary condition;
- That chemicals will be identified, held, stored and disposed of in a manner that protects against contamination of cannabis in a manner that is in accordance with any applicable local, state or federal law, rule, regulation or ordinance;
- That operations will be conducted in accordance with good sanitation principles;
- That employees are provided with adequate and readily accessible toilet facilities that are maintained in a sanitary condition and good repair; and
- That any cannabis or cannabis waste that can support the rapid growth of undesirable microorganisms are held in a manner that prevents the growth of these microorganisms.

1.10 General Product and Inventory Management

The facility's inventory control process includes tracking of all incoming and outgoing seedlings, bulk cannabis and manufactured cannabis, and finished cannabis and manufactured cannabis products through the State's Marijuana Enforcement Tracking Reporting Compliance (METRC) system. The State's METRC system and associated manifests include information on all cannabis related product such as the name and state license number of all licensees (shipper, distributor, and receiver), shipping dates and times, finished cannabis product testing lab data (as applicable), strain, product type, and batch identification. The METRC system will also reflect inventory quantities and locations as they relate to State license number. All plants, cannabis, and cannabis

products will be assigned a unique RFID tag that can be cross-referenced to the above referenced data and stays with the product through the cultivation, harvesting, processing, manufacturing, packaging, testing, distribution, and to final sale to authorized customers.

In addition, the Operator will utilize an internal inventory tracking software, which will keep track of data such as costs, vendor information, strains, quantities, batch information, R&D testing information, dry good inventories, and other operationally important data.

The methodologies for tracking and inventory control of commercial cannabis may be modified subject to requirements imposed by the County or the Department of Cannabis Control and will be adjusted accordingly as required under law.

1.10.1 Customer Screening, Registration, and Validation Process and Procedures

All products will be sold to state licensed facilities. The facility will not be open to the public and will not accept visitors without a specific pre-authorized business purpose. Only authorized representatives of state licensed customer facilities and appropriately licensed vendors will be allowed to enter the facility and be in close proximity to commercial cannabis, but in all cases supervised at all times. Any other vendors or maintenance workers allowed in the facility will be at all times escorted and sequestered from the finished products and harvested materials.

2.0 CULTIVATION PLAN

Pursuant to the definitions of Humboldt Ordinance No. 2599 ("Ordinance 2.0"), cultivation activities at the facility include ±2.4 acres of open-air outdoor cultivation within raised cultivation beds or a suitable equivalent (e.g., pots), ±0.7 acre of enclosed outdoor light deprivation within hoop houses, and ±0.9 acres of enclosed mixed-light cultivation within greenhouses. Clones and seedlings for cultivation will primarily be supplied by the new ±3,150 square foot commercial nursery; however, the Operator may source genetic inventory from licensed off-site vendors to diversify its cultivation inventory. Artificial lighting will be utilized both in the mixed-light cultivation greenhouses and the commercial nursery to allow for seasonal control of the plants' vegetative and reproductive growth cycles. A description of the anticipated typical cultivation cycles by type is described below in **Table 1, Cultivation Cycles**.

TABLE 1
CULTIVATION CYCLES

Cultivation Type	No. of Cycles	General Cultivation Cycle
Nursery	N/A	Year Round
Open-Air Outdoor	1	June - November
Light-Deprivation	2 to 3	April - November
Mixed-Light	4	Year Round

2.1 Schedule of Cultivation Activities

Cultivation related activities will include tending to mother plants, cloning/propagation of plants for cultivation stock, preparation for planting (i.e. bed and pot preparation), planting seeds and immature plants in raised cultivation beds and pots, plant care (i.e. irrigation, fertigation, drawing shade curtains for light cycles, etc.), and harvesting of finished plants. A schedule for cultivation related activity is detailed below in **Table 2, Typical Schedule of Cultivation Activities**. This schedule is provided as a general description of cultivation activities, and is subject to change based on market demands, operational requirements, and seasonal weather.

TABLE 2

TYPICAL SCHEDULE OF CULTIVATION ACTIVITIES

Month	Cultivation Activities
January	-Mixed-Light: • Start of 1st cycle for the year -Nursery: • Clone, propagation, vegetation, & breeding
February	-Mixed-Light: • Fertigation and irrigation -Nursery: • Clone, propagation, vegetation, & breeding
March	-Mixed-light: • Harvesting 1st cycle • Prep and begin 2nd cycle -Light-deprivation: • Preparation for 1st cycle • Maintenance of automated systems -Outdoor: • Maintenance of raised beds and irrigation system -Nursery: • Clone, propagation, vegetation, & breeding
April	-Mixed-light: • Flowering -Light-deprivation: • Plant 1st cycle -Outdoor: • Site preparation for planting • Farm maintenance -Nursery: • Clone, propagation, vegetation, & breeding
May	-Mixed-light: • Fertigation and irrigation -Light-deprivation: • Vegetation -Outdoor: • Fertigation and irrigation • Amend raised beds -Nursery: • Clone, propagation, vegetation, & breeding

June	-Mixed-light: • Harvest 2nd cycle • Prep for 3rd cycle -Light-deprivation: • Start 2nd cycle -Outdoor: • Fertigation and irrigation -Nursery: • Clone, propagation, vegetation, & breeding
July	-Mixed-light: • Start of 3rd cycle -Light-deprivation: • Harvest • Amend beds • Plant 2nd cycle -Outdoor: • Vegetation -Nursery: • Clone, propagation, vegetation, & breeding
August	-Mixed-light: • Fertigation and irrigation -Light-deprivation: • Vegetation -Outdoor: • Vegetation -Nursery: • Clone, propagation, vegetation, & breeding
September	-Mixed-light: • Harvest 3rd cycle • Prep for 4th cycle -Light-deprivation: • Vegetation • Flower -Outdoor: • Flower • Harvest preparation • Harvest -Nursery: • Clone, propagation, vegetation, & breeding
October	-Mixed-light: • Start of 4th cycle -Light-deprivation: • Harvest -Outdoor: • Harvest -Nursery: • Clone, propagation, vegetation, & breeding

November	-Mixed-light: • Fertigation and irrigation -Light-deprivation: • Finish harvesting 2nd cycle • Winterization and maintenance of structures -Outdoor: • Finish harvesting • Winterization of raised bed areas • Site cleanup -Nursery: • Clone, propagation, vegetation, & breeding -General: • Farm maintenance and site winterization for wet season • Composting of plant wastes
December	-Mixed-light: • Harvest 4th cycle • Prep for 1st cycle of the new year -Nursery: • Clone, propagation, vegetation, & breeding

2.2 Pest Management Plan

The Operator will implement a Pest Management Plan focused on long-term management and/or suppression of unwanted pests using cultural, biological, and chemical control measures.

2.2.1 Pest Management Practices

Several Integrated Pest Management (IPM) practices will be employed by the facility to ensure optimal growing conditions for the plants. Techniques include focusing on the long-term prevention of pests and their damage by using a varied combination of strategies such as pest resistant strains, beneficial insects, and modification of cultivation practices when needed. Prevention is a much better option than perpetual treatment of an existing infestation.

The following products may be used as biological controls:

TABLE 3
LIST OF BIOLOGICAL CONTROL PRODUCTS

Product Name	Active Ingredient(s)
Nemashield	Steinernema feltiae
OG Biowar Foliar Pack	Bacillus, Beauveria, Metarhizium, Verticillium, Rhodospirillum
OG Biowar Root Pack	Pseudomonas Flourescens, Bacillus, Trichoderma, Streptomyces

No chemical insect or rodent baits will be used inside the cultivation area. If mechanical traps are used, they will be inspected at least weekly - live traps are checked daily or as needed. Contents of traps are emptied into a separate trash bag that is tied and placed into waste containers located outside. Traps will be cleaned periodically and inspected and tested to ensure they are functioning properly.

If used, imported cannabis clones will be inspected for evidence of infestation. Clones will be rejected if evidence of infestation is found.

Each type of infestation has its own treatment regimen that must be swiftly and comprehensively applied in order to work properly. The sooner an infestation is found, the easier it is to contain. Certain pests are common and easy to handle, such as fungus gnats or caterpillars, whereas others will change the process of the daily operations for a period of time, until they are controlled or eliminated. These include mites of all kinds, some types of aphids, and also powdery mildew.

2.2.2 Pesticides

The Operator will use no pesticides prohibited by federal, state, or local law and will comply with all applicable federal, state, and local laws regarding use and disposal.

The following list of pesticide products may be used:

TABLE 4
LIST OF PESTICIDE PRODUCTS AND ACTIVE INGREDIENTS

Product Name	Active Ingredient(s)
Agree WG	Bacillus thuringiensess spp aizawai
Ancora	Isaria Fumosorsea Apopa Strain 97
AzaDirect	Azadirachtin
AzaGuard	Azadirachtin
Azamax	Azadirachtin
Azatin-O	Azadirachtin
Botanigard Maxx	Pyrethrins, Beauvaria bassiana Strain GHA
Brant organics Aleo	Garlic oil
Captiva	Garlic Oil, Soybean Oil, Capscaisum
Cease (Root Drench Only)	Bacillus Subtillis Strain QST 713
Clonex Rooting Gel	Indole-3-Butyric Acid
Debug Turbo	Fats and Glyceric Olis Margosa, Azadirachtin
Desect	Diatomaceous Earth
Dipel DF	Bacillus Thuringiensis
Gnartrol	Bacillus thuringiensis, subsp. israelensis
Grandevo CG	Chromobacterium subtsugae strain PRAA4-1
ZeroTol	Hydrogen Peroxide
Javelin WG	Bacillus thuringiensess spp kurstaki
Lost Coast Plant Therapy	Soy oil, peppermint essential oil, and citric acid
Mildew Cure	Cotton seed oil, corn oil, garlic oil
Molt-X	Azadirachtin
Monterey b.t.	Bacillus thuringiensis subspecies kurstaki strain SA-12 (Btk)
Neem Oil	Azadirachtin OPP Chemical Code: 121701 (CAS # 11141-17-6)
Neemix 4.5	Azadirachtin
NuFilm P	Pinene polymers, petrolatum, akyl amine ethoxylate
Nuke Em	Citric Acid
Oroboost	Alcohol Ethoxylates
PFR-97	Isaria Fumosorosea Apopka Strain 97
Pyganic EC 1.4 II	Pyrethrins
Pyganic EC 5.0 II	Pyrethrins

Product Name	Active Ingredient(s)
Regalia CG	Reynoutria sachilinensis
Safergrow Mildew Cure	Cottonseed oil 30%, Cornseed Oil 30%, Garlic Oil 17%
Safergrow Pest Out	Cottonseed Oil 0.4%, Garlic Oil 0.2%, Clove Oil 0.1%
Sil-Matrix	Potassium silicate
SuffOil-X	Highly refined Mineral Oil
Suppress EC	Caprylic Acid, Capric Acid (not directly applied to plants)
Triathlon BA	Bacillus amyloliquefaciens strain D747
Trilogy	Neem oil
Valent Dipel Pro DF	Bacillus thuringiensis v kurstaki
Venerate CG	Heat-killed Burkholderia sp. strain A396 cells and spent fermentation media
WideSpread Organic	Polyether-polymethylsiloxane-copolymer, polyether
Xentari	Bacillus thuringiensis, subsp. aizawai, Strain ABTS-1857, fermentation solids, spores and insecticidal toxins
Trifecta Crop Control	Clove oil, thyme oil, garlic oil, peppermint oil, corn oil, citric acid, rosemary oil

2.3 Fertilizers and Soil Amendments

Fertilizers, potting soils, compost, and other soils and soil amendments will be stored in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater. Soils and compost will be stored in one existing contained storage area and two new contained storage areas totaling 3,800 square feet of storage, while fertilizers and soil amendments will be stored in locked steel conex type shipping containers. Fertilizers and soil amendments will be applied and used per packaging instructions and at proper agronomic rates.

3.0 WATER SOURCE, STORAGE, IRRIGATION, AND ESTIMATED USE

Consistent with existing conditions, water for irrigation and fire suppression will primarily be supplied by three existing permitted on-site groundwater wells:

- Well #1 (County Permit Number 17/18-1216) is located east of Friday Ridge Road within the Project Area. Well #1 is completed to a depth of 220 feet and has an estimated yield of 5 gallons per minute according to the Well Completion Report.
- Well #2 (County Permit Number 17/18-1401) is located on the western edge of current APN 524-073-003. Well #2 is completed to a depth of 220 feet and has an estimated yield of 15 gallons per minute according to the Well Completion Report.

- Well #3 (County Permit Number 17/18-1636) is located on the western edge of current APN 524-073-003, south of Well #2. Well #3 is completed to a depth of 200 feet and has an estimated yield of 20 gallons per minute according to the Well Completion Report.

Water is pumped from the wells to temporary holding tanks for regulating water pressure, and then piped from the tanks to the area of cultivation. At all times, water is applied using no more than the agronomic rates using an automated irrigation system. Well water usage will be supplemented with newly proposed rain catchment from 12 new 5,000-gallon tanks (60,000 gallons). These tanks will be filled during the wet season and their usage will be prioritized over well supplies, when possible, to minimize pressures from groundwater extraction.

The currently approved project was analyzed assuming annual irrigation demand of 9.2 acre-feet (3 million gallons), with a monthly maximum of approximately 1.6 acre-feet (509,000 gallons). An updated assessment of the Project's water demand, using more accurate irrigation assumptions and historical irrigation data, found that the Project's annual water demand is estimated to be approximately 7 acre-feet (2.3 million gallons), with a monthly maximum of approximately 1.34 acre-feet (437,000 gallons). See **Table 5, Projected Irrigation Water Usage**, for a breakdown of anticipated monthly water demand by use type.

TABLE 5
PROJECTED IRRIGATION WATER USAGE
(ACRE-FEET)

	Month											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Full-Sun Outdoor	-	-	-	0.22	0.44	0.88	0.44	0.26	0.43	0.45	-	-
Light Deprivation	-	-	-	0.07	0.17	0.22	0.13	0.08	0.13	0.12	-	-
Mixed-light	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Nursery	0.003	0.003	0.003	0.009	0.009	0.009	0.009	0.009	0.003	0.003	0.003	0.003
Total:	0.24	0.24	0.24	0.53	0.85	1.34	0.82	0.59	0.81	0.81	0.24	0.24

The combined output of the three existing on-site groundwater wells is approximately 0.18 acre-feet (58,000 gallons) per day, indicating sufficient water supply to service the irrigation demands of the Project.

The Applicant acknowledges that the County reserves the right to reduce the size of the area allowed for cultivation under any clearance or permit in the event that environmental conditions, such as a sustained drought or low flows in the watershed will not support diversions for irrigation.

4.0 SUMMARY OF SPECIFIC MEASURES FOR COMPLIANCE WITH SWRCB ORDER

The Project site is enrolled (WDID:1_12CC428884) and maintains compliance with the State Water Resources Control Board ("SWRCB") General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation

Activities (General Order No. WQ 2019-0001-DWQ). Under this order, the facility monitors and reports on storm water runoff conditions and implements best practicable treatment and control measures (e.g. preservation of existing vegetation, fiber rolls, straw mulch, and silt fencing), a Site Management Plan, and winterization procedures (e.g. inspection of roads, management of bed areas, covering trash containers, and stabilization of disturbed areas).

The approved Site Management Plan will be updated, as necessary, to include additional BMPs related to the Project (e.g. thick gravel layer around new structures to minimize erosion and allow for better infiltration of stormwater).

5.0 STORMWATER MANAGEMENT PLAN

5.1 Current Drainage Conditions and Facilities

The Project site's hydrology has been historically altered by the stormwater drainage from Friday Ridge Road (to the west) being diverted onto site's existing hillslope. A portion of the Friday Ridge Road stormwater runoff is conveyed through an in-board roadside ditch diverting water east under the road through a culvert into the Project area on the south side of the main entry and east-west site access road. On the northwest side of the Project area an existing ditch conveys intercepted runoff around the project site so that it does not run onto the Project area. Existing slopes across the site range from 4 to 15 percent with runoff generally flowing from west to east.

A Wetland and Other Waters Delineation Report identified two seasonal drainages outside of the Project boundaries (SHN Engineers, 2017). The first is a natural intermittent drainageway that drains northeast of the Project area. The second drains southeast of the Project area, originating from a drainage ditch paralleling the existing site access road. These drainage features are tributaries to the Trinity River and are seasonally flowing; they do not contain water during the summer months. The Project is setback from the identified drainages and is located outside of any mapped flood hazard areas.

5.2 Site Stormwater Improvements

A licensed engineer was retained to prepare an assessment of existing and proposed drainage conditions, including recommendations for stormwater control measures. Runoff from new impervious surfaces will be managed through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. Based on the hydrology assessment, a total of twelve 5,000-gallon tanks have been incorporated into the project design to retain site runoff.

5.3 Site, Erosion Control, and Drainage Feature Maintenance

- Roads will be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to surface waters.

- Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind will have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlets.
- Roads and other features will be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system will be installed to ensure that surface flows will not cause slope failure.
- Roads, clearings and work areas (cleared/developed areas with the potential for sediment erosion and transport) will be maintained so that they are hydrologically disconnected, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.
- Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces will be maintained to promote infiltration/dispersal of outflows and have no apparent erosion or evidence of soil transport to receiving waters.
- Stockpiled construction materials, if necessary, will be stored in a location and manner so as to prevent their transport to receiving waters.
- Grading and ground disturbances for the construction of the new commercial nursery, processing, and distribution buildings will implement a variety of erosion and sediment control measures throughout the buildout of each structure. These control measures include straw mulch, fiber rolls, and silt fencing to prevent soil export off site.

6.0 INVASIVE SPECIES CONTROL PLAN

A professional biological consulting firm was retained to prepare an Invasive Species Control Plan for the Project. A field survey was conducted and observations of any invasive species present were recorded. A total of 18 invasive species were identified primarily within the walkways of raised beds. Management and removal recommendations were provided for each of the 18 invasives species identified, and included a variety of biological (e.g. reintroduction of native species) and mechanical (e.g. mowing, tillage, grazing, and hand pulling) control methods. The Project will incorporate the recommendations of the invasive species control plan.

7.0 MATERIALS MANAGEMENT PLAN

7.1 Non-Cannabis Solid Waste Disposal

Non-cannabis solid wastes including, but not limited to, clone trays, empty soil bags, soil amendment bags, fertilizer bags and containers, empty plant pots or containers, agricultural plastic sheeting, and spent growth medium/soil will, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into

surface water or groundwaters. The site will be equipped with covered 5-yard dumpsters for the disposal of solid waste materials. Cannabis plant waste disposal is discussed below in Section 7.2.

Agricultural plastic sheeting for light deprivation structures will be used for the length of the manufacturer's lifetime rating or to the extent practicable due to environmental conditions on site. Due to dirt and other contaminants, agricultural plastics are not typically recyclable. Agricultural plastics used at this site will be disposed of via a licensed local solid waste handler.

Refuse and garbage will be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters. Refuse will be sorted to divert recyclables such as paper, plastic, glass, and metals from the waste stream. Those recyclables will be taken to a recycling center for recycling.

The remaining solid wastes will be collected and deposited into a solid waste receptacle for temporary storage, which will be kept covered. The solid waste will be removed from the site no less frequently than weekly and disposed of at an authorized waste transfer facility. The solid waste receptacle will be sized appropriately for the volume of waste generated and may be adjusted in size periodically as conditions warrant due to production cycles and seasonal factors.

7.2 Cannabis Waste Disposal

Consistent with §17223 of the Department of Cannabis Control's regulations, cannabis and cannabis product waste will be managed through either or a combination of the following:

- On-site composting in designated compost area located within the fenced project boundary;
- Collection and processing of cannabis waste by a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency in conjunction with a regular organic waste collection route; or
- Self-hauling under the facilities distribution license.

Non-compost cannabis and cannabis product waste will be stored in a secured waste receptacle or secured area located within the manufacturing/distribution building.

A batch of cannabis or cannabis products that is being disposed of because the batch has failed internal quality testing, quality assurance review by a distributor, or regulatory compliance testing will be rendered unusable under video surveillance prior to disposal.

The methodology for disposing of cannabis waste shall be in compliance with all state regulatory requirements.

7.2.1 Records of Destroyed Cannabis Product

Records of destroyed raw materials and product will be kept and cross-referenced by batch number and State METRC RFID number. These items will be destroyed within the state's METRC

system, which tracks the product's RFID, the quantity, weight, or volume, as appropriate, and the method of disposal. In addition, the reason for disposal and the disposition of the batch shall be noted in the METRC system. Subject to possible State and local ordinance changes, the methodology for recording destroyed cannabis waste shall be in compliance with all State and local regulatory requirements.

7.3 Hazardous Materials Management Plan

7.3.1 Statement

The facility may handle routine agricultural products, support chemicals (e.g., fertilizers, pesticides, fuels, lubricants), and fuels (e.g. propane) in amounts requiring a Hazardous Material Business Plan (HMBP). If so, it will register its hazardous materials with the local agency using the Hazardous Materials/Waste Registration Form so that the local agency can evaluate the storage or use and give notice of any permits or storage/use fees that may apply.

If the facility begins to handle any individual hazardous material or mixture containing a hazardous material which has a quantity at any time during the reporting year equal to or greater than those listed below, it will complete a Hazardous Material Business Plan (HMBP) and submit a copy to the local agency (Humboldt County DHHS Division of Environmental Health):

- Equal to or greater than 500 pounds or total volume of 55 gallons of hazardous materials. [H&SC §25503.5(a)(A)]
- Equal to, or greater than, 200 cubic feet at standard temperature and pressure, if the substance is compressed gas [H&SC §25503.5(a)(B)].
- The following amounts for liquid hazardous materials:
    - Lubricating oil as defined by H&SC §25503.5(b)(2)(B): 55 gallons of any type or 275 gallons aggregate quantity on site. H&SC §25503.5(b)(2)(A)]
    - All others, including waste oil: 55 gallons. [H&SC §25503.5(a)]
- The following amounts of hazardous material gases:
    - Oxygen, Nitrogen, or Nitrous Oxide stored/handled at a physician, dentist, podiatrist, veterinarian, or pharmacist's place of business: 1,000 cubic feet of each material on site. [H&SC §25503.5(b)(1)]
- All others: 200 cubic feet. [H&SC §25503.5(a)]
    - Amounts of radioactive materials requiring an emergency plan under Parts 30, 40, or 70 of Title 10 Code of Federal Regulations or equal to or greater than applicable amounts specified in items 1, 2, or 3, above, whichever amount is smaller. [H&SC §25503.5(a)]
    - Applicable federal threshold planning quantities for extremely hazardous substances listed in 40 CFR Part 355, Appendix A.

7.3.2 Hazardous Material Storage

The project will only utilize conventional agricultural products such as fuels, propane, fertilizers, pesticides, and other potentially hazardous materials. These materials will be stored consistent with the requirements of the Humboldt County Environmental Health Department. Fertilizer, fuels, and pesticides will be stored in locked Conex type shipping containers located south of the existing central access road. In a single month, it is anticipated that the project may store up to 200 pounds of nitrogen and up to 55 pounds of phosphorous. The Operator does not anticipate the storage of pesticides or fertilizers in threshold quantities for a HMBP; however, the propane tanks will likely trigger the threshold quantities for a HMBP. Liquid propane deliveries will be handled by a licensed propane distributor. Adequate fire safety equipment (e.g. extinguishers) and safety relief valves will be provided or installed.

7.3.3 Hazardous Material Disposal

It is recognized that hazardous materials and wastes from agricultural businesses are regulated by the Humboldt County Environmental Health Division, that administers the Hazardous Materials program as one of the Certified Unified Program Agencies (CUPA). Disposal of any chemical or hazardous waste will be conducted in a manner consistent with federal, state and local laws, regulations, rules or other requirements. Chemical/hazardous wastes will be handled and disposed of properly by Safety-Kleen or another qualified and properly licensed contractor.

8.0 SEWAGE DISPOSAL PLAN

Bathrooms will be provided for facility workers within the new distribution and processing buildings. These facilities will be equipped with a septic system sized by a professional engineer for the number of employees operating within these structures. A licensed engineer was retained to perform a soils suitability study and prepare a draft onsite wastewater treatment system design.

The Operator will continue to contract with a professional temporary sanitation facilities services provider to provide and maintain toilet and hand washing facilities for the remaining cultivation employees.

9.0 SOILS MANAGEMENT PLAN

Soils used for cultivation will be refortified after harvest by means of regenerative farming practices so that it may be used again for future cultivation, and the cycle repeated as many times as feasible to minimize the amount of imported soil necessary. In the event that soil cannot be reused, it will be disposed of appropriately as solid waste in compliance with state and local law.

10.0 PROCESSING PLAN

10.1 Processing Practices

Immediately following harvest, onsite cannabis will either be frozen in a new ±320 square foot storage container for onsite/offsite manufacturing or processed within the new ±5,400 square processing building. Processing at the facility will include drying, trimming, and the production of pre-rolls. In addition to the general facility safety practices discussed above, processing at the facility will, at a minimum, implement the following processing specific practices and protocols to prevent contamination and mold/mildew growth on cannabis product:

- Processing operations will be maintained in a clean and sanitary condition, including work surfaces and equipment;
- Processing and trimming areas will be cleaned regularly between harvest batches;
- Harvest batch separation, tracking, and inventory control;
- Drying/storage will be separated into 3 bays and will keep batches separate to help isolate potential contamination or mold;
- The building will be equipped with HVAC for climate control and dehumidification;
- Employees handling cannabis in processing operations will have access to facemask and gloves in good operable condition as applicable to their job function;
- Employees must wash their hands sufficiently when handling cannabis or use gloves;
- Processing at the facility will require up to 10 full-time and 10 seasonal employees;
- Transfer of all materials from cultivation areas to the frozen storage container and processing building will be done using an onsite access road;
- All processing activities will implement consumer safety control processes, procedures, and documentation; and
- All cannabis materials within the processing operation will be tracked via the methods described in the materials management section above.

10.2 Product Quality Control

In addition to meeting all state and local requirements for product quality control, the standard procedures for processing operations will include the following:

Samples from each batch of bulk products will be screened and R&D tested by a state licensed independent laboratory for potency, pesticides, mold, and other undesirable qualities prior to release for bulk sale to wholesalers or sending to consumer packaging for retail sale. Once cannabis products are packaged for retail sale, they will follow the state requirements for finished good testing prior to distribution to a retailer. The Operator may send these products to another

distribution location for final consumer testing. Documentation of all final consumer lab test results will be kept on file.

10.3 Packaging

All final packaging of processed goods will meet state requirements for packaging.

11.0 PARKING PLAN

The facility will provide 44 standard (8' x 20') onsite gravel parking spaces. In addition, 2 ADA compliant parking spots will be provided to service the new processing and distribution/manufacturing buildings.

12.0 ENERGY PLAN

Power for the new greenhouse, processing, distribution/manufacturing, and nursery buildings will be provided by an existing PG&E connection. The Project will obtain renewable energy through the Redwood Coast Energy Authority or a suitable equivalent source. Lighting used within the new structures and for security purpose will utilize energy efficient light bulbs and motion sensors to help minimize energy demand. Further, lighting used for mixed-light cultivation within the greenhouses will utilize energy efficient light bulbs, such as LED, and operated to the minimum extent practicable. Heaters for the new greenhouses will operated using propane and will be supplied via two 1,000-gallon liquid propane tanks. In case of emergency, the Operator will use up to 3 emergency backup generators for key facility operations with risk of lost product in the event of a power failure.

13.0 SECURITY PLAN

Security measures at the site will secure cannabis and cannabis products against diversion for non-commercial purposes by protecting against theft not only from intruders, but also from staff members and visitors. This will be done by limiting access into the facility as necessary and by surveillance monitoring of personnel and visitors at all times when in close proximity to the product. Strict inventory control measures will also be engaged to prevent and detect diversion.

All cannabis other than lab samples will be transported to a state licensed commercial cannabis facility by a state licensed distribution company.

The general security measures located on the premises will include the following:

13.1 Video Surveillance and Lighting

The existing outdoor video surveillance system can effectively monitor the space in and around the general facility. New buildings, greenhouses, and hoophouses will be equipped with additional indoor and outdoor video surveillance. In additions, these structures will be equipped

shielded motion sense exterior lighting that is directed so as to not pose a nuisance to neighboring properties.

13.2 Alarm

A security/burglar alarm system is installed and operated at appropriate times within the facility. New facility structures will be equipped with the necessary alarm and video surveillance systems.

13.3 Access Control

Entrances to the facility will be restricted by an access control system. Twenty-four (24) hour access to the facility by emergency responders (Fire Dept.) will be provided via a Knox Box if requested. Structure onsite will be locked with restricted access to ensure employee access limited to only designated job areas.

13.4 Fencing

The cultivation area is fenced with chain-link fencing.

14.0 NOISE SOURCE ASSESSMENT AND MITIGATION PLAN

A noise assessment was prepared by a licensed engineer analyzing existing conditions at the facility in comparison to proposed project activities. The noise study determines that the proposed structures and existing topography, vegetation, and contours are anticipated to attenuate project sound to below the 3 dB increase required in the CCLUO and that the proposed sound levels do not exceed the maximum allowable within the HCGP for an AG zoned parcel. Accordingly, no mitigation measures were identified or required.

15.0 LIGHT POLLUTION CONTROL PLAN

New outdoor security lighting for the Project will be shielded to prevent light from going outside of the Project boundary. In addition, lighting for mixed-light cultivation will not be turned on until greenhouse blackout curtains have been drawn to prevent light from escaping between sunset and sunrise.

APPENDIX C
NOTICE OF APPLICABILITY

September 22, 2020 WDID:1_12CC428884

ORGANIC LIBERTY CA, LLC
ATTN: MATTHEW PRIMM
229 FRIDAY RIDGE ROAD
WILLOW CREEK, CA 95573

Subject: Notice of Applicability - Waste Discharge Requirements Water Quality Order WQ 2019-0001-DWQ

The attached Notice of Applicability provides notice that the requirements of the State Water Board *Cannabis Cultivation Policy- Principles and Guidelines for Cannabis Cultivation* (Policy), and the *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities,* Order WQ 2019-0001-DWQ (General Order – previously WQ 2017-0023-DWQ, with updates and revisions effective April 16, 2019) are applicable to the site as described below. Based on the information provided, the Discharger self-certifies the cannabis cultivation activities are consistent with the requirements of the State Water Board Policy and General Order.

Please direct all submittals, discharge notifications, and questions regarding compliance and enforcement to the North Coast Regional Water Quality Control Board Cannabis Program at (707) 576-2676 or northcoast.cannabis@waterboards.ca.gov.

Sincerely,

Matthias St. John
Executive Officer
North Coast Regional Water Quality Control Board

200922_2L_1_12CC428884_Organic_Liberty_Willow_Creek_NOA_TW

NOTICE OF APPLICABILITY – WASTE DISCHARGE REQUIREMENTS, WATER QUALITY ORDER WQ 2019-0001-DWQ, ORGANIC LIBERTY CA, LLC, HUMBOLDT COUNTY APN(s) 524-091-002-000 and 524-073-003-000

Organic Liberty CA, LLC (hereafter "Discharger") submitted information through the State Water Resources Control Board's (State Water Board's) online portal on August 24, 2020, for discharges of waste associated with cannabis cultivation related activities. Based on the information provided, the Discharger self-certifies the cannabis cultivation activities are consistent with the requirements of the Policy and General Order. This letter provides notice that the Policy and General Order are applicable to the site as described below. You are hereby assigned waste discharge identification (WDID) number **1_12CC428884**.

The Discharger is responsible for all the applicable requirements in the Policy, General Order, and this Notice of Applicability (NOA). This includes making any necessary changes to the enrollment, and the Discharger is the sole person or entity with legal authority to make those changes. The Discharger will be held liable for any noncompliance with the Policy, General Order, and the NOA. Please note that this NOA does not provide authorization to cultivate cannabis; such authorization is provided through a license from the California Department of Food and Agriculture (CalCannabis), required permits from your local jurisdiction (City or County), and an agreement from the California Department of Fish and Wildlife. General Requirement #1 of the Policy and General Order, and by reference this NOA, require that you obtain all appropriate permits from those other agencies prior to cultivating cannabis.

1. FACILITY AND DISCHARGE DESCRIPTION

The information submitted by the Discharger states the disturbed area is equal to or greater than 1 acre (43,560 square feet) no portion of the disturbed area is within the setback requirements, no portion of the disturbed area is located on a slope greater than 30 percent, and the cannabis cultivation area is greater than 1 acre.

Based on the information submitted by the Discharger, the cannabis cultivation activities are classified as Tier 2 Low Risk.

2. SITE-SPECIFIC REQUIREMENTS

The Policy and General Order are available on the Internet at: https://www.waterboards.ca.gov/water_issues/programs/cannabis/cannabis_water_quality.html

The Discharger shall ensure that all site operating personnel know, understand, and comply with the requirements contained in the Policy, General Order, this NOA, and the Monitoring and Reporting Program (MRP, Attachment B of the General Order). Note that the General Order contains standard provisions, general requirements, and prohibitions that apply to all cannabis cultivation activities.

The application requires the Discharger to self-certify that all applicable Best Practicable Treatment or Control (BPTC) measures are being implemented, or will be implemented by the onset of the winter period (November 15 - April 1), following the enrollment date. Landowners of the cultivation site in the North Coast Region are required to submit and implement Site Management Plans that describes how BPTC measures are implemented property-wide, including BPTC measures implemented to address discharges from legacy activities (e.g. former timber harvest, road building, mining, etc.) at the site per Provision C.1.a. of the General Order. Dischargers that cannot implement all applicable BPTC measures by the onset of the winter period, following their enrollment date, shall submit to the appropriate Regional Water Board a *Site Management Plan* that includes a time schedule and scope of work for use by the Regional Water Board in developing a compliance schedule as described in Attachment A of the General Order.

The Policy and General Order require that, prior to conducting any work in streams or wetlands, the Discharger obtain water quality certification from the Water Boards and other required permits from other agencies (e.g. a Clean Water Act section 404 permit from the United States Army Corps of Engineers, a Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife, and other local permits). Enrollment in the General Order requires that the Discharger obtain water quality certification for any such work, but this NOA does not provide the necessary certification. If the Discharger proposes or requires work in streams or wetlands, they must apply for water quality certification separately by filling out and submitting a separate application for that work. The application is available for download at the following Regional Water Board website:
https://www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/

Currently, the direct link to that application is as follows:
https://www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/pdf/200204/RB1_Cannabis_WQC_401_App.pdf

Note: Water Quality Certifications require separate application and monitoring fees. A fee calculator and additional information are available at:
https://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification/#401_calc

During reasonable hours, the Discharger shall allow the State Water Board or Regional Water Board (collectively Water Boards), California Department of Fish and Wildlife, CAL FIRE, and any other authorized representatives of the Water Boards upon presentation of a badge, employee identification card, or similar credentials, to:

i. enter premises and facilities where cannabis is cultivated; where water is diverted, stored, or used; where wastes are treated, stored, or disposed; or in which any records are kept;
i. access and copy, any records required to be kept under the terms and conditions of the Policy and General Order;

ii. inspect, photograph, and record audio and video, any cannabis cultivation sites, and associated premises, facilities, monitoring equipment or device, practices, or operations regulated or required by the Policy and General Order; and

iii. sample, monitor, photograph, and record audio and video of site conditions, any discharge, waste material substances, or water quality parameters at any location for the purpose of assuring compliance with the Policy and General Order.

3. TECHNICAL REPORT REQUIREMENTS

The following technical report(s) shall be submitted by the Discharger as described below:

A Site Management Plan, by November 21, 2020, consistent with the requirements of General Order Provision C.1.a., and Attachment A, Section 5. Attachment D of the General Order provides guidance on the contents of the Site Management Plan.

A Nitrogen Management Plan must be submitted by November 21, 2020, consistent with the requirements of General Order Provision C.1.d., and Attachment A, Section 5. Attachment D of the General Order provides guidance on the contents of the Nitrogen Management Plan.

A Site Closure Report must be submitted 90 days prior to permanently ending cannabis cultivation activities and seeking to rescind coverage under the General Order. The *Site Closure Report* must be consistent with the requirements of General Order Provision C.1.e., and Attachment A, Section 5. Attachment D of the General Order provides guidance on the contents of the *Site Closure Report.*

4. MONITORING AND REPORTING PROGRAM

The Discharger shall comply with all provisions of the Monitoring and Reporting Program (MRP), which appears as Attachment B to the General Order. The Discharger shall also comply with all provisions of the *North Coast Regional Supplement to Annual Monitoring and Reporting Requirements for Statewide Cannabis General Order WQ 2017-0023-DWQ* (Regional Supplement), which independently appears as Investigative Order No. R1-2019-0023, issued by the Regional Water Board Executive Officer on March 22, 2019. Annual reports for both sets of requirements shall be submitted to the Regional Water Board in a combined report by March 1 following the year being monitored through the online portal (https://public2.waterboards.ca.gov/cgo). The Discharger shall not implement any changes to the MRP or to the Regional Supplement unless and until a revised MRP or Regional Supplement is issued by the Regional Water Board Executive Officer or the State Water Board Division of Water Quality Deputy Director, or the State Water Board Chief Deputy Director.

A copy of Attachment B to the General Order can be obtained online at the following location, or by contacting staff at the phone number and email address listed below. https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf#page=32.

A copy of the Regional Supplement can be obtained online at the following location, or by contacting staff at the phone number and email address listed below. https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2019/19_0023_Regional%20Supplement%2013267%20Order.pdf.

5. ANNUAL FEE

According to the information submitted, the discharge is classified as Tier 2 Low Risk. The 2018-2019 annual fee for that tier and risk level was set at $1,000, but please note that the Fee Schedule is updated annually and future fees may be invoiced at different rates. Invoices are sent by the State Water Board at the beginning of each calendar year (generally in February). Do not submit payments without receiving an invoice. If you have questions or concerns about your fees please contact the Fee Branch at FeeBranch@waterboards.ca.gov or (916) 341-5247. The fee is due and payable on an annual basis until coverage under this General Order is formally rescinded. To rescind coverage, the Discharger must submit a Request for Termination in writing through the online portal (available at: https://public2.waterboards.ca.gov/cgo), including a Site Closure Report at least 90 days prior to termination of activities and include a final MRP report.

