

**DRAFT MITIGATED NEGATIVE DECLARATION
INITIAL ENVIRONMENTAL STUDY**



CITY OF CLEARLAKE

**PROPOSED MITIGATED NEGATIVE DECLARATION
INITIAL STUDY (CEQA)**

JOSEPH GUSTAFSON

PROPOSED CANNABIS FACILITIES

LOCATED AT:

2560 Highway 53, Clearlake, CA

March 4, 2021

ENVIRONMENTAL CHECKLIST

1. **Project Title:** Gustafson Conditional Use Permit, Design Review and Development Agreement - Cannabis Cultivation, Processing, Distribution
2. **Case Numbers:** UP 11-20 Cannabis Cultivation, UP 12-20 Processing, UP 13-20 Distribution, Design Review, Cannabis Business/Regulatory Permit, Development Agreement.
3. **City of Clearlake Contact Person: Mark Roberts - Senior Planner.**
 - **Phone:** (707) 994-8201
 - **Email:** mroberts@clearlake.ca.us
4. **Project Location:** 2560 Highway 53, Clearlake, CA 95422,
5. **Assessor Parcel Number (APN):** 010-048-050-0000
6. **Project Sponsor's Name and Contact Information:** Joe Gustafson P.O. Box 208, Lower Lake, CA 95457
7. **Project Site General Plan Land Use Designation:** Industrial
8. **Project Site Zoning Designation:** "I" Industrial, "SC" Scenic Corridor Overlay, "CB" Commercial Zoning District
9. **Earthquake Fault Zone:** Not within a known fault zone
10. **Dam Failure Zone:** Not within a known Inundation Area
11. **Description of Project:** *(Describe the whole action involved, including but not limited to later phases of the project and any secondary, support, or off-site features necessary for its implementation. Attach additional pages if necessary.)*

The project involves development and operation of a cannabis production and distribution facility that includes development of a 10,000 square foot prefabricated metal building for processing, trimming, curing, drying and distributing cannabis; 20,000 square foot indoor space to be used for cannabis cultivation, and 36,000 square feet of hybrid greenhouse space with light deprivation (two structures, 18,000 square feet each). *Attachment A includes a detailed project description, operation, and business plan.*

12. Surrounding Land Uses:

- **North:** Industrial zoned parcels vacant or commercial development uses.
- **South:** zoned Industrial ("I") and Rural Residential ("RR") either developed with commercial or industrial uses.
- **West:** zoning Industrial ("I") and Rural Residential ("RR") either developed with commercial or industrial uses.
- **East:** Parcels to the east of the project site are located within the County of Lake jurisdiction.

- 13. Environmental Setting:** The parcel consists of a series of low, rolling, generally west-facing clearings covered with blue oak dominated woodlands and annual grassland. Overall, the parcel consists of approximately 33.33% blue oak woodland, and approximately 66.66% annual grassland. A few sections of unnamed Class III watercourses exist within the parcel boundaries.
- 14. Other Public Agencies Whose Approval is Required: Local Agencies:** City of Clearlake - Community Development (Planning, Building, Public Works); Clearlake Police Department, Lake County Fire Protection, Lake County Department of Environmental Health, Lake County Air Quality Management District, Lake County Special Districts, Local Tribal Organizations.
- 15. Federal and State Agencies:** Central Valley Regional Water Quality Control Board, CA Department of Fish and Wildlife, Cal-cannabis, Department of Public Health, California Department of Transportation (Caltrans)
- 16. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3 (c) contains provisions specific to confidentiality.

Notification of the project was sent to local tribes on December 22, 2020 for "AB 52" Notification, which allows interested Tribes to request tribal consultation within 30 days of receipt of notice. The Community Development Department did not receive an AB 52 Tribal Consultation for this project.

17. INITIAL STUDY ATTACHMENTS:

- A. Project Description
- B. Existing and Proposed Site & Architectural Plans
- C. A Biological Reconnaissance and Project Feasibility Assessment Report; Prepared By: Naiad Biological Consulting dated January 9, 2020.
- D. Mitigation Monitoring Reporting Plan (MMRP)

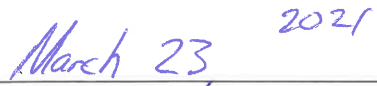
Environmental Factors Effected: The environmental sections checked below would be potentially affected by this project in an adverse manner, including at least one environmental issue/significance criteria that is “potentially significant impacts” as indicated by the analysis in the following evaluation of environmental impacts.

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

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 would 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 would 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.