6. TERMINATION OF COVERAGE UNDER THE GENERAL ORDER & REGIONAL WATER BOARD CONTACT INFORMATION

Enrollees that propose to terminate coverage under the General Order must submit a Request for Termination in writing through the online portal (https://public2.waterboards.ca.gov/cgo). The Request for Termination consists of a formal statement regarding the reason for requesting termination (i.e. cultivation is no longer occurring, the property is being sold, etc.), documentation that the site is in compliance with the General Order, including dated photographs and a written discussion. If the site is not meeting the requirements of the General Order, then the enrollment cannot be terminated. Regional Water Board staff will review the Request for Termination for completeness before determining if a property inspection, enrollment termination, or a request for additional information is appropriate.

If the Discharger cannot comply with the General Order, or will be unable to implement an applicable BPTC measure contained in Attachment A by the onset of the winter period each year, the Discharger shall notify the North Coast Regional Cannabis Unit staff at (707) 576-2676 or northcoast.cannabis@waterboards.ca.gov so that a site-specific compliance schedule can be developed.

Cc: Kevin Porzio, State Water Resources Control Board, dwq.cannabis@waterboards.ca.gov
Cheri Sanville, California Department of Fish and Wildlife, cheri.sanville@wildlife.ca.gov
Cliff Johnson, Humboldt County Planning and Building, cjohnson@co.humboldt.ca.us

APPENDIX D
PRELIMINARY HYDROLOGY REPORT

WHITCHURCH ENGINEERING

610 9th Street
Fortuna, CA 95540
Phone: (707) 725-6926

Preliminary Hydrology Report

Proposed Cannabis Cultivation Modification
APN: 524-091-009
229 Friday Ridge Road,
Willow Creek, California 95573

Prepared for:
Matthew Primm
PO Box 94825
Las Vegas, NV 89193

Prepared by:
Whitchurch Engineering, Inc.
610 9th Street
Fortuna, CA
10/27/2023

REV 1 – 9.12.24

Table of Contents

Acronyms and Abbreviations

APN	Assessor's Parcel Number
INC	Incorporated
WDR	Waste Discharge Requirement
cfs	Cubic Feet Per Second
ft	Feet
ft^3	Cubic feet
ft^2	Square feet

www.whitchurchengineering.com
610 9th St. Fortuna, CA 95540
Phone: (707) 725-6926

1. Existing Site Conditions

The project property consists of a single 90-acre parcel located on Friday Ridge Road in Willow Creek, California (APN: 524-091-009). The existing site is sloped from the West to the East at slopes of 5%-20%. The parcel is located on the Western side of Highway 101 on Friday Ridge Road. The project site is located roughly in the middle of the parcel and consists of an area of about 4 acres. The existing ground cover is comprised of outdoor cultivation beds, gravel/dirt access roads and undeveloped areas. There exists a number of small structures located in the project area, including an irrigation shed, metal conex containers, and a single-family residence (See Appendix A: Existing Site Conditions). For the purposes of this analysis, these structures are assumed be outside of the project area.

Drainage from the site sheet flows downhill to 2 seasonal drainages, one on the eastern side of the project area and another on the northeast side. An existing drainage swale routes water from along Friday Ridge Road into the swale along the northeast edge of the project. A few small, non-functioning culverts exist on the project site along the edges of the gravel/dirt access road.

2. Proposed Site Conditions

The proposed project modification includes the construction of NW Structures ((1) 45'x70' building, (1) 60'x90' building, and (2) 8'x40' metal containers), North Greenhouses ((1) 30'x135' greenhouse and (2) 30'x170' greenhouses), and South Greenhouses ((1) 30'x95' greenhouse and (4) 40'x130' greenhouses). Additional improvements will include a nursery (90'x35') and small concrete pad (50'x60'). See Appendix B for proposed site plan. Hoop Houses will also be added, but for the purposes of this report, it is assumed that the new hoop house additions will not count toward the impervious surface area as they will be uncovered during the wet season and thus contribute minimal runoff. The summary of the approximate 53,240 ft2 of proposed impervious area can be found in Table 1.

Table 1: List of proposed structures and areas.

Surface	Area (ft^2)
NW Structures	9,190
N. Greenhouses	14,250
S. Greenhouses	23,650
Concrete Pad	3,000
Nursery	3,150
Total	**53,240**

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Phone: (707) 725-6926

3. Runoff Calculations

The 24-hour 85th percentile storm depth was calculated using 40+ years of daily precipitation data from the nearby Hoopa Gauge (California Data Exchange Center station ID: HPA). Rainfall depths were taken from the datasets ranked from greatest to smallest. Each depth was assigned a percentile that indicated the likelihood of any given day having a rainfall depth that is less than or equal to that depth. Thus, a depth of 0.3" and a percentile of 25% indicates that there is a 25% chance of having 0.3" of rain or less during any given 24-hour rain event. The equation for assigning percentiles can be seen below.

$$P = 100 * \sum_{i=1}^{n} \frac{n-i}{n} \quad (1)$$

Where

P = Percentile

n = Total number of data entries

i = Ranking of data (highest rank represents the highest data value)

Runoff volume is calculated from the product of the rainfall depth and the impervious surface area. The equation can be written as follows.

$$V = d * A \quad (2)$$

Where

V = Total runoff volume (ft^3)

d = Rainfall depth (ft)

A = Total site impervious area (ft^2)

Rainfall depth is converted from inches to feet for this analysis. It is assumed that the full volume of runoff from the 85th percentile storm generated by the proposed structures would be captured.

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4. Runoff Analysis

Runoff analysis for this project was conducted per Humboldt County requirements. The design storm for the analysis will be a 24-hour 85th percentile storm, which is based off 40 years of data from the nearest rain gauge (located approximately 8 miles away from the project site).

4.1 Post-Development Runoff Volume

By using Equation 1 and the impervious areas of the proposed structures, the 85th percentile runoff volume was then calculated. The results for the 85th percentile rainfall depth and resulting runoff volume from the proposed structures can be seen below in Tables 2 & 3, respectively.

Table 2: 85th Percentile Rainfall Depth

Percentile	Depth (in)
85th	**1.26**

Table 3: Runoff Volume From New Structures Based on the 85th Percentile Rainfall Depth.

Structure(s)	Area (ft^2)	Volume (ft^3)	Volume (gal)
Structures (NW corner of site)	9,190	965	7,218
N. Greenhouses	14,250	1,496	11,193
S. Greenhouses	23,650	2,483	18,576
Concrete Pad	3,000	315	2,356
Nursery	3,150	331	2,474
Total	**53,240**	**5,590**	**41,818**

Runoff will be mitigated through the use of a rainfall catchment system. The required storage volumes have been sized to hold the estimated runoff volumes for each group of structures plus an additional 20% safety factor. The tank sizes were determined by using this calculated storage volume and rounding up to the nearest available size. It is assumed that a series of 5,000-gallon tanks will be constructed in series to provide the required volumes. Table 4 shows the tank sizes that are proposed to mitigate runoff for each group of proposed structures. For structures like the concrete pad, it is infeasible to collect runoff, so the storage volume for the adjacent "Southern Greenhouses" should be increased to provide mitigation measures for both the greenhouses and the concrete pad.

It is proposed that the rainwater catchment system utilize a "first flush" system to minimize organics and sediments in the storage system. The water from these tanks can be utilized for irrigation (non-potable)

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Phone: (707) 725-6926

purposes. These tanks should also be equipped with overflows with a splash block or other erosion control measure. See Appendix C for a schematic diagram of this system.

Table 4: Tank Sizing for Runoff from New Structures

Structure(s)	Storage Volume (gal)	Storage Volume plus 20% (gal)	# of 5,000 gal. Tanks
Structures (NW corner of site)	7,218	8,662	2
N. Greenhouses	11,193	13,432	3
S. Greenhouses	20,932*	25,118	6
Concrete Pad	N/A	-	-
Nursery	2,474	2,969	1
Total	**41,818**	**50,180**	**12**

*includes required storage volume from concrete pad

As shown in Table 4, a total of 12- 5,000 gallon tanks will be required as part of the catchment system to retain runoff from the proposed project based on a 24-hour, 85th percentile storm.

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Phone: (707) 725-6926

5. Conclusion

In conclusion:

- The project site is approximately 4 acres of an existing 90-acre parcel.
- This project will result in the construction of approximately 53,240 ft^2 of impervious surfaces for cultivation or accessory structures. New hoop houses are not considered impervious for this analysis.
- The Post-Construction, 85^{th} percentile 24-hour precipitation will result in a total estimated runoff volume of 5,590 ft^3 or 41,818 gallons.
- Rainwater catchment tanks will be installed next to each new structure and will be sized with an additional 20% safety factor.
- A total of 12-5,000 gallon catchment tanks will be installed, which will provide 60,000 gallons of storage that can be used for irrigation.

Engineer of Record Signature

9/12/2024
Date

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Phone: (707) 725-6926

Appendix A: Existing Site Conditions

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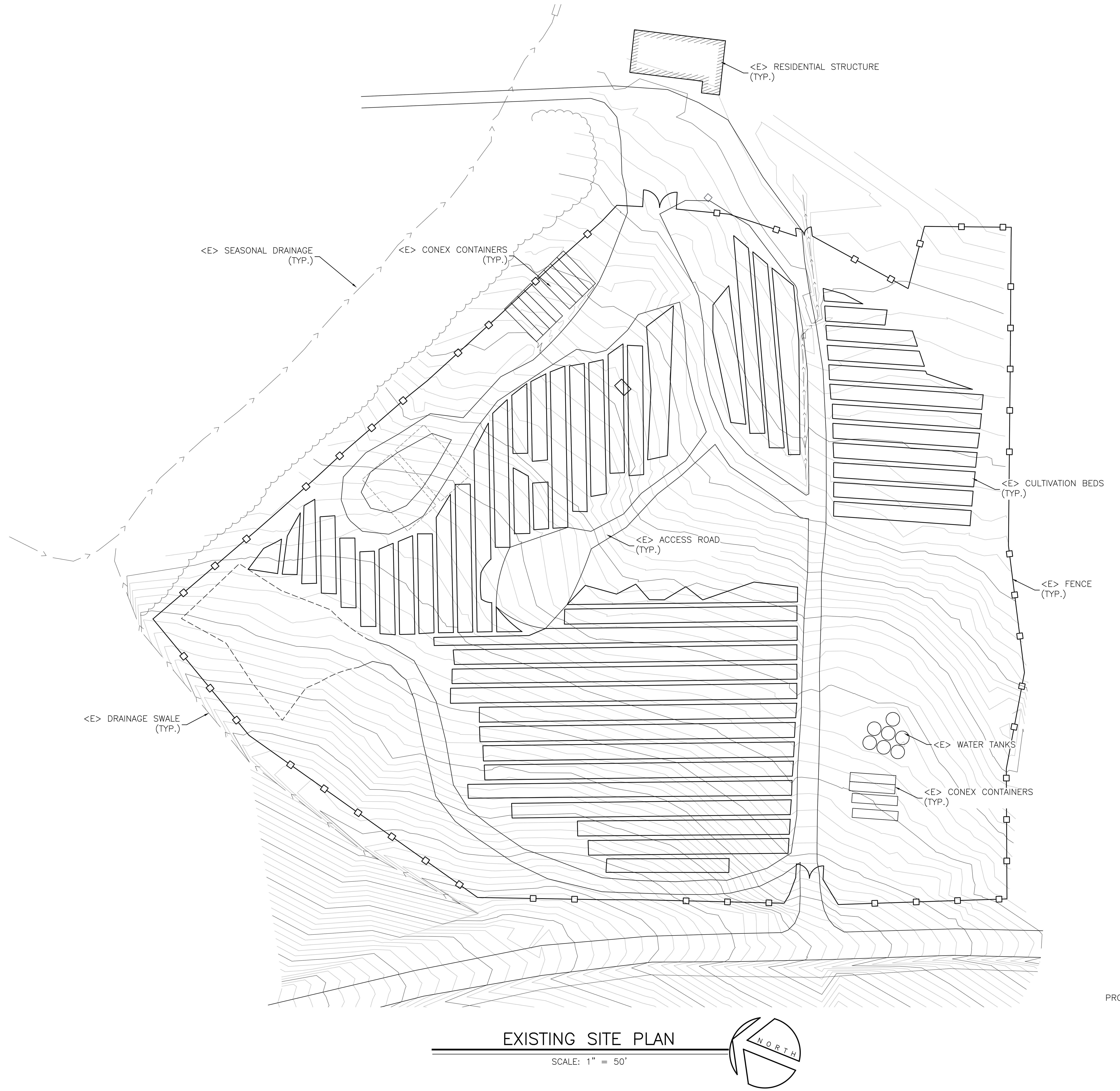
Phone: (707) 725-6926



PROPERTY LINES NOT SHOWN.

EXISTING SITE PLAN

SCALE: 1" = 50'

THESE PLANS ARE ORIGINALLY PRINTED ON 22"x34" PAPER.

1 INCH

This drawing or drawing set shall not be used for construction unless a jurisdictional stamp (County, City, State, Federal) has been issued on the drawing, stating "FOR PERMIT" or similar verbiage, a wet signed professional engineer's stamp, and permit documents have been issued for the project.

REVISIONS	BY

WHITCHURCH ENGINEERING, INC.
610 9th Street Fortuna, California 95540
Phone (707) 725-6926

ORGANIC LIBERTY PERMIT MODIFICATION

229 FRIDAY RIDGE ROAD, WILLOW CREEK, CA APN: 524-091-009

EXISTING SITE PLAN

For: MATTHEW PRIMM MATT@OLIBERTY.COM

Date	OCT 27, '23
Scale	AS NOTED
Design	ZDJ
Drawn	ZDJ
Job	CPS 2302
Sheet	

Appendix B: Conceptual Site Plan

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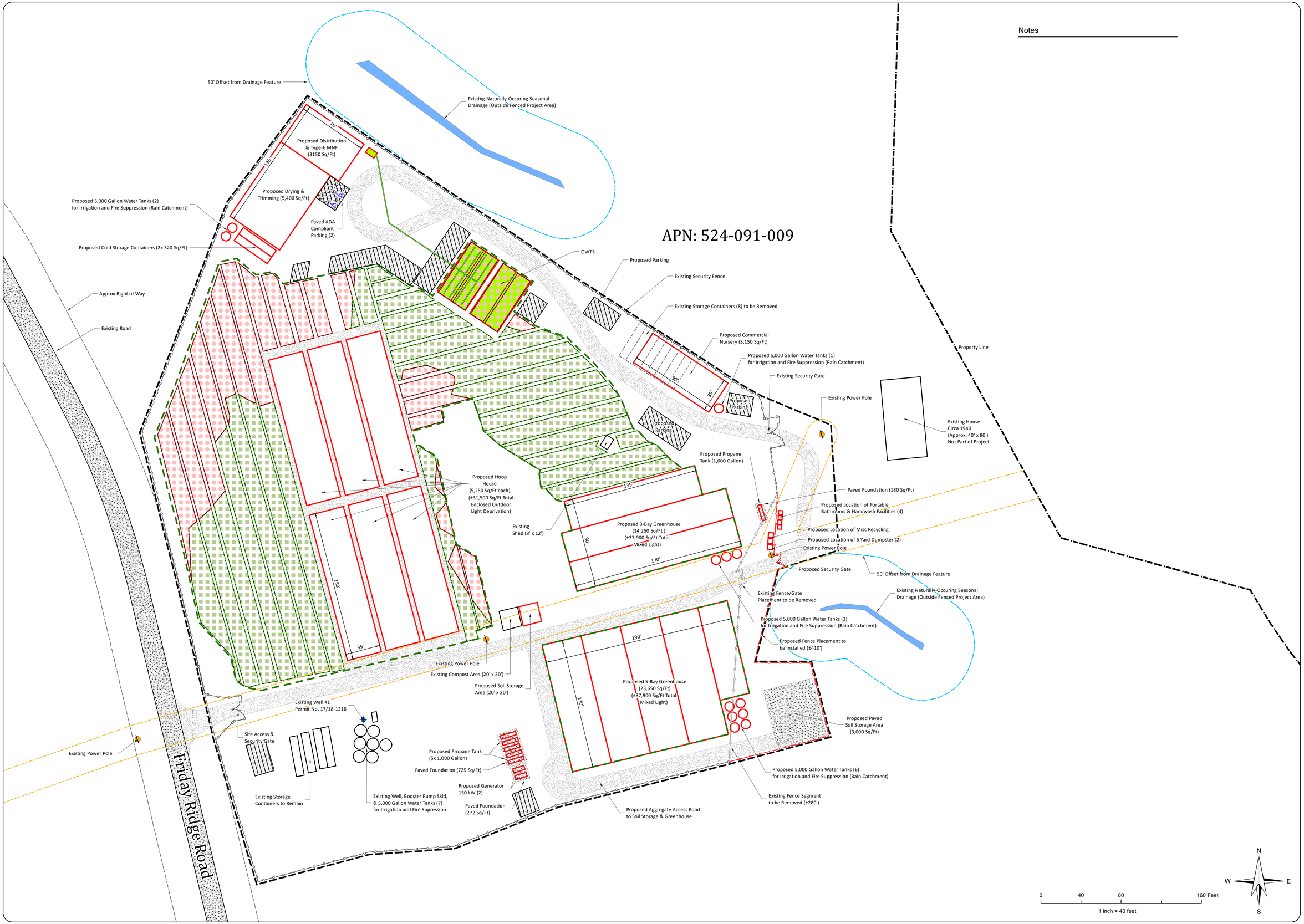
Phone: (707) 725-6926



Notes

ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification
Site Plan

Sheet 2
Site Overview

September 2024

Address: 229 Friday Ridge Road,
Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:

- Project Boundary
- Parcel Boundary
- Cultivation Area (±4.0 Acres)
- Existing Uncovered Cultivation
- Proposed Uncovered Cultivation
- Existing Structure
- Proposed Structure
- Structure to be Removed
- Concrete Surface
- C-2 Aggregate
- Existing Fence
- Existing Fence to be Removed
- Proposed Fence Placement
- Seasonal Drainage
- 50' Setback from Seasonal Drainage
- Parking (44)
- ADA Parking (2)
- Existing Well
- Power Pole
- 15' Structure Setback from PG&E Power Line
- On-Site Wastewater Treatment System (OWTS)
- OWTS Pipe

Existing road and building locations shown on this site plan are per aerial mapping and are approximate.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave, Suite 100, McClellan Park, CA 95652

COMPASS LAND GROUP

Appendix C: Storage Tank Catchment System

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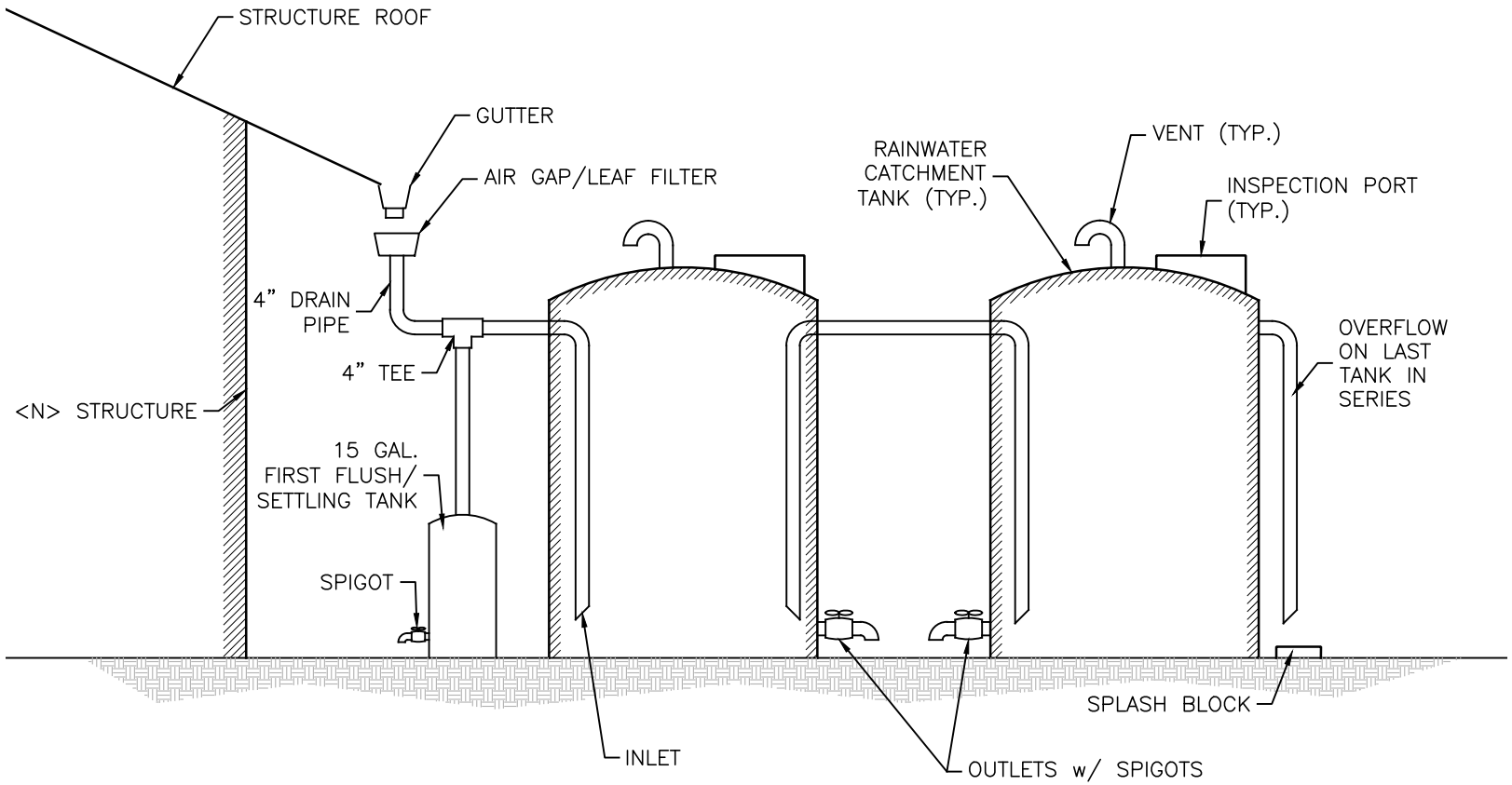


NOTE: ADDITIONAL TANKS CAN BE PLACED IN SERIES TO PROVIDE DESIRED STORAGE VOLUME.

APPENDIX E
COUNTY WELL PERMITS

Humboldt County Department of Health & Human Services

Division of Environmental Health
Street - Suite 100 - Eureka, CA 95501
Phone: 707-445-6215 - Toll Free: 800-963-9241
Fax: 707-441-5699
envhealth@co.humboldt.ca.us

17/18-1216

WATER WELL APPLICATION
CONSTRUCTION – REPAIR – DESTRUCTION

The Well Permit will be returned to the property owner when approved by Humboldt County Division of Environmental Health (DEH)

Instructions:

1. Complete both sides and submit the Water Well Application with required fee. Include Well Driller's signature and property owner's signature.
2. Work on a well shall not be started prior to approval of the Water Well Application by DEH.
3. Any changes made to the location of a new well shall be approved by DEH prior to commencement of drilling.
4. Well Driller shall notify DEH a minimum of 24 hours prior to sealing the annular space.

Site Address	229 Friday Ridge Rd	APN	524-091-002-000
City/State/Zip	Willow Creek Ca 95573	CA	95573
Directions to Site	Rt on Friday Ridge Rd, Rt 1st Driveway		
			Primm
Applicant	Organic Liberty LLC	Contact	Matt Primm
Mailing Address	501 West Broadway Ste 1750	Work Phone	9162360048
City/State/Zip	San Diego Ca 92101	Cell Phone	mprimm@brewerwhyte.com
Property Owner		Home Phone	
Mailing Address	Same	Work Phone	
City/State/Zip		Cell Phone	

I hereby grant 'right-of-entry' for inspection purposes [signature]

Drilling Contractor: Fisch Drilling — C-57 License #: 0838605

I hereby agree to comply with all laws and regulations of the County of Humboldt and the State of California Department of Water Resources Bulletin 74 pertaining to water well construction. I will contact Humboldt County Division of Environmental Health (DEH) when I commence work. Within 30 days after completion of work, I will furnish DEH a report of the work performed.

Well Driller Signature: [signature]

Would driller like a copy of approved application? ☒ Yes ☐ No

- ☒ U.S. Mail address:
- ☐ Email address:

Type of Application:	Construction:		Intended Use:
☒ Construction	Estimated Depth (ft.)	200-250	☐ Domestic - private
☐ Destruction	Diameter (in.)		☐ Community Supply
☐ Repair/Modification	Depth of Seal (ft.)		☐ Irrigation
	Sealing Material		☐ Other

2722

Estimated Work Dates: ς g:

Start _____ Diameter (in.) _____

Completion _____ Material _____

Type of Sewage System:

☐ Community Sewer
☐ OWTS (Septic)
Distance from well site to OWTS _____

Special Requirements/Comments:

_____

_____

_____

_____

PLOT PLAN

Coastal Zone: ☐ Yes ☐ No

PE 2722

FOR OFFICE USE ONLY

Fee:	373.00	Site Approved by:	a Mitchell
Date:	12/11/17 e-Pay	Site Approved Date:	12/21/17
Receipt:	confirmation #180233	Sealed to Depth of:	
Project #:	17/18-1216	Seal observed:	☐ Yes ☐ No
Paid by:	Isaiah O'Donnell	Final Approved Date:	

Humboldt County Department of Health & Human Services

RECEIVED
MAR 26 2018
HUMBOLDT CO. DIVISION OF ENVIRONMENTAL HEALTH

Environmental Health
100 H Street, Suite 100, Eureka, CA 95501
phone: (707) 445-6215 fax: (707) 441-5699

17/18-1636

WATER WELL APPLICATION

CONSTRUCTION – REPAIR – DESTRUCTION

The Well Permit will be returned to the property owner when approved by Humboldt County Division of Environmental Health (DEH)

Instructions:

1. Complete pages 1 and 2 of the application and submit the required fee with the Well Permit application, including Well Driller's signature and property owner's signature.
2. Work on the well shall not be started prior to approval of the Well Permit Application by DEH.
3. Any changes made to the location of a new well shall be approved by DEH prior to commencement of drilling.
4. DEH shall be notified by the Well Driller a minimum of 24 hours prior to sealing the annular space.

Site Address	**Friday Ridge Road**	APN	**524-073-003**
City/State/Zip	**Willow Creek, CA 95573**		
Directions to Site	#5		
Applicant	**FISCH DRILLING**	Contact	**CHRIS FISCH**
Mailing Address	**3150 JOHNSON RD**	Work Phone	**(707) 768-9800**
City/State/Zip	**HYDESVILLE, CA 95547**	Cell Phone	**(707) 601-3042**
Property Owner	**Organic Liberty, LLC**	Home Phone	**619-236-0048**
Mailing Address	**501 West Broadway Suite 1750**	Work Phone	
City/State/Zip	**San Diego, CA 92101**	Cell Phone	

I hereby grant 'right-of-entry' for inspection purposes _____

Drilling Contractor **FISCH DRILLING** C-57 License # **683865**

I hereby agree to comply with all laws and regulations of the County of Humboldt and the State of California Department of Water Resources Bulletin 74 pertaining to water well construction. I will contact Humboldt County Division of Environmental Health (DEH) when I commence work. Within 30 days after completion of work, I will furnish DEH a report of the work performed.

Well Driller Signature: Chris Fisch

Would driller like a copy of approved application? ☑ Yes ☐ No

☐ U.S. Mail address: _____

☑ Email address: **chris@fischdrilling.com**

Type of Application:	Construction:		Intended Use:
☑ Construction	Estimated Depth (ft.)		☐ Domestic - private
☐ Destruction	Diameter (in.)	**10"**	☐ Community Supply
☐ Repair/Modification	Depth of Seal (ft.)	**20'**	☑ Irrigation
	Sealing Material	**Bentonite**	☐ Other

2722

Estimated Work Dates:	Casing:	Type of Sewage System:
Start _____	Diameter (in.) 5"	☐ Community Sewer
		☑ OWTS (Septic)
Completion _____	Material PVC	Distance from well site to OWTS none

Special Requirements/Comments:

_____

_____

_____

_____

PLOT PLAN

√ # 16388

FOR OFFICE USE ONLY

Fee:	$ 373.00	Site Approved by:	aMolofsky
Date:	3-26-18	Site Approved Date:	3/28/18
Receipt:	706323	Sealed to Depth of:	
Project #:		Seal observed:	☐ Yes ☐ No
		Final Approved Date:	

Humboldt County Department of Health & Human Services

RECEIVED JAN 31 2018 HUMBOLDT CO. DIVISION OF ENVIRONMENTAL HEALTH

Environmental Health
100 H Street, Suite 100, Eureka, CA 95501
phone: (707) 445-6215 fax: (707) 441-5699

17/18-1401

WATER WELL APPLICATION
CONSTRUCTION – REPAIR – DESTRUCTION

The Well Permit will be returned to the property owner when approved by Humboldt County Division of Environmental Health (DEH)

Instructions:

1. Complete pages 1 and 2 of the application and submit the required fee with the Well Permit application, including Well Driller's signature and property owner's signature.
2. Work on the well shall not be started prior to approval of the Well Permit Application by DEH.
3. Any changes made to the location of a new well shall be approved by DEH prior to commencement of drilling.
4. DEH shall be notified by the Well Driller a minimum of 24 hours prior to sealing the annular space.

Site Address	Friday Ridge Rd. & Hwy 99	APN	524-073-003
City/State/Zip	Willow Creek, CA 95573		
Directions to Site			
Applicant	FISCH DRILLING	Contact	CHRIS FISCH
Mailing Address	3150 JOHNSON RD	Work Phone	(707) 768-9800
City/State/Zip	HYDESVILLE, CA 95547	Cell Phone	(707) 601-3042
Property Owner	Organic Liberty, LLC	Home Phone	
Mailing Address	501 West Broadway Suite 1750	Work Phone	
City/State/Zip	San Diego, CA 92101	Cell Phone	916-236-0048

I hereby grant 'right-of-entry' for inspection purposes _____

Drilling Contractor **FISCH DRILLING** C-57 License # **683865**

I hereby agree to comply with all laws and regulations of the County of Humboldt and the State of California Department of Water Resources Bulletin 74 pertaining to water well construction. I will contact Humboldt County Division of Environmental Health (DEH) when I commence work. Within 30 days after completion of work, I will furnish DEH a report of the work performed.

Well Driller Signature: Chris Fisch

Would driller like a copy of approved application? ☑ Yes ☐ No

☐ U.S. Mail address: _____

☑ Email address: chris@fischdrilling.com

Type of Application:	Construction:		Intended Use:
☑ Construction	Estimated Depth (ft.)		☑ Domestic - private
☐ Destruction	Diameter (in.)	10"	☐ Community Supply
☐ Repair/Modification	Depth of Seal (ft.)	20'	☐ Irrigation
	Sealing Material	Bentonite	☐ Other

2722

Estimated Work Dates:	Casing:	Type of Sewage System:
Start _____	Diameter (in.) 5"	☐ Community Sewer
		☑ OWTS (Septic)
Completion _____	Material PVC	Distance from well site to OWTS none

Special Requirements/Comments:

_____

_____

_____

_____

PLOT PLAN

17/18-1401

FOR OFFICE USE ONLY

Fee:	$373.00 ✓#16312	Site Approved by:	a Molohoby
Date:	1-31-18	Site Approved Date:	2/7/18
Receipt:	705939	Sealed to Depth of:	
Project #:		Seal observed:	☐ Yes ☐ No
		Final Approved Date:	

paid For by Fisch Drilling

FISCH DRILLING

3150 Johnson Rd.
Hydesville, CA 95547

Invoice

DATE	INVOICE NO.
1/5/2018	W1953

BILL TO
Organic Liberty, LLC 501 West Broadway, Suite 1750 San Diego, CA 92101

PAID

P.O. NO.	TERMS	DUE DATE
524-091-002	Due on receipt	1/5/2018

QTY	DESCRIPTION	RATE	AMOUNT
1	Set up and Take Down Equipment	3,000.00	3,000.00
1	Drive Shoe For Driving Steel Casing	225.00	225.00
60	Steel Casing	70.00	4,200.00
60	4" PVC Inside Steel Casing	25.00	1,500.00
160	4" PVC Under Steel Casing	40.00	6,400.00
1	CK# 10423 Credit Applied	-2,754.00	-2,754.00

Questions regarding this invoice. Call Chris
(707)768-9800

Total $12,571.00

State of California

Well Completion Report

Form DWR 188 Submitted 1/19/2018

WCR2018-000543

Owner's Well Number 1 | Date Work Began 01/04/2018 | Date Work Ended 01/12/2018

Local Permit Agency Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency | Permit Number 17/18-1216 | Permit Date 12/21/2017

Well Owner (must remain confidential pursuant to Water Code 13752)

Name ORGANIC LIBERTY, LLC,

Mailing Address 501 West Broadway Ste 1750

City San Diego | State CA | Zip 92101

Planned Use and Activity

Activity New Well

Planned Use Water Supply Irrigation - Agriculture

Well Location

Address 229 Friday Ridge RD

City Willow Creek | Zip 95573 | County Humboldt

Latitude Deg. Min. Sec. N | Longitude Deg. Min. Sec. W

Dec. Lat. 40.8883880 | Dec. Long. -123.6086720

Vertical Datum | Horizontal Datum WGS84

Location Accuracy | Location Determination Method

APN 524-091-002

Township 06 N

Range 05 E

Section 15

Baseline Meridian Humboldt

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical | Specify

Drilling Method Other - Under-Ream Down-Hole Hammer | Drilling Fluid Air

Total Depth of Boring 220 Feet

Total Depth of Completed Well 220 Feet

Water Level and Yield of Completed Well

Depth to first water 14 (Feet below surface)

Depth to Static Water Level 12 (Feet) | Date Measured 01/12/2018

Estimated Yield* 5 (GPM) | Test Type Air Lift

Test Length 4 (Hours) | Total Drawdown 208 (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	4	top soil
4	11	brown silty clay
11	33	over berdin
33	133	shale
133	167	basalt
167	220	shale

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	40	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	6			
1	40	60	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	6	Milled Slots	0.05	
2	0	40	Blank	PVC	OD: 4.500 in. | SDR: 21 | Thickness: 0.214 in.	0.214	4.5			
2	40	220	Screen	PVC	OD: 4.500 in. | SDR: 21 | Thickness: 0.214 in.	0.214	4.5	Milled Slots	0.032	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Other Bentonite		Sanitary Seal
20	220	Filter Pack	Other Gravel Pack	3/8 Inch	Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	220	10

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: FISCH DRILLING
Person, Firm or Corporation

3150 JOHNSON ROAD | HYDESVILLE | CA | 95547
Address | City | State | Zip

Signed: *electronic signature received* | 01/19/2018 | 683865
C-57 Licensed Water Well Contractor | Date Signed | C-57 License Number

Attachments

Scan.pdf - Location Map

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

N

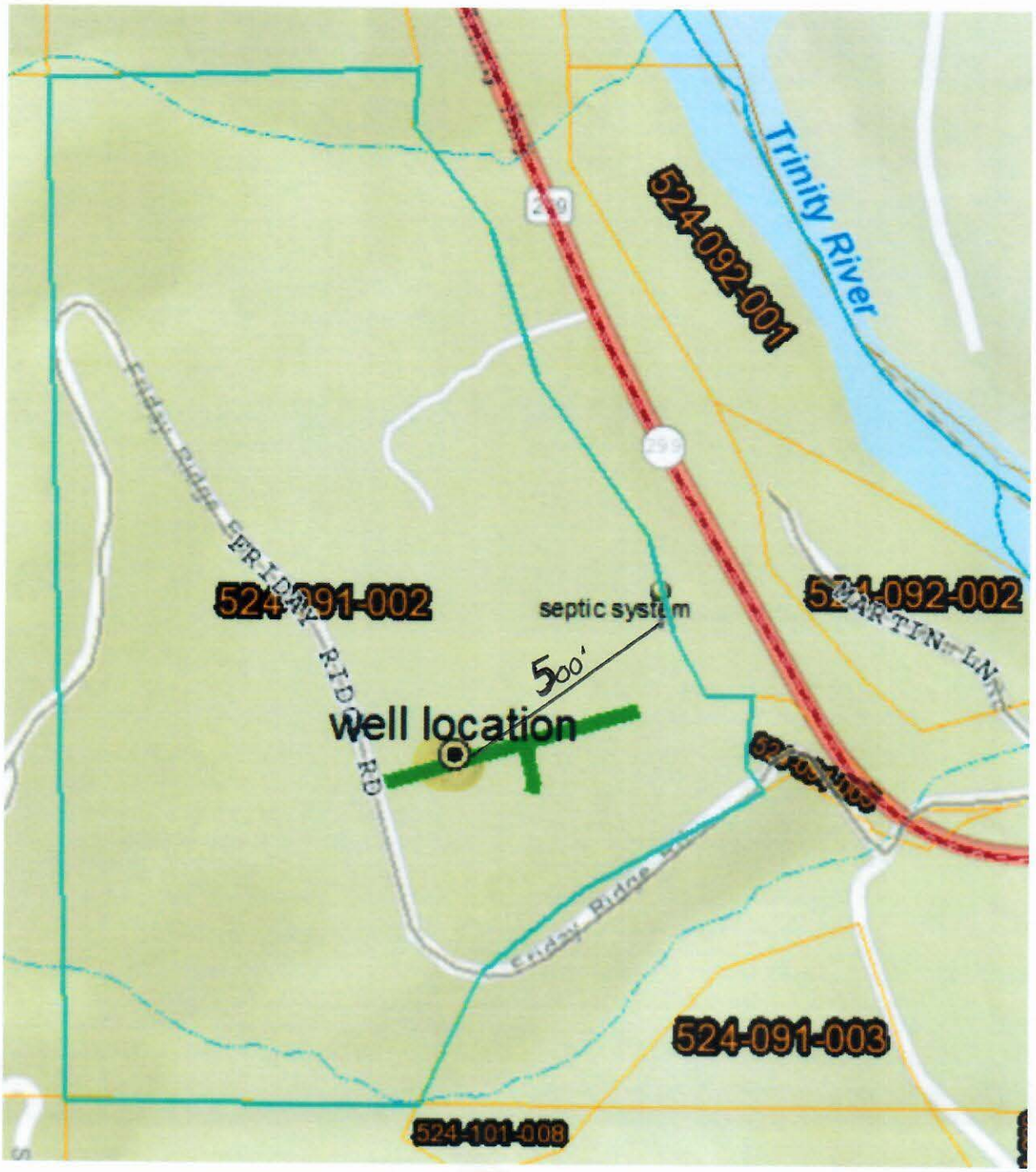
Latitude Deg/Min/Sec

W

Longitude Deg/Min/Sec

TRS:

APN:



Organic Liberty, LLC
229 Friday Ridge Road, Willow Creek
APN 524-091-002

FISCH DRILLING

3150 Johnson Rd.
Hydesville, CA 95547

Invoice

DATE	INVOICE NO.
2/16/2018	W1959

BILL TO
Organic Liberty, LLC 501 West Broadway, Suite 1750 San Diego, CA 92101

PAID
CK 10827
3/5/18

P.O. NO.	TERMS	DUE DATE
524-073-003	Due on receipt	2/16/2018

QTY	DESCRIPTION	RATE	AMOUNT
1	Set up and Take Down Equipment	3,000.00	3,000.00
1	Humboldt County Permit #17/18-1401	373.00	373.00
220	Completed Water Well Footage	40.00	8,800.00

Questions regarding this invoice. Call Chris (707)768-9800

Total	$12,173.00
Payments/Credits	-$6,175.00
Balance Due	$5,998.00

State of California

Well Completion Report

Form DWR 188 Submitted 3/13/2018

WCR2018-002421

Owner's Well Number 1 | Date Work Began 02/15/2018 | Date Work Ended 03/12/2018

Local Permit Agency Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency | Permit Number 17/18-1401 | Permit Date 02/07/2018

Well Owner (must remain confidential pursuant to Water Code 13752)

Name ORGANIC LIBERTY, LLC,

Mailing Address 501 West Broadway Suite 1750

City San Diego State CA Zip 92101

Planned Use and Activity

Activity New Well

Planned Use Water Supply Irrigation - Agriculture

Well Location

Address 0 Friday Ridge Road & Hwy 299

City Willow Creek Zip 95573 County Humboldt

Latitude N Longitude W

Deg. Min. Sec. Deg. Min. Sec.

Dec. Lat. 40.9983300 Dec. Long. -123.6816600

Vertical Datum Horizontal Datum WGS84

Location Accuracy Location Determination Method

APN 524-073-003

Township 07 N

Range 04 E

Section 12

Baseline Meridian Humboldt

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical Specify

Drilling Method Direct Rotary Drilling Fluid Air

Total Depth of Boring 220 Feet

Total Depth of Completed Well 220 Feet

Water Level and Yield of Completed Well

Depth to first water 118 (Feet below surface)

Depth to Static Water Level 114 (Feet) Date Measured 03/12/2018

Estimated Yield* 15 (GPM) Test Type Air Lift

Test Length 4 (Hours) Total Drawdown 106 (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	4	top soil
4	13	brown clay
13	26	fractured basalt
26	121	serpintine
121	132	fractured serpintine
132	192	fractured shale
192	220	shaley clay

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	120	Blank	PVC	OD: 5.563 in. | SDR: 21 | Thickness: 0.265 in.	0.265	5.563			
1	120	220	Screen	PVC	OD: 5.563 in. | SDR: 21 | Thickness: 0.265 in.	0.265	5.563	Milled Slots	0.032	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Other Bentonite		Sanitary Seal
20	220	Filter Pack	Other Gravel Pack	3/8 Inch	Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	220	10

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: FISCH DRILLING
Person, Firm or Corporation

3150 JOHNSON ROAD (Address) | HYDESVILLE (City) | CA (State) | 95547 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 03/13/2018 (Date Signed) | 683865 (C-57 License Number)

Attachments

scan.pdf - Location Map

DWR Use Only

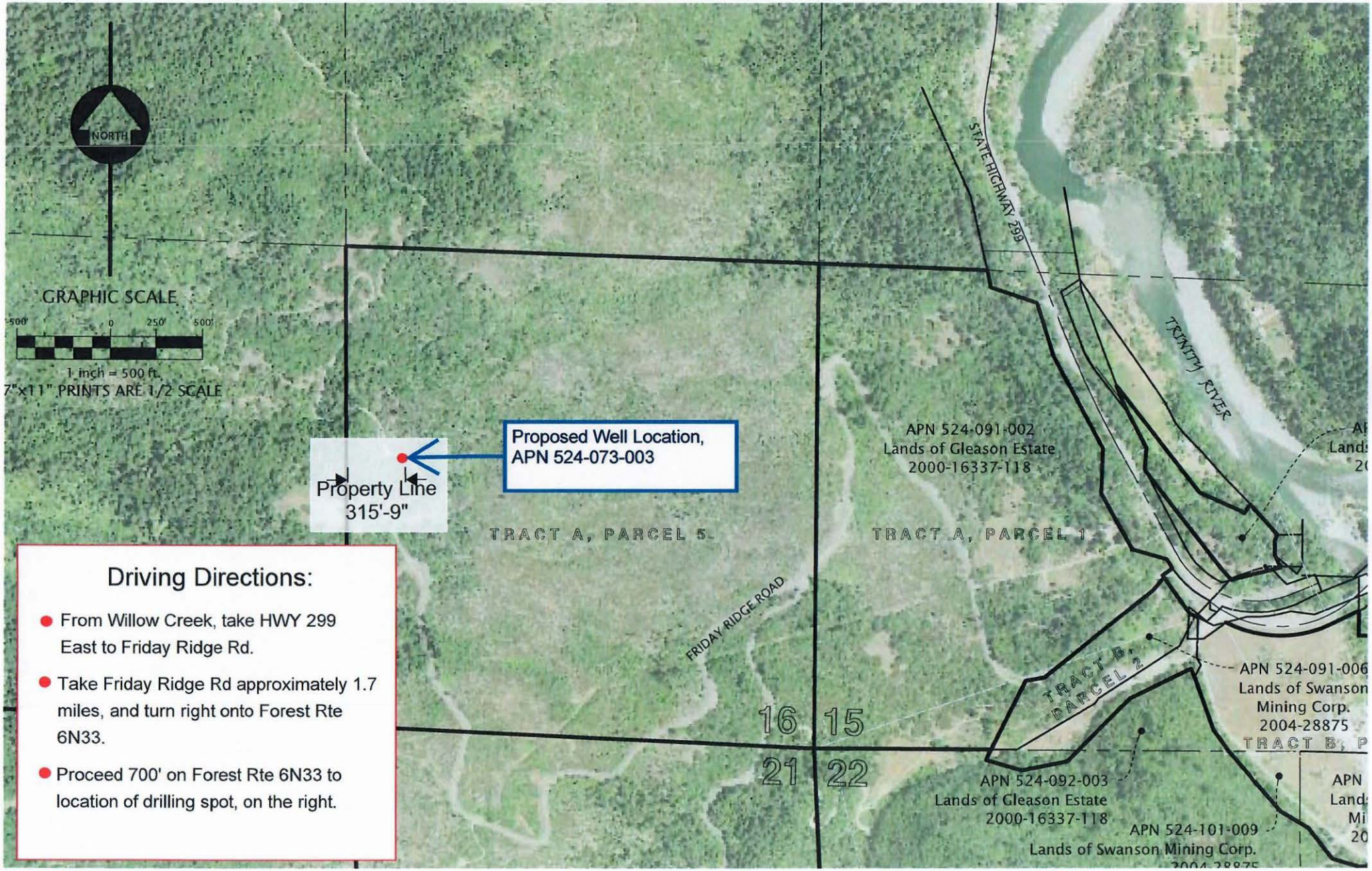
CSG #	State Well Number	Site Code	Local Well Number

				N						W

Latitude Deg/Min/Sec | Longitude Deg/Min/Sec

TRS:

APN:



Driving Directions:

- From Willow Creek, take HWY 299 East to Friday Ridge Rd.
- Take Friday Ridge Rd approximately 1.7 miles, and turn right onto Forest Rte 6N33.
- Proceed 700' on Forest Rte 6N33 to location of drilling spot, on the right.

Ask...
Fisch Drilling .com
WHEN YOU WANT TO KNOW ABOUT WATER!

3150 Johnson Rd.
Hydesville, Ca 95547
(707)768-9800
A, C-57, Haz Lic#683865

Well Inspection Report/Pump Test

WP1959

Property Info: Friday Ridge Rd, Willow Creek | Date: 3/1/18

Water source: WW, Spring, Diversion | Contact: Matt Primm PH# 858-245-3277

Other Info: Bill Atkission 530-629-2358 (h) 530-261-1738 cell

Well Dia. 5"pvc	Well Depth 220'	Water Level 78'	AC /GEN/ SOLAR	GPM Estimate/Pumptest 15gpm

Pump/s Info. N/A	Type Treatment Equip. N/A	# Storage Tanks + Gal. N/A

Overall hygiene of well site: (poor) (fair) (good) (excellent)

Fixes: N/A

Plumbing System: (poor) (fair) (good) (excellent)

Fixes: N/A

Electrical System: (poor) (fair) (good)(excellent)

Fixes: N/A

Treatment System: (poor) (fair) (good) (excellent)

Fixes: N/A

Notes: NEEDS SEAL SCHEDULED Need Pump: Y N Need Generator: Y N	Samples Taken:	Travel Time: 3HRS Test Time: 4HRS Set Up Time: 2HRS # of Workers: 1

State of California

Well Completion Report

Form DWR 188 Submitted 6/27/2018

WCR2018-005069

Owner's Well Number | Date Work Began 06/13/2018 | Date Work Ended 06/27/2018

Local Permit Agency Humboldt County Department of Health & Human Services - Land Use Program

Secondary Permit Agency | Permit Number 17/18-1636 | Permit Date 03/28/2018

Well Owner (must remain confidential pursuant to Water Code 13752)

Name ORGANIC LIBERTY, LLC,

Mailing Address 501 West Broadway Suite 1750

City San Diego State CA Zip 92101

Planned Use and Activity

Activity New Well

Planned Use Water Supply Irrigation - Agriculture

Well Location

Address 0 Friday Ridge RD

City Willow Creek Zip 95573 County Humboldt

Latitude ___ Deg. ___ Min. ___ Sec. N Longitude ___ Deg. ___ Min. ___ Sec. W

Dec. Lat. 40.8896700 Dec. Long. -123.6200250

Vertical Datum | Horizontal Datum WGS84

Location Accuracy | Location Determination Method

APN 524-073-003

Township 06 N

Range 05 E

Section 16

Baseline Meridian Humboldt

Ground Surface Elevation

Elevation Accuracy

Elevation Determination Method

Borehole Information

Orientation Vertical Specify

Drilling Method Other - under-ream down-hole hammer Drilling Fluid Air

Total Depth of Boring 200 Feet

Total Depth of Completed Well 200 Feet

Water Level and Yield of Completed Well

Depth to first water 95 (Feet below surface)

Depth to Static Water Level 70 (Feet) Date Measured 06/27/2018

Estimated Yield* 20 (GPM) Test Type Air Lift

Test Length 4 (Hours) Total Drawdown 130 (feet)

*May not be representative of a well's long term yield.

Geologic Log - Free Form

Depth from Surface Feet to Feet		Description
0	4	top soil
4	36	silty clay
36	92	serpintine
92	145	fractured serpintine
145	200	shale

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specificatons	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	80	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	6			
1	80	200	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	6	Milled Slots	0.05	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	20	Bentonite	Other Bentonite		Sanitary Seal
20	200	Filter Pack	Other Gravel Pack	3/8 Inch	Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	200	10

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief

Name: FISCH DRILLING
Person, Firm or Corporation

3150 JOHNSON ROAD (Address) | HYDESVILLE (City) | CA (State) | 95547 (Zip)

Signed: *electronic signature received* (C-57 Licensed Water Well Contractor) | 06/27/2018 (Date Signed) | 683865 (C-57 License Number)

Attachments

scan.pdf - Location Map

DWR Use Only

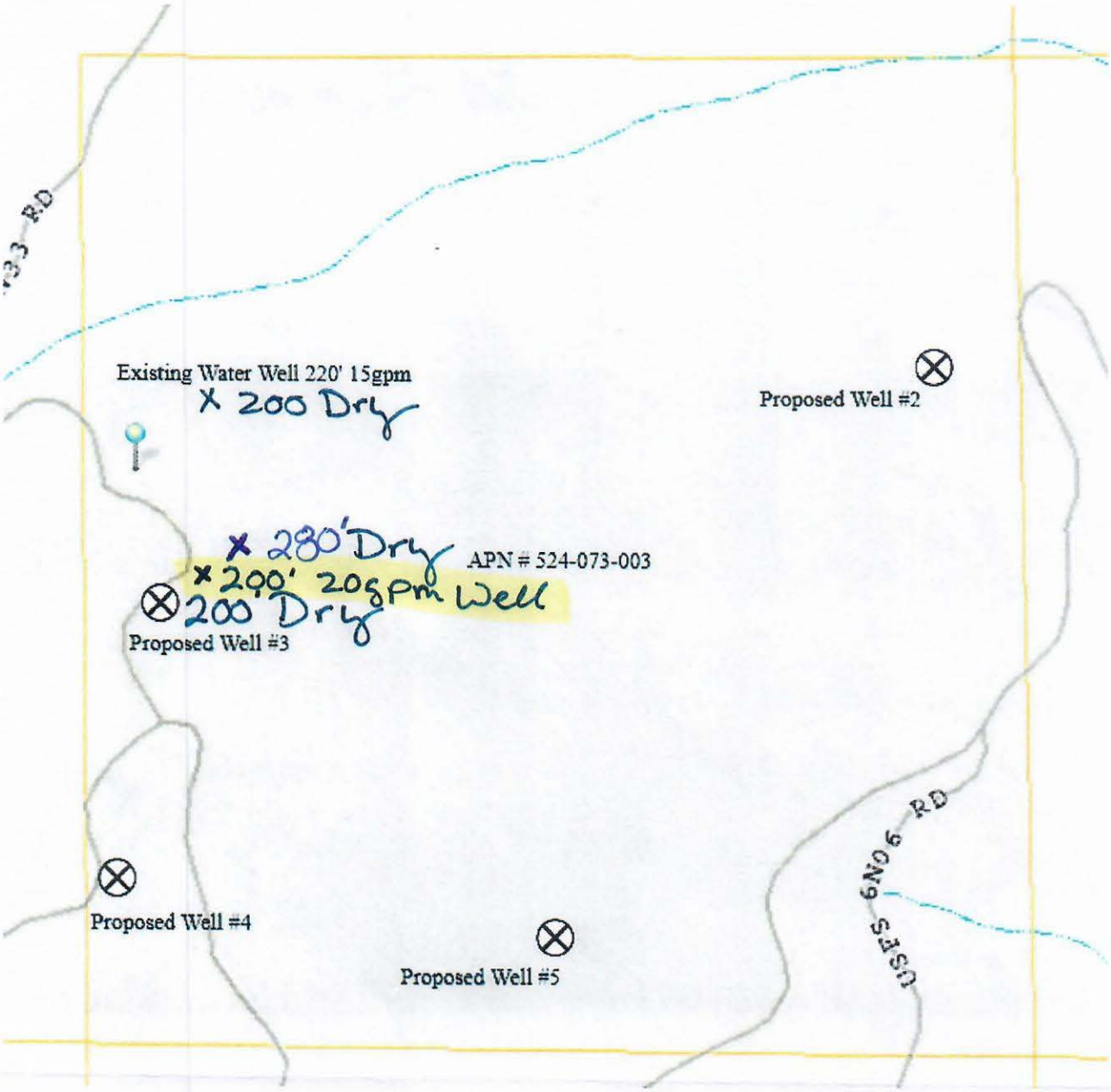
CSG #	State Well Number	Site Code	Local Well Number

N — Latitude Deg/Min/Sec

W — Longitude Deg/Min/Sec

TRS:

APN:



Organic Liberty, LLC
Matt Primm 858-245-3277
Friday Ridge Road
Willow Creek, CA 95573
APN# 524-073-003

APPENDIX F
CDFW DETERMINATION

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Habitat Conservation Planning Branch
P.O. Box 944209
Sacramento, CA 94244-2090
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

December 7, 2020

Matthew Primm
P.O Box 94825
Las Vegas, NV 89193
Matt@oliberty.com

Dear Mr. Primm:

Refund for Notification of Lake or Streambed Alteration, EPIMS Notification No. EPIMS-HUM-13580-R1C

This letter is to inform you that the California Department of Fish and Wildlife (CDFW) will issue you a refund for the reason indicated below.

- ☐ Overpayment of notification fee.
- ☐ CDFW denied your request for a "long-term" agreement. The fee amount for a "regular" agreement would apply to your project.
- ☐ You identified more than one project in the notification. CDFW requests that you notify for each project separately.
- ☒ Notification was not required because your project is not subject to the notification requirement in Fish and Game Code section 1602.

Your refund check, in the amount of $609.25 will take four to six weeks to process and will be sent to the applicant address provided in your notification.

Your project activities must comply with state and local cultivation permit and licensing requirements, including the State Water Resources Control Board's Cannabis Cultivation Policy, and Fish and Game Code sections 5650 and 5652. Specifically, Sections 5650 and 5652 prohibit dumping any substance or material harmful to fish, plants, mammals, or birds from being deposited in, allowed to pass into, or be placed where it can pass into a water of the state.

As a cannabis cultivator, it is important to follow best management practices to avoid or minimize adverse impacts to the environment and to protect fish, wildlife, and plant resources. Best management practices include, but are not limited to:

- Periodically checking greenhouse or hoop houses covered by plastic film (e.g., polyethylene (PE), polyvinyl chloride (PVC), copolymers, etc.) to ensure coverings are secured and intact, preventing loose materials from entering nearby waterbodies.

- Using barriers (e.g., straw waddles, mulch, vegetative buffers, etc.) near the cultivation area to reduce erosion or catch sediment and excess nutrients carried by irrigation or stormwater runoff.

- Mixing and loading chemicals, fertilizers, or other enriched cultivation media on waterproof surfaces such as concrete pads or tarps.
- Storing all chemicals and fuels in a safe location to prevent accidental spills from polluting groundwater or nearby waterbodies through infiltration or from stormwater runoff. Secondary containment is encouraged.
- Securing cultivation waste (e.g., trellis netting, plant clips, used soil, empty fertilizer containers, drip irrigation tubing, pots, grow bags, soil bags, trays, trash, etc.) in a location where this material cannot enter a creek, river, etc.

Visit the California Department of Fish and Wildlife's Cannabis Program page for more best management practices and additional resources.

If you have questions regarding your refund, please contact Grace Myers, Environmental Scientist, by email at Grace.Myers@wildlife.ca.gov.

Sincerely,

DocuSigned by:
James Rosauer
8D80E37F6211455...

James Rosauer, Senior Environmental Scientist (Supervisor)

ec: California Department of Fish and Wildlife

Grace Myers, Environmental Scientist
Cannabis Permitting Program
Habitat Conservation Planning Branch
Grace.Myers@wildlife.ca.gov

James Rosauer, Senior Environmental Scientist (Supervisor)
Cannabis Permitting Program
Habitat Conservation Planning Branch
James.Rosauer@wildlife.ca.gov

APPENDIX G
OWTS DESIGN

WHITCHURCH ENGINEERING

610 9th Street
Fortuna, CA 95540
Phone: (707) 725-6926

August 4, 2022

Compass Land Group
C/O Jordan Main
4235 Forcum Ave, Suite 100
McClelland Park, CA 95652

RE: Proposed Septic System
229 Friday Ridge Road
Willow Creek, Ca 95573
APN: 524-091-009

JN: CPS2301

ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) DESIGN

1. Project Description

This project will consist of the design of a primary sewage disposal system (and designation of a secondary reserve area) to serve the employees of the proposed commercial activity at this site. This OWTS design is not intended to support any sewage resulting from the agricultural processing activities at this site. Per the owner, there will be a maximum of 20 workers with one 8-hour shift per day. Estimated sewage flow is 300 gallons per day (gpd). A detailed sewage disposal quantity calculation is shown in section 8 of this report. The daily sewage flow quantity is based on the current California Regional Water Quality Control Board (CRWQCB) standards.

2. Project Location

From Willow Creek take Highway 299 east approximately 3 miles, turn right onto Friday Ridge Road, proceed approximately ½ mile to site. The site driveway is on the right at 229 Friday Ridge Road.

3. Site Map

See attached septic system site plan.

4. Site Description

The area of this parcel where the proposed septic primary and reserve field will be located is in the approximate center of the parcel. The ground surface in the vicinity of the primary and the reserve fields has an approximate 2%-4% slope down towards the southeast. The area where the proposed septic system will be constructed is in an established agricultural development; the

immediate vicinity of the proposed septic system includes raised beds and seasonal agricultural planting. The remainder of the site consists of low native bushes, shrubs, and established fir and madrone trees.

5. **Written Summary of Site Evaluation and work Completed**

February 13th, 2023: Test holes TH-1 and TH-2 excavated. Soil boring logs created. Monitoring wells installed. Textural analysis performed at TH-1 and TH-2. TH-1 at 24" is a Zone 4 clay and at 48" is a Zone 2 sandy loam clay. TH-2 at 18" is a Zone 3 clay loam and at 48" is a Zone 2 sandy loam clay.

March 17th, 2023: TH-3, TH-4, TH-5, TH-6 excavated, monitoring wells installed. TH-1 had ground water (gw) at 36.5" below grade (bg), TH-2 had gw at 25.5" bg. TH-3 had gw at 67" bg. TH-4 had gw at 48" bg. TH-5 had gw at 52" bg. TH-6 had gw at 63" bg.

March 23, 2023: TH-1 through TH-4 abandoned due to high groundwater. TH-5 was dry to 70" bg, TH-6 was dry to 70" bg.

March 29, 2023: TH-5 was dry to 70" bg. TH-6 was dry to 70" bg.

April 20, 2023: Percolation test was performed on TH-5 and TH-6. Perc test logs created. TH-5 showed a percolation rate of 24 mpi, at 43" bg. TH-6 showed a percolation rate of 40 mpi at 43" bg.

This testing was performed under the direction of Mr. Terry O'Reilly, P.E. RCE# 49506, qualified as described in section X.6 water quality control plan for the north coast region (basin plan).

6. **Accurate Soil Profile Description, Percolation Test Data Groundwater Data**

See attached data.

7. **Explanation of Appropriate Sewage Disposal System Design**

A conventional gravity flow graveled trench OWTS will be utilized. The minimum depth to groundwater was 52" in TH-5; requesting variance for 24" clearance to groundwater. The trench depth will be 52"-24"= 28" below grade. Native soil (trench spoils) and/or imported topsoil will be placed in the prepared trench to create a minimum of 12" of soil cover over the dispersal pipe in the drain rock trench.

8. **Complete Sewage Disposal Design Calculations.**

This design is based on current (November 7, 2017) design manual for sewage disposal regulations, Humboldt County Department of Environmental Health (HCDEH).

This sewage flow is estimated based on 15 gpd per worker.

Sewage Disposal Daily Waste Flow Calculation
Design system for a commercial operation with a maximum of 20 workers at 8 hours per day:
20 workers x 15 gal/day (gpd) = 300 gpd.

Septic Tank: Use 1200 gal septic tank

Field in TH-5 Area – Primary Field – Use data from TH-6 (conservative)
Disposal System Type: Graveled Trench
Application rate: 0.323 gpd/sqft. (table 2, 40 mpi perc. Rate)
Trench Depth (D) =28"
Depth of gravel below pipe (Sidewall) = 25" = 2.08'
Trench Width (W) = 18" = 1.5'
Required Trench Length (L) = 300 gpd/(2.08' sidewall x 2 sides x 0.323 gpd/sqft) = 223'
Trench Spacing: 2D = 2x40" = 80" = 6.7'. Use 7' Trench spacing
use (4) – 56' lines (total length = 224')
Field area = approximately 1570 sqft.

Field in TH-6 Area – Reserve Field
Same size as primary field.

9. **Detailed Schematic Drawings and Specifications for all Sewage Disposal System Components**

See attached septic system site plan

10. **Written Installation Instructions for Sewage Disposal System Proposed**

See detailed requirements from HCDEH

8-4-23

Mr. Terry O'Reilly, P.E.
Senior Civil Engineer
RCE# 49506
TOR/gaa

REGISTERED PROFESSIONAL ENGINEER
TERRY J. O'REILLY
NO. 49506
CIVIL
STATE OF CALIFORNIA

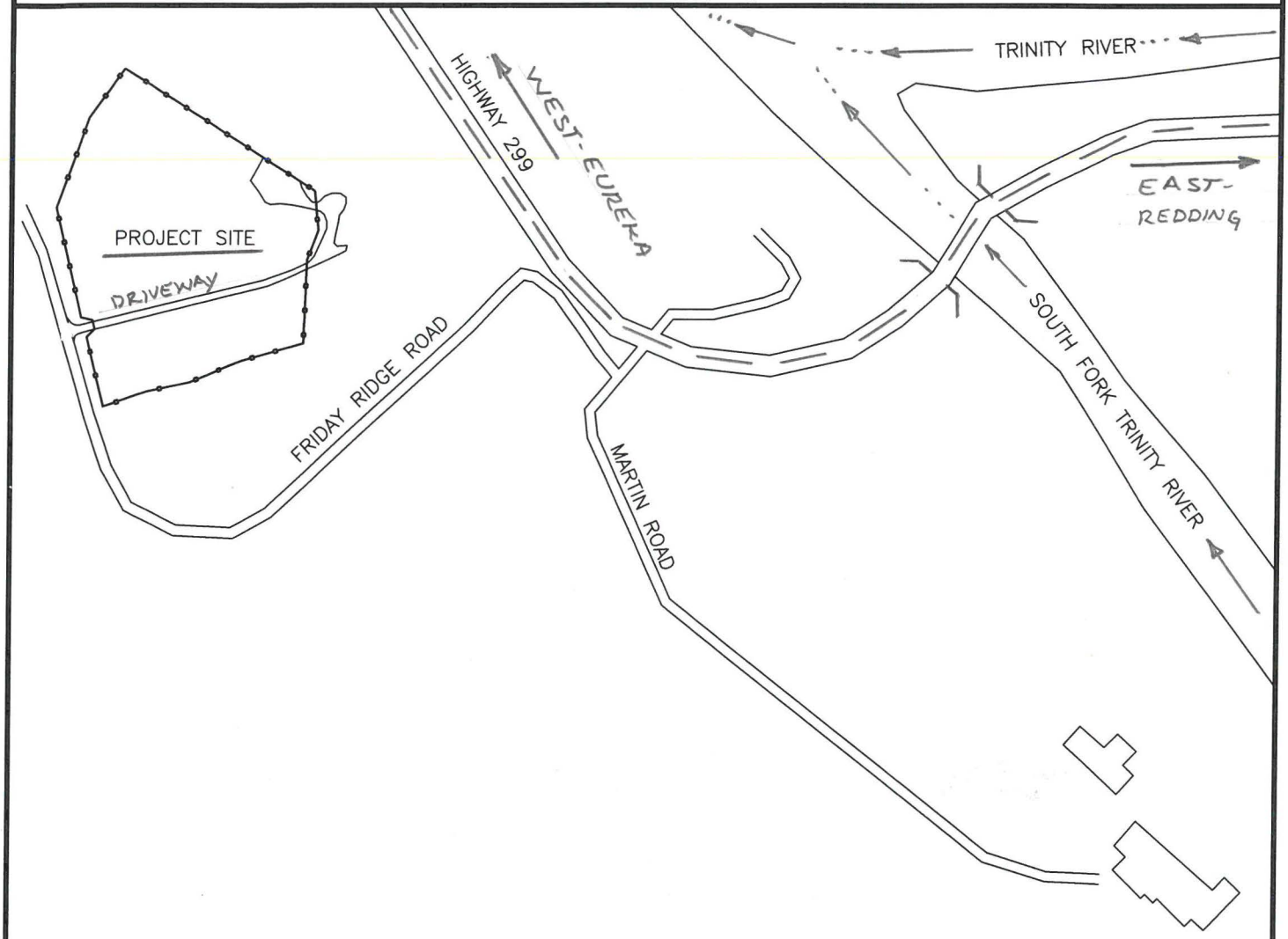
4/21

WHITCHURCH ENGINEERING

610 9th STREET
FORTUNA, CA 95540
(707) 725–1553

716 HARRIS STREET
EUREKA, CA 95503
(707) 444–1420

JOB: COMPASS – ORGANIC LIBERTY
ELEMENT: VICINITY MAP
SHEET NO. 1 OF 1
PREPARED BY: DPG DATE: 4/17/23
CHECKED BY: TOR JN: CPS2301



VICINITY MAP
SCALE 1"=400'

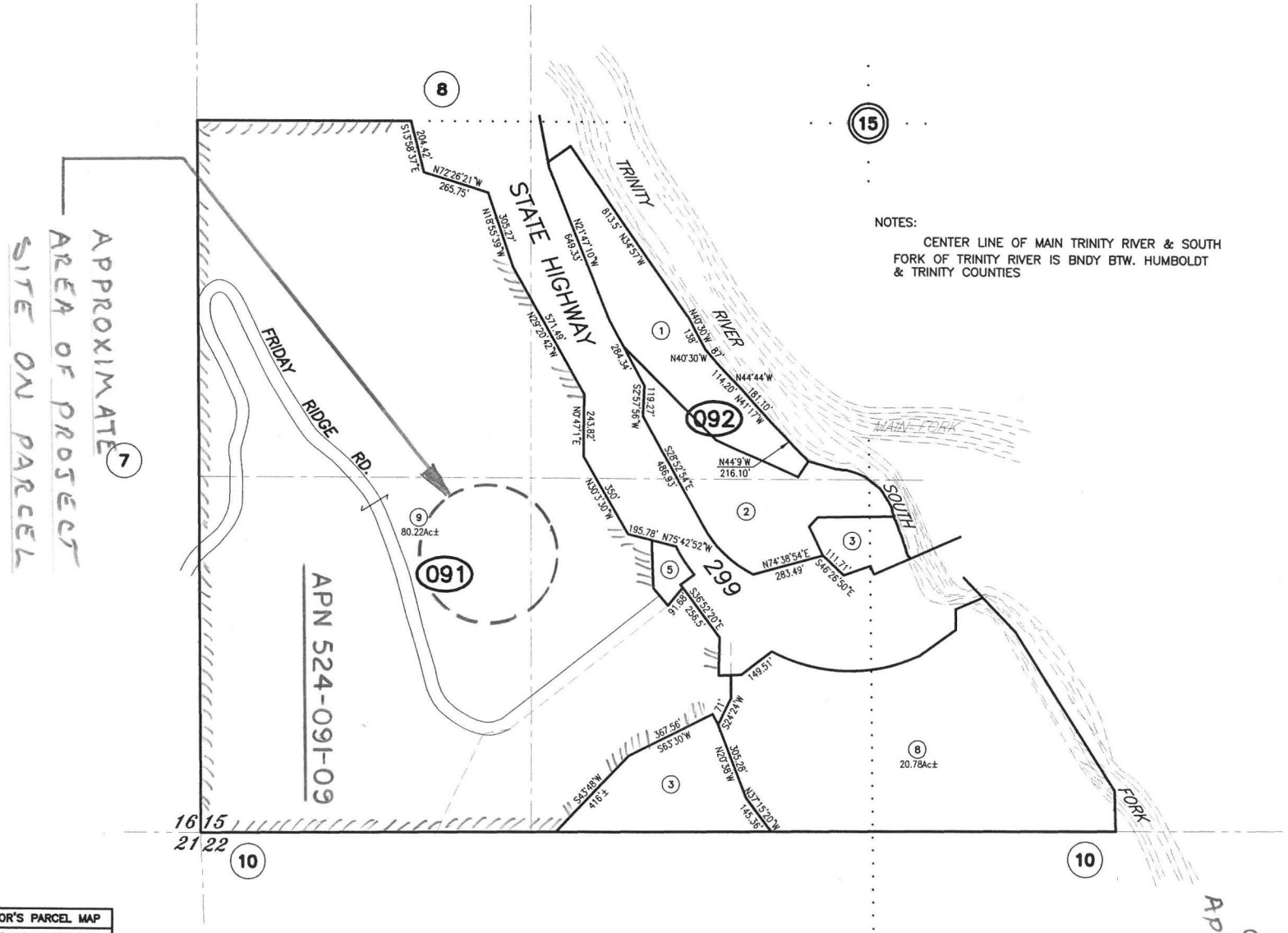
229 FRIDAY RIDGE ROAD,
WILLOW CREEK, CA 95573
APN: 524–091–009

NORTH

Assessor's Map Bk.524, Pg.09
County of Humboldt, CA.

POR. SECS. 15 T6N R5E

524–09



NOTES:

CENTER LINE OF MAIN TRINITY RIVER & SOUTH FORK OF TRINITY RIVER IS BNDY BTW. HUMBOLDT & TRINITY COUNTIES

N
1" = 400'
H.B.&M.

ASSESSOR'S PARCEL MAP

1. THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY.
2. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN.
3. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

RS BK. 24, SURVEYS PG. 80

NOTE – Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles.