Signature of City Representative


Date

EVALUATION OF ENVIRONMENTAL IMPACTS: THE FOLLOWING INSTRUCTIONS ARE FOR THE EVALUATION OF PROJECT IMPACTS IN THE CEQA ENVIRONMENTAL CHECKLIST:

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

9. Initial Study Sources: The following documents are referenced information sources and are incorporated by reference into this document and are available for review upon request of the Community Development Department if they have not already been incorporated by reference into this report:

- *City of Clearlake 2040 Draft General Plan*

- *City of Clearlake 2040 General Plan Background Report*
- *City of Clearlake 2040 General Plan Environmental Impact*
- *City of Clearlake Zoning Code*
- *City of Clearlake Housing Element*
- *City of Clearlake Police Department*
- *City of Clearlake – Public Works*
- *City of Clearlake – City Engineer*
- *Konocti Water District*
- *Highland Water District*
- *Golden State Water Company*
- *Clearlake Waste Solutions*
- *Use Permit Application Packet and Supplemental Materials, including existing & Proposed Site Plans and Architectural Plans*
- *Cultural Resource Evaluation prepared by William Roop on January 16, 2021.*
- *U.S.G.S. Topographic Maps*
- *California Department of Transportation: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm*
- *U.S.D.A. Lake County Soil Survey*
- *Important Farmland Map <https://maps.conservation.ca.gov/agriculture/>*
- *Lake County Serpentine Soil Mapping*
- *California Natural Diversity Database (<https://www.wildlife.ca.gov/Data/CNDDB>)*
- *U.S. Fish and Wildlife Service National Wetlands Inventory*
- *Biological Report prepared by Naiad Consultants on January 9, 2021, available upon request of the City of Clearlake Community Development Department.*
- *U.S.G.S. Geologic Map and Structure Sections of the Clear Lake Volcanic, Northern California, Miscellaneous Investigation Series, 1995*
- *Official Alquist-Priolo Earthquake Fault Zone maps for Lake County*
- *Landslide Hazards in the Eastern Clear Lake Area, Lake County, California, Landslide Hazard Identification Map No. 16, California Department of Conservation, Division of Mines and Geology, DMG Open – File Report 89-27, 1990*
- *Lake County Health Services Department*
- *Lake County Special District Department*
- *Lake County Water Resource Department*
- *Lake County Department of Agriculture*
- *Lake County Air Quality Management District (LAQMD)*
- *Hazardous Waste and Substances Sites List: www.envirostor.dtsc.ca.gov/public*
- *California Department of Forestry and Fire Protection - Fire Hazard Mapping*
- *Lake County Fire Protection District*
- *National Pollution Discharge Elimination System (NPDES)*
- *Central Valley Regional Water Quality Control Board*
- *State Water Resources Control Board*
- *FEMA Flood Hazard Maps*
- *Cal Recycle Solid Waste Information System <http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx>*
- *Cal Cannabis (via Dept. of Food and Agriculture)*
- *California Water Resources Control Board*
- *California Department of Fish & Wildlife (CDFW)*
- *California Department of Pesticides Regulations*
- *California Department of Public Health*
- *California Bureau of Cannabis Control.*
- *California Department of Consumer Affairs*
- *Site Visit*