100' 200' 400'

JT Oct. 6, 2021 JASON THISSELL

CPS2301
APN 524-091-009

5/21

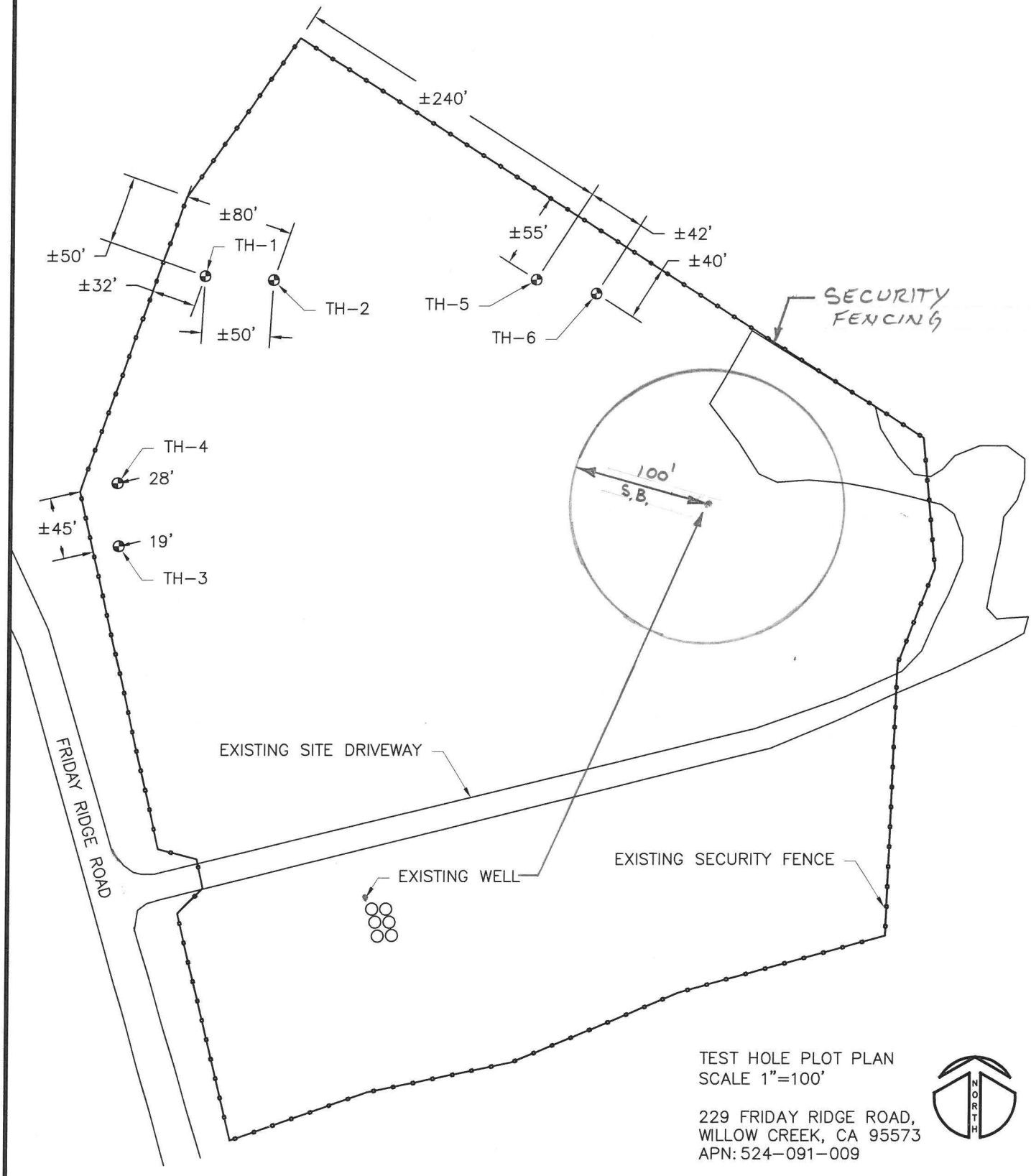
6/21

WHITCHURCH ENGINEERING

610 9th STREET
FORTUNA, CA 95540
(707) 725–1553

716 HARRIS STREET
EUREKA, CA 95503
(707) 444–1420

JOB: COMPASS – ORGANIC LIBERTY
ELEMENT: TEST HOLE PLOT PLAN
SHEET NO. 1 OF 1
PREPARED BY: DPG DATE: 4/17/23
CHECKED BY: TOR JN: CPS2301



TEST HOLE PLOT PLAN
SCALE 1"=100'

229 FRIDAY RIDGE ROAD,
WILLOW CREEK, CA 95573
APN: 524–091–009

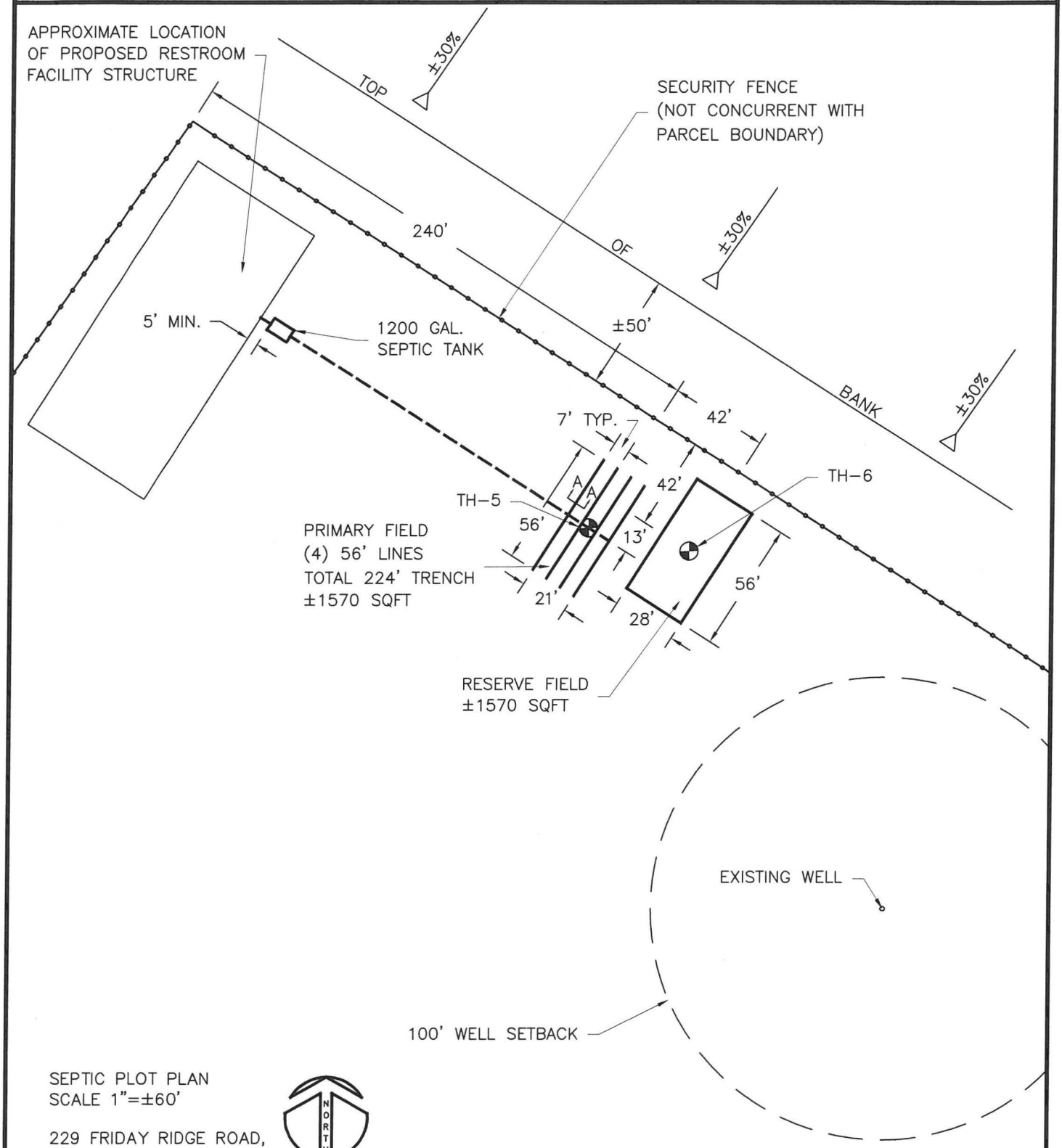
NORTH

WHITCHURCH ENGINEERING

610 9th STREET
FORTUNA, CA 95540
(707) 725–1553

716 HARRIS STREET
EUREKA, CA 95503
(707) 444–1420

JOB: COMPASS – ORGANIC LIBERTY
ELEMENT: SEPTIC PLOT PLAN 7/21
SHEET NO. 1 OF 1
PREPARED BY: DPG DATE: 08/04/23
CHECKED BY: TOR JN: CPS2301



SEPTIC PLOT PLAN
SCALE 1"=±60'

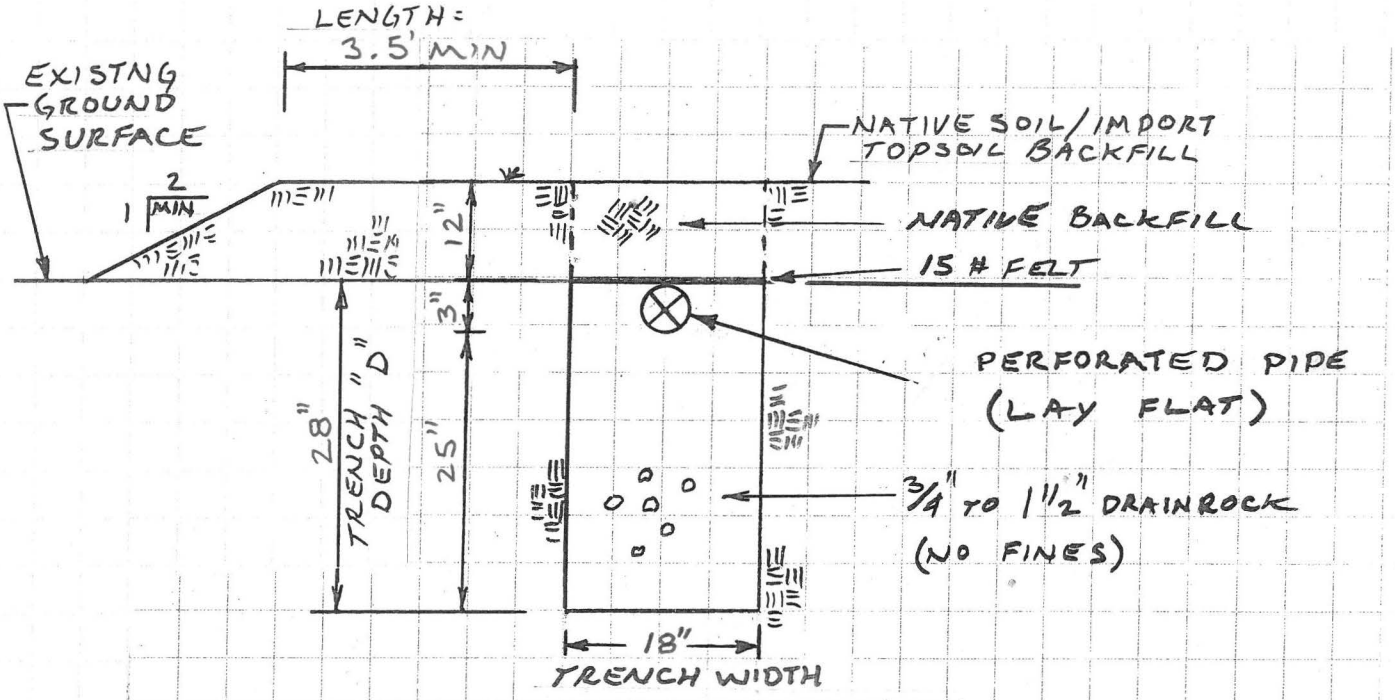
NORTH

229 FRIDAY RIDGE ROAD,
WILLOW CREEK, CA 95573
APN: 524–091–009

WHITCHURCH ENGINEERING
Building Design • Civil & Structural Engineering
610 9th STREET
FORTUNA, CA 95540
(707) 725-6926
716 HARRIS STREET
EUREKA, CA 95503
(707) 444-1420

JOB ORGANIC LIBERTY
ELEMENT
SHEET NO. 8 OF 21
CALCULATED BY TOR DATE 8.4.23
CHECKED BY JR JN CP52301

APN 524-091-09



LEACH LINE
TRENCH X-SECTION A-A
(NOT TO SCALE)

NOTE: TRENCH BOTTOM TO BE LEVEL. MANIFOLD/ DISTRIBUTION BOX TO DISTRIBUTE EFFLUANT EQUALLY TO EACH TRENCH

WHITCHURCH ENGINEERING
Building Design • Civil & Structural Engineering
610 9th STREET, FORTUNA, CA 95540, (707) 725-6926
716 HARRIS STREET, EUREKA, CA 95501, (707) 444-1420

EXPLORATION TEST LOG

APN: 524-091-009

PROJECT NAME: ORGANIC LIBERTY

JOB NO: CPS2301

HOLE #: TH-1

HOLE TYPE: BACKHOE

LOGGED BY: TOR

SAMPLE DATE: 3-17-23

LAB DATA									SOIL DESCRIPTION
MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONFINED COMPRESSIVE STRENGTH (TONS/SF)	LIQUID LIMIT	PLASTICITY INDEX	RELATIVE COMPACTION	SAMPLE	SOIL TYPE	DEPTH (FEET)	SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, WATER LEVEL(S) AND DATE(S) (UNIFIED SOILS CLASSIFICATION SYSTEM)
								-- --	7" ROCKY SILTY CLAY, OLIVE/YELLOW, MOIST, MEDIUM DENSITY. FEW ROCK TO 3" Ø
								--1--	
								-- --	
								--2--	
								-- --	
								--3--	BECOMES ROCKY @ 42" ROUNDED, ±20%
								-- --	MORE DRY W/ DEPTH
								--4--	
								-- --	
								--5--	
								-- --	
								--6--	
								-- --	
								--7--	
								-- --	
								--8--	100"
								-- --	BOT @ 100", NO GROUNDWATER
								--9--	
								-- --	
								--10--	
								-- --	
								--11--	

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EUREKA, CA 95501
(707) 444-1420

EXPLORATION TEST LOG

APN: 524-091-009

PROJECT NAME: ORGANIC LIBERTY

JOB NO: CPS2301

HOLE #: TH-2

HOLE TYPE: BACKHOE

LOGGED BY: TOR

SAMPLE DATE: 3-17-23

LAB DATA									SOIL DESCRIPTION
MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONFINED COMPRESSIVE STRENGTH (TONS/SF)	LIQUID LIMIT	PLASTICITY INDEX	RELATIVE COMPACTION	SAMPLE	SOIL TYPE	DEPTH (FEET)	SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, WATER LEVEL(S) AND DATE(S) (UNIFIED SOILS CLASSIFICATION SYSTEM)
								-- --	CLAYEY SILT / SILTY CLAY, BROWNISH RED, FEW COARSE SAND, MOIST, MED. DENSITY
								--1--	
								-- --	
								--2--	28"
								-- --	ROCKY SILTY CLAY, OLIVE YELLOW, MOIST, MEDIUM DENSITY, ROCK TO 20%, MORE ROCKY WITH DEPTH
								--3--	
								-- --	
								--4--	
								-- --	
								--5--	
								-- --	
								--6--	
								-- --	
								--7--	
								-- --	
								--8--	BOT @ 8' NO GROUNDWATER
								-- --	
								--9--	
								-- --	
								--10--	
								-- --	
								--11--	

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EXPLORATION TEST LOG

APN: 524-091-009

PROJECT NAME: ORGANIC LIBERTY

JOB NO: CPS2301

HOLE #: TH-5

HOLE TYPE: BACKHOE

LOGGED BY: TOR

SAMPLE DATE: 3-17-23

LAB DATA									SOIL DESCRIPTION
MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONFINED COMPRESSIVE STRENGTH (TONS/SF)	LIQUID LIMIT	PLASTICITY INDEX	RELATIVE COMPACTION	SAMPLE	SOIL TYPE	DEPTH (FEET)	SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, WATER LEVEL(S) AND DATE(S) (UNIFIED SOILS CLASSIFICATION SYSTEM)
								-- --	FINE SANDY CLAYEY SILT, REDDISH
								--1--	BROWN, MOIST, DENSE
								-- --	
								--2--	
								-- --	
								--3--	
								-- --	BECOMES ROCKY @ 42", ± 25% TO 8" Ø
▽								--4--	
=								-- --	
								--5--	
								-- --	67
								--6--	BOTTOM OF HOLE @ 67"
								-- --	GROUNDWATER @ 52"
								--7--	
								-- --	
								--8--	
								-- --	
								--9--	
								-- --	
								--10--	
								-- --	
								--11--	

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EXPLORATION TEST LOG

APN: 524-091-009

PROJECT NAME: ORGANIC LIBERTY

JOB NO: CPS2301

HOLE #: TH-6

HOLE TYPE: BACKHOE

LOGGED BY: TOR

SAMPLE DATE: 3-17-23

LAB DATA									SOIL DESCRIPTION
MOISTURE CONTENT (%)	DRY DENSITY (PCF)	UNCONFINED COMPRESSIVE STRENGTH (TONS/SF)	LIQUID LIMIT	PLASTICITY INDEX	RELATIVE COMPACTION	SAMPLE	SOIL TYPE	DEPTH (FEET)	SOIL, COLOR, MOISTURE, CONSISTENCY, REMARKS, WATER LEVEL(S) AND DATE(S) (UNIFIED SOILS CLASSIFICATION SYSTEM)
								-- --	SLIGHTLY FINE SANDY CLAYEY SILT, REDDISH BROWN, MOIST, MEDIUM DENSITY
								--1--	
								-- --	23"
								--2--	ROCKY SILTY CLAY, REDDISH BROWN, MOIST, DENSE. ROCK ± 30% OF SAMPLE
								-- --	
								--3--	MORE ROCKY W/ DEPTH, BOULDERS TO 12" DIA.
								-- --	
								--4--	
								-- --	
▽								--5--	
≡								-- --	
								--6--	73"
								-- --	BOTTOM OF HOLE @ 73"
								--7--	GROUNDWATER @ 63"
								-- --	
								--8--	
								-- --	
								--9--	
								-- --	
								--10--	
								-- --	
								--11--	

13/21

Phone: (707) 441-8855 Email: info@shn-engr.com Web: shn-engr.com
812 W. Wabash Avenue, Eureka, CA 95501-2138

Reference: 022036

March 2, 2023

Att: Whitchurch Engineering
WEI-Compass
APN 524-091-09

SOIL PERCOLATION SUITABILITY / TEXTURAL ANALYSIS RESULTS

Job Name: Whitchurch-Compass **Sampled By: Terry O'Reilly**
Date Sampled: 2/13/23 **Date Tested: 02/16/23**
Date Received: 2/14/23 **AP Number: 524-091-09**

Sample ID	Depth	% Sand	% Clay	% Silt	% Coarse Fragments by Volume	Zone	Bulk Density
TH-1	24"	28.3	46.3	25.4	9.3	4	*
	Material: **Clay**						
TH-1	48"	47.4	28.1	24.5	10.1	2	*
	Material: **Sandy Clay Loam**						
TH-2	18"	42.7	29.7	27.6	3.6	3	*
	Material: **Clay Loam**						
TH-2	48"	44.5	29.5	26.0	8.7	2	*
	Material: **Sandy Clay 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.

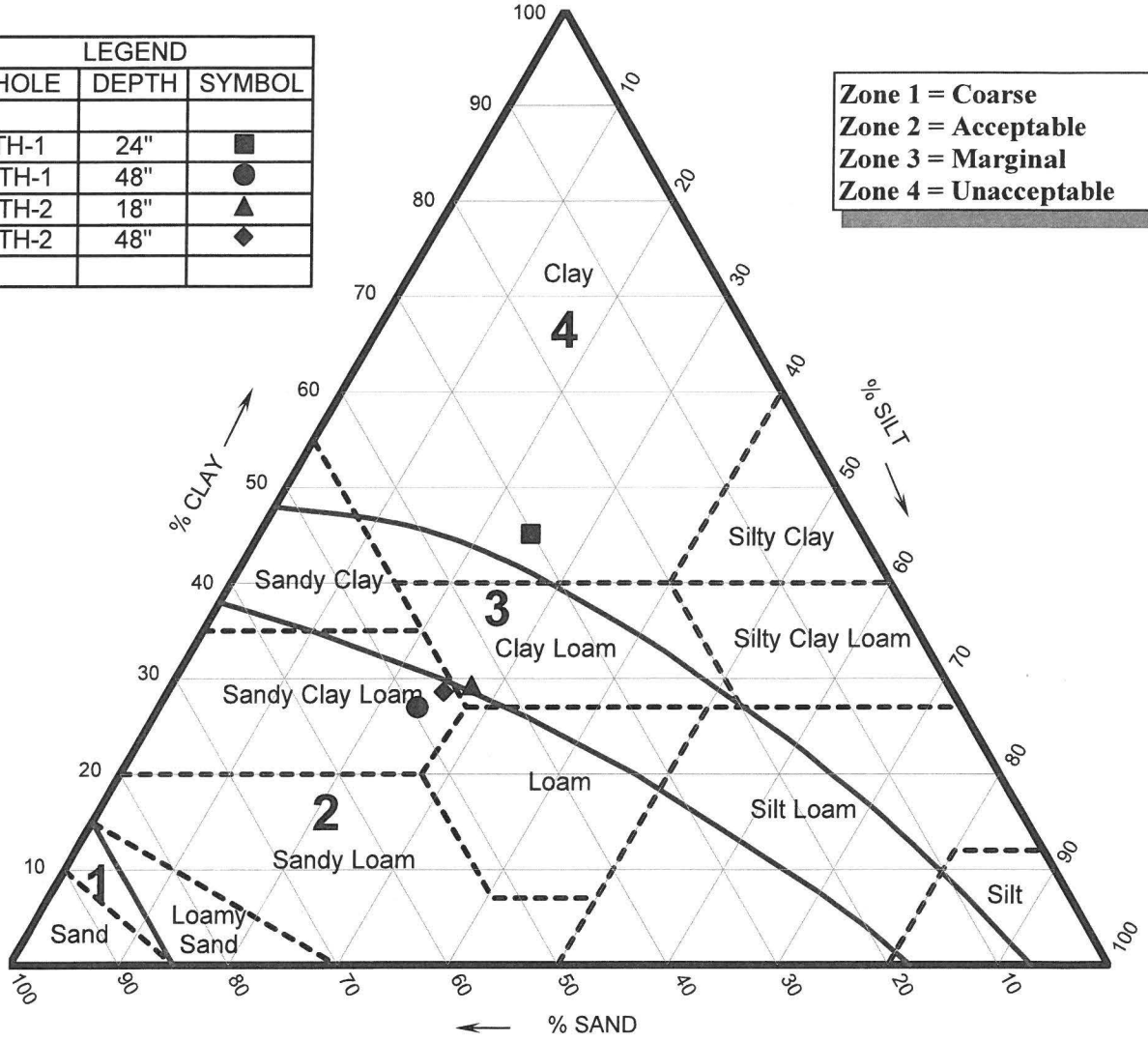
Zone 4 - Soils in this zone are unsuitable for a conventional leachfield because of their severe limitations for accepting effluent.

1H/21

SOIL PERCOLATION SUITABILITY CHART

LEGEND		
HOLE	DEPTH	SYMBOL
TH-1	24"	■
TH-1	48"	●
TH-2	18"	▲
TH-2	48"	◆

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:	**022036**	**DATE:**	**02/16/23**
JOB NAME:	**Whitchurch-Compass**	**APN:**	**524-091-09**

Phone: (707) 441-8855 Email: info@shn-engr.com Web: shn-engr.com
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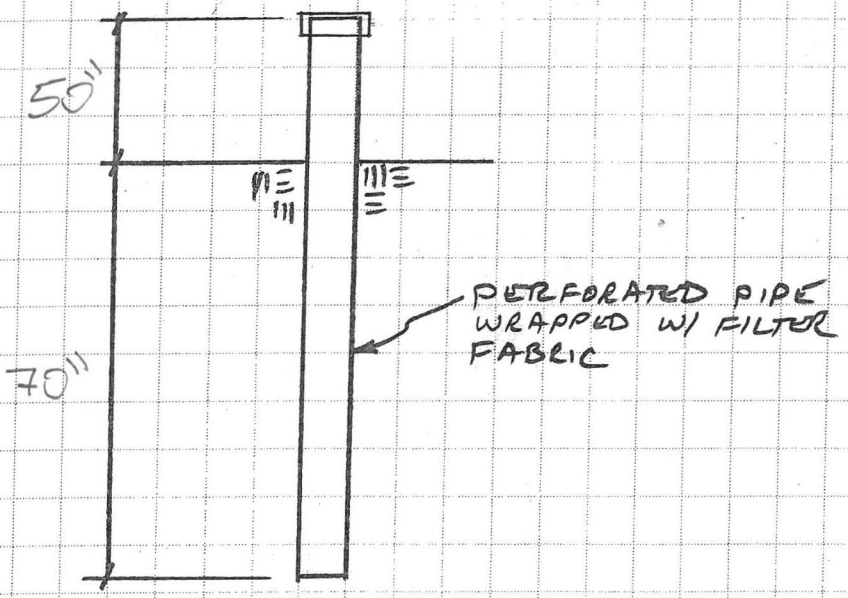
FORTUNA, CALIFORNIA 95540
(707) 725-6926 FAX (707) 725-2959

JOB Compass - Organic Liberty
ELEMENT Observation Well - Log
SHEET NO. 15 OF 21
CALCULATED BY JPG DATE 3/ 123
CHECKED BY TOR JN CPS2301

MONITORING WELL INSTALLATION



MON WELL I.D.: TH-5
APPLICANT: COMPASS LAND GROUP
APN: 524-091-009

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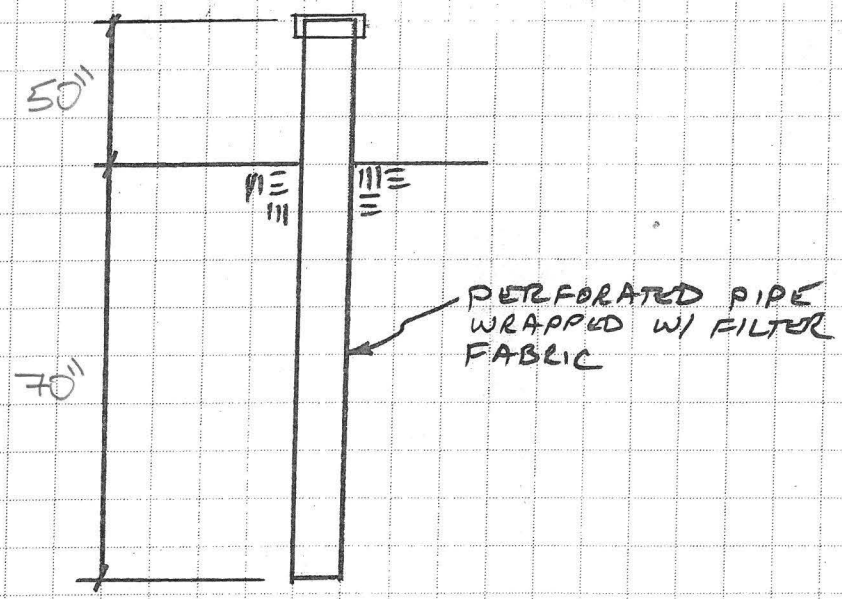
JOB Compass - Organic Liberty
ELEMENT Observation Well - Log
SHEET NO. 16 OF 21
CALCULATED BY DPG DATE 3/5/23
CHECKED BY TOR JN CPS2301

MONITORING WELL INSTALLATION



MON WELL I.D.: TH-6
APPLICANT: COMPASS LAND GROUP
APN: 524-091-009

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JOB Compass - Organic Liberty
ELEMENT Observation Well - Log
SHEET NO. 17 OF 21
CALCULATED BY DPG DATE 4/8/23
CHECKED BY TOR JN CPS2301

OBSERVATION WELL LOG

APN 524-091-009

Test Hole No. 5

Depth of Well 10' (from Rim)

Depth of Well 70" (from Ground)

Date	Rim of Well to Water Surface	Ground to Water Surface	Total Rainfall to Date* (IN)	Rainfall Past 24 Hours* (IN)	Comments	Logged By
3/17/23	102"	52"	38.08	0.00		TOR
3/23/23	Dry	Dry	38.24	0.16		NSG
3/29/23	Dry	Dry	40.51	1.57		NSG
4/20/23	Dry	Dry				DPG

* Data from Weather Bureau - (707) 443-6484 (Eureka Measurements)

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JOB Compass - Organic Liberty
ELEMENT Observation Well - Log
SHEET NO. 18 OF 21
CALCULATED BY DPG DATE 4/ /23
CHECKED BY TOR JN CPS2301

OBSERVATION WELL LOG

APN 524-091-009

Test Hole No. 6

Depth of Well 10' (from Rim)

Depth of Well 70" (from Ground)

Date	Rim of Well to Water Surface	Ground to Water Surface	Total Rainfall to Date* (IN)	Rainfall Past 24 Hours* (IN)	Comments	Logged By
3/17/23	113"	63"	38.08	0.00		TOR
3/23/23	Dry	Dry	38.24	0.16		NSG
3/29/23	Dry	Dry	40.51	1.57		NSG
4/20/23	Dry	Dry				DPG

* Data from Weather Bureau - (707) 443-6484 (Eureka Measurements)

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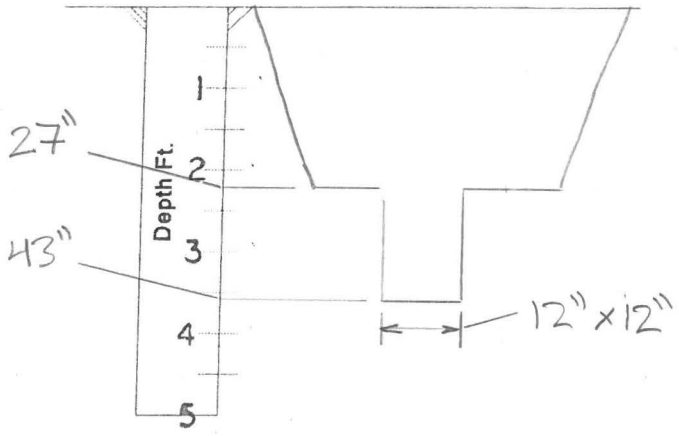
JOB Compass – Organic Liberty
ELEMENT Perc Test + Log
SHEET NO. 19 OF 21
CALCULATED BY DPG DATE 4/20/23
CHECKED BY TOB JN CPS2301

SOILS PERCOLATION TEST DATA

APN 524-091-009

Test Hole No. 5

Presoak 1-HOUR



Test #	Time	Fill	Meas. (IN.)	Min.	Drop (in)	Rate
1	12:45	6 3/4	6 3/4	———	———	———
2	1:00		7 3/4	15	1	15
3	1:15		8 1/2	15	3/4	20
4	1:30	5 7/8	9 1/4	15	3/4	20
5	1:45		6 1/2	15	5/8	24
6	2:00		7 1/8	15	5/8	24
7	2:15		7 3/4	15	5/8	24
8						
9						
10						
11						
12						
13						
14						

Stabilized Rate 24 min/inch

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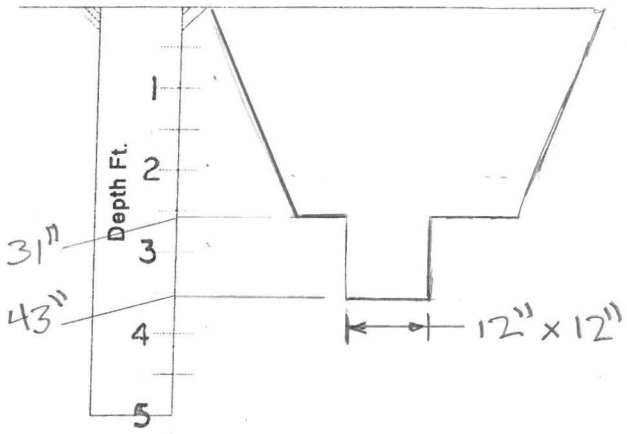
JOB Compass – Organic Liberty
ELEMENT Perc Test – Log
SHEET NO. 20 OF 21
CALCULATED BY DPG DATE 4/20/23
CHECKED BY TOR JN CPS2301

SOILS PERCOLATION TEST DATA

APN 524-092-009

Test Hole No. 6

Presoak 1-HOUR



Test #	Time	Fill (IN)	Meas. (IN.)	Min.	Drop (in)	Rate
1	12:45	4 3/8	4 3/8	—	—	—
2	1:00		4 3/4	15	3/8	40
3	1:15		5	15	1/4	60
4	1:30	3	5 1/4	15	1/4	60
5	1:45		3 3/8	15	3/8	40
6	2:00		3 3/4	15	3/8	40
7	2:15		4 1/8	15	3/8	40
8						
9						
10						
11						
12						
13						
14						

Stabilized Rate 40 min/inch

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JOB Compass – Organic Liberty
ELEMENT HCD EH Requirements
SHEET NO. 21 OF 21
CALCULATED BY DPG DATE 4/21/23
CHECKED BY TOR JN CPS2301

Appendix E - OWTS Setback Requirements

Minimum Setback Distance Requirements

Tanks and dispersal fields must be located to meet the minimum setback distances shown below. See page reverse for required OWTS horizontal setbacks to public water wells and surface water intakes.

Minimum Horizontal Distance (ft.)	Public Water Well	Private Water Well	Surface Intake Public Water	Perennial Stream, Wetland & Other Waters*	Ephemeral Stream or Drainage Swale*
Septic Tank	100	100		50	25
Pump Tank	100	100		50	25
Dispersal System	150	100	200-400 (see table below)	100	50

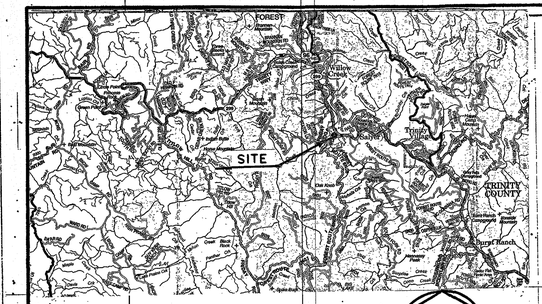
Minimum Horizontal Distance (ft.)	Property Lines Public Water	Property Lines (Private Water)	Buildings or Structures	Cut Banks Unstable Land Steep Slopes>30%	Large Trees
Septic Tank	5	25	5	25	10
Pump Tank	5	25	5	25	10
Dispersal System	10	50	10	25	10

* Setback distances from surface waters is determined based on the US Army Corps of Engineers' definition of Ordinary High Water Mark, 33 CFR 328.3(e).

Table 2 – OWTS Soil Application Rates

Percolation Rate(mpi)	Soil Application Rate gpd/ft²	Zone 2 Soil Texture (for use when no percolation testing conducted)
5	0.732	
10	0.554	
15	0.481	Loamy Sand
20	0.425	
25	0.389	Sandy Loam
30	0.363	
35	0.344	Sandy Clay Loam
40 *	0.323 *	
45	0.305	Silt Loam
50	0.296	
55	0.285	
60	0.277	

*TH-6 Rate



VICINITY MAP

NO SCALE

NORTH

GENERAL NOTES

1. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2022 EDITION OF THE CALIFORNIA BUILDING CODE, 2022 EDITIONS OF THE CALIFORNIA ELECTRICAL AND FIRE CODES, AND ALL APPENDICES THERETO.

2. THE CONTRACTOR SHALL PROVIDE WORKMANS COMPENSATION INSURANCE & LIABILITY INSURANCE.

3. THE CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIAL FOR A MINIMUM OF ONE YEAR.

4. THE GENERAL CONTRACTOR SHALL VERIFY ALL THE SITE CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.

5. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS.

6. DETAILS SHOWN ON TYPICAL DETAIL SHEETS SHALL BE USED WHENEVER APPLICABLE, UNLESS OTHERWISE SHOWN. SPECIFIC DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER TYPICAL DETAILS. SPECIFIC NOTES SHOWN ON THE DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES. NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER SPECIFICATIONS.

7. ALL CONDITIONS SHOWN OR NOTED AS EXISTING ARE BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS, NO WARRANTY IS IMPLIED AS TO THEIR ACCURACY.

8. ALL BUILDING MATERIAL SHALL BE NEW MATERIAL, UNLESS OTHERWISE APPROVED OR SPECIFIED BY ENGINEER.

9. CONTRACTORS SHALL VERIFY EASEMENTS (PUBLIC OR PRIVATE) FOR SEWER, WATER, ELECTRICAL, TELEPHONE, CABLE T.V., AND GAS PRIOR TO STARTING CONSTRUCTION.

10. VERIFY ALL UTILITY DATA AND LOCATIONS PRIOR TO ANY WORK. ONSITE UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE AGENCY OR UTILITY COMPANY.

11. THE DESIGN CONSULTANTS ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF PRODUCTS OR MATERIALS NOT SPECIFIED IN THESE DRAWINGS.

12. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS. IN THE EVENT OF CONTRADICTION, USE THE MOST STRINGENT SPECIFICATION AND NOTIFY THE ENGINEER. THE CONTRACTOR SHALL EXERCISE CARE TO PROTECT ADJACENT PROPERTIES DURING HIS OPERATIONS.

13. ACCEPT NO INK OR PENCIL CORRECTIONS TO THESE DRAWINGS WITHOUT THE OWNER'S REPRESENTATIVE INITIAL OR SIGNATURE. THE DESIGN CONSULTANTS SHALL BE HELD HARMLESS FOR ALL CHANGES NOT IN CONFORMANCE WITH THIS PROVISION.

14. ALL USERS OF THESE DRAWINGS AGREE BY USING THESE DRAWINGS TO HOLD THE DESIGN CONSULTANTS HARMLESS FOR ANY AND ALL WORK THAT DOES NOT CONFORM TO THE REQUIREMENTS AND MINIMUM STANDARDS OF THE C.B.C., ORDINANCES, AND ACCEPTABLE STANDARDS.

15. THESE DRAWINGS ARE THE PROPERTY OF THE DESIGN CONSULTANTS AND ARE NOT TO BE USED IN PART FOR ANY WORK OTHER THAN THE LOCATION SHOWN HEREON.

16. THE DESIGN CONSULTANTS AND THE OWNER SHALL HAVE NO CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR ANY SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

17. THE CONTRACTOR SHALL COMPLY WITH ALL OF THE APPLICABLE REQUIREMENTS OF THE FEDERAL WILLIAMS – STEIGER OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) OF 1970 AND ANY AMENDMENTS THERETO. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE ENGINEER OR HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS.

18. THE CONTRACTOR SHALL REVIEW ALL PAGES OF THE PLANS; ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

19. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR AND SUBCONTRACTORS SHALL REMOVE SURPLUS MATERIALS AND DEBRIS FROM THE SITE. CONTRACTOR SHALL REMOVE ALL DELETERIOUS MATERIAL FROM SITE INCLUDING BUT NOT LIMITED TO; BROKEN CONCRETE, STUMPS, ROCKS, DEBRIS, ASPHALT RUBBLE, GARBAGE, ETC. AND LEGALLY DISPOSE OF ABOVE.

20. LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE FROM RECORD INFORMATION ONLY AND ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND CONSTRUCTION IN ANY AREA. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT 1-800-642-2444 A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION. CONTRACTORS SHALL IMMEDIATELY REPORT ANY DISCREPANCIES IN RECORD INFORMATION TO ENGINEER AND DEVELOPER PRIOR TO CONSTRUCTING ANY WORK.

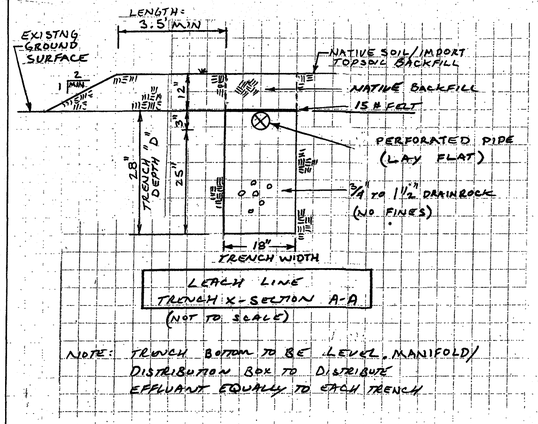
21. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SITE SAFETY REQUIREMENTS.

22. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS ON OR ADJACENT TO PROJECT SITE. CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGE TO EXISTING IMPROVEMENTS TO THE SATISFACTION OF HUMBOLDT COUNTY PUBLIC WORKS OR PRIVATE PROPERTY OWNER INVOLVED.

SPECIAL INSPECTION

ALL STRUCTURAL AND EARTH-WORK INSPECTIONS SHALL MEET THE REQUIREMENTS OF THE CURRENT CALIFORNIA BUILDING CODE AND THE COUNTY OF HUMBOLDT DEPARTMENT OF ENVIRONMENTAL HEALTH GUIDELINES/REQUIREMENTS.

THE SITING/INSTALLATION OF THE ON-SITE SEWAGE DISPOSAL SYSTEM SHALL BE INSPECTED/APPROVED BY PERSONNEL FROM THE HUMBOLDT COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH, INCLUDING APPROVAL OF ANY IMPORT FILL MATERIAL TO BE PLACED IN THE VICINITY/AREA OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.



COUNTY OF HUMBOLDT
DIVISION OF ENVIRONMENTAL HEALTH
LAND USE UNIT
100 H Street, Suite 100 EUREKA, CA 95501
TEL (707) 445-6215 * envhealth@co.humboldt.ca.us

DISPERSAL FIELD CONSTRUCTION GRAVEL TRENCH

DRAWN BY: BMD REVIEWED BY: DS

OWTS SPECIFIC NOTES

OWTS BENEFIT FROM ROUTINE MAINTENANCE AND CONSIDERATION OF THE TYPES OF WASTES SENT TO THEM. HUMBOLDT COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH RECOMMENDS THE FOLLOWING PRACTICES TO PROLONG THE LIFESPAN OF THE OWTS AND TO PREVENT THE POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATED WITH THEIR USE:

1. ONLY ALLOW DOMESTIC WASTEWATER TO ENTER THE SYSTEM. OTHER SUBSTANCES SUCH AS PESTICIDES, STRONG SOLVENTS, NON-HOUSEHOLD CHEMICALS, ETC. CAN HARM THE SEPTIC TANK AND MAY CONTAMINATE GROUNDWATER.
2. AVOID DISPOSING OF FATS, OILS, AND GREASES TO THE OWTS. THESE SUBSTANCES CAN ACCUMULATE IN DISPERSAL FIELD PIPING AND RECEIVING SOILS LEADING TO OWTS FAILURE.
3. INSPECT THE DEPTH OF SLUDGE IN THE SEPTIC TANK EVERY THREE YEARS. TANKS SHOULD BE PUMPED WHEN THE SLUDGE LAYER IS TWO OR MORE FEET THICK.
4. DISPERSAL FIELDS, INCLUDING RESERVE AREAS SHALL BE PROTECTED. SOIL COMPACTION CAN REDUCE THEIR ABILITY TO RECEIVE WASTEWATER. DO NOT DRIVE VEHICLES, BUILD, OR PLACE HEAVY EQUIPMENT OVER DISPERSAL FIELD AREAS. HOOFED ANIMALS SUCH AS GOATS, SHEEP, HORSES, AND/OR CATTLE CAN COMPACT SOILS AND SHALL BE PROHIBITED FROM DISPERSAL FIELDS.
5. TREES AND SHRUBS SHALL NOT BE PLANTED IN THE DISPERSAL AREA BECAUSE ROOTS CAN BECOME INVASIVE AND CAUSE CLOGGING.
6. DIVERT WATER RUN-OFF AWAY FROM DISPERSAL FIELD AREAS.

Minimum Setback Distance Requirements

Tanks and dispersal fields must be located to meet the minimum setback distances shown below. See page reverse for required OWTS horizontal setbacks to public water wells and surface water intakes.

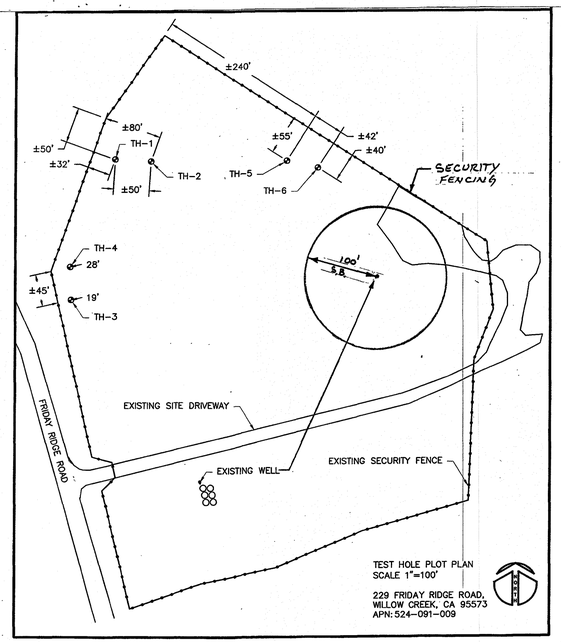
Minimum Horizontal Distance (ft.)	Public Water Well	Private Water Well	Surface Intake Public Water	Perennial Stream, Wetland & Other Waters*	Ephemeral Stream or Drainage Swale*
Septic Tank	100	100		50	25
Pump Tank	100	100		50	25
Dispersal System	150	100	200-400 (see table below)	100	50

Minimum Horizontal Distance (ft.)	Property Lines Public Water	Property Lines (Private Water)	Buildings or Structures	Cut Banks Unstable Land Steep Slopes>30%	Large Trees
Septic Tank	5	25	5	25	10
Pump Tank	5	25	5	25	10
Dispersal System	10	50	10	25	10

* Setback distances from surface waters is determined based on the US Army Corps of Engineers' definition of Ordinary High Water Mark, 33 CFR §328.3(e).

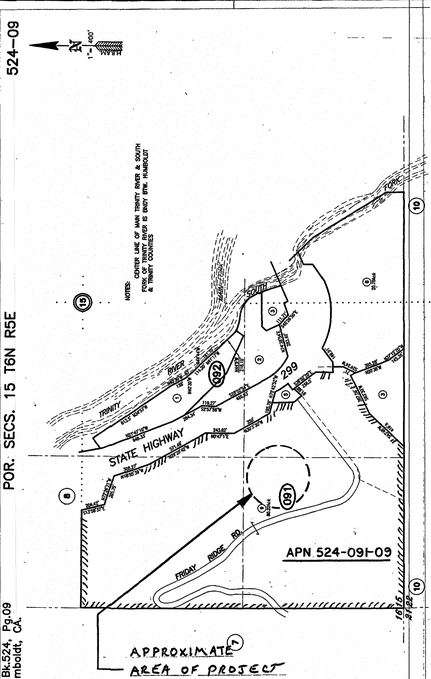
3 OWTS SETBACK REQUIREMENTS

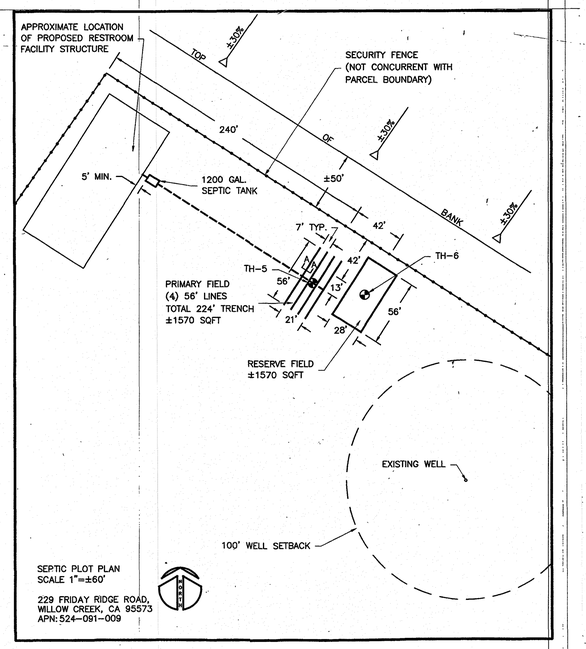
NOT TO SCALE



TEST HOLE PLOT PLAN
SCALE 1"=100'

229 FRIDAY RIDGE ROAD,
WILLOW CREEK, CA 95573
APN: 524-091-009





SEPTIC PLOT PLAN
SCALE 1"=±60'

229 FRIDAY RIDGE ROAD,
WILLOW CREEK, CA 95573
APN: 524-091-009

THESE PLANS ARE ORIGINALLY PRINTED ON 24"x36" PAPER.

1 INCH

REVISIONS	BY

WHITCHURCH ENGINEERING, INC.
610 8th Street Fortuna, California 95540
Phone (707) 725-6626

ON-SITE SEWAGE DISPOSAL SYSTEM
229 Friday Ridge Road, Willow Creek, CA
APN 524-091-009

SITE PLAN

For: Compass land Group 4235 Forcum Ave #100, McClellan Park, CA 95652

Date	Aug. 4, 2023
Scale	AS NOTED
Design	TOR
Drawn	TOR
Job	CPS2301
Sheet	1

APPENDIX H
NOISE IMPACT STUDY

WHITCHURCH ENGINEERING

610 9th Street
Fortuna, CA 95540
Phone: (707) 725-6926

Noise Impact Study

Commercial Cannabis Facility at Friday Ridge Road, Willow Creek, CA

(APN: 524-091-009)

Prepared for:

Matthew Primm with Organic Liberty, LLC.
PO Box 94825
Las Vegas, NV 89193

Prepared by:

Whitchurch Engineering, Inc.
610 9th St.
Fortuna, CA 95540

April 6, 2023

Table of Contents

Acronyms and Abbreviations

APN	Assessor's Parcel Number
dB	Decibel
CCLUO	Humboldt County Commercial Cannabis Land Use Ordinance
HCGP	Humboldt County General Plan
Hwy	Highway
SPL	Sound Pressure Level

1 Purpose

A modification to an existing Commercial Cannabis Cultivation Site is being proposed at APN: 524-091-009 on Friday Ridge Rd in Willow Creek. This includes the construction and operation of hoop houses, greenhouses, and commercial cannabis structures. Current ambient noise conditions within the vicinity of the parcel are mainly attributed to noise from Friday Ridge Road which runs directly through the subject parcel, as well as Hwy 299 which borders the eastern side of the subject parcel. No noise mitigation measures have been implemented by Humboldt County or Caltrans at this time to reduce noise generated from such sources. Proposed modifications to the existing site trigger Humboldt County Commercial Cannabis Land Use Ordinance 2.0 for this project. The purpose of this analysis and report is to determine ~~from~~ existing ambient noise levels and evaluate if the proposed activities meet standards set forth in the Humboldt County CCLUO. This analysis will include an increase in noise due to proposed equipment or activities and any mitigation recommendations necessary for the proposed residential parcels to meet the requirements of the CCLUO.

2 Project Description

The objective of this project is to determine and report the measured ambient noise levels, such as ongoing Hwy 299 and Friday Ridge Road traffic, at 3 of the project property lines over a 24-hour period and determine the effect the proposed cannabis related equipment will have at these locations. This report addresses the following objectives:

1. Conduct a noise analysis at the site per Humboldt County CCLUO.
2. Determine noise impacts due to proposed equipment and/or activities.
3. Determine if mitigation measures are required to attenuate noise impacts.
4. Make recommendations for the implementation of said mitigation efforts, if warranted per CCLUO.

2.1 Setting

APN: 524-091-009, shown in Figure 1, is a large agriculture zoned parcel, located in Willow Creek, approximately 80 acres in size. The parcel is zoned AG-B-5 (Agriculture Special Building Site), as part of the Humboldt County General Plan (HCGP), and is outside of the Coastal Zone. The parcel is bordered by Highway 299 to the east. Parcels to the west, north, and south are zoned AE (Agriculture Exclusive).

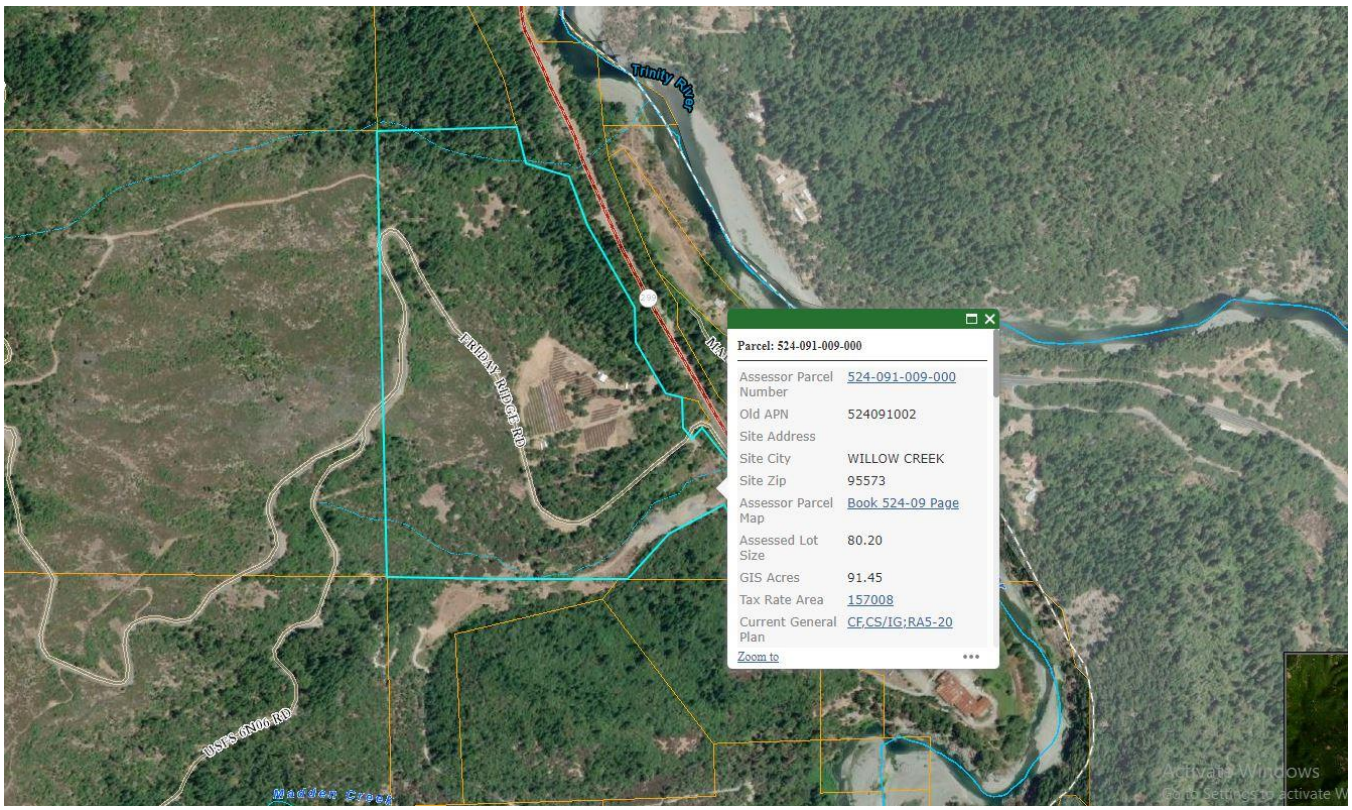


Figure 1: APN:524-091-009 (Humboldt 2022)

3 Noise Analysis

Noise performance standards for commercial cannabis cultivation sites follows the CCLUO 2.0 requirements. Per CCLUO, the noise study will address the following requirements (Humboldt 2021):

- Existing Ambient Noise Levels shall be determined by taking twenty-four hour readings on three or more property lines when all cannabis related activities are not in operation.
- Noise from Cultivation and related activities shall not result in an increase of more than 3 decibels of continuous noise above existing ambient noise levels at any property line of the site.
- An analysis of the project must demonstrate compliance with the noise standards, including but not limited to:
    - Site Plan detailing the location of all noise sources, property lines, and nearby forested areas and sensitive receptors.
    - Existing Ambient Noise Levels at the property line using current noise measurements
    - Details on the design of any structure or equipment used to attenuate noise.
    - Details on the location and characteristics of any landscaping, natural features, or other structures which serve to attenuate noise levels at nearby property lines.

This report will be concerned with adherence to the CCLUO standards mentioned above (Humboldt 2021). Further analysis of raw data was conducted with the methodology provided by the CalTrans Technical Noise Supplement and is discussed in detail, below (CalTrans, 2013).

3.1 Methodology

The following equipment, equations, and methodology was used to produce estimated noise levels for the above-mentioned project. Collected raw data was processed using analytical methods found in the 2013 Caltrans *Technical noise Supplement to the Caltrans traffic Noise Analysis Protocol*.

3.1.1 Field Equipment

The noise meter used for this study is a PCE-322A. Specifications for this device are found in Appendix A. The PCE-322A comes calibrated from PCE Instruments to meet the standards for sound meter set by IEC 61672-1 for a Class II meter (International Electrotechnical Commission 2013).

3.1.2 Noise Level Change at a Distance

The change in noise levels for a line source at any two different distances from cylindrical spreading is determined using the following equation (Caltrans, 2013).

$$dBA_2 = dBA_1 + 10log_{10}(D_1/D_2) \quad (1)$$

where:

dBA_1 = noise level at distance D_1 and conventionally the known noise level (dB)

dBA_2 = noise level at distance D_2 and conventionally the unknown noise level (dB)

3.1.3 Sound Pressure Level

Sound pressure level (SPL) is an instantaneous decibel (dB) measurement of the noise level in an area. The following equation is used to determine the total sound pressure for each discrete measured noise level over a sample period (Caltrans 2013).

$$SPL_{Subtotal} = SPL_1 + 10\log_{10}(N) \quad (2)$$

where:

$SPl_{Subtotal}$ = Total sound pressure for each discrete noise level (dB)

SPL_1 = Sound pressure level of one source (dB)

N = Number of occurrences of each discrete noise level

3.1.4 Total Sound Pressure Level

SPL subtotals are summed using the following equation (Caltrans 2013).

$$SPL_{Total} = 10log_{10}\left[10^{SPL_1/10} + 10^{SPL_2/10} + \cdots + 10^{SPL_n/10}\right] \quad (3)$$

where:

SPL_{Total}	= Total sound pressure for each discrete noise level (dB)
SPL_1, SPL_2, SPL_n	= first, second, and *n*th noise level (dB)
N	= Number of occurrences of each discrete noise level

Instantaneous noise level subtotals (SPLs) are converted to relative energy values, summed, then divided by the total number of values before converted back to dB.

3.1.5 Equivalent Noise Level (L_{eq})

L_{eq} is an energy-average or energy-mean noise level. The following equations are used to calculate the Equivalent Noise Level for a sample period's aggregated SPLs (Caltrans 2013).

$$L_{eq} = 10log_{10}\left[10^{SPL_{Total}/10}/N\right] \quad (4)$$

$$L_{eq} = 10log_{10}\left[(10^{SPL_1/10} + 10^{SPL_2/10} + \cdots + 10^{SPL_n/10})/N\right] \quad (5)$$

where:

Leq	= Equivalent noise level (dB)
SPL_1, SPL_2, SPL_n	= first, second, and *n*th noise level (dB)
N	= Total number of samples

3.2 Procedure

The following steps were taken, using the methods and equipment mentioned above, to measure values for this noise study.

3.2.1 Data Collection

A representative of Whitchurch Engineering, Inc. conducted a noise sampling survey using the above-mentioned field equipment at 3 of the approximate project property line locations, to collect noise levels over a 24-hour period. The data was collected from 11:00 am on January 19th, to 11:00 am on January 20th, 2023. The noise sampling location at the project site is found in Figure 2.

Measurements were made on acoustically absorptive ground at a height of approximately 1.2 m (4 ft) with no nearby reflecting surfaces. Audio samples were taken at 1 second intervals, which exceeds the requirements set in Humboldt County General Plan that prescribes a frequency of 15 seconds between audio samples (Humboldt 2017).

Figure 2: Area map of parcel that includes the noise sampling sites and the assumed location of the proposed structures (property line shown is approximate and provided by others).

3.2.2 Proposed Noise Sources

The proposed project will include the installation and operation of a number of pieces of mechanical equipment. The majority of the equipment will run intermittently a few times a year and are not included in this analysis. The only equipment that will be run continuously will be the ventilation and circulation fans in the proposed greenhouses and hoop houses, which will run continuously during the cultivation months. The locations of the proposed greenhouses and hoop houses are found in Figure 3. For ease of analysis, the fans for each group of proposed structures are assumed to be located at the center of those structures (ex. All hoop house fans are located at the center of the hoop houses). These assumed noise source locations are shown in Figure 2. The summary of the equipment for each

group of proposed structures, as well as their respective distance to noise sampling locations, are shown in Table 1.

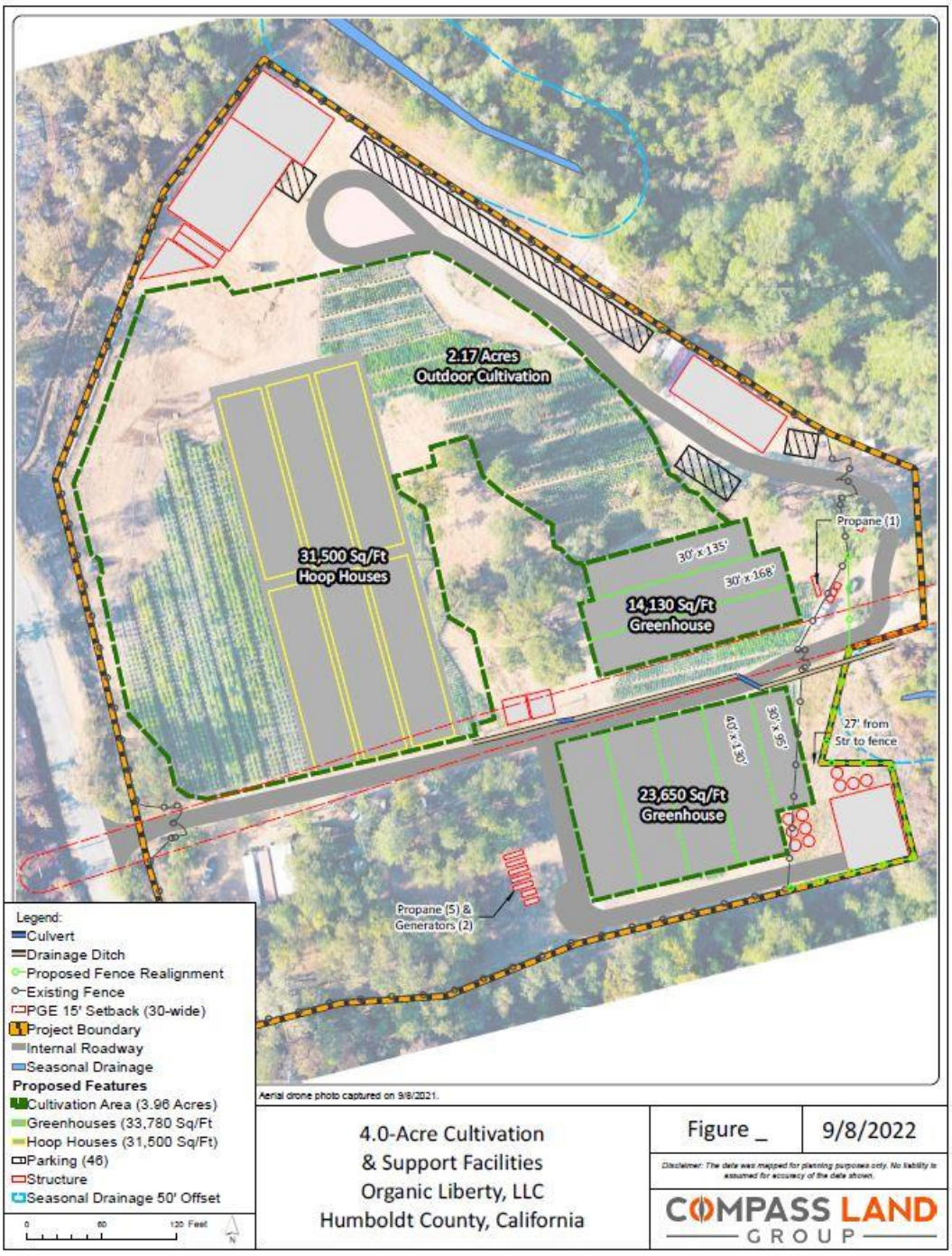


Figure 3: Proposed Site Layout

Table 1: Proposed Equipment Summary

				Distance to Noise Sampling Location		
Structures	Equipment	Sound Rating*	# of Units	#1	#2	#3
Hoop Houses	VK20 Circ. Fan	45 dB	96	665 ft	1625 ft	1100 ft
	54" End Wall Fan	65 dB	12			
North Green Houses	VK20 Circ. Fan	45 dB	50	375 ft	1800 ft	950 ft
	54" End Wall Fan	65 dB	12			
South Green Houses	VK20 Circ. Fan	45 dB	66	430 ft	1925 ft	775 ft
	54" End Wall Fan	65 dB	12			

Sound Ratings are assumed based on ratings from similar equipment

3.2.3 Data Analysis

Microsoft Excel was used to organize and process the raw 24-hours of noise level data that was collected between January 19th, and 20th, 2023. Using the data, for each hour of the day, the occurrence of each discrete dB noise level was determined (i.e. the discrete noise level of 57.5 dB was measured 3 times between the hours of 2:00 pm and 3:00 pm, while the discrete noise level of 57.5 dB was measured only once between the hours of 3:00 pm and 4:00 PM). Equation 2 was used to determine the subtotal sound pressure level (SPL) for each discrete dB measured. Using Equation 3, the SPL subtotal for each discrete dB were summed together to produce a total SPL for any given hour of the study. This total SPL was converted into a L_{eq}, or energy-averaged, using Equation 4. This resulted in an hourly noise level, based on recorded data. This analysis was completed for all three sampling locations and is shown in Table 3.

Next, the multiple proposed sound sources were consolidated into a single sound reading for each group of buildings using Equation 3. These consolidated noise levels as well as their respective distances from each noise sampling location were used in Equation 1 and consolidated into a single noise reading using Equation 3. This resulted in a single proposed noise level at each sampling location. These noise levels are assumed to be continuous and to occur on a 24-hour a day basis. The resulting proposed noise sources at the sampling locations are shown in Table 2. Using Equation 3, the proposed noise sources and existing hourly noise levels were consolidated and the increase in noise levels due to proposed equipment was calculated. The maximum, minimum, and 24-hour average values are shown in Table 3. The hourly existing, proposed, and increased noise levels can be seen in Appendix B.

Please see Section 2.2.2.2 in the *Technical Noise Supplement to the Caltrans Traffic Noise Analysis Protocol* from Caltrans, dated September 2013, for more detailed methodology and procedural instructions.

4 Results

The following displays the results of the noise study that was conducted using the methods and procedures described in the previous sections.

4.1 Proposed Noise Levels

Table 2 shows the point source and total noise levels due to the proposed equipment and operations. Also shown are the anticipated noise levels at each sampling point due to the proposed equipment.

Table 2: Summary of noise levels due to proposed structures and their calculated levels at sampling locations.

	Proposed Noise Level @ Sampling Location		
Structures	**#1**	**#2**	**#3**
Hoop Houses	57.9	54.0	55.7
North Green Houses	60.2	53.4	56.2
South Green Houses	59.7	53.2	57.1
Total	**64.2**	**58.3**	**61.2**

As can be seen, the proposed equipment will be loudest at the nearest sampling location, Location #1.

4.2 Affect on Existing Noise Levels

Using the methods described in Section 3, the data recorded at all 3 Sampling Locations was processed to result in hourly noise levels. These values as well as the calculated values in Table 2 were used to calculate the proposed noise levels due to the proposed project. These values and the increase in noise level can be seen in Table 3.

Table 3: Existing sampled data with net increase in sound levels due to proposed equipment.

		Min.	Max.	Average
Sampling Location #1	<E> Noise Level (dB)	51.8	79.4	59.9
	<P> Noise Level (dB)	64.4	79.5	66.4
	<P> Increase (dB)	0.1	12.6	6.5
Sampling Locaiton #2	<E> Noise Level (dB)	48.9	63.5	55.7
	<P> Noise Level (dB)	58.8	64.7	60.6
	<P> Increase (dB)	1.2	9.9	4.9
Sampling Location #3	<E> Noise Level (dB)	64.3	68.7	65.5
	<P> Noise Level (dB)	66.1	69.4	66.9
	<P> Increase (dB)	0.7	1.7	1.4
Total	<E> Noise Level (dB)	55.0	70.5	60.3
	<P> Noise Level (dB)	63.1	71.2	64.6
	<P> Increase (dB)	0.7	8.1	4.3

Table 3: Existing sampled data with net increase in sound levels due to proposed equipment.

	Site Average		
Reading	<E> Noise Level (dB)	<P> Noise Level (dB)	<P> Increase (dB)
Min.	48.9	58.8	0.1
Max.	79.4	79.5	12.6
Average	**60.3**	**64.6**	**4.3**

4.3 Discussion and Recommendations

As can be seen in Table 3, the Existing Noise Levels recorded at Sampling Location #1 were the highest experienced. This is likely due to the proximity to Highway 299. During our visit, highway noise was faintly heard while setting up at Sampling Location #1. Additionally, Sampling Locations #2 and #3 were relatively close to Friday Ridge Road and traffic noise could be heard during setup at these locations.

As seen above, the proposed project would result in a calculated increase of more than 3dB at the property line. But this increase hardly results in a noise level exceeding 65dB except when ambient existing noise levels exceed this value. It should be noted that this calculation does not take into account changes in elevation, topography, or vegetation and ground cover. All of these factors would

further result in attenuation of the proposed noise sources. In addition, the proposed buildings and fan housing/assemblies will provide further attenuation of noise.

The Sampling Locations were chosen as the most accessible of the subject parcels 3 property lines. These property lines are adjoining non-buildable lot lines and the most potentially impacted of the three locations (Sampling Location #1) abuts the Highway 299 Caltrans Right-of-Way. As the ROW is a non-buildable area, any sound readings on the opposite side of the highway would be further attenuated.

Per the results of this study, it is our recommendation that the increase in noise levels due to the proposed project will be attenuated by structures, topography, and vegetation to a point that the noise requirements of the CCLUO will be met. Additionally, the existing and proposed noise levels fall below the short-term noise standards in the Humboldt County General Plan, Table 13-D. Per the HCGP, for a parcel zoned AG, the Daytime (6am-10pm) and Night (10pm-6am) maximum allowable noise levels are 80 dB and 70 dB, respectively. During these time ranges, the maximum proposed noise levels are 79.5 dB and 67.1 dB, respectively (See Appendix B). Therefore, this proposed project falls within the allowable maximum noise limits listed within the HCGP.

5 Conclusion

- The project consists of the construction of structures, hoop houses, and greenhouses for a commercial cannabis cultivation site. This includes the installation of fans that will run continuously, generating noise.
- Sound data was collected at the project site's northern, southern, and eastern borders on January 19th for 24-hours. Audio samples were collected every 1 second by a PCE-322A noise meter.
- An analysis was performed to determine what increase in noise levels would occur at the property lines due to the proposed fans.
- Per Caltrans methodology the noise data was processed to produce existing hourly ambient noise levels (summarized in Appendix B).
- The proposed fans result in an increase in noise levels ranging from 0.1 dB to 12.6 dB at the sampled property line.
- The proposed structures and existing topography, vegetation, and contours are anticipated to attenuate this sound increase to below the 3 dB increase required in the CCLUO.
- The proposed sound levels do not exceed the maximum allowable sound levels listed within the HCGP for an AG zoned parcel.
- No mitigation measures are proposed at this time as natural sound attenuation is anticipated to mitigate any noise impacts to surrounding properties to within thresholds acceptable to the County of Humboldt.

Engineer of Record Signature

4/6/2023

Date

6 References

1. Caltrans (2013). “Technical Noise Supplement to the Traffic Noise Analysis Protocol”, Caltrans (May 5, 2022).
2. Caltrans (1995). “Traffic Noise Attenuation as a Function of Ground and Vegetation”, Caltrans (May 5, 2022).
3. Humboldt County Commercial Cannabis Land Use Ordinance (2018). “Section 55.4.12.6 Performance Standards for Noise at Cultivation Sites”, Humboldt County (May 8, 2018).
4. Humboldt County Planning Commission (2017). “Chapter 13. Noise Element, Humboldt County General Plan”, Humboldt County (May 5, 2022).
5. International Electrotechnical Commission (2013). “Electroacoustics – Sound Level Meters – Part 1: Specifications”. (May 5, 2022).
6. U.S. Department of Housing and Urban Development (1991). “The Noise Guidebook”, U.S. Department of Housing and Urban Development (May 5, 2022).
7. National Cooperative Highway Research Program (2020). Project 25-57; Breaking Barriers: Alternative Approaches to Avoiding and Reducing Highway Traffic Noise Impacts” (May 5, 2022). https://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP25-57TechMemo.pdf

Appendix A: PCE-322A Noise Meter

Figure 2: PCE-322A noise meter used in study

Table 1: PCE-322A noise meter specifications

Specification	
Standard Applied	IEC61672-1 CLASS2
Accuracy	±1.4dB
Frequency Range	31.5Hz - 8KHz
Dynamic Range	50dB
Memory	32700
Level ranges	LO:30dB - 80dB
Med	50dB - 100dB
Hi	80dB - 130dB
Auto	30dB - 130dB
Fequency Weighting	A/C
Time Weighting	FAST (125ms), SLOW (1s)
Microphone	1/2 inch electret condenser microphone
Analog output	AC/DC outpus from earphone outlet
	AC = 1 Vrms, DC = 10mV/dB]

Appendix B: Hourly Recorded Sound Data

	Sampling Location #1			Sampling Location #2			Sampling Location #3		
Time	<E> Noise Level (dB)	<P> Noise Level (dB)	<P> Increase (dB)	<E> Noise Level (dB)	<P> Noise Level (dB)	<P> Increase (dB)	<E> Noise Level (dB)	<P> Noise Level (dB)	<P> Increase (dB)
12:00 AM	59.8	65.5	5.7	63.5	64.7	1.2	65.8	67.1	1.3
1:00 AM	59.5	65.4	5.9	57.8	61.1	3.3	64.4	66.1	1.7
2:00 AM	59.2	65.4	6.2	57.7	61.1	3.3	64.4	66.1	1.7
3:00 AM	59.6	65.5	5.9	57.7	61.0	3.4	64.4	66.1	1.7
4:00 AM	60.2	65.6	5.4	59.2	61.8	2.6	64.4	66.1	1.7
5:00 AM	58.7	65.2	6.5	62.1	63.6	1.5	65.1	66.6	1.5
6:00 AM	64.8	67.5	2.7	59.3	61.9	2.5	64.4	66.1	1.7
7:00 AM	56.9	64.9	8.0	50.3	59.0	8.7	67.6	68.5	0.9
8:00 AM	55.4	64.7	9.3	52.4	59.3	6.9	66.2	67.4	1.2
9:00 AM	60.2	65.6	5.4	57.9	61.1	3.2	64.4	66.1	1.7
10:00 AM	64.7	67.4	2.7	52.8	59.4	6.6	66.0	67.2	1.2
11:00 AM	68.5	69.9	1.4	51.5	59.1	7.7	66.8	67.9	1.0
12:00 PM	72.5	73.1	0.6	56.4	60.5	4.1	64.6	66.2	1.6
1:00 PM	79.4	79.5	0.1	53.8	59.6	5.8	65.5	66.8	1.4
2:00 PM	54.4	64.6	10.2	49.4	58.9	9.4	68.3	69.1	0.8
3:00 PM	51.8	64.4	12.6	52.7	59.4	6.7	66.1	67.3	1.2
4:00 PM	52.1	64.4	12.3	48.9	58.8	9.9	68.7	69.4	0.7
5:00 PM	54.3	64.6	10.2	51.7	59.2	7.5	66.7	67.7	1.1
6:00 PM	53.5	64.5	11.0	56.1	60.4	4.2	64.6	66.2	1.6
7:00 PM	57.3	65.0	7.6	54.8	59.9	5.1	65.1	66.5	1.5
8:00 PM	58.7	65.2	6.6	55.1	60.0	4.9	64.9	66.5	1.5
9:00 PM	55.9	64.8	8.8	59.6	62.0	2.4	64.4	66.1	1.7
10:00 PM	59.0	65.3	6.3	58.3	61.3	3.0	64.3	66.1	1.7
11:00 PM	60.1	65.6	5.5	58.2	61.3	3.1	64.4	66.1	1.7

APPENDIX I
INVASIVE SPECIES CONTROL PLAN

INVASIVE SPECIES CONTROL PLAN

Assessor Parcel Number (APN):
524-091-009 and 524-101-025

Willow Creek, Humboldt County, California

***Prepared For*:**

Organic Liberty CA, LLC
229 Friday Ridge Rd
Willow Creek, CA 95573

***Prepared By*:**

Naiad Biological Consulting
www.naiadbiological.com
PO Box 121
Samoa, CA 95564
naiadbiological@gmail.com

***Date Prepared*:**

January 15th, 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, MS Biology
Naiad Biological Consulting Principal Biologist

Table of Contents

Section 1 Introduction

1.1 Purpose and Need

Organic Liberty CA, LLC currently operates a permitted 3.3-acre cannabis cultivation site located in Humboldt County. Organic Liberty CA, LLC contracted Naiad Biological Consulting to produce this study proactively for a future potential modification to the approved permits. Any future modification to the existing permits will subject the application to the Invasive Species Control requirement of Humboldt Ordinance No. 2599 ("CCLUO"), which have been addressed within this Invasive Species Control Plan.

Section 55.4.12.16 of the Humboldt County Commercial Cannabis Land Use Ordinance (CCLUO), Ordinance 2599, states that "[i]t is the responsibility of a certificate or permit holder to work to eradicate invasive species. As part of any application, the existence of invasive species on the project parcel need to be identified, including the type(s) of invasive plant species, where they are located, and a plan to control their spread. All invasive plant species shall be removed from the cultivation site and associated infrastructure using measures appropriate to the species. Removal shall be confirmed during subsequent annual inspection. Corrective action may be required if invasive species are found to have returned."

1.2 Biologist's Qualifications

The Invasive Species Control Plan was prepared by Mason London. Mason is the primary biological consultant of Naiad Biological Consulting. Mason holds a Master of Science Degree in Biology with a concentration in aquatic ecology from Humboldt State University. Mason has 12 years of experience working professionally as a botanist, wildlife biologist, aquatic ecological research scientist, and has instructed ecological field and classroom courses at the university level. Mason has worked in both Northern California and Southern Oregon targeting and eradicating invasive species for nonprofit land stewardship councils and government agencies.

1.3 Invasive Species Information

Not all non-native species are necessarily invasive species. For a species to be considered non-native, it means it has been introduced with human help (intentionally or accidentally) to a new place or new type of habitat where it was not previously found. Whereas, according to the USDA National Invasive Species Information Center, Executive Order 13112 (February 1999), "[a]n invasive species is defined as a species that is 1) non-native (or alien) to an ecosystem under consideration ***and*** 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health."

The invasive species list used for this Invasive Species Control Plan was derived from the California Invasive Plant Council (Cal-IPC), as required by the Humboldt County Board of Supervisors, in the

Mitigation Monitoring and Reporting Program – Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities (Mitigation 3.4-3b: Invasive plant species).

1.4 Assessment and Control Options

A physical survey of the parcel, and the utilization of past botanical survey data, to determine the scope of the present invasive species, will create a comprehensive starting point for management techniques. Several control options exist for eradicating invasive species including; 1) biological, 2) mechanical and 3) chemical.

1.4.1 Biological Eradication

This option is generally used as a first line of defense for control of invasive species. The reintroduction of native species can, in some cases, create a host for insects and microorganisms which will feed on the invasive species and/or create an environment which will discourage new growth of the invasive plant. Because of this, competitive planting of non-invasive species can help to cultivate an environment which will discourage new growth of invasive plants.

Many invasive species become introduced to an area after a recent disturbance. By using native grasses or plants, in a restoration style planting or seeding, many invasive species will become unable to establish and entrench the exposed soils.

1.4.2 Mechanical Eradication

This option is the most common short-term option for the eradication of invasive species. Hand pulling, or with use of tools such as a weed wrench, can be done easily during certain times of year when the soils are still moist, and roots are easily removed. Depending on the species, it can be important to remove the entire root because some species can regenerate from roots left in the soil. Other species need to be removed before their seeds fully mature in order to not promote aerial spreading of fertile seeds. In some of these cases, the removed plant matter will need to be removed from the property since some seeds are able to mature on a plant even when the plant has been removed from the ground. This method is ideal for populations of invasive plants that are smaller and can be easily managed with hands or hand tools.

For populations of invasive plants that cannot be easily or affectively managed by hand, use of weed whackers, tractors, or cutting tools may be required to eradicate or control the spread of certain species.