Figure 1
Regional Map

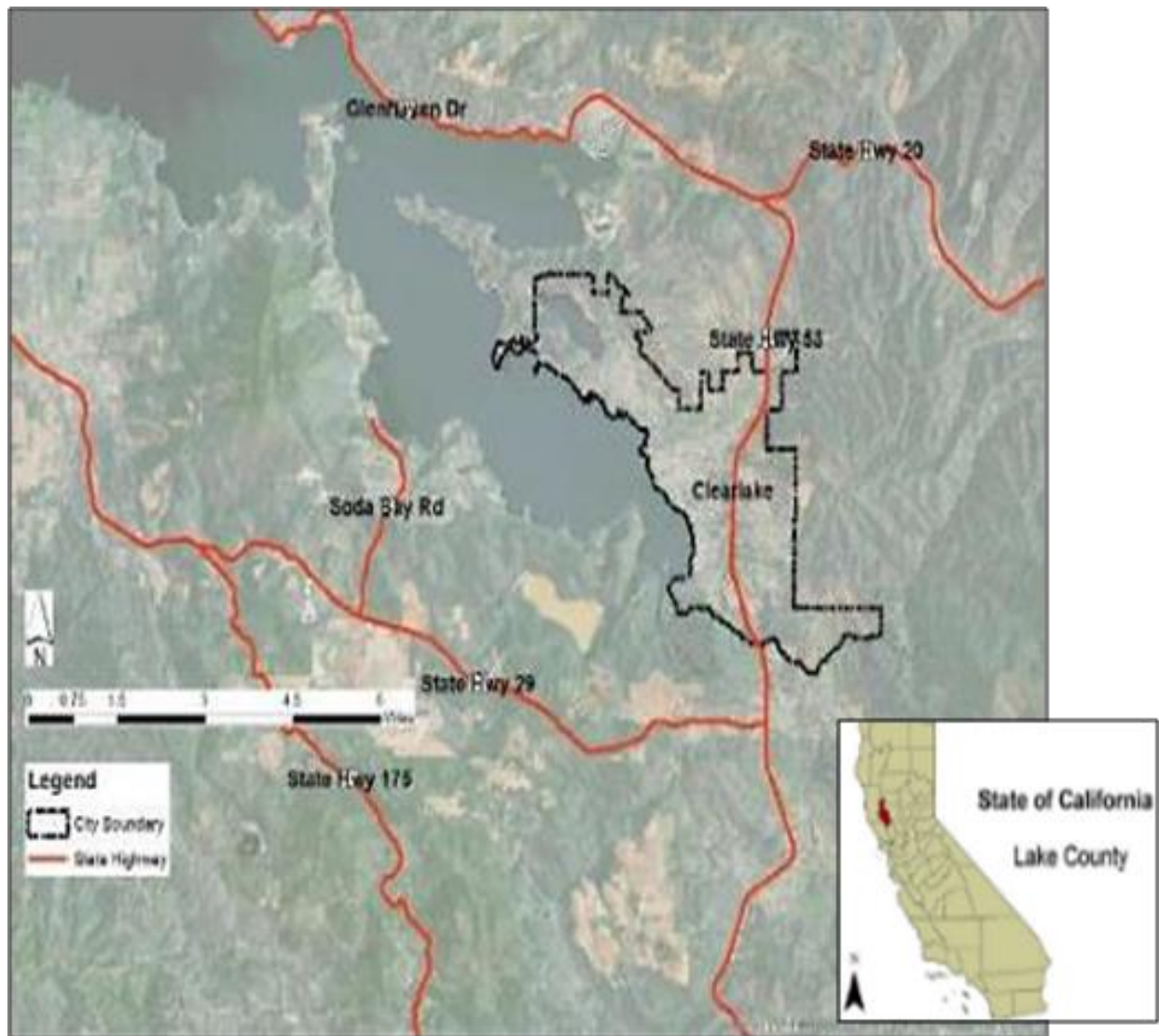


Figure 2
USGS Map

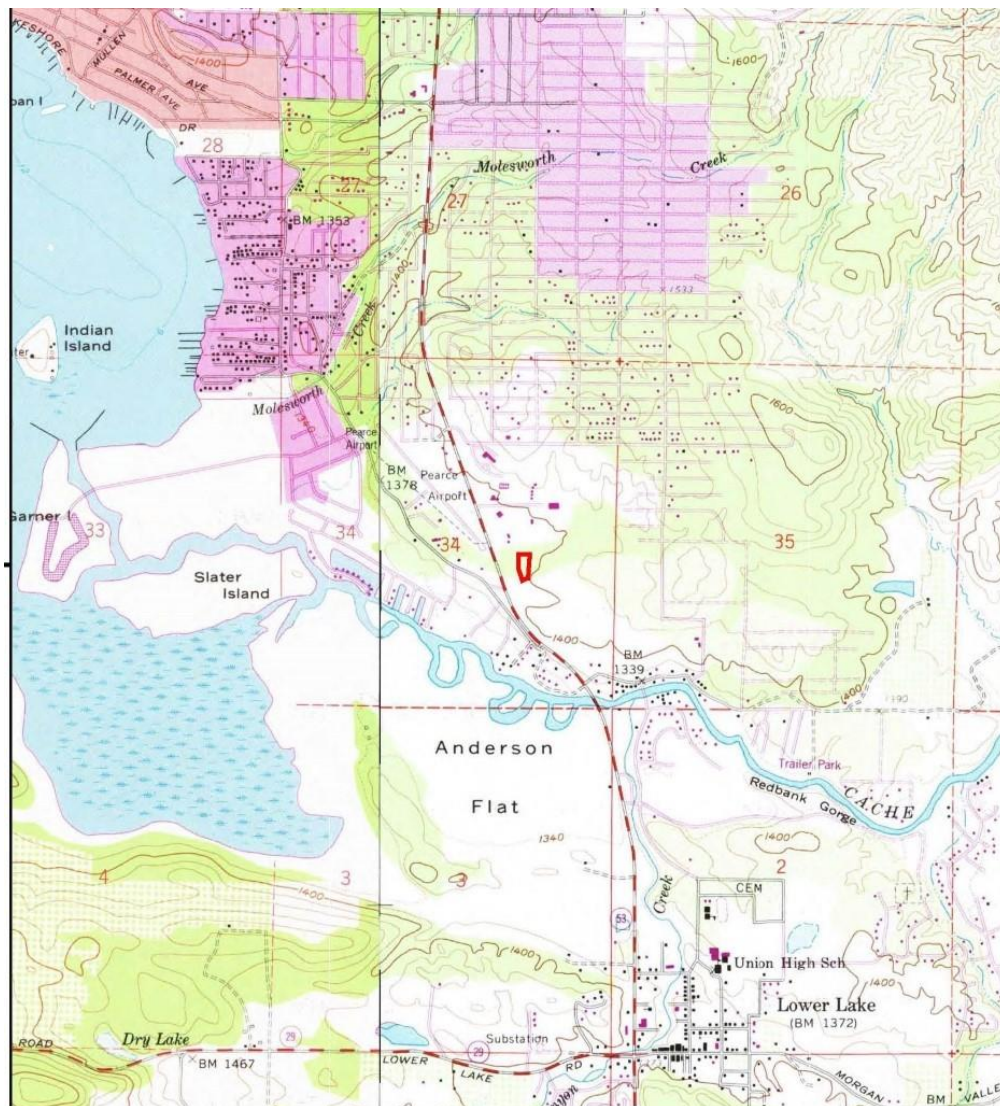






Figure 5
Site Plan/Location Map

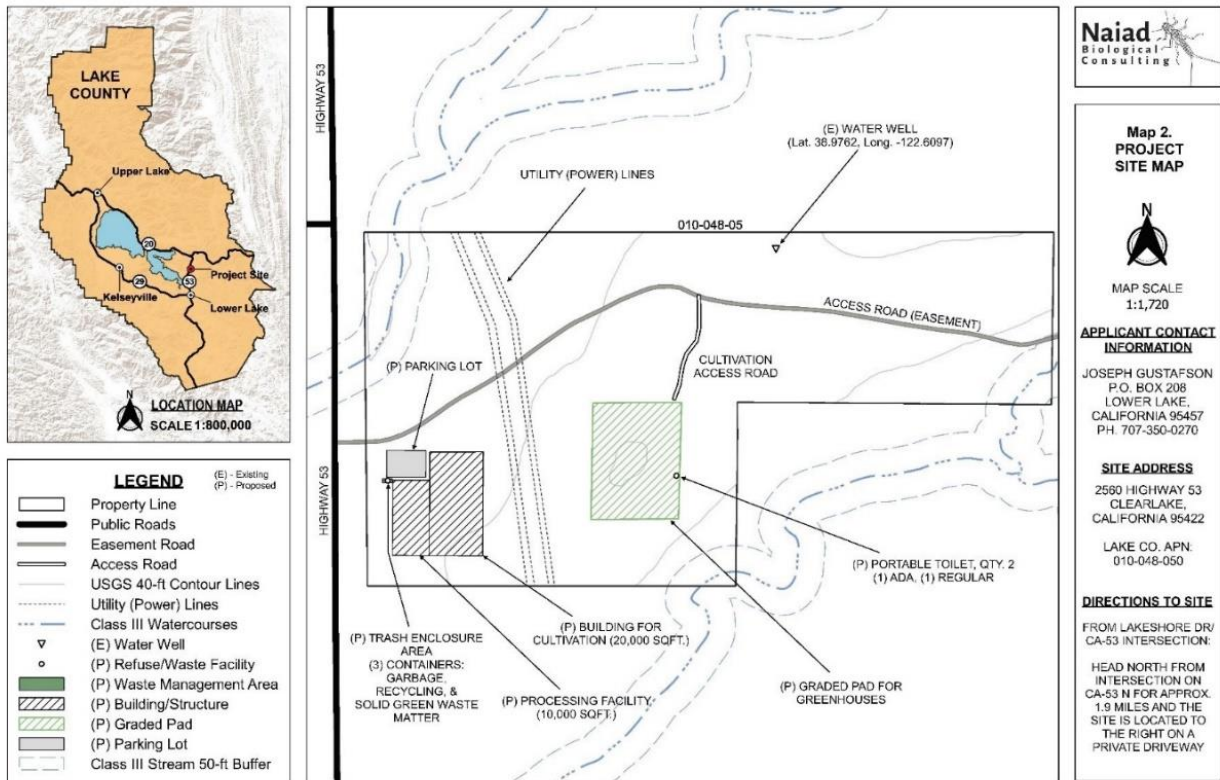


Figure 6
Floor Plan of Main Building





Figure 7
Elevations



1
A4.1
RENDERING LOOKING SOUTHEAST
1/8" = 1'-0"



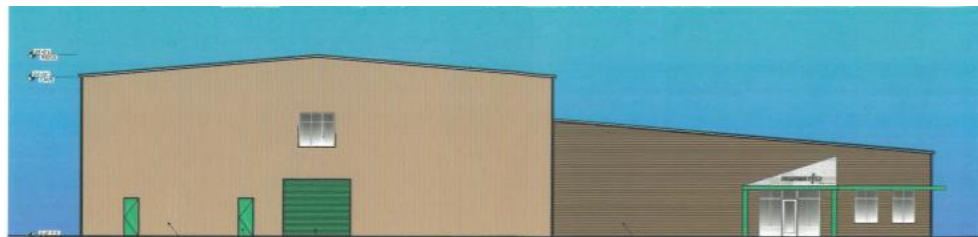
1
A4.1
RENDERING OF ENTRY
1/8" = 1'-0"