1.4.3 Chemical Eradication

This method is considered only as a last resort, if at all, since most commercial cannabis projects are operating under organic and/or natural growing techniques that never include the use of chemicals.

1.5 Project Location and Site Description

The project is located in the Salyer 7.5-minute United States Geological Survey (USGS) Quadrangle in Humboldt County, California (Map 1). The project occurs in Sections 15 of Township 06 North, Range 05 East. The site is approximately 4 air miles south/southeast of the community of Willow Creek. In July of 2020, Humboldt County approved a lot line adjustment and merger (PLN-2020-16443) between 12 assessor parcels (6 legal parcels) to consolidate the parcels into four logical management units. The project site is now located on APNs 524-091-009 and 524-101-025 (one legal parcel). The ±4-acre grassland/woodland study area is located on APN 524-091-009 at ±730 feet above mean sea level and was fully developed with 3.3 acres of outdoor cannabis cultivation at the time of the site visit on January 10th, 2022. (Map 2; Photos 1 and 2). Access to the site is on an existing dirt road off Friday Ridge Road, which also serves a residence outside the project area to the east. The site occurs within the South Fork Trinity River watershed, which is a tributary of the Trinity River, which is a tributary of the Klamath River which is a costal river draining into the Pacific Ocean approximately 51.50 miles north to northwest of parcel.

Section 2 Methods

2.1 Field Observations

On January 10, 2022 Naiad Biological Consulting surveyed the ±4-acre study area, located on APN 524-091-009, for the presence of invasive species. A meandering, or wandering transect, approach to the survey was implemented in order to cover all habitats that could potentially harbor invasive species, within a reasonable buffer around the study area (Map 3).

2.2 Field Observations

Due to the seasonal timing of the site visit, not all invasive species with the potential to occur within the study area were visible. Because of this, the comprehensive botanical survey which was conducted by SHN prior to Naiad Biological Consulting's invasive species survey, was utilized to complete the list of invasive species present within the study area. SHN's site visit for this botanical survey were seasonally appropriate and occurred April 10, July 10, August 3, October 27, 2017 and March 13, 2020. 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 (Appendix C[1]). SHN points out in their botanical survey report, that the survey data collected during these site visits remain valid until spring of 2022.

The list of all botanical species encountered during SHN's botanical survey was reviewed to determine presence of invasive species at the site which were not identifiable during the January 10, 2022 site visit.

2.3 Invasive Species Assessment

The Cal-IPC Inventory was used to determine invasive species of concern for the site visit investigation. The *Weed Control in Natural Areas in the Western United States* (UC Davis Weed Research and information Center, 2013) was utilized to determine specific species information and adequate eradication and management methods, as recommended by Cal-IPC.

[1] SHN's Observed Plants Species List was taken from their Biological Resource Assessment of the project and study area: \\eureka\projects\2017\017014-OrganicLibert\100-WetlandNatRes\PUBS\Rpts\20200413-2020OrgLibBio-Cultivation.docx

Section 3 Results

3.1 Parcel Habitat

The main habitat investigated within the study area consists of developed areas for cannabis cultivation (raised beds), with a few mixed conifers and hardwoods scattered about (see SHN's April 2020 Biological Resources Assessment for complete habitat descriptions). During the field survey, this habitat was investigated for presence of invasive species.

3.2 Invasive Species

Many non-native species were observed during the site visit investigation, and during SHN's botanical Survey, throughout the project site and the surrounding area. However, as previously mentioned, not all non-native species are considered invasive. The majority of the invasive species observed on January 10th, 2022 were located in the walkways of the raised beds, and within the raised beds themselves (Photo 1).

The invasive species present within the parcel where the project occurs, listed on the CAL-IPC inventory, are:

Scientific Name	Common Name	CAL-IPC Invasiveness Rank *
Agrostis stolonifera	creeping bentgrass	Limited
Avena barbata	slim oat	Moderate
Bromus hordeaceus	soft brome	Limited
Carduus pycnocephalus	Italian thistle	Moderate
Centaurea solstitialis	yellow starthistle	High
Cynosurus echinatus	hedgehog dogtail grass	Moderate
Cytisus scoparius	Scotch broom	High
Dactylis glomerata	orchard grass	Limited
Festuca arundinacea	reed fescue	Moderate
Festuca perennis	Italian rye grass	Moderate
Holcus lanatus	common velvet grass	Moderate
Hypericum perforatum	St. John's wort	Moderate
Hypochaeris radicata	rough cat's-ear	Moderate
Mentha pulegium	pennyroyal	Moderate
Plantago lanceolata	English plantain	Moderate
Rubus armeniacus	Himalayan blackberry	High
Rumex crispus	curly dock	Limited
Silybum marianum	milk thistle	Limited

** Invasive Species listed here were generated from Naiad Biological Consulting's January 10th, 2022 site visit, as well as compiled from SHN's botanical survey species list.*

3.3 Invasive Species Information, Management and Removal Recommendations

3.3.1 creeping bentgrass (*Agrostis stolonifera*)

Agrostis stolonifera (Photo 3) has a horizontal stem that is located above the ground and usually produces adventitious roots and vertical stems at the nodes. This species may form mats or tufts. The prostrate stems of this species grow to 0.4–1.0 meter (1 ft 4 in–3 ft 3 in) long with 2–10-centimetre (0.79–3.94 in) long leaf blades and a panicle reaching up to 40 cm (16 in) in height. The Cal-IPC Inventory considers *Agrostis stolonifera* to have ranking of *Limited Invasiveness*.

The treatment options for *Agrostis stolonifera*, as stated in the *Weed Control in Natural Areas in the Western United States*, included mechanical eradication in the form of grazing, prescribed burning, mowing and cutting, tillage, grubbing, digging and/or hand pulling[2]. Unfortunately, all of these methods are considered poor to fair control, with the only good and excellent control methods include chemical control measures.

3.3.2 slim oat (*Avena barbata*)

Avena barbata is a winter annual grass with thin tillers (stems) growing up to 60 to 80 centimeters in maximum height, but known to sometimes grow taller. The bristly spikelets are 2 to 3 centimeters long, not counting the bent awn which is up to 4 centimeters in length. *Avena barbata* largely reproduces by selfing in natural populations, with very low rates of outcrossing. The Cal-IPC Inventory considers *Avena barbata* to have ranking of *Limited* Invasiveness.

According to the *Avena barbata* Weed Report, from the *Weed Control in Natural Areas in the Western United States*, the most effective methods of mechanical control include "[h]and pulling can be used to remove plants in small infestations. Mowing can prevent seed-set in heavy to moderate infestations. Plants can be managed with tillage on open ground before planting when the wild oats are germinating and before seed-set."[3]

3.3.3 soft brome (*Bromus hordeaceus)*

Bromus hordeaceus pubescent entirely and lacks rhizomes. It can grow 7–110 cm (3–43 in) high, sometimes in tufts, sometimes singly. The smooth, yellowish-brown culms measure 0.5–5 mm (0.02–0.20 in) wide at their base, and are minutely to densely pubescent, with hairs measuring up to 0.6 mm (0.02 in) long. The moderately to densely pilose leaf sheaths are mostly closed, with hairs 1.2 mm (0.047 in) long. *Bromus hordeaceus* is native to the Mediterranean basin, and is now widely distributed across North America, Europe, Africa, and Australia. It grows in waste areas, road verges, fields,

[2] *Agrostis stolonifera* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_A/Agrostis_stolonifera.pdf
[3] *Avena barbata* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_A/Avena_barbata-fatua.pdf

grassy plains, and sandy beaches. The Cal-IPC Inventory considers *Agrostis stolonifera* to have ranking of *Moderate* Invasiveness.

According to the *Bromus hordeaceus* Weed Report, from the *Weed Control in Natural Areas in the Western United States*, the most effective methods to remove small infestations is to removal manually by "[d]igging and hand-pulling [and by] uproot[ing] the entire plant before flowing." It is noted in the report that "[t]illage will control emerged plants but often stimulates germination. Deep tillage can reduce populations by burying seed deep enough to prevent germination and emergence. Land managers using tillage for seedbed preparation during reseeding should prepare for a flush of seedlings when soils become moist."[4]

3.3.4 Italian thistle (*Carduus pycnocephalus*)

Carduus pycnocephalus is a winter annual, with stems ranging from 8 inches (20 cm) to 6.6 feet (2.0 m), and are glabrous to slightly wooly. The multiple stems are winged with spines. *Carduus pycnocephalus* is native to Europe and the Mediterranean region, and can be found throughout the western United States in disturbed open sites, roadsides, pastures, annual grasslands, and waste areas. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is to remove when they are small "by cutting." To be effective with this method, one must "…use a sharpened shovel at the top of the root crown. Grubbing hoes must cut the plants 2 to 4 inches below ground level to prevent resprouting from dormant axillary buds." It is also noted that "[m]owing the plant during flowering can greatly reduce seed production, though a single mowing is seldom sufficient due to the wide differences in the maturity of plant s in a natural population." If one does plan to control by mowing, this process should "wait till plants bolt and are about the flower."[5]

3.3.5 yellow starthistle (*Centaurea solstitialis*)

Centaurea solstitialis (Photo 4 & Photo 6) is an annual herb in the family Asteraceae, native to the Mediterranean Basin region. The multiple stems are winged with spines. During the vegetative stage it forms a rosette of non-spiny leaves (5–20 cm diameter). As the summer approaches, it produces a flowering stem (1 m) which will produce numerous spinous capitula containing numerous (10-50) yellow flowers. The yellow starthistle plant has the ability to create monotypic stands and habitats in the cultivated soil of fields, graded dirt sites, and disturbed natural ecosystem lands. Its colonization

[4] *Bromus hordeaceus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_B/Bromus_hordeaceus-japonicus.pdf
[5] *Carduus pycnocephalus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Carduus_acanthoides-nutans-pycnocephalus-tenuiflorus.pdf

eliminates and prevents other plant species from growing, terminating the habitat's biodiversity. This species is given the ranking of *High Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is "[h]and removal, mowing, or cultivation, when used to prevent seed production over 2 to 3 years of more (the soil life of the seeds), can reduce or eliminate an infestation. Manual removal of yellow starthistle is more effective with small patches or in maintenance programs where plants are sporadically located in the grassland system."[6]

3.3.6 hedgehog dogtail grass (*Cynosurus echinatus*)

Cynosurus echinatus inflorescence is a rounded or oval cluster or series of clusters of spikelets. The fertile spikelet has an awn up to a centimeter long. The awns clumped closely together into a tuft gives the inflorescence its bristly, hairy appearance. *Cynosurus echinatus* is a grass (family *Poaceae*) that flowers June through August and can be found at lower elevations along trails and disturbed areas in both open and wooded areas. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is to mow, but must be done "done before seed sets in the early summer." The report goes on to explain how "[h]and pulling of annual grasses such as hedgehog dogtail may be effective early in spring before seed set, but is very labor-intensive and is only used on small infestations." It is also important to "[m]inimize soil disturbance when hand pulling to minimize new seed germination."[7]

3.3.7 Scotch broom (*Cytisus scoparius*)

Cytisus scoparius is common throughout the western United States and favors grasslands, shurblands, oak woodlands, forest margins, coastal habitats, riparian corridors; disturbed sites such as roadsides, pasture, gravelly floodplains, burned areas, cleared forests and is typically found in mountain regions and cool coastal areas with dry summers. It is a fast-growing deciduous shrub that can reach 5 to 10 ft tall. *Cytisus scoparius* forms dense stands that most wildlife finds impenetrable and unpalatable. These dense stems limit regeneration of most other plan species and the accumulation of woody biomass creates a dangerous fire hazard. This species is given the ranking of *High Invasiveness* by the Cal-PIC Inventory.

According to the Weed Report, from the *Weed Control in Natural Areas in the Western United States*, "[s]eedlings and small shrubs can be hand pulled. For larger established shrubs, a weed wrench or

[6] *Centaurea solstitialis* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_solstitialis.pdf
[7] *Cynosurus echinatus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Cynosurus.pdf

other woody weed extractor can be used. Extract the entire root or resprouting will occur." The report goes on the point out that the "[b]est results are achieved when soil is moist…" but the technician completing this mechanical control needs to be careful because "[d]isturbing the soil can stimulate the seedbank." The Weed Report goes on to explain that "[c]utting broom off before it flowers will reduce seed production and will deplete the plant's energy reserves…" and that "[r]sprouting is common after treatment, but can be reduced by cutting broom at the beginning of the dry season." It is recommended that the applicant follows these methods of control in order to keep the spread of *Cytisus scoparius* at bay.[8]

3.3.8 orchard grass (*Dactylis glomerata*)

Dactylis glomerata can be found in meadows, pasture, roadsides, and rough grassland and naturally occurs from sea level in the north of its range, to as high as 4,000 meters in altitude in the south of its range in Pakistan. *Dactylis glomerata* grows in dense perennial tussocks to 20–140 centimeters (7.9–55.1 in; 0.66–4.59 ft) tall, with grey-green leaves 20–50 centimeters (7.9–19.7 in; 0.66–1.64 ft) long and up to 1.5 centimeters (0.59 in) broad, and a distinctive tufted triangular flowerhead 10–50 centimeters (3.9–19.7 in; 0.33–1.64 ft) long, which may be either green or red- to purple-tinged (usually green in shade, redder in full sun), turning pale grey-brown at seed maturity. This species is given the ranking of *Limited Invasiveness* by the Cal-PIC Inventory.

The treatment options for *Dactylis glomerata*, as stated in the *Weed Control in Natural Areas in the Western United States*, included mechanical eradication in the form of grazing, prescribed burning, mowing and cutting, tillage, grubbing, digging and/or hand pulling. Unfortunately, all of these methods are considered poor to fair control, with the only good and excellent control methods include chemical control measures."[9]

3.3.9 reed fescue (*Festuca arundinacea*)

Festuca arundinacea (Photo 5) was introduced into the United States in the late 19th century, but it did not establish itself as a widely used perennial forage until the 1940s. *Festuca arundinacea* is a long-lived perennial bunchgrass species. Photosynthesis occurs throughout the leaves, which form bunches and are thick and wide with prominent veins running parallel the entire length of the blade. The blades have a "toothed" edge which can be felt if fingers are run down the edge of the leaf blade. The underside of the leaf may be shiny. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

[8] *Cytisus scoparius* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Cytisus.pdf
[9] *Dactylis glomerata* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_D/Dactylis.pdf

The treatment options for *Festuca arundinacea*, as stated in the *Weed Control in Natural Areas in the Western United States*, included mechanical eradication in the form of grazing, prescribed burning, mowing and cutting, tillage, grubbing, digging and/or hand pulling. Unfortunately, all of these methods are considered poor to fair control, with the only good and excellent control methods including chemical control measures."[10]

3.3.10 Italian rye grass (*Festuca perennis*)

Festuca perennis (also known as *Lolium multiforum* and *L. perenne* due to taxonomic dispute and hybridization) is an annual or biannual ryegrass native to temperate Europe. *Festuca perennis* prefers areas with fertile, well-drained soils, including roadsides, fields, orchards and vineyards and is commonly cultivated for erosion control, pasture forage, and turf, but has escaped cultivation in many areas. *Festuca perennis* has spike-like inflorescences and lemma awns. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is "pulling, cutting [and] disking." It is noted that "[r]yegrasses tolerate trampling, mowing and grazing, however small patches can be controlled by hand pulling before they reproduce. Mowing is not considered an effective tool for the control of ryegrass, as it will readily recover with any soil moisture remaining."[11]

3.3.11 common velvet grass (*Holcus lanatus*)

Holcus lanatus is a perennial grass native to northern Europe. It is conserved to be an invasive species because it forms dense stands that can exclude other plants. The inflorescence is robust and often tinged purple. It produces a large number of seed and is a rapid colonizer of disturbed ground. It prefers wetter ground; it is often seen around drainage ditches. The ligule is 1–4 millimeters (0.039–0.157 in) long, blunt, and hairy. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is "pulling, cutting [and] disking." It is noted that "[h]and pulling of the plants can reduce populations, and removing inflorescences can contain population expansion, but common velvet grass can resprout from basal shoots following the removal of the above-ground growth. It is important to remove the entire plant. Common velvet grass is easier to control with hand pulling compared to more rhizomatous perennial species."[12]

[10] *Festuca arundinacea* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_F/Festuca.pdf
[11] *Festuca perennis* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_L/Lolium_multiflorum-perenne.pdf
[12] *Holcus lanatus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_H/Holcus.pdf

3.3.12 St. John's wort (*Hypericum perforatum*)

Hypericum perforatum is an herbaceous perennial flowering plant in the family Hypericaceae with a native range across temperate areas of Eurasia and has been introduced as an invasive weed to much of North and South America, as well as South Africa and Australia. Its reddish stems are erect and branched in the upper section, and can grow up to 1 m (3 ft 3 in) high. The stems are woody near their base and may appear jointed from leaf scars. The branches are typically clustered about a depressed base. It has opposite and stalkless leaves that are narrow and oblong in shape and 1–2 cm (0.39–0.79 in) long. The flowers appear in broad helicoid cymes at the ends of the upper branches, between late spring and early to mid-summer. The cymes are leafy and bear many flowers. The pointed sepals have black glandular dots. The many stamens are united at the base into three bundles. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is “pulling, cutting [and] disking.” It is noted that “[g]iven St. John’s wort deep taproot and ability to regenerate, hand-pulling or digging is only practical for very small isolated infestations. Mowing is ineffective because plants can resprout from underground root reserves. However, mowing can postpone or reduce seed drop and repeated mowing may deplete the underground root reserves.”[13]

3.3.13 rough cat's-ear (*Hypochaeris radicata*)

*Hypochaeris radicata*is (Photo 6) is a perennial, low-lying edible herb native to Europe and introduced to the Americas, Japan, Australia, and New Zealand. The leaves, which may grow up to eight inches (20 cm) long, are lobed and covered in coarse hairs, forming a low-lying rosette around a central taproot. Forked stems carry bright yellow flower heads, and when mature these form seeds attached to windborne "parachutes". All parts of the plant exude a milky sap when cut. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is “pulling, cutting [and] disking.” It is noted that “[h]and removal… can control [*Hypochaeris radicatais*]… If the entire taproot can be removed, as with a shovel, to several inches below the root crown, [*Hypochaeris radicata*is] will not grow back”[14]

[13] *Hypericum perforatum* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_H/Hypericum_perforatum.pdf
[14] *Hypochaeris radicatais* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_H/Hypochaeris_glabra-radicata.pdf

3.3.14 pennyroyal (*Mentha pulegium*)

Hypericum perforatum is a species of flowering plant in the mint family, Lamiaceae, native to Europe, North Africa, and the Middle East. It is a low-growing, aromatic perennial plant that can grow up to 2 ft tall. Plants have square tems, opposite leaves, and are covered with short, white hairs and glandular dots. The many stamens are united at the base into three bundles. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The recommended mechanical eradication, by the Weed Report from the *Weed Control in Natural Areas in the Western United States*, for this species is "pulling, cutting [and] disking." It is noted that "[]p]ennyroyal infestations can be suppressed by manual removal of individual plants and small patches before flowering, including the rhizomes and stolons, followed by the removal of seedlings as soon as discovered. Below-ground reproductive tissues should be severed approximately 3 inches below the soil surface when the plants are beginning to bolt. This can be difficult, however, because pennyroyal has brittle stems that make it hard to remove below-ground reproductive tissues."[15]

3.3.15 English plantain (*Plantago lanceolata*)

Plantago lanceolata (Photo 3) is a rosette-forming perennial herb, with leafless, silky, hairy flower stems (10–40 cm or 3.9–15.7 in). The basal leaves are lanceolate spreading or erect, scarcely toothed with 3-5 strong parallel veins narrowed to a short petiole. The flower stalk is deeply furrowed, ending in an ovoid inflorescence of many small flowers each with a pointed bract. It is a common invasive species on cultivated or disturbed land. This species is given the ranking of *Moderate Invasiveness* by the Cal-PIC Inventory.

The treatment options for *Plantago lanceolata*, as stated in the *Weed Control in Natural Areas in the Western United States*, included mechanical eradication in the form of grazing, prescribed burning, mowing and cutting, tillage, grubbing, digging and/or hand pulling. With tillage, grubbing, digging and/or hand pulling being considered "good" forms of control."[16]

3.3.16 Himalaya blackberry (*Rubus armeniacus*)

Rubus armeniacus (Photo 5 & 7) is common throughout the western United States and favors disturbed, open, most sites. This species originally came from Eurasia and is a highly competitive plant with a growth form that allows it to quickly crowd out native species. Its thickets have dense canopies allowing little light penetration and reducing the growth of understory plants. This species is given the ranking of *High Invasiveness* by the Cal-PIC Inventory.

[15] *Hypericum perforatum* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_M/Mentha.pdf
[16] *Plantago lanceolata* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_P/Plantago.pdf

According to the Weed Report, from the *Weed Control in Natural Areas in the Western United States*, "[h]and pulling can be an effective control method for small populations. To successfully control populations with mechanical removal, it is important to remove the canes, roots and the root crowns to prevent resprouting. A Pulaski, mattock or similar device can be used to remove plants. Bulldozing may cause resprouting and can spread the weed by fragmenting roots and stems." In attempting to eradicate or control the dominate presence of *Rubus armeniacus,* it is important to remove the entire plant since, according to the Weed Report, "[c]utting and removing only the aboveground biomass will result in the stimulated growth of root sprout. The root sprouts must be controlled and repeated cutting of the above-ground biomass during flowering time will exhaust the root stores."[17]

3.3.17 curly dock (*Rumex crispus*)

Rumex crispus (Photo 6) is found throughout the United States, including every western state. This species can be found in ditches, roadsides, wetlands, meadows, riparian areas, alfalfa and pasture fields, orchards and other disturbed moist areas. This species can be competitive and outcompete more desirable vegetation for water, nutrients and light. The Cal-IPC Inventory considers *Rumex crispus* to have ranking *of Limited Invasiveness*.

According to the Weed Report, from the *Weed Control in Natural Areas in the Western United States*, "[c]urly dock are difficult to control by hand-pulling because of their deep taproot." It is stated that "[c]ontinual mowing before seeding can be effective in reducing seed production." The applicant is recommended to mow *Rumex crispus* early in the season in order to suppress the seeds reaching maturity. Due to the low numbers of observed individuals, the applicant has a very good chance at successfully eradicating this species from the cultivation site.[18]

3.3.18 milk thistle (*Silybum marianum*)

Silybum marianum is an annual or biennial plant of the family Asteraceae. This fairly typical thistle has red to purple flowers and shiny pale green leaves with white veins. Originally a native of Southern Europe through to Asia, it is now found throughout the world. *Silybum marianum* is an upright herb that can grow to be 30 to 200 cm (12 to 79 in) tall and has an overall conical shape. The leaves are oblong to lanceolate and 15–60 cm long and typically pinnately lobed, with spiny edges like most thistles. This species is given the ranking of *Limited Invasiveness* by the Cal-PIC Inventory.

According to the Weed Report, from the *Weed Control in Natural Areas in the Western United States*, "[m]owing mature plants before flowers open can help control stands. Tillage can be an effective control option for younger plants."[19]

[17] *Rubus armeniacus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_R/Rubus.pdf
[18] *Rumex crispus* Weed Report: https://wric.ucdavis.edu/information/natural%20areas/wr_R/Rumex_crispus-obtusifolius.pdf
[19] *Silybum marianum* Weed Report: https://wric.ucdavis.edu/information/crop/natural%20areas/wr_S/Silybum.pdf

Section 4 Conclusion and Recommendations

The applicant can control the spread of the invasive species previously listed if the recommended mitigation and control methods are followed. If the applicant follows the “early detection rapid response” approach before the plants can flower and seed, the current state of the cultivation area should be easily treatable. Due to the clustering of the invasive species observed within the Study Area, and given that many of these species do not favor the surrounding forested habitat, the applicant can halt the invasion of these species spreading throughout the surrounding habitats if action is taken.

Section 5 References

California Invasive Plant Council (Cal-IPC) Inventory: https://www.cal-ipc.org/plants/inventory/. Accessed January 2022.

Easter, J (2004). California Vegetation/Wildlife Habitat Regions. Accessed September 2021

Ordinance No. 2599, amending sections 314-55.4, 314-55.3.11.7, 314-55.3.7 and 314-55.3.15 of Chapter 4 of Division 1 of Title III of the County Code (CCLUP for Areas Outside the Coastal Zone). Board of Supervisors, County of Humboldt, State of California, May 2018. Accessed June 2020.

Weed Control in Natural Areas in the Western United States. UC Davis Weed Research and Information Center, 2013. Accessed January 2022.

Appendix A

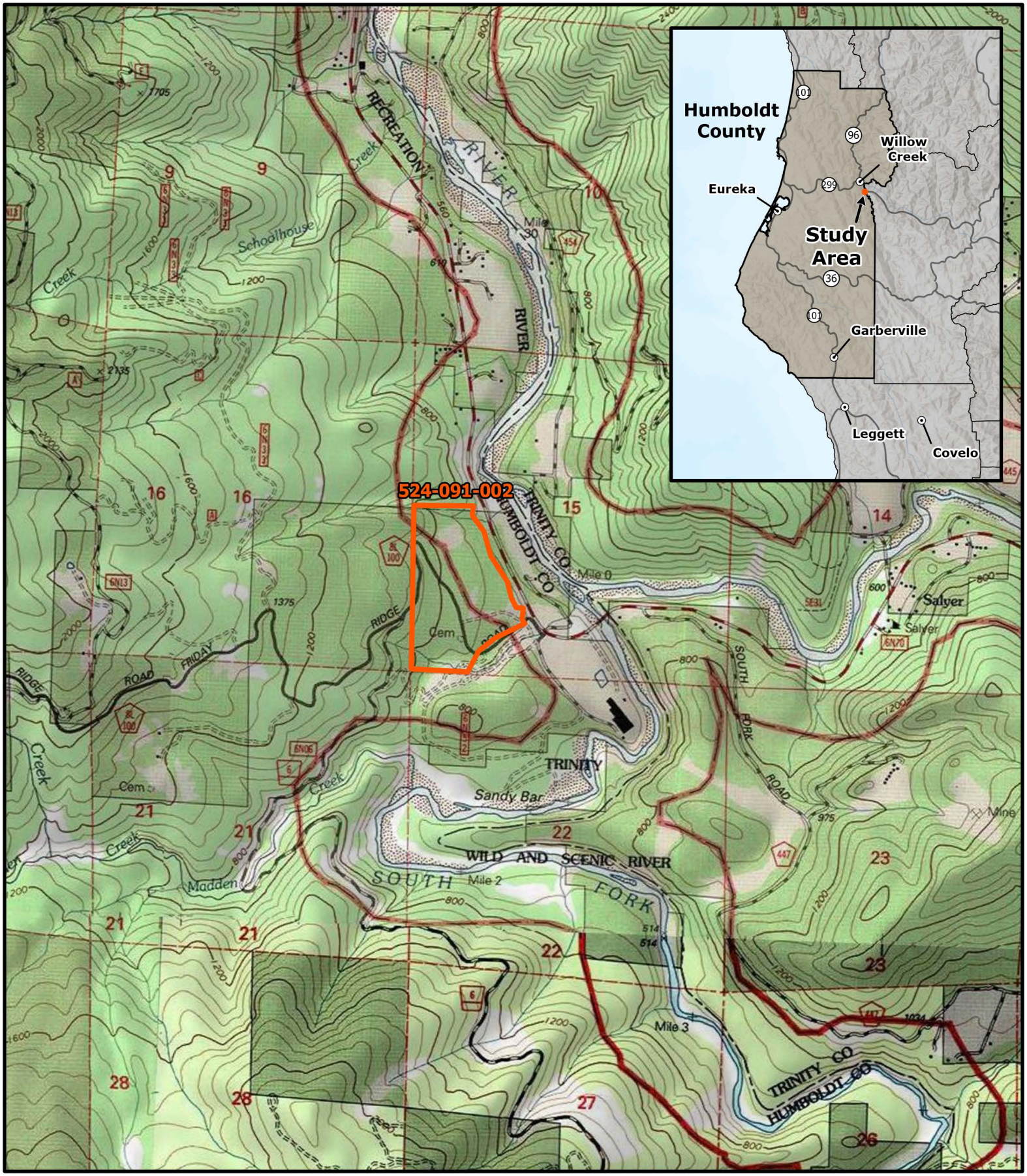
Maps

INVASIVE SPECIES CONTROL PLAN

Organic Liberty, LLC

APN: 524 – 091 – 002

January 2022



Organic Liberty, LLC
229 Friday Ridge Rd
Willow Creek, CA 95573
APN: 524-091-002

Map 1: Site Location Map

Scale: 1:24,000

Parcel Location

0 1,000 2,000 4,000 Feet

Source: Salyer 7.5-Minute USGS Quadrangle

Naiad Biological Consulting

Map 2: Study Area

Scale: 1:3,850

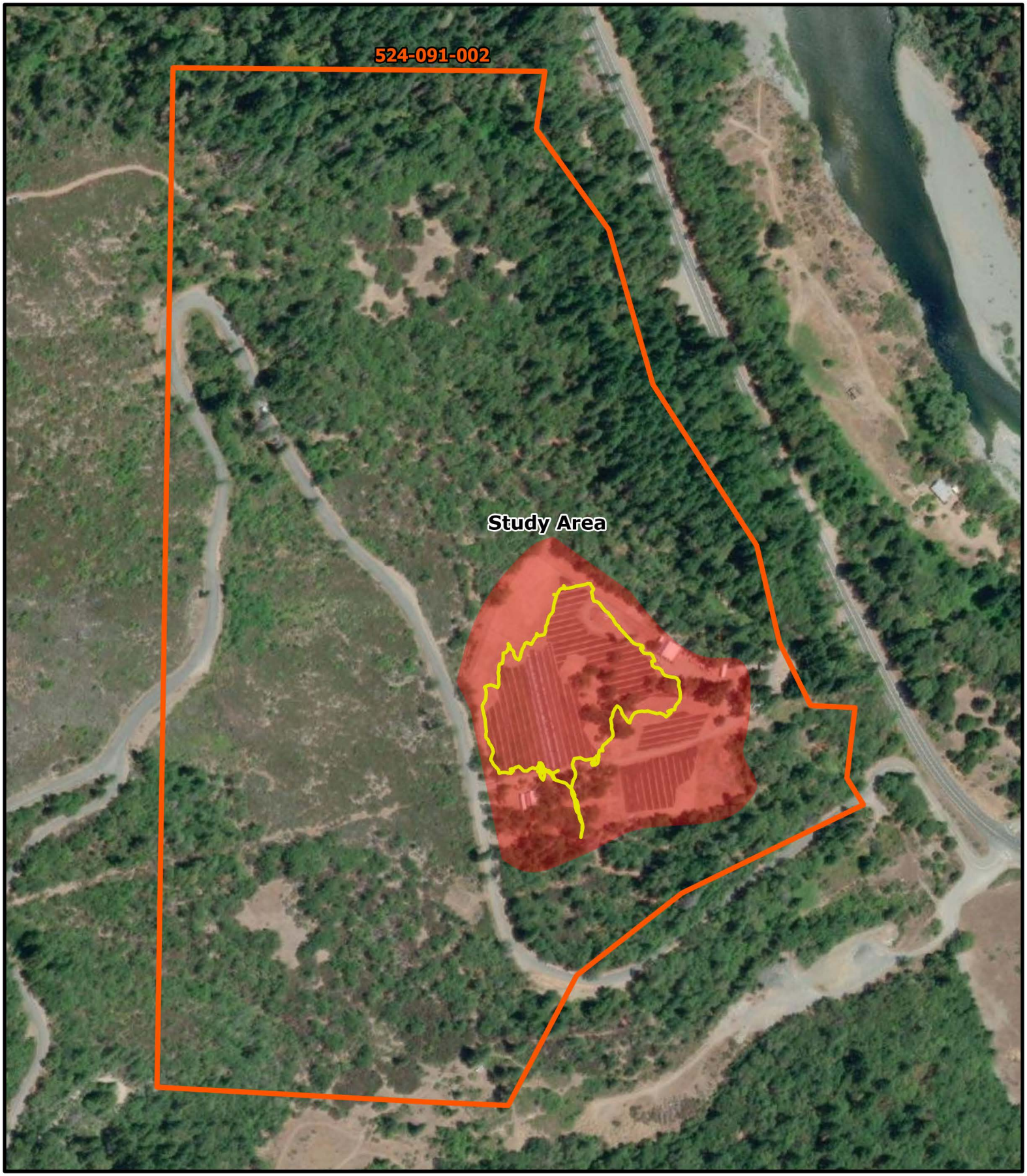
0 150 300 600 Feet

Source: Salyer 7.5-Minute USGS Quadrangle

Study Area

Parcel Location

Naiad Biological Consulting



Map 3: Survey Path

Scale: 1:3,850

0 150 300 600 Feet

Source: Salyer 7.5-Minute USGS Quadrangle

Survey Path (1/10/22)
Study Area
Parcel Location

Naiad Biological Consulting

Appendix B

Photo Documentation

INVASIVE SPECIES CONTROL PLAN

Organic Liberty, LLC

APN: 524 – 091 – 002

January 2022

Naiad Biological Consulting

Photo 1. The study area with developed beds for cannabis cultivation

Photo 2. The study area with developed beds for cannabis cultivation

Photo 3. Creeping bentgrass (*Agrostis stolonifera*) clusters surrounding English plantain (*Plantago lanceolata*).

Photo 4. Yellow starthistle (*Centaurea solstitialis*).

Photo 5. Himalaya blackberry (*Rubus armeniacus*) surrounded by reed fescue (*Festuca arundinacea*).

Photo 6. Rough cat's-ear (*Hypochaeris radicata*) circled in blue, curly dock (*Rumex crispus*) circled in red and yellow starthistle (*Centaurea solstitialis*) circled in yellow.

Photo 7. Himalaya blackberry (*Rubus armeniacus*).

Appendix C

SHN's Observed Plants Species List

INVASIVE SPECIES CONTROL PLAN

Organic Liberty, LLC

APN: 524 – 091 – 002

January 2022

Appendix 4 Observed Plants Species List Organic Liberty, Willow Creek, California	
Scientific Name	**Common Name**
Acmispon parviflorus	hill lotus
Agrostis stolonifera	creeping bentgrass
Anisocarpus madioides	woodland madia
Arbutus menziesii	madrono
Arctostaphylos manzanita ssp. *manzanita*	common manzanita
Athyrium filix-femina var. *cyclosorum*	common lady fern
Avena barbata	slim oat
Baccharis pilularis sso, consanguinea	coyote brush
Berberis nervosa	Oregon grape
Briza maxima	rattlesnake grass
Bromus hordeaceus	soft chess
Cardamine oligosperma	Idaho bittercress
Carduus pycnocephalus	Italian thistle
Ceanothus integerrimus var. *macrothyrsus*	deerbrush
Centaurea solstitialis	yellow starthistle
Chlorogalum pomeridianum	wavy leaf soaproot
Claytonia sibirica	candy flower
Cynoglossum grande	western hound's tongue
Cynosurus echinatus	dogtail grass
Cytisus scoparius	Scotch broom
Cyperus eragrostis	tall flat nut sedge
Dactylis glomerata	orchardgrass
Danthonia californica	California oatgrass
Dryopteris arguta	wood fern
Elymus glaucus	blue wildrye
Festuca arundinacea	Tall fescue
Festuca bromoides	brome fescue
Festuca californica	California fescue
Festuca microstachys	small fescue
Festuca perennis	Italian rye grass
Festuca subuliflora	coast range fescue
Fragaria vesca	woodland strawberry
Galium aparine	bed straw
Holcus lanatus	common velvetgrass
Hordium murinum	farmer's foxtail
Hypericum perforatum	Klamathweed
Hypochaeris radicata	hairy cat's ear
Juncus ensifolius	Sword-leaved rush

Appendix 4 Observed Plants Species List Organic Liberty, Willow Creek, California	
Scientific Name	**Common Name**
Juncus patens	spreading rush
Linum bienne	narrow-leaved flax
Lonicera hispidula	pink honeysuckle
Lotus corniculatus	birds foot trefoil
Luzula comosa	hairy wood rush
Lysimachia latifolia	pacific starflower
Madia elegans	common madia
Madia gracilis	grassy tarweed
Mentha pulegium	pennyroyal
Micranthes californica	Greene's saxifrage
Narcissus pseudonarcissus	daffodil
Navarretia intertexta	interwoven navarretia
Notholithocarpus densiflorus	tanoak
Pedicularis densiflora	warriors plume
Plantago lanceolata	ribwort
Poa annua	annual blue grass
Polystichum munitum	western sword fern
Primula hendersonii	Mosquito bill
Pseudotsuga menziesii var. *menziesii*	Douglas fir
Pteridium aquilinum var. *pubescens*	western brackenfern
Quercus garryana var. *garryana*	Oregon oak
Quercus kelloggii	California black oak
Ranunculus occidentalis	western buttercup
Rubus armeniacus	Himalayan blackberry
Rubus ursinus	California blackberry
Rumex crispus	curly dock
Sanicula crassicaulis	Pacific black snake root
Salix lasiolepis	arroyo willow
Sonchus asper	spiny sowthistle
Stipa lemmonii	lemmon's needle grass
Taraxacum officinale	Red-seeded dandelion
Toxicodendron diversilobum	poison oak
Trifolium dubium	shamrock
Umbellularia californica	California bay
Vitis californica	California wild grape

APPENDIX J
BIOLOGICAL RESOURCES EVALUATION

BIOLOGICAL RESOURCES EVALUATION TECHNICAL MEMORANDUM FOR THE ORGANIC LIBERTY: WILLOW CREEK PROJECT, HUMBOLDT COUNTY, CA.

PREPARED BY: STRINGER BIOLOGICAL CONSULTING, INC.

INTRODUCTION/EXECUTIVE SUMMARY

Stringer Biological Consulting, Inc. (SBC) has prepared this Biological Resources Evaluation Technical Memorandum (BRE) for the Organic Liberty: Willow Creek project located at 229 Friday Ridge Road [Assessor's Parcel Number (APN) 524-091-002] near the community of Willow Creek in unincorporated Humboldt County, Ca. The purpose of this BRE is to document the existing biological resources in the Study Area and to assess the potential for sensitive biological resources including special-status species, sensitive natural communities, or other protected biological resources to occur in the Study Area and/or be impacted by any proposed projects associated with the site. This BRE is intended as a supplemental study to a biological resources assessment for the property that was prepared by SHN in April 2020 (SHN 2020).

The Study Area is approximately 8.2 acres in size and is located in a rural area roughly 3.5 miles south of the community of Willow Creek. Lands surrounding the Study Area are primarily undeveloped and vegetated with montane hardwood-conifer forest. The Study Area itself is in active agricultural use and is best described as an active farm. The entire Study Area is fenced and secured, and the majority of the site is comprised of active cannabis cultivation areas and adjacent ruderal/developed areas. The property owner, Organic Liberty, LLC, plans to expand the current cannabis cultivation operations on-site. The habitat types/land covers in the Study Area consist of agricultural (cultivation areas), *Quercus garryana* (tree) Forest & Woodland Alliance (Oregon White Oak Woodland and Forest), and ruderal/developed. Oregon white oak woodland is considered a sensitive natural community. No potential "Waters of the U.S." or "Waters of the State" occur in the Study Area.

The Study Area generally lacks suitable habitat for special-status plants due to the existing level of disturbance. No special-status plant species were observed in the Study Area during focused botanical surveys conducted by SHN (SHN 2020) or during the biological reconnaissance survey conducted in support of this report, which included a complete inventory of vascular plants that were evident and identifiable at the time of the survey. Based on the site conditions at the time of our survey combined with the lack of any detections of special-status plants during numerous biological surveys of this relatively small site, it is our professional opinion that no special-status plant species are present in the Study Area. No impacts to special-status plants are anticipated as a result of the proposed project.

No special-status animal species were observed in the Study Area during multiple biological surveys conducted by SHN in 2017 and 2020 (SHN 2020). Additionally, no special-status animal species were observed in the Study Area during the biological reconnaissance survey conducted in support of this

report. Due to the existing habitats and level of disturbance, the Study Area does not provide habitat for the majority of the regionally-occurring special-status species. Based on the evaluation of the potential for special-status animal species to occur in the Study Area that was conducted in preparation of this report, the following special-status animal species were identified as having the potential to occur in the Study Area or be impacted by the proposed project: white-headed woodpecker, red-breasted sapsucker, hoary bat, silver-haired bat, long-eared myotis, Yuma myotis, and fringed myotis. None of these species have any federal or state listing status but are tracked by the California Natural Diversity Database. In addition, the Study Area provides nesting habitat for a variety of migratory birds and other native birds.

Based on the results of our analysis, we recommend continued adherence to the existing conditions of approval pertinent to the protection of biological resources, including pre-operation bird surveys and special-status animal surveys. Additionally, impacts to the Oregon white oak woodland habitat in the Study Area should be avoided to the extent feasible. If impacts to the Oregon white oak woodland cannot be avoided, mitigation should be implemented in consultation with Humboldt County.

Project Location and Description

The Study Area is approximately 8.2 acres in size and is located at 229 Friday Ridge Road (APN 524-091-002), roughly 3.5 miles south of the community of Willow Creek in unincorporated Humboldt County, CA. The Study Area is located with Township 06N, Range 05E, Section 15 of the “Salyer, Ca” U.S. Geological Survey 7.5-minute topographic quadrangle. Figure 1 in Attachment A is a Site and Vicinity Map. All project figures are in Attachment A.

The property owner, Organic Liberty, LLC, plans to expand the current cannabis cultivation operations on-site. Planned project elements include a commercial nursery, paved soil storage area, greenhouse, auxiliary structures for drying, trimming, and distribution, parking areas, gravel access roads, and other ancillary features such as propane tanks, water tanks, and a generator. A site plan is included as Attachment B.

METHODS:

Biological Studies

Biological studies conducted in support of this report included a special-status species evaluation desktop review and a biological reconnaissance survey. The special-status species evaluation was conducted in order to assemble a list of regionally-occurring special-status species with the potential to occur in the project region and/or be impacted by projects in the region. The biological reconnaissance survey was conducted to document the existing biological resources in the Study Area and to determine whether any of the regionally-occurring special-status species have the potential to occur in the Study Area and/or be impacted by the proposed project.

Regulations pertaining to the protection of biological resources in the Study Area are summarized in Attachment C. For the purposes of this report, special-status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the Federal Endangered Species Act (FESA; including candidates and species proposed for listing);
- listed as endangered or threatened under the California Endangered Species Act (CESA; including candidates and species proposed for listing);
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- considered by CDFW to be a Watch List species with potential to become a SSC; defined as rare or endangered under Section 15380 of the CEQA; or
- having a CRPR of 1A, 1B, 2A, 2B, or 3.

Special-Status Species Evaluation

The special-status species evaluation included obtaining lists of special-status species and sensitive natural communities with the potential to occur in the project region from the following sources: the U.S. Fish and Wildlife Service (USFWS) list of federally-listed special-status species with the potential to occur in, or be affected by projects in the site obtained from the Information for Planning and Consultation (IPaC) site, and the list of reported occurrences of special-status species in the California Natural Diversity Database (CNDDB) and the CNPS database (CNPS 2024) for the "Salyer, CA" USGS 7.5-minute topographic quadrangle (quad) and the eight surrounding quads (Denny, Grouse Mountain, Hennessey Peak, Hoopa, Ironside Mountain, Tish Tang Point, Trinity Mountain, Willow Creek). Results of these queries are included in Attachment D. Regional special-status species included in the above mentioned agency lists and queries were compared with the current habitats in the site and other factors such as soil types in the Study Area and elevational and geographic ranges of the special-status species to determine if a species has the potential to occur within the Study Area. The regionally-occurring special-status plant and animal species scoping lists in the Biological Resources Assessment for the site prepared by SHN (SHN 2020) were also reviewed to assist with the evaluation.

Biological Reconnaissance Survey

SBC Principal Biologist Stephen Stringer, M.S. conducted a biological reconnaissance survey on June 27, 2024, in order to document the current site conditions and existing biological resources within the Study Area. The biological reconnaissance survey area consisted of the entire approximately 8.2-acre Study Area. The Study Area was systematically walked, and habitat types/land covers as well as plant and animal species present were documented. The biological reconnaissance survey included a search for special-status species, habitats for special-status species, and sensitive natural communities. A list of plant and animal species observed in the Study Area at the time of the biological reconnaissance are included in Attachment E. Representative photographs were taken and are included as Attachment F.

Mr. Stringer holds a B.S. and M.S. in Biological Sciences with a focus in Biological Conservation from California State University, Sacramento and has more than 21 years of experience conducting biological

and wetland studies in northern and central California. Mr. Stringer holds a U.S. Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit (TE-141359-4) for vernal pool branchiopods and California tiger salamander, a CDFW Specific Use Scientific Collecting Permit (S-230460010-23048-001) for California tiger salamander, amphibians, reptiles, and vernal pool invertebrates, a CDFW Rare Plant Voucher Collecting Permit (No. 2081(a)-22-093-V), is an International Society of Arboriculture, Certified Arborist (WE-7129A), and is a co-instructor for beginner plant identification and basic wetland delineation courses for the Wetland Training Institute.

Habitat Classification and Plant Nomenclature

Habitat classification in this report is based on the *Manual of California Vegetation* online edition found at: https://www.cnps.org/vegetation. Plant nomenclature is based on the Jepson eFlora, Jepson Herbarium, University of California, Berkeley (Jepson eFlora 2024).

RESULTS: ENVIRONMENTAL SETTING

Existing Conditions

The Study Area is located in a rural area roughly 3.5 miles south of the community of Willow Creek. The Study Area is approximately 350 feet west of the Highway 299 corridor and 950 feet west of the Trinity River. Lands surrounding the Study Area are primarily undeveloped and vegetated with montane hardwood-conifer forest. A recent fire has burned the surrounding forest to the west of the Study Area, including some of the trees in the southwest portion of the Study Area which had obvious fire damage at the time of the survey. Some trees heavily damaged by the fire had fallen or been removed prior to the survey. The Study Area itself is in active agricultural use and is best described as an active farm. The entire Study Area is fenced and secured, and the majority of the site is comprised of active cannabis cultivation areas. At the time of the biological reconnaissance survey, approximately 8-10 agricultural workers were tending to the crop and conducting other activities pertinent to active farming. The remainder of the site outside of the cultivation areas, while still retaining some native vegetation communities such as Oregon white oak woodland, is used for parking and storage of equipment and contains storage containers, sheds, and various other equipment and temporary structures such as portable toilets and a travel trailer. Figure 2 in Attachment A is an aerial map of the Study Area.

Topography and Soils

The Study Area is located in a mountainous area above the floodplain of the Trinity River at an elevation ranging from roughly 700 to 760 feet above mean sea level (amsl). Figure 3 in Attachment A depicts the Study Area on a USGS topographical map.

There is one soil type in the Study Area based on NRCS soil mapping (NRCS 2024): Holland-Goldridge families association, deep, 5 to 35 percent slopes. This soil map unit is comprised of 42 percent Holland family soils, 38 percent Goldridge family soils, and 20 percent minor components. This soil map unit occurs on mountains at elevations from 600 to 4,000 feet amsl. Holland and Goldridge family soils are derived from residuum weathered from metasedimentary rock. A typical profile of Holland soils consists of loam from a depth of 0 to 6 inches, clay loam from 6 to 46 inches, very gravelly clay loam from 46 to

60 inches, and weathered bedrock from 60 to 64 inches. A typical profile of Goldridge soils consists of very gravelly loam from 0 to 4 inches, gravelly clay loam and gravelly clay from 4 to 43 inches, and unweathered bedrock from 43 to 47 inches. Both soils are well drained with a frequency of flooding of "none" and a frequency of ponding of "none" and have a depth to water table of more than 80 inches. None of the soils associated with this soil map unit have a hydric rating (NRCS 2024). Figure 4 in Attachment A is a soil map of the Study Area.

Habitat Types/Land Covers in the Study Area

The habitat types/land covers in the Study Area consist of agricultural (cultivation areas), *Quercus garryana* (tree) Forest & Woodland Alliance (Oregon White Oak Woodland and Forest), and ruderal/developed (Figure 5).

Agricultural (Cultivation Areas)

Uncovered cannabis cultivation areas total approximately 3.3 acres in the Study Area and are the predominant land cover in the Study Area.

Quercus garryana (tree) Forest & Woodland Alliance (Oregon White Oak Woodland and Forest)

Oregon white oak woodland and forest, which totals approximately 1.6 acres, occurs in two stands in the central and southwest portions of the Study Area. Oregon white oak woodland and forest is classified as forest and woodland habitats where Oregon white oak (*Quercus garryana var. garryana*) is dominant or co-dominant in the tree canopy along with *Juniperus occidentalis*, *Pinus jeffreyi*, *Pinus ponderosa*, *Pinus sabiniana*, *Pseudotsuga menziesii*, *Quercus chrysolepis*, *Quercus kelloggii,* and *Umbellularia californica*. Oregon white oak must account for greater than 30% relative cover in the tree canopy or greater than 25% absolute cover and the habitat must lack an appreciable conifer cover.

In the Oregon white oak woodland and forest habitat in the Study Area, Oregon white oak accounts for greater than 25% absolute cover and is the dominant tree species. Other tree species in this habitat in the Study Area include Douglas fir (*Pseudostuga menziesii var. menziesii*), madrone (*Arbutus menziesii*), black oak (*Quercus kelloggii*), canyon live oak (*Quercus chrysolepis*), and ponderosa pine (*Pinus ponderosa*). Native shrubs are present in the understory in openings in the canopy including poison oak (*Toxicodendron diversilobum*), redbud (*Cercis occidentalis*), baldhip rose (*Rosa gymnocarpa*), coyote bush (*Baccharis pilularis*), and deer brush (*Ceanothus integerrimus*). A variety of native and naturalized grasses and forbs are also present in the understory of the woodland as well as in ruderal areas. Dominant herbaceous species observed in the understory include wild oat (*Avena barbata*), Italian ryegrass (*Festuca perennis*), rose clover (*Trifolium hirtum*), bird's-foot trefoil (*Acmispon americanus*), dogstail grass (*Cynosurus echinatus*), big quakinggrass (*Briza maxima*), ripgut grass (*Bromus diandrus*), tall fescue (*Lolium arundinaceum*), and soft chess (*Bromus hordeaceus*).

The stand of Oregon white oak woodland and forest in the central portion of the Study Area has some uncovered cultivation areas (planter boxes) in the understory along the perimeter, otherwise it is relatively undisturbed. The stand of Oregon white oak woodland and forest in the southwestern portion of the Study Area has temporary structures in the understory. A portion of this stand was also burned in a recent fire.

Ruderal/Developed

Areas outside of the cultivation areas and the white oak woodland and forest are considered ruderal/developed land cover because they are comprised of developed and disturbed land that lacks a recognizable plant assemblage. Ruderal/developed land cover occupies approximately 3.3 acres within the Study Area. Developed land includes areas with gravel/dirt roads and parking areas or temporary structures such as storage containers, sheds, or other equipment. Ruderal land is comprised of areas mostly barren of vegetation or vegetated with agricultural weeds and other weedy species typical of disturbed areas.

RESULTS: SPECIAL-STATUS SPECIES AND OTHER PROTECTED BIOLOGICAL RESOURCES

Special-Status Species

Based on the results of the background review and database searches (CNDDB, USFWS, CNPS), there are approximately 70 special-status plant species and 57 special-status animal species (as defined in this report), as well as four sensitive natural communities, that are either documented as occurring or have the potential to occur or be impacted by projects within the "Salyer, CA" USGS quad and the eight surrounding quads (referred to as regionally-occurring special-status species). All of the regionally-occurring special-status species were evaluated for the potential to occur within the Study Area and/or be impacted by the proposed project based on factors such as habitat requirements, known elevational and geographic ranges, proximity of documented occurrences, and soil requirements. Species that were determined to have no potential to occur in the Study Area and/or be impacted by any proposed future development are not discussed further in this document.

Special-Status Plants

The Study Area generally lacks suitable habitat for special-status plants due to the existing level of disturbance. Regionally-occurring special-status plant species generally occur in undisturbed forest and woodland habitats or in wetland, grassland or chaparral habitats, some of which occur on serpentine or ultramafic soils or in rocky areas. The only native or naturalized habitat capable of supporting special-status plants in the Study Area would be the Oregon white oak woodland and forest, and the potential for special-status plants to occur in this habitat is considered very low due to past and present site disturbances. The Study Area lacks rock outcrops or serpentine or other ultramafic soils. The closest area of mapped ultramafic parent material is approximately 5 miles northwest of the project area in the Brannan Mountain vicinity (SHN 2020). No special-status plant species were observed in the Study Area during focused botanical surveys conducted by SHN between February and October of 2017 or during a follow up biological survey conducted by SHN in March 2020 (SHN 2020). Additionally, no special-status plant species were documented in the Study Area during the biological reconnaissance survey conducted in support of this report, which included a complete inventory of vascular plants that were evident and identifiable at the time of the survey.

Based on the site conditions at the time of our survey combined with the lack of any detections of special-status plants during numerous biological surveys of this relatively small site, it is our professional opinion that no special-status plant species are present in the Study Area. No potential impacts to

special-status plant species were identified and no impacts to special-status plants are anticipated as a result of the proposed project.

Special-Status Animals

No special-status animal species were observed in the Study Area during multiple biological surveys conducted by SHN in 2017 and 2020 (SHN 2020). Additionally, no special-status animal species were observed in the Study Area during the biological reconnaissance survey conducted in support of this report. Due to the existing habitats and level of disturbance, the Study Area does not provide habitat for the majority of the regionally-occurring special-status species, including many of the species reported by SHN as having the potential to occur as the site was undeveloped at the time of their surveys. Based on the evaluation of the potential for special-status animal species to occur in the Study Area that is described above and a review of the special-status species evaluation conducted by SHN (SHN 2020), the following special-status animal species were identified as having the potential to occur in the Study Area or be impacted by the proposed project: white-headed woodpecker, red-breasted sapsucker, hoary bat, silver-haired bat, long-eared myotis, Yuma myotis, and fringed myotis. None of these species have any federal or state listing status but are tracked by CNDDB. In addition, the Study Area provides nesting habitat for a variety of migratory birds and other native birds.

White-headed woodpecker (*Picoides albolarvatus*) is not listed under either FESA or CESA, although it is listed on the California Special Animals list and has heritage ranks of G1/S1. Reported habitats include upper and lower montane coniferous forest where this species prefers semi-open areas. This species nests in cavities of large trees or snags. Marginal nesting habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Red-breasted sapsucker (*Sphyrapicus ruber*) is not listed under either FESA or CESA but has heritage ranks of G5/S4. It breeds in mixed coniferous and mixed deciduous-coniferous forests and woodlands. It requires standing snags or hollow trees for a nesting cavity. Marginal nesting habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Hoary bat (*Lasiurus cinereus*) is not listed under either FESA or CESA but has heritage ranks of G3,G4/S4. This insectivorous bat roosts in dense foliage of medium to large trees. Suitable breeding habitats include woodlands and forests with medium to large trees and dense foliage. Hoary bat winters along the coasts and in southern California and breeds inland and north of the winter range from May through August (Zeiner *et al.* 1990). Marginal roosting and foraging habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Silver-haired bat (*Lasionycteris noctivagans*) is not listed under either FESA or CESA but has heritage ranks of G3,G4/S3,S4. This insectivorous bat roosts in hollow trees, beneath exfoliating bark, in abandoned woodpecker holes, and occasionally under rocks. Silver-haired bats primarily occur in coastal and montane forests, feeding over streams, ponds and open brushy areas (Zeiner, 1990). Marginal roosting and foraging habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Long-eared myotis (*Myotis evotis*) is not listed under either FESA or CESA but has heritage ranks of G5/S3. This species occurs throughout California up to 9,350 feet, although it is considered to be uncommon throughout its range. Habitats include all shrubland type habitats, woodland and forests with a preference for coniferous forests (Zeiner et al. 1990). This species is typically found roosting in buildings, under bark, snags and crevices. Caves may be used for night roosts. This species tends to roost in small groups (Zeiner et al. 1990). This species forages close to water since it has a poor urine concentrating ability. This species is often seen foraging along edge habitats (Zeiner et al. 1990). Marginal roosting habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Yuma myotis (*Myotis yumanensis*) is not listed under either FESA or CESA but has heritage ranks of G5/S4. This bat occurs throughout California up to 11,000 feet, although it is rare above 8,000 feet. Habitats include open forests and woodlands with a water source nearby, which this species typically forages over. This species is typically found roosting in buildings, mines, caves or crevices. Roosting habitat also includes abandoned swallow nests, and under bridges (Zeiner et al. 1990). This species forages close to water since it has a poor urine concentrating ability. This species is often seen drinking on the wing (Zeiner et al. 1990). Marginal roosting habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Fringed myotis (*Myotis thysanodes*) is not listed under either FESA or CESA but has heritage ranks of G4/S3. Fringed myotis occurs throughout California up to 9,350 feet, although it is most common between 4,000 to 7,000 feet. Habitats include pinyon-juniper, foothill hardwood and hardwood-conifer forests. Fringed myotis is typically found roosting in buildings, mines, caves or crevices and may use separate day and night roosts (Zeiner et al. 1990). This species forages close to water since it has a poor urine concentrating ability and is often seen gleaning prey off of foliage (Zeiner et al. 1990). Marginal roosting habitat for this species is present in the Oregon white oak woodland and forest habitat in the Study Area.

Migratory Birds and Other Nesting Birds

No bird nests were observed in or adjacent to the Study Area during the survey; however, nesting habitat for common raptors, migratory birds and other native birds is present in and adjacent to the Study Area primarily in trees, shrubs, and potentially on the ground in herbaceous vegetation or bare areas. If project activities were to commence during the typical bird nesting season (March 1 to August 31) that would result in ground disturbance or vegetation removal, such activities could lead to destruction of nests, abandonment of eggs or young or forced fledging, which would be a potential violation of Fish and Game Code.

Sensitive Natural Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, and/or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. CNDDB vegetation alliances are ranked 1 through 5, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Some alliances with the rank of 4 and 5

have also been included in the 2020 sensitive natural communities list under CDFW's revised ranking methodology (CDFW 2024).

Oregon white oak woodland – *Quercus garryana* alliance is ranked G4:S3 and is considered a sensitive natural community. No other sensitive natural communities are present in the Study Area.

Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are connections between patches of habitat, generally native vegetation, which join two or more larger areas of similar wildlife habitat and allows for physical and genetic exchange between animal populations that could otherwise be isolated. Habitat linkages are typically contiguous strips of natural areas such as riparian corridors, oak woodlands, or drainages. Wildlife movement corridors are critical for the maintenance of ecological processes including facilitating the movement of animals and the continuation of viable populations. Movement corridors may serve to provide a more local linkage such as between foraging and denning areas, or they may be regional in nature providing larger scale migration corridors such as between wintering and summering habitat. Habitat linkages may also serve to allow animals to periodically move away from an area and then subsequently return. Other corridors may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The Study Area is located within an Essential Connectivity Area, although it is not mapped as a Wildlife Linkage, Natural Landscape Block (defined as relatively natural habitat blocks that support native biodiversity) or Natural Areas Small, which are CDFW-designated important blocks of habitat and movement corridors for wildlife (CDFW 2024). The Essential Connectivity Area that encompasses the Study Area is a large area that runs along the South Fork Trinity River and Trinity River for roughly 18 miles. Because the Study Area is completely fenced, it does not provide a significant movement corridor for wildlife. Any wildlife moving north/south through the area along the Trinity River corridor would be expected to use habitat to the east or to a lesser degree west of the Study Area. No significant impacts to wildlife movement corridors would occur as a result of the proposed project.

Jurisdictional Waters

There are no potential "Waters of the U.S." or "Waters of the State" in the Study Area. The Study Area lacks wetlands as well as non-wetland waters such as creeks or drainages. The two naturally occurring seasonal drainages mapped by SHN (SHN 2020) are outside of the fenced Study Area and will be avoided by the project.

MEASURES FOR PROTECTION OF BIOLOGICAL RESOURCES

Existing conditions of approval pertinent to the protection of biological resources are included below, along with a recommendation related to Oregon White Oak Woodland:

Measures Pertinent to Protection of White-Headed Woodpecker, Red-Breasted Sapsucker, Other Migratory Birds and Other Nesting Birds

COA 10. In accordance with Mitigation Measure BR-3: Pre-operation Bird Surveys. Project-related vegetation management should occur outside the bird nesting season, (February 15 through September 1). If project-related brush clearing or infrastructure work must occur during the breeding season, a pre-operation nesting-bird survey for migratory birds, raptors, and northern spotted owls shall be conducted by a qualified biologist no more than two weeks prior to Project initiation within the Project area and a 500-foot buffer. The timing of surveys shall be determined in consultation with the California Department of Fish and Wildlife. If active nests are found, a no-disturbance buffer zone shall be established, the size of which the biologist shall determine. Within this buffer zone, no operations shall take place until August 31 or until the biologist determines that the nest is no longer active.

Measures Pertinent to Protection of Special-Status Bats

The following measure for protection of special-status animals would be applicable to special-status bats as well.

COA 9. In accordance with Mitigation Measure. BR-2: Special Status Animal Surveys. Pre-operation special-status wildlife surveys shall be conducted by a qualified biologist. The pre-operation surveys shall be conducted no more than 30 days prior to the start of operation activities. If special-status wildlife species are identified, the area shall be flagged for avoidance. If a special-status species is identified and cannot be fully avoided, a mitigation plan shall be prepared by a qualified biologist and approved by the County of Humboldt.

Sensitive Natural Communities (Oregon White Oak Woodland)

Impacts to the Oregon white oak woodland habitat in the Study Area should be avoided to the extent feasible. If impacts to the Oregon white oak woodland cannot be avoided, mitigation should be implemented in consultation with Humboldt County. Mitigation could be accomplished within the Study Area and/or in a suitable location off-site. If on-site mitigation is implemented, it should involve removal of invasive species as well as removal any dead trees or trees damaged to the point that they will not recover and planting of native tree, shrub, and groundcover species as determined appropriate for the site by a qualified biologist. This would improve the habitat quality on-site and reduce the spread of invasive species to adjacent off-site habitats.

REFERENCES

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Natural Resources Conservation Service (NRCS). 2024. Web Soil Survey. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed July 2024.

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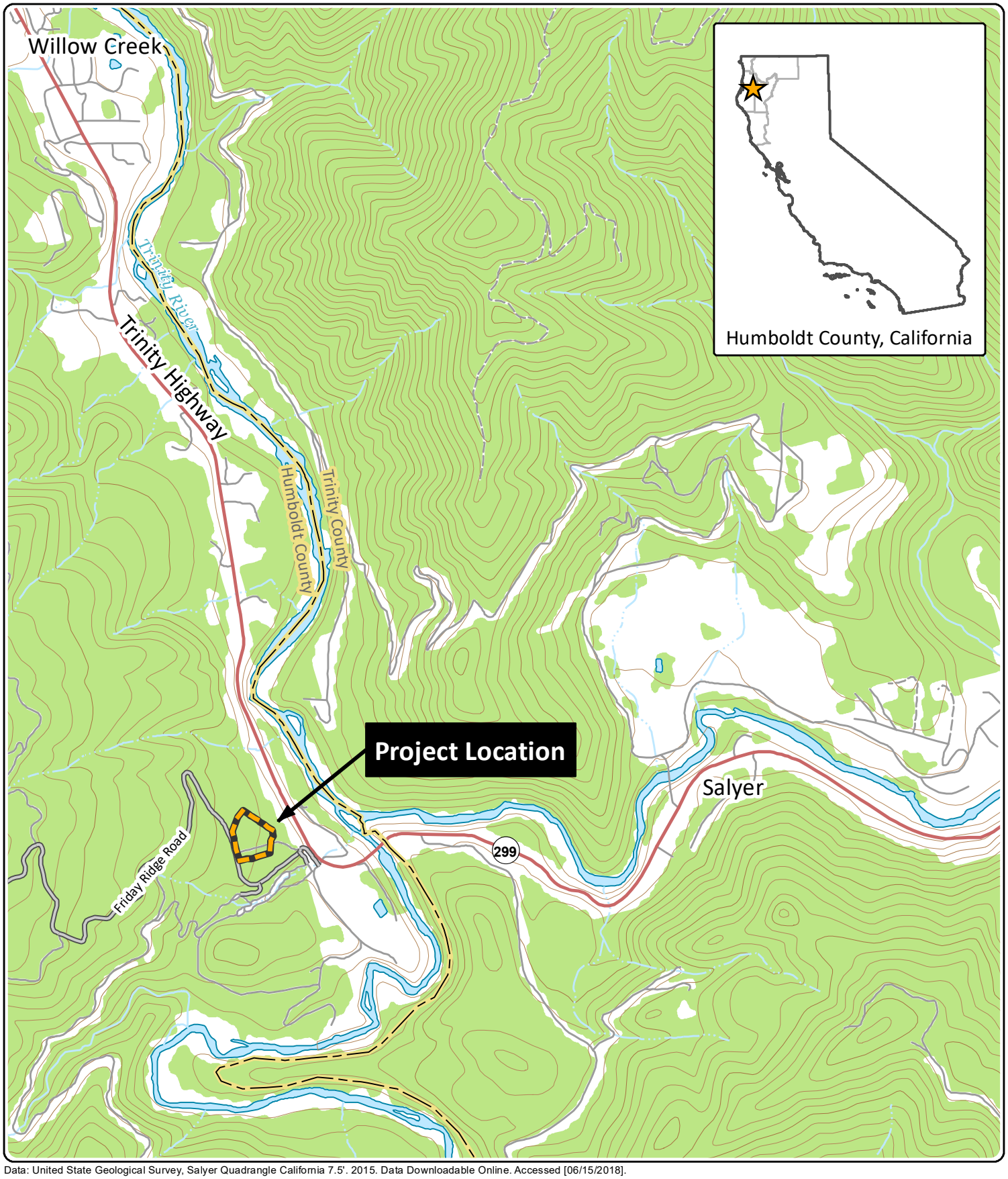
Attachment A: Figures



Data: United State Geological Survey, Salyer Quadrangle California 7.5'. 2015. Data Downloadable Online. Accessed [06/15/2018].

Legend:

Study Area (8.2 Acres)

0 0.5 Miles N

Site and Vicinity Map
Organic Liberty: Willow Creek
Biological Resources Evaluation
Humboldt County, California

Figure 1

7/19/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

COMPASS LAND GROUP

Google Earth Aerial, 7/17/2022

Legend:

Study Area (8.2 Acres)

0 200 Feet

N

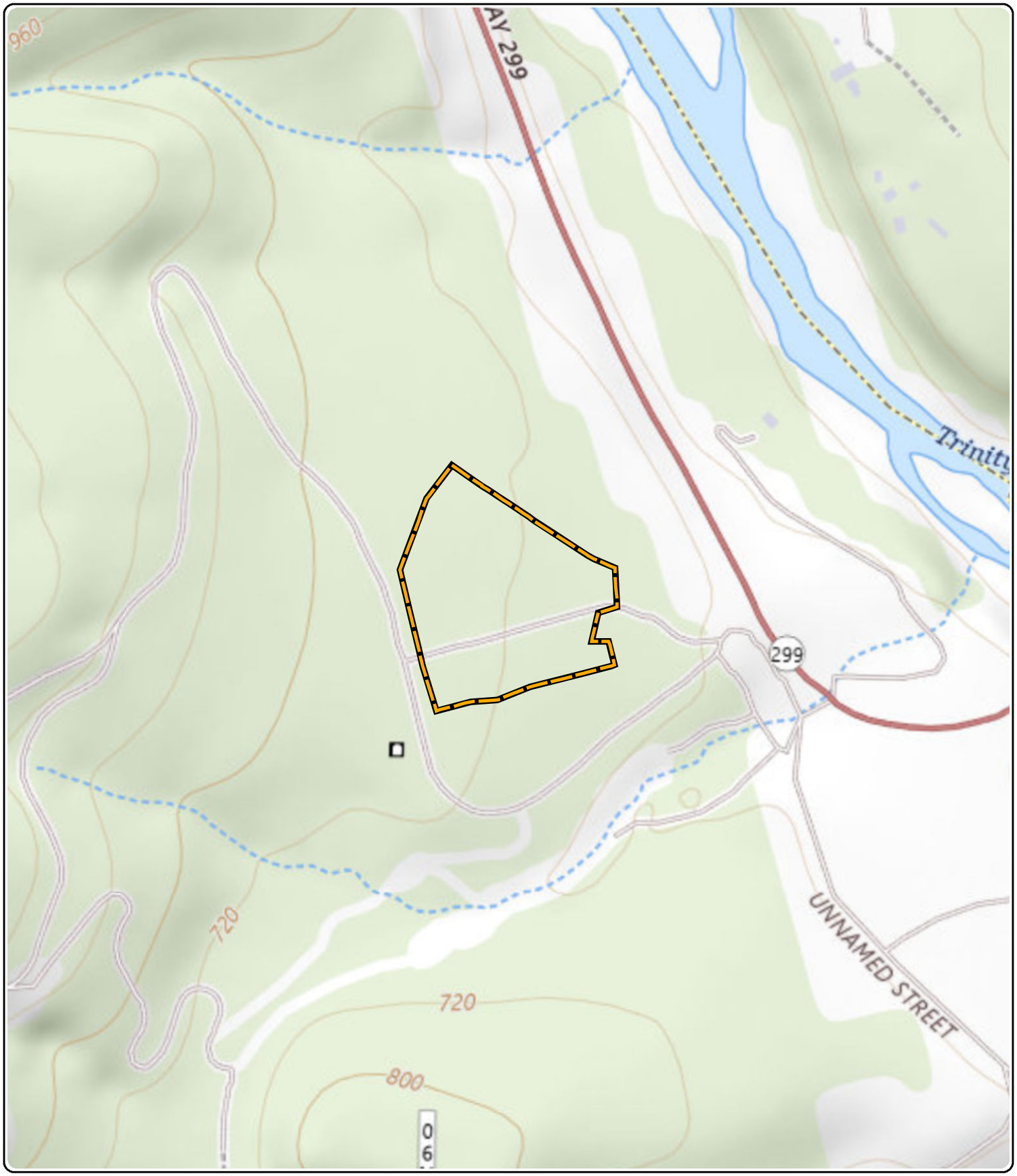
Project Location (Aerial Map)
Organic Liberty: Willow Creek
Biological Resources Evaluation
Humboldt County, California

Figure 2

7/19/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

COMPASS LAND GROUP



USGS National Map Service

Legend:

Study Area (8.2 Acres)

0 500 Feet N

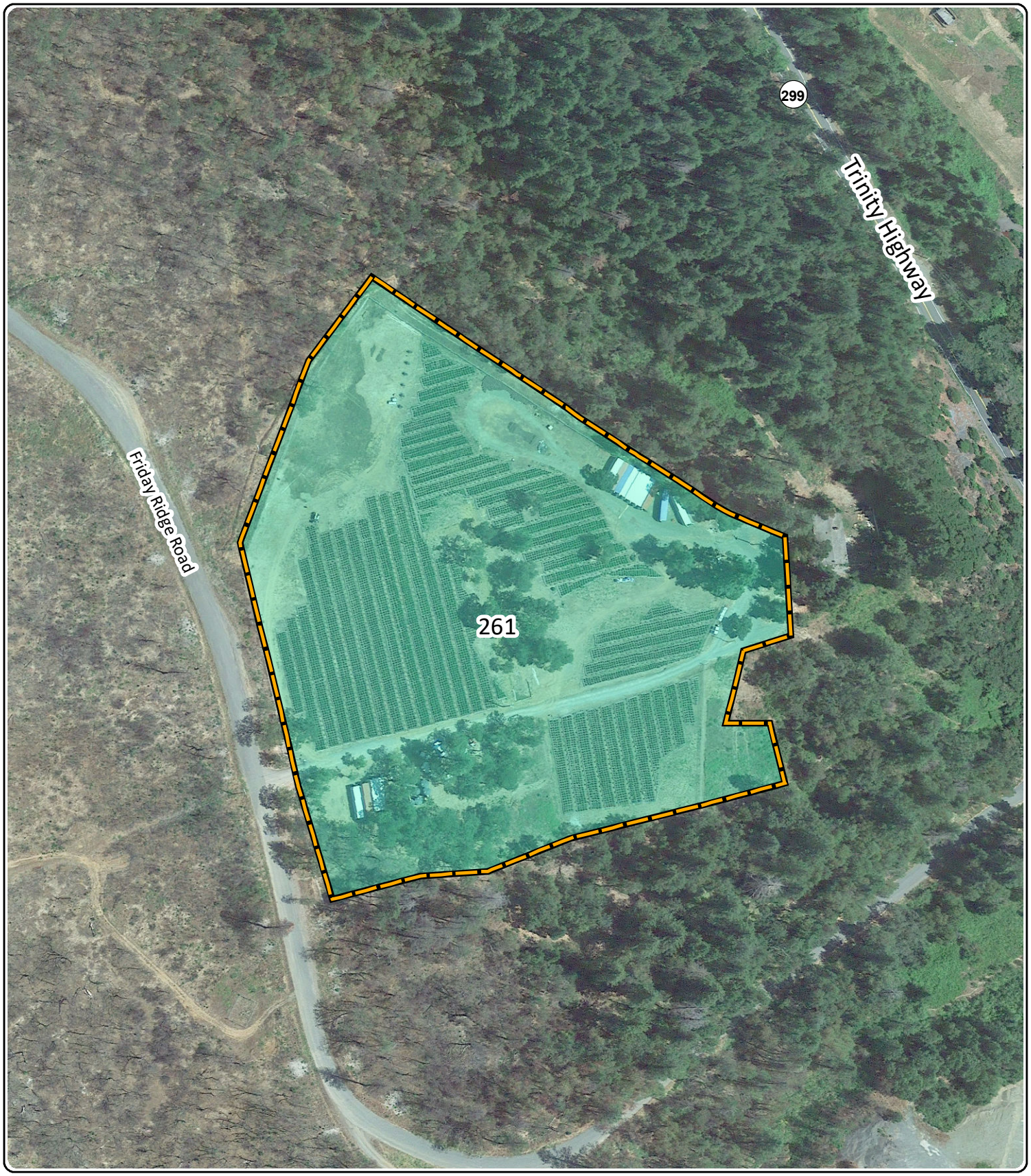
Project Location (USGS Map)
Organic Liberty: Willow Creek
Biological Resources Evaluation
Humboldt County, California

Figure 3

7/19/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

COMPASS LAND GROUP



Google Earth Aerial, 7/17/2022
NRCS Soil Survey, Six Rivers National Forest Area, California. Assessed July 2024.