2
A4.1
RENDERING LOOKING NORTHEAST
1/8" = 1'-0"

HIGHWAY 53 BUILDING - Option A

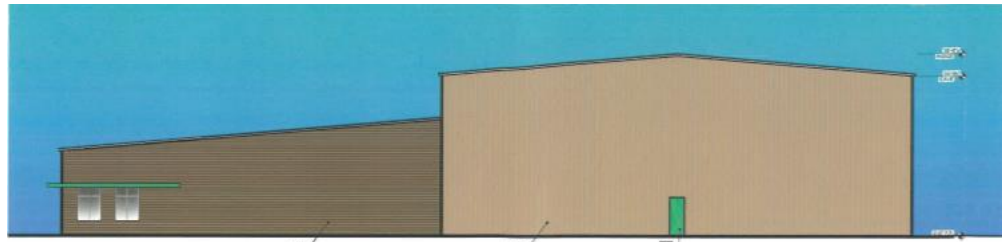
A4.1



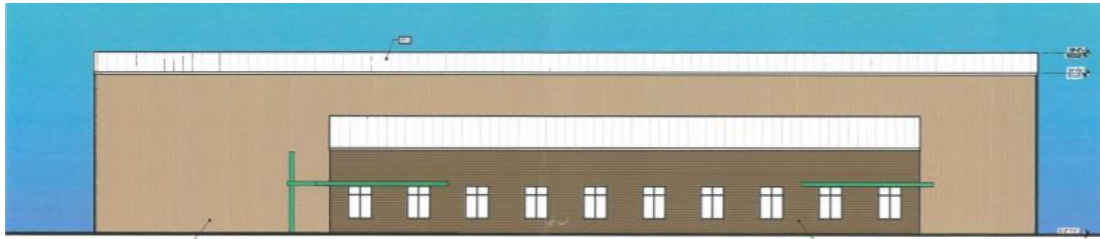
1
A4.1
NORTH ELEVATION
1/8" = 1'-0"



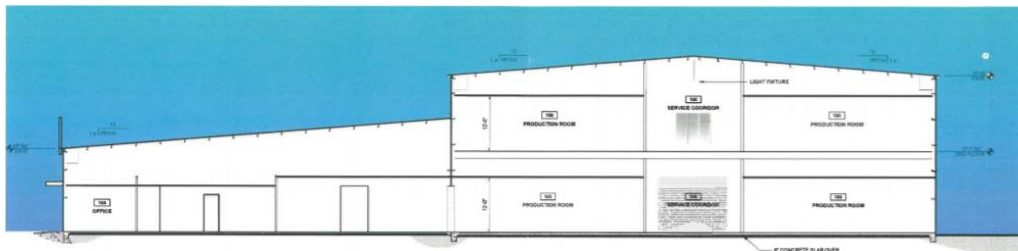
2
A4.1
EAST ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
A3.3 1/8" = 1'-0"



2 WEST ELEVATION
A3.3 1/8" = 1'-0"



2 BUILDING SECTION
A3.3 1/8" = 1'-0"



PROJECT EVALUATION: UNDER CEQA, IMPACTS ARE DETERMINED TO BE:

- **No Impact:** The project will result in no direct or indirect impact on the environment.
- **Less Than Significant Impact:** The project will result in a direct or indirect impact on the environment, but the impact is not substantially adverse.
- **Less Than Significant with Mitigation Incorporated:** The project will result in a potentially significant adverse impact on the environment, but mitigation measures are identified to reduce the impact to a less than significant level.
- **Potentially Significant Impact:** The project may result in a direct or indirect impact on the environment and the impact may be substantially adverse, but information is not known at the time to determine whether the impact would not be substantially adverse.
- If the impact is confirmed to be substantially adverse, it is determined to be a **Significant Impact**.

Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA. The questions in this form are intended to encourage the thoughtful assessment. Each category references Potentially Significant Impact (meaning more study should be conducted to determine level of impact and whether or not it would be adverse), Less Than Significant with Mitigation (means that if mitigation measures are included with the project than the project is not expected to result in a significant adverse impact on the environment), Less Than Significant Impact (means that the project is expected to result in an environmental impact, but that this impact is not considered adverse) and No Impact (means the project is not expected to result in any environmental impact to this question). After each category is checked a discussion of the project's potential impact is presented and then an evaluation of what level of impact is considered and often time mitigation measures are presented.