Legend:
Study Area
261 - Holland-Goldridge families association, deep, 5 to 35 percent slopes

0 0.04 Miles N

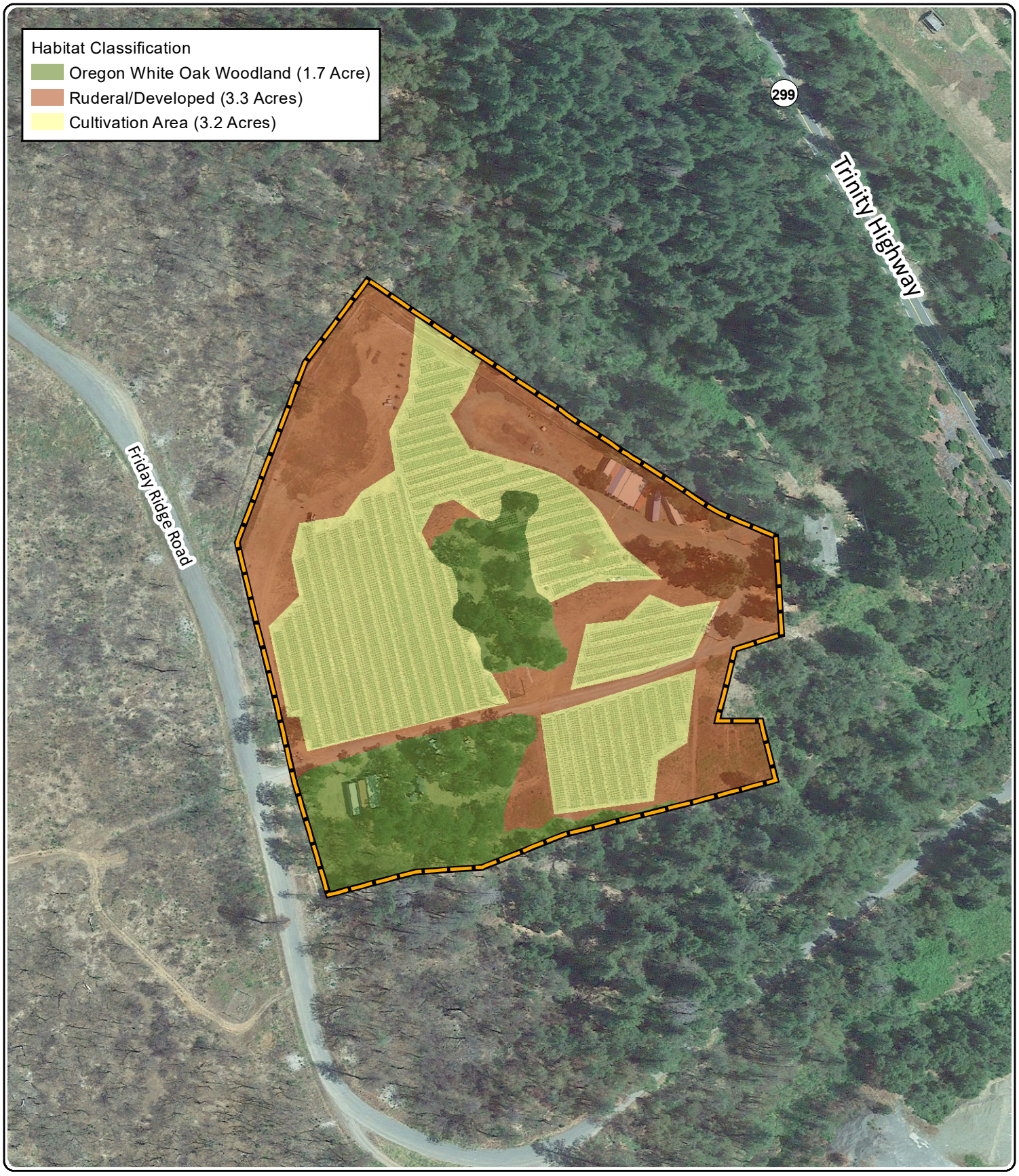
Soil Map
Organic Liberty: Willow Creek
Biological Resources Evaluation
Humboldt County, California

Figure 4

7/19/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

COMPASS LAND GROUP



Google Earth Aerial, 7/17/2022

Legend:

Study Area (8.2 Acres)

0 200 Feet N

Habitat Classification Map
Organic Liberty: Willow Creek
Biological Resources Evaluation
Humboldt County, California

Figure 5

7/19/2024

Disclaimer: The data was mapped for planning purposes only. No liability is assumed for accuracy of the data shown.

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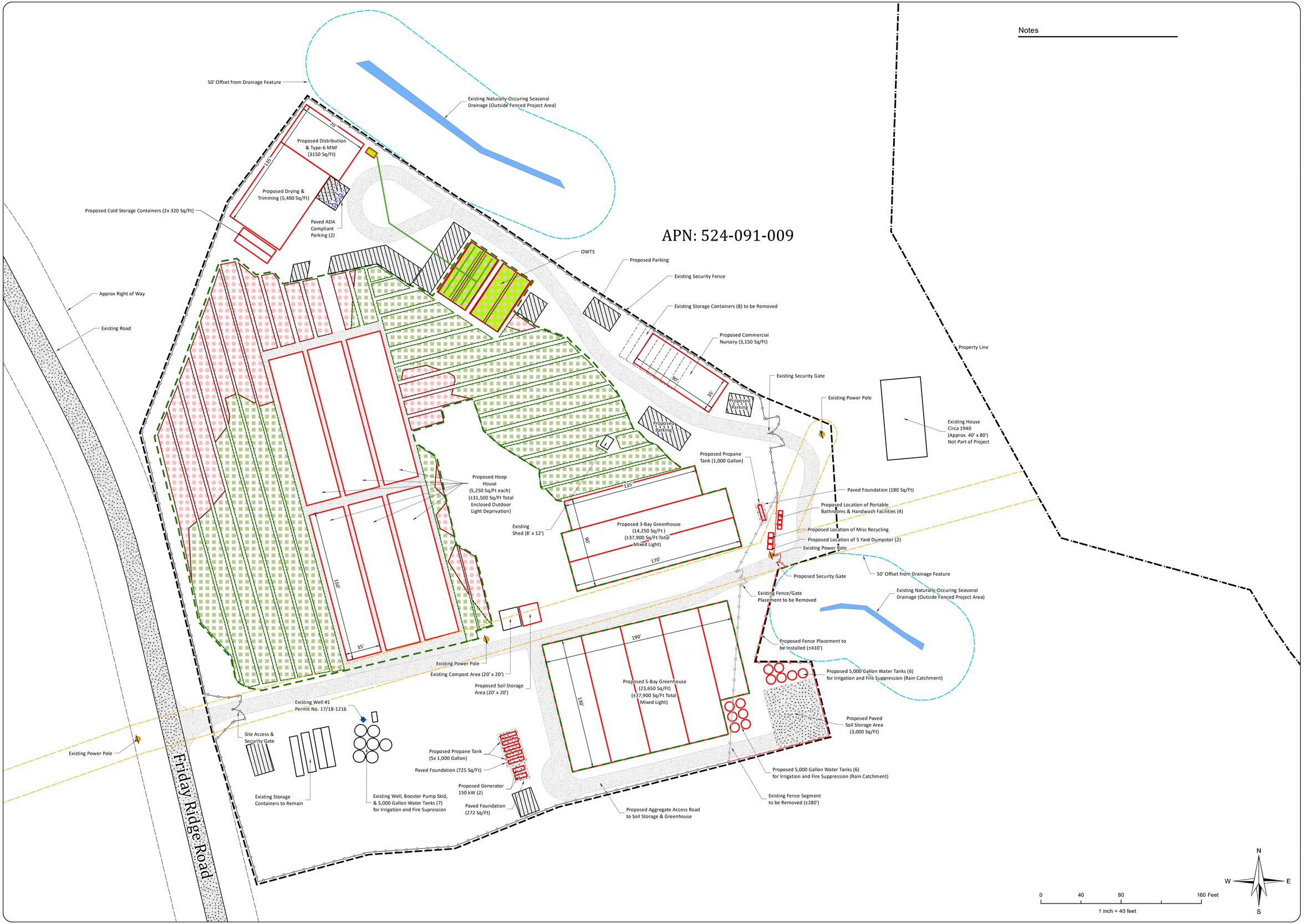
Attachment B: Site Plan



Notes

ORGANIC LIBERTY, LLC

PLN-12376-CUP Modification

Site Plan

Sheet 2
Site Overview

April 2024

Address: 229 Friday Ridge Road, Willow Creek, CA 95573
Project APNs:
524-101-025 & 524-091-009 (Parcel 1)
400.01 Acres
Owner: Organic Liberty, LLC
PO BOX 94825
Las Vegas, NV
Matt@oliberty.com

Legend:

- Project Boundary
- Parcel Boundary
- Cultivation Area (±4.0 Acres)
- Existing Uncovered Cultivation
- Proposed Uncovered Cultivation
- Existing Structure
- Proposed Structure
- Structure to be Removed
- Concrete Surface
- C-2 Aggregate Base
- Existing Fence
- Existing Fence to be Removed
- Proposed Fence Placement
- Seasonal Drainage
- 50' Setback from Seasonal Drainage
- Parking (44)
- ADA Parking (2)
- Existing Well
- Power Pole
- 15' Structure Setback from PG&E Power Line
- On-Site Wastewater Treatment System (OWTS)
- OWTS Pipe

Existing road and building locations shown on this site plan are per aerial mapping and are approximate.

Prepared by: Sage Thurmond, Compass Land Group
4235 Forcum Ave, Suite 100, McClellan Park, CA 95652

COMPASS LAND GROUP

Attachment C: Regulatory Context

Attachment C
Regulatory Context

Regulatory Setting

Policies, regulations, and plans potentially pertaining to the protection of biological resources in the Study Area are summarized in the following sections.

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. “Take” under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the “take” of listed species,

either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as "fully protected animals." These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the CEQA of 1970 (Public Resources Code Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.[1]

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur.

Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance

[1] The California Rare Plant Rank system can be found at: < http://www.cnps.org/cnps/rareplants/ranking.php>

of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

Local Ordinance

County of Humboldt Commercial Cannabis Cultivation Land Use Ordinance

On May 8, 2018, the Humboldt County Board of Supervisors adopted Ordinance Number 2599, amending provisions of Title III of the Humboldt County Code relating to the commercial cultivation, processing, manufacturing, distribution, testing, and sale of cannabis for medicinal or adult use. Section 314-55.4 regulates inland areas outside the coastal zone.

Section 55.4.11 requires surveys for biological resources and sensitive habitat as part of the application requirement for clearances or permits.

Section 55.4.12.1.10 establishes appropriate biological surveys and protective measures.

Section 55.4.12.6 specifies performance standards for project-related noise produced by a generator used for commercial cannabis cultivation to avoid noise-related impacts to marbled murrelet (*Brachyramphus marmoratus*) and northern spotted owl (*Strix occidentalis caurina*). Project-related noise impacts are assumed to be less than significant if noise levels are 50 decibels or less at 100 feet distance or the edge of the nearest habitat, whichever is closer.

Section 55.4.12.16 establishes requirements for invasive species control.

Attachment D: Results of Database Queries

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Humboldt County, California

Local office

Arcata Fish And Wildlife Office

(707) 822-7201
(707) 822-8411

1655 Heindon Road
Arcata, CA 95521-4573

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Pacific Marten, Coastal Distinct Population Segment Martes caurina Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9081	Threatened

Birds

NAME	STATUS
Marbled Murrelet Brachyramphus marmoratus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl Strix occidentalis caurina Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS

NAME	STATUS
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Lassics Lupine Lupinus constancei There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7976	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below.

Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read

"Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

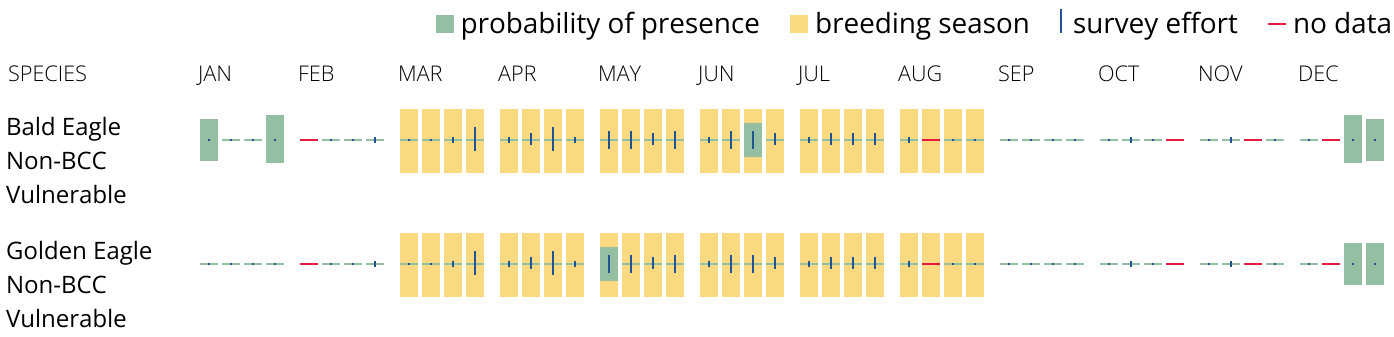
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Cassin's Finch Haemorhous cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Chestnut-backed Chickadee Poecile rufescens rufescens This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 31
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird Selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15

Western Screech-owl Megascops kennicottii cardonensis This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jun 30
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
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To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

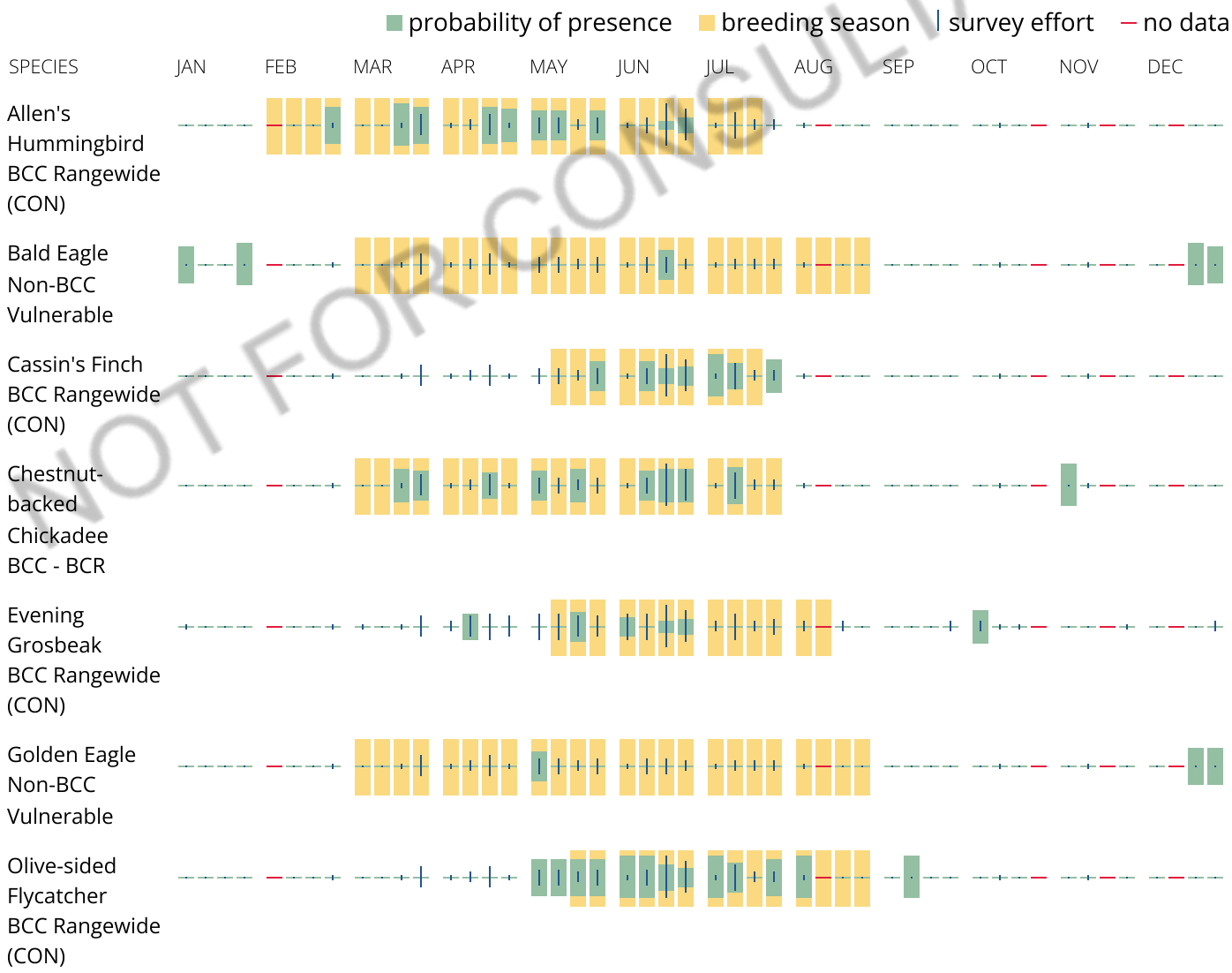
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

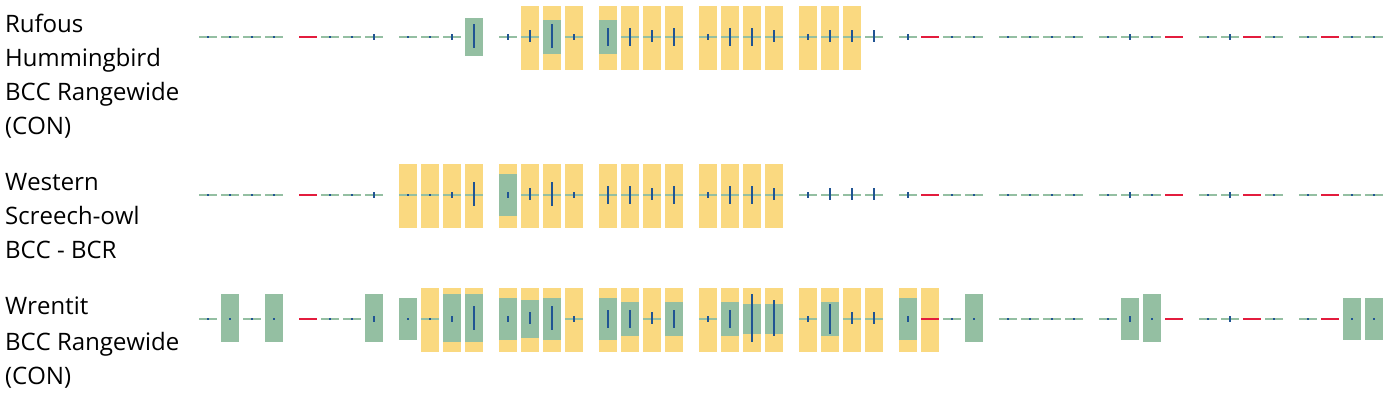
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Denny (4012384) OR Grouse Mtn. (4012376) OR Hennessy Peak (4012375) OR Hoopa (4112316) OR Ironside Mtn. (4012374) OR Tish Tang Point (4112315) OR Trinity Mtn. (4112314) OR Willow Creek (4012386) OR Salyer (4012385))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter atricapillus American goshawk	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	1,750 3,400	433 S:4	0	0	0	0	1	3	4	0	3	1	0
Ancotrema voyanum hooded lancetooth	G1G2 S1S2	None None		550 5,402	173 S:46	0	0	0	0	0	46	33	13	46	0	0
Arborimus pomo Sonoma tree vole	G3 S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	2,700 2,700	222 S:1	0	0	0	0	0	1	1	0	1	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	500 500	156 S:1	0	0	0	0	0	1	1	0	1	0	0
Ascaphus truei Pacific tailed frog	G4 S3S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	500 5,400	491 S:19	0	2	0	0	0	17	14	5	19	0	0
Astragalus umbraticus Bald Mountain milk-vetch	G4 S2	None None	Rare Plant Rank - 2B.2	2,400 2,400	36 S:2	0	0	0	0	0	2	2	0	2	0	0
Bensoniella oregona bensoniella	G3 S2	None Rare	Rare Plant Rank - 1B.1 SB_UCSC-UC Santa Cruz USFS_S-Sensitive		12 S:1	0	0	0	0	0	1	1	0	1	0	0
Bombus occidentalis western bumble bee	G3 S1	None Candidate Endangered	IUCN_VU-Vulnerable USFS_S-Sensitive	350 5,300	306 S:5	0	0	0	0	0	5	2	3	5	0	0
Botrypus virginianus rattlesnake fern	G5 S2	None None	Rare Plant Rank - 2B.2	4,600 4,600	41 S:1	0	0	0	0	0	1	1	0	1	0	0
Carex praticola northern meadow sedge	G5 S2	None None	Rare Plant Rank - 2B.2	4,540 4,540	14 S:1	0	0	0	0	0	1	1	0	1	0	0
Coptis laciniata Oregon goldthread	G4? S3?	None None	Rare Plant Rank - 4.2	2,460 2,460	122 S:2	0	0	0	1	0	1	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Cornus unalaschkensis bunchberry	G5 S2	None None	Rare Plant Rank - 2B.2	1,200 1,200	11 S:1	0	0	0	0	0	1	1	0	1	0	0
Corynorhinus townsendii Townsend's big-eared bat	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	770 770	635 S:1	0	0	0	0	0	1	1	0	1	0	0
Emys marmorata western pond turtle	G3G4 S3	Proposed Threatened None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	800 3,200	1559 S:5	0	1	0	0	0	4	0	5	5	0	0
Epilobium oreganum Oregon fireweed	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	4,000 5,900	61 S:9	0	0	0	0	0	9	9	0	9	0	0
Erethizon dorsatum North American porcupine	G5 S3	None None	IUCN_LC-Least Concern	3,101 5,000	523 S:4	0	0	0	0	0	4	4	0	4	0	0
Erythranthe trinitiensis pink-margined monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	4,600 4,940	15 S:7	0	2	0	0	0	5	0	7	7	0	0
Erythronium oregonum giant fawn lily	G5 S2	None None	Rare Plant Rank - 2B.2 SB_UCSC-UC Santa Cruz	2,300 4,700	37 S:7	0	2	0	0	0	5	4	3	7	0	0
Erythronium revolutum coast fawn lily	G4G5 S3	None None	Rare Plant Rank - 2B.2 SB_UCSC-UC Santa Cruz	1,600 4,500	172 S:4	0	3	1	0	0	0	0	4	4	0	0
Gentiana plurisetosa Klamath gentian	G2G3 S2	None None	Rare Plant Rank - 1B.3	5,100 5,980	22 S:6	1	0	0	0	0	5	3	3	6	0	0
Gilia capitata ssp. pacifica Pacific gilia	G5T3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	5,170 5,300	91 S:2	1	1	0	0	0	0	0	2	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Gonidea angulata western ridged mussel	G3 S2	None None	IUCN_VU-Vulnerable	374 738	158 S:2	0	0	0	0	0	2	1	1	2	0	0
Gulo gulo wolverine	G4 S1	Threatened Threatened	CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	1,450 1,750	174 S:2	0	0	0	0	0	2	2	0	2	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	720 720	333 S:1	0	0	0	0	0	1	1	0	1	0	0
Helminthoglypta talmadgei Trinity shoulderband	G2 S2	None None		350 1,000	21 S:4	0	0	0	0	0	4	4	0	4	0	0
Hemieva ranunculifolia buttercup-leaf hemieva	G5 S2	None None	Rare Plant Rank - 2B.2	6,000 6,000	8 S:1	0	0	0	0	0	1	1	0	1	0	0
Iliamna latibracteata California globe mallow	G2G3 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,000 5,185	40 S:17	0	2	3	0	0	12	5	12	17	0	0
Juncus regelii Regel's rush	G4 S1	None None	Rare Plant Rank - 2B.3	5,000 5,000	3 S:1	0	0	0	0	0	1	1	0	1	0	0
Klamath/North Coast Fall/Winter Run Chinook Salmon River Klamath/North Coast Fall/Winter Run Chinook Salmon River	GNR SNR	None None		800 800	2 S:1	0	1	0	0	0	0	1	0	1	0	0
Klamath/North Coast Interior Headwater Fishless Stream Klamath/North Coast Interior Headwater Fishless Stream	GNR SNR	None None		3,900 3,900	3 S:1	0	0	0	0	0	1	1	0	1	0	0
Klamath/North Coast Rainbow Trout Stream Klamath/North Coast Rainbow Trout Stream	GNR SNR	None None		1,600 2,600	9 S:2	0	0	1	0	0	1	2	0	2	0	0
Kopsiopsis hookeri small groundcone	G4? S1S2	None None	Rare Plant Rank - 2B.3	2,000 2,000	21 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Lanx alta highcap lanx	G2G3 S3	None None		540 540	13 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasionycteris noctivagans silver-haired bat	G3G4 S3S4	None None	IUCN_LC-Least Concern	3,100 3,100	139 S:2	0	1	0	0	0	1	2	0	2	0	0
Lasiurus cinereus hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern	3,100 3,240	238 S:2	0	2	0	0	0	0	2	0	2	0	0
Lewisia cotyledon var. heckneri Heckner's lewisia	G4T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCSC-UC Santa Cruz	980 4,000	41 S:4	0	0	1	0	0	3	3	1	4	0	0
Margaritifera falcata western pearlshell	G5 S1S2	None None	IUCN_NT-Near Threatened	517 517	78 S:1	0	0	0	0	0	1	0	1	1	0	0
Martes caurina humboldtensis Humboldt marten	G4G5T1 S1	Threatened Endangered	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	3,100 4,400	44 S:2	0	0	0	0	0	2	2	0	2	0	0
Mitellastra caulescens leafy-stemmed mitrewort	G5 S4	None None	Rare Plant Rank - 4.2	5,000 5,500	21 S:2	1	0	0	0	0	1	2	0	2	0	0
Monadenia infumata setosa Trinity bristle snail	G2T2 S2	None Threatened	IUCN_VU-Vulnerable	1,128 1,995	36 S:4	0	0	0	2	0	2	1	3	4	0	0
Montia howellii Howell's montia	G3G4 S2	None None	Rare Plant Rank - 2B.2	600 1,675	123 S:5	0	3	0	0	1	1	2	3	4	0	1
Myotis evotis long-eared myotis	G5 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern	540 2,870	139 S:2	0	1	0	0	0	1	2	0	2	0	0
Myotis thysanodes fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive	2,870 3,100	86 S:2	0	2	0	0	0	0	2	0	2	0	0
Myotis volans long-legged myotis	G4G5 S3	None None	IUCN_LC-Least Concern	650 3,147	117 S:3	0	3	0	0	0	0	3	0	3	0	0
Myotis yumanensis Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern	650 2,870	265 S:2	1	1	0	0	0	0	2	0	2	0	0
Oenothera wolfii Wolf's evening-primrose	G2 S1	None None	Rare Plant Rank - 1B.1 SB_BerrySB-Berry Seed Bank		29 S:1	0	0	0	0	0	1	1	0	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Oncorhynchus mykiss irideus pop. 48 steelhead - northern California DPS summer-run	G5T2Q S2	Threatened Endangered	AFS_TH-Threatened	500 500	10 S:1	0	0	0	1	0	0	0	1	1	0	0
Oncorhynchus mykiss irideus pop. 49 steelhead - northern California DPS winter-run	G5T3Q S3	Threatened None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern	1,037 1,037	96 S:1	0	0	1	0	0	0	0	1	1	0	0
Oncorhynchus tshawytscha pop. 30 chinook salmon - upper Klamath and Trinity Rivers ESU	G5T2Q S2	Candidate Threatened	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	385 1,350	6 S:3	0	0	0	0	0	3	3	0	3	0	0
Pandion haliaetus osprey	G5 S4	None None	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	500 2,250	504 S:4	0	1	1	0	0	2	4	0	4	0	0
Pekania pennanti Fisher	G5 S2S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	460 5,800	555 S:55	2	0	0	0	0	53	54	1	55	0	0
Piperia candida white-flowered rein orchid	G3? S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	970 970	222 S:2	0	0	0	0	0	2	1	1	2	0	0
Plethodon elongatus Del Norte salamander	G4 S3	None None	CDFW_WL-Watch List IUCN_NT-Near Threatened	696 4,400	151 S:18	0	2	0	0	0	16	16	2	18	0	0
Prophysaon sp. 1 Klamath taildropper	G3 S3	None None		3,094 3,094	31 S:1	0	0	0	0	0	1	1	0	1	0	0
Ptilidium californicum Pacific fuzzwort	G4G5 S3S4	None None	Rare Plant Rank - 4.3 BLM_S-Sensitive	3,960 5,200	177 S:12	0	0	0	0	0	12	12	0	12	0	0
Ramalina thrausta angel's hair lichen	G5? S2S3	None None	Rare Plant Rank - 2B.1	4,550 4,550	21 S:1	0	0	0	0	0	1	1	0	1	0	0
Rana aurora northern red-legged frog	G4 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	400 400	292 S:1	0	0	0	0	0	1	0	1	1	0	0

Summary Table Report

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California Natural Diversity Database

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	G3T4 S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive	320 3,600	1608 S:36	0	8	1	0	0	27	18	18	36	0	0
Rhyacotriton variegatus southern torrent salamander	G3? S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	700 4,100	416 S:35	1	4	1	0	0	29	29	6	35	0	0
Rosa gymnocarpa var. serpentina Gasquet rose	G5T3T4 S2	None None	Rare Plant Rank - 1B.3 SB_BerrySB-Berry Seed Bank SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	4,425 5,475	7 S:3	0	0	0	0	0	3	0	3	3	0	0
Sedum divergens Cascade stonecrop	G5? S2	None None	Rare Plant Rank - 2B.3	5,640 5,640	4 S:1	0	0	0	0	0	1	1	0	1	0	0
Sedum flavidum pale yellow stonecrop	G3 S3	None None	Rare Plant Rank - 4.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	3,000 5,000	47 S:9	0	0	1	0	0	8	9	0	9	0	0
Sidalcea malviflora ssp. patula Siskiyou checkerbloom	G4G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_UCSC-UC Santa Cruz	4,120 4,120	60 S:2	0	0	0	0	0	2	2	0	2	0	0
Sidalcea oregana ssp. eximia coast checkerbloom	G5T1 S1	None None	Rare Plant Rank - 1B.2	4,600 5,920	19 S:4	0	1	0	0	0	3	2	2	4	0	0
Stellaria obtusa obtuse starwort	G5 S4	None None	Rare Plant Rank - 4.3	5,200 5,200	31 S:1	0	0	0	0	0	1	1	0	1	0	0
Streptanthus oblanceolatus Trinity River jewelflower	G1 S1	None None	Rare Plant Rank - 1B.2 SB_UCSC-UC Santa Cruz USFS_S-Sensitive	980 1,350	2 S:2	0	0	0	0	0	2	1	1	2	0	0
Upland Douglas Fir Forest Upland Douglas Fir Forest	G4 S3.1	None None		3,600 3,600	15 S:1	0	0	0	0	0	1	1	0	1	0	0

CNPS Rare Plant Inventory

Search Results

27 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1A:1B:2A:2B:3] , 9-Quad include [4112316:4112315:4112314:4012375:4012374:4012384:4012385:4012386:4012376]

▲ SCIENTIFIC NAME	COMMON NAME	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Astragalus umbraticus	Bald Mountain milk-vetch	May-Aug	None	None	G4	S2	2B.2
Bensoniella oregona	bensoniella	May-Jul	None	CR	G3	S2	1B.1
Botrypus virginianus	rattlesnake fern	Jun-Sep	None	None	G5	S2	2B.2
Carex praticola	northern meadow sedge	May-Jul	None	None	G5	S2	2B.2
Cornus unalaschkensis	bunchberry	May-Jul	None	None	G5	S2	2B.2
Epilobium oreganum	Oregon fireweed	Jun-Sep	None	None	G2	S2	1B.2
Erythranthe trinitiensis	pink-margined monkeyflower	Jun-Jul(Aug)	None	None	G2	S2	1B.3
Erythronium oregonum	giant fawn lily	Mar-Jun(Jul)	None	None	G5	S2	2B.2
Erythronium revolutum	coast fawn lily	Mar-Jul(Aug)	None	None	G4G5	S3	2B.2
Gentiana plurisetosa	Klamath gentian	Jul-Sep	None	None	G2G3	S2	1B.3
Gilia capitata ssp. *pacifica*	Pacific gilia	Apr-Aug	None	None	G5T3	S3	1B.2
Hemieva ranunculifolia	buttercup-leaf hemieva	Jun-Aug	None	None	G5	S2	2B.2
Hesperocyparis forbesii	Tecate cypress		None	None	G2	S2	1B.1
Iliamna latibracteata	California globe mallow	Jun-Aug	None	None	G2G3	S2	1B.2
Juncus regelii	Regel's rush	Aug	None	None	G4	S1	2B.3
Kopsiopsis hookeri	small groundcone	Apr-Aug	None	None	G4?	S1S2	2B.3
Lewisia cotyledon var. *heckneri*	Heckner's lewisia	(Apr)May-Jul	None	None	G4T3	S3	1B.2
Lewisia cotyledon var. *howellii*	Howell's lewisia	Apr-Jul	None	None	G4T4Q	S3	3.2
Montia howellii	Howell's montia	(Feb)Mar-May	None	None	G3G4	S2	2B.2
Oenothera wolfii	Wolf's evening-primrose	May-Oct	None	None	G2	S1	1B.1
Piperia candida	white-flowered rein orchid	(Mar-Apr)May-Sep	None	None	G3?	S3	1B.2
Ramalina thrausta	angel's hair lichen		None	None	G5?	S2S3	2B.1
Rosa gymnocarpa var. *serpentina*	Gasquet rose	Apr-Jun(Aug)	None	None	G5T3T4	S2	1B.3
Sedum divergens	Cascade stonecrop	Jul-Sep	None	None	G5?	S2	2B.3
Sidalcea malviflora ssp. *patula*	Siskiyou checkerbloom	(Mar-Apr)May-Aug	None	None	G4G5T2	S2	1B.2

Sidalcea oregana ssp. *eximia*	coast checkerbloom	Jun-Aug	None	None	G5T1	S1	1B.2
Streptanthus oblanceolatus	Trinity River jewelflower	Apr-Jun	None	None	G1	S1	1B.2

Showing 1 to 27 of 27 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 19 July 2024].

Attachment E: Species Observed

Table E-1. Plant Species Observed in the Study Area

Family	Species Name	Common Name
Native		
Agaveaceae	*Chlorogalum pomeridianum var. pomeridianum*	Common soap plant
Anacardiaceae	*Toxicodendron diversilobum*	Poison oak
Apocynaceae	*Apocynum androsaemifolium*	Bitter dogbane
Asteraceae	*Baccharis pilularis*	Coyote brush
	Madia elegans	Tarweed
	Wyethia angustifolia	Narrowleaf mule-ears
Caprifoliaceae	*Lonicera hispidula*	honeysuckle
Ericaceae	*Arbutus menziesii*	Pacific madrone
Fabaceae	*Acmispon americanus var. americanus*	
	Cercis occidentalis	Redbud
Fagaceae	*Quercus chrysolepis*	Canyon live oak
	Quercus garryana	Oregon oak
	Quercus kellogii	California black oak
Gentianaceae	*Zeltnera muehlenbergii*	Monterey centaury
Grossulariaceae	*Ribes roezlii*	Sierran gooseberry
Juncaceae	*Juncus bufonius var. bufonius*	Toad rush
	Juncus mexicanus	Mexican rush
Onagraceae	*Clarkia purpurea ssp. quadrivulnera*	Four-spot
	Epilobium brachycarpum	Willowherb
Pinaceae	*Pinus ponderosa*	Ponderosa pine
	Pseudotsuga menziesii	Douglas fir
Poaceae	*Elymus glaucus*	Blue wild rye
Polemoniaceae	*Navarretia squarrosa*	Skunkweed
Rhamnaceae	*Ceanothus cuneatus*	Buck brush
	Ceanothus integerrimus var. integerrimus	
Rosaceae	*Rosa gymnocarpa*	Wood rose
Rubiaceae	*Galium porrigens*	Climbing bedstraw
Scrophulariaceae	*Verbascum blattaria*	Moth mullein
Themidaceae	*Brodiaea elegans ssp. elegans*	Harvest brodiaea
Non-native		
Amaranthaceae	*Amaranthus sp.*	Amaranth

Family	Species Name	Common Name
Apiaceae	*Daucus carota*	Wild carrot
	Torilis arvensis	Common hedge-parsley
Asteraceae	*Carduus pycnocephalis*	Italian thistle
	Centaurea solsticialis	Yellow star-thistle
	Cichorium intybus	
	Cirsium vulgare	Bull thistle
	Erigeron sumatrensis	Tropical horseweed
	Hypochaeris glabra	Smoot cat's-ear
	Lactuca serriola	Prickly lettuce
	Logfia gallica	Daggerleaf cottonrose
	Sonchus oleraceus	Common sow thistle
	Sonchus sp.	Sow thistle
Caryophyllaceae	*Spergula arvensis*	Starwort
Chenopodiaceae	*Dysphania pumilio*	
Fabaceae	*Cytisus scoparius*	Scotch broom
	Lathyrus latifolius	Perennial sweet pea
	Trifolium arvense	Rabbitfoot clover
	Trifolium glomeratum	Clustered clover
	Trifolium hirtum	Rose clover
	Vicia sp.	Vetch
Hypericaceae	*Hypericum perforatum*	St. John's wort
Lamiaceae	*Mentha pulegium*	Pennyroyal
Malvaceae	*Malva sp.*	Mallow
Plantaginaceae	*Kickxia elatine*	
	Plantago lanceolata	English plantain
Poacae	*Agrostis capillaris*	Colonial bent
	Aira caryophyllea	Silver hair grass
	Anthoxanthum odoratum	Sweet vernal grass
	Avena barbata	Slender wild oat
	Briza maxima	Rattlesnake grass
	Briza minor	Annual quaking grass
	Bromus diandrus	Ripgut brome
	Bromus hordeaceus	Soft chess
	Bromus madritensis	Foxtail chess
	Cynosurus echinatus	Dogtail grass

Family	Species Name	Common Name
	Festuca arundinacea	Tall fescue
	Festuca bromoides	Brome fescue
	Festuca perennis	
	Gastridium phleoides	Nit grass
Polygonaceae	*Polygonum aviculare*	Knotweed
	Rumex acetosella	Sheep sorrel
	Rumex crispus	Curly dock
Portulacaceae	*Portulaca oleracea*	Purslane
Roseaceae	*Rubus armeniacus*	Himalayan blackberry

Table E-2. Wildlife Species Observed in the Study Area

Family	Scientific Name	Common Name
Birds		
Accipitridae	*Buteo lineatus*	Red-shouldered hawk
Fringillidae	*Spinus psaltria*	Lesser goldfinch
Hirundinidae	*Tachycineta bicolor*	Tree swallow
Odontophoridae	*Callipepla californica*	California quail
Paradoxornithidae	*Chamaea fasciata*	Wrentit
Passerellidae	*Melospiza melodia*	Song sparrow
Picidae	*Melanerpes formicivorus*	Acorn woodpecker
Turdidae	*Turdus migratorius*	American robin

Attachment F: Site Photos

Attachment F. Site Photos

Photo 1. View of the Study Area looking north from near the southern boundary. The central stand of Oregon white oak woodland is visible in the background (white arrow).

Photo 2. View of the northern portion of the Study Area from the western boundary, showing cultivation areas surrounded by ruderal habitat.

Photo 3. View of the Oregon white oak woodland in the southwest portion of the Study Area.

Photo 4. View of fire damaged trees in the southwest portion of the Study Area.