SECTION A: AESTHETICS AND SCENIC RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista that is visible from a City scenic corridor?	☐	☐	☒	☐
b. Substantially alter or damage a scenic resource that is visible from a City scenic corridor?	☐	☐	☒	☐
c. Conflict with applicable General Plan policies or zoning 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: The project is located in the north area of the City and in close proximity to the County of Lake's jurisdiction (refer to Figure 5, Site Plan / Location Map). The project parcel is accessible off State Route 53, which is maintained by the CA Department of Transportation (Caltrans). According to the City of Clearlake General Plan adopted on February 17, 2017 (Resolution No. 2017-10) scenic places included but are not limited to City Parks, Vistas from the parks, State Route 53 and Lakeshore Drive Scenic Vistas. The project is consistent with the City's Scenic Corridor regulations as outlined in section 18-13 of the Clearlake Municipal Code

(a - c). As noted on the site plans (Figure 5), the project will include two metal prefabricated buildings 10,000 square feet and 20,000 square feet in size. The buildings will be located approximately 100 feet from the centerline of Hwy 53 and visible from this public highway. With the proposed design, landscaping and placement of the buildings, visibility from the highway will be minimized, in that the buildings will be painted earth tones and landscaping along the north, south and west side of the buildings will provide sufficient screening.

The project will have minimal impacts on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. There are no known historic structures onsite or rock outcropping that will be disturbed and/or damaged. The project may require the removal of some vegetation and/or trees for the development infrastructure. All trees to be removed, shall be done in accordance with Section 18-40 of the Municipal Code regarding native tree protection. On January 6, 2021, the applicant submitted a Tree Removal Application to the City of Clearlake for review and approval. The project will need to be graded and landscaped between the buildings/structures and the highway to comply with the development standards of Section 18-13.030 of the Zoning Code regarding scenic corridors:

1. *Grading and cut/fill shall be kept to a minimum and shall be prohibited whenever such activities will have an adverse impact of the scenic resources of the State highway.*
 2. *Any exposed slopes resulting from grading shall be stabilized by plantings of compatible vegetation.*
- d) The project will not create a new source of substantial lighting or glare, which would adversely affect day or nighttime views in the area. However, all lighting to be used onsite, such as structural lighting (interior/exterior) and security lighting, may be visible by surrounding properties and/or passing motorist.

The proposed business operation plan shows details of proposed exterior lighting and the design is intended to minimize off-site light glare. However, there is a potential that this lighting Exterior lighting could result in some adverse light glare impacts If not mitigated to a level of non-significance. Section 18-20-120, Night Sky Preservation, references required standards for lighting to minimize light glare impacts.

Aesthetic and Scenic Resources Impact Evaluation:

The project could result in an adverse Impact on aesthetics, but with proper mitigation measures incorporated into the project should result in a less than significant impact on aesthetics.

Mitigation Measures:

- **AES-1: All exterior lighting shall incorporate down-light shielding and other designs to avoid excessive light bleed off site and to avoid excessive night sky lighting glare in accordance with the Zoning Code.**

SECTION B: AGRICULTURE RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (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. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion:

- a) The project parcels are categorized as “Grazing Land”, a category that is used for animal husbandry. However, the project is located in an industrialized area surrounded with commercial/industrial development. Therefore, the proposed use will not convert Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Additionally, cannabis operations are an allowable use upon securing a use permit pursuant to City of Clearlake Zoning Code.
- b) The project parcels have a zoning designation of “I” Industrial with an overlay zoning district of “SC” Scenic Corridor Combining and “CB” Commercial Zoning District. Therefore, the project will not conflict with existing zoning for agricultural use(s), or a Williamson Act Contract.
- c) The project will not conflict with the existing zoning designation(s) of “I” Industrial with overlay zoning districts of “SC” Scenic Corridor Combining and “CB” Commercial Zoning District and/or cause the rezoning of forest lands [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) The project will not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Agricultural Resource Impact Evaluation:

- **The commercial operation will have a Less than Significant Impact on Agricultural Resource Impact Evaluation.**

SECTION C: AIR QUALITY	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b. Result in a cumulatively considerable net increase of ROC and/or NOx emissions?	☐	☒	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations of fugitive dust, carbon monoxide, toxic air contaminants, and/or San Joaquin Valley Fever spores?	☐	☒	☐	☐
d. Result in other emissions that create objectionable odors adversely affecting a substantial number of people?	☐	☒	☐	☐

Discussion

- a) The project has some potential to result in short- and long-term air quality impacts and other particulate matter, as well as exhaust emissions generated by earthmoving activities from site preparation, construction and during routine operations. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions from construction equipment, motor vehicle operations, and fugitive dust from disturbed soil. The proposed Air Quality Plan indicates how the applicant Intends to minimize these Impacts. Please refer to Attachment A for details.

All fugitive dust will be controlled by wetting soils with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy, and by eliminating soil stockpiles. Construction of the site will be minimal and some minor site improvements will be necessary but the amount of earth that needs to be moved is not significant enough to trigger a grading permit.

Cannabis cultivation, especially during the flowering phase, may generate volatile compounds (terpenes) that some people find objectionable. No significant odor impacts are anticipated from this indoor cultivation operation, due to the small size of the cultivation operation, the setbacks from roads and property lines, and wind dilution/dispersal effects. All cultivation structures will be equipped with air filtration systems.

As part of the conditional use permit, project shall comply with Cannabis Ordinance no. 229-2019 and Section 18-43.060 of the Municipal Code.

- b) The City of Clearlake is in an attainment area of state and federal ambient air quality standards. However, the cumulatively considerable net increase of any criteria pollutant(s) for the project would be considered minimal. However, the cannabis cultivation, especially during the flowering phase, may generate volatile compounds (terpenes) that some people find objectionable.

No significant odor impacts are anticipated from this indoor cultivation operation, due to the small size of the cultivation operation, the setbacks from roads and property lines, and wind dilution/dispersal effects. As a condition of the use permits by the City, an air permit shall be obtained from the Lake County Air Quality Management District, as appropriate prior to building permit issuance.

- c) The nearest sensitive receptor(s) (residence, city parks, commercial use, school, i.e.) is greater than 0.25 miles from the project parcel. The project would not produce any substantial pollutant concentrations that would expose sensitive receptors. All fugitive dust will be controlled by wetting soils with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy, and by eliminating soil stockpiles.
- d) The project is not expected to adversely affect a substantial number of people. Odor control measures will be necessary for the operation and the applicant shall adhere to all Federal, State and local agency requirements, including all mitigation measures and conditions of approval.

According to the Air Quality Section of the "Project Plan"- prior to operation, a member of the staff will be assigned to handle all odor complaints. These individual(s) are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays. All property owners and residents within a 1,000-foot radius of the cannabis facility shall be provided with the contact information of the individual(s) responsible for responding to the odor complaints. The operation will also develop internal policies and procedures describing the actions to be taken when an odor complaint is received.

When an odor complaint is received, it will be forwarded to the manager responsible for odor control. The complaint will be logged, including the time and type of complaint, the location of the odor reception, and the contact information of the person submitting the complaint. The incident will be investigated, and the concern identified. The manager will visit the site or facility in question and determine any deficiencies in the odor control system (where applicable) and identify remedies. The manager will prepare a written response and send it by certified mail to the person who made the complaint. The correspondence should acknowledge the complaint, describe the incident, and identify what remedial actions were taken.

Section 18-43,060 of the Zoning Code indicates that all commercial cannabis operations to provide and maintain an odor control plan that requires that odors of cannabis cannot be readily detected from outside of the structure in which the permitted premises is located. The proposed odor control plan seems to acknowledge that odors could be detected outside the structure without significant enhancements, such as carbon filtering. The applicant will continue to adhere to all federal, State and local agency requirement pertaining to Air Quality management.

Air Quality Impact Evaluation:

- The project could result in an adverse Impact on air quality, but with proper mitigation measures incorporated into the project should result in a less than significant impact on aesthetics.

Mitigation Measures:

- **AIR-1: Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other**

methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.

- **AIR-2:** Driveways, access roads and parking areas shall be surfaced in a manner to minimize dust. Driveway approaches shall be constructed of concrete and built to minimum City of Clearlake standards.
- **AIR-3:** The burning of construction debris is prohibited. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.
- **AIR-4:** During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site (Dam Road).
- **AIR-5:** Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded.
- **AIR-6:** All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent odor control plan shall be submitted for review and approval by the City in accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times.
- **AIR-7:** An odor control plan shall be submitted for review and approval by the City that complies with the City's Zoning Code. Odor control shall be maintained at all times so that odor from cannabis operations on the site will not be detected outside structures. This plan shall include enhanced carbon filtering to compliance with the Code.

SECTION D: BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on state or federally regulated and/or protected wetlands 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?

☐☒☐☐

Discussion:

a - b, d.) A Biological Reconnaissance and Project Feasibility Assessment Report was prepared for parcel number 010-048-05 by: Naiad Biological Consulting dated January 9, 2021.

According to the Biological Reconnaissance and Project Feasibility Assessment was completed as a preliminary measure to investigate the potential impacts of cannabis cultivation within the established Study Area. The Study Area defined in this Report is located approximately 1.50 miles northeast of Clearlake, California in Lake County. The seasonal timing of the field visit did not fall within the blooming period of all rare and special status plant species, and there, due to the unknown presence of these species, a protocol-level botanical survey is to be completed at the seasonally appropriate times at the location defined to be suitable for project development (and 200 ft surrounding any area that is to be disturbed) before any project related activities take place. No sensitive or special-status vegetation was observed during the site visit nor will be removed within the project area.

This report describes an initial reconnaissance survey that assessed potential biological resource and present habitat. The Report was prepared as a preliminary measure to investigate the potential impacts of cannabis cultivation at the project parcel.

According to the report "A biological assessment, as defined by the United States Fish and Wildlife Service's (USFWS), is "information prepared by a qualified biologist to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of a species that are proposed for listing; or (3) adversely modify proposed critical habitat. A biological assessment is a specific document required under Section 7 of the Federal Endangered Species Act (FESA) when project actions have the potential to result in "may affect" determination," (USFWS: Endangered Species Glossary, 2020)"

Report Summary: According to the report no listed special-status plant species were observed during the field survey. However, the site visit occurred during a time which is not seasonally appropriate to observe all floristic species in bloom, therefore further protocol-level botanical surveys are needed prior to any ground disturbance activities associated with the proposed project occur.

Special Status Animals Species: The habitats investigated for presence and habitat requirements of special status animal species primarily consist of the habitats that were determined to be feasible sites for the development of cultivation sites, and therefore these species would have the potential to be impacted by proposed project activities.

According to A Biological Reconnaissance and Project Feasibility Assessment Report there were no special status habitats observed within the study area.

- **Western Bumblebee (*Bombus occidentalis*):** Due to the project areas habitat quality, and due to the abundant suitable habitat within the study area, it is unlikely that there would be a significant loss of nesting habitat as a result of project development. Therefore, it is unlikely that project development would result in a significant decrease in forage material and it is not anticipated that the project will negatively impact the Western Bumblebee.
- **Burrowing Owl (*Athene cunicularia*):** This species occupies grasslands, shrub steppes, and savannas. They also occur in other open areas such as agricultural lands, old fields, extensive forest clearings, airports, golf courses, and spacious residential zones. They live underground in burrows they've dug themselves or taken over from a prairie dog, ground squirrel, or tortoise. According to the report, no burrows were observed during the site visit. However according to the report, the species may. The surrounding suitable habitat will not be disturbed in anyway related to proposed

project activities and therefore this species is still capable of existing within the Study Area without a negative impact.

- **Northern Spotted Owl (*Strix occidentalis caurina*):** According to the report the habitat of the study area is not dominated by this forest, therefore it is not suitable for the Northern Spotted Owl.

Wetland Determination: According to the biological assessment no potential wetland features were identified during the site inspection.

Upon reviewing the Biological Resource Assessment with Botanical Survey all substantial adverse impacts, 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 have been reduced.

- c) According to the Biological Reconnaissance and Project Feasibility Assessment Report prepared by: Naiad Biological Consulting dated January 9, 2021, the project will not have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- e) The project will have minimal to no conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. However, the project may require the removal of a small cluster of vegetation/tress. Prior to vegetation/tree removal, the applicant shall obtain a Tree Removal Permit from the City of Clearlake and if Oak Trees are to be removed, they shall be replaced in accordance with Section 18-40.050 of the City Code.
- f) The project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. However, the project may require the removal of Oak Trees.

Biological Impacts Evaluation:

The project could result in an adverse Impact on biological resources, but with proper mitigation measures incorporated into the project in accordance with recommendations made in the project biological evaluation, the project should result in a less than significant impact on biological resources.

Mitigation Measures:

- **BIO-1:** Prior to development, a protocol-level botanical survey shall be completed within the location defined as being feasible for project activities to occur within this Report. The survey shall follow procedures recommended by CDFW and in accordance with the guidelines established by CNPS, from the document “*Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Opulations and Sensitive Natural Communities*”.
- **BIO-2:** If project development results in a sufficient amount of noise from the use of machinery, construction shall occur between September 1 and January 31 to avoid disturbance to migratory nesting birds or a buffer shall be established by a qualified biologist if nesting birds are present.
- **BIO-3:** If construction occurs within the migratory bird nesting season (February 1 and August 31), a qualified biologist shall conduct a nesting birds survey fourteen (14) days prior to project development, including vegetation removal.
- **BIO-4:** Prior to any ground disturbance, the applicant shall conduct a site inspection for Burrowing Owls Presence within the project area. If Burrow Owls are observed, a pre-construction surveys shall be completed by a qualified biologist fourteen (14) days prior to site development. The survey shall be conducted to determine if the project area has active dens and determine if avoidance of these active dens can occur. If active dens are determined to be present, owl relocation shall occur to other onsite suitable habitat prior to development
- **BIO-5:** If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and SFWS shall further analyze the potential impacts and provide technical assistance

for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the CDFW Survey and Monitoring Protocols and Guidelines, which can be located here: <https://www.wildlife.ca.gov/conservation/survey-protocols>

SECTION E: CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines?	☐	☒	☐	☐
c. Cause a substantial adverse change in the significance of a tribal cultural resources, 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:				
1. 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	☐	☒	☐	☐
2. 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 City shall consider the significance of the resource to a local California Native American tribe?				
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion:

(a - d) Cultural Resources Evaluation Report prepared by William Roop, Archaeological Resource Services, on January 16, 2021, determined that the project site does not show any evidence of the presence of significant cultural resources. This evaluation included a records search of other reports in the area, consultation with the Northwest Information Center, and a complete physical site survey of the property. California Government Code, Sections 6253 and 6254.10 authorizes state and local governmental agencies to exempt certain public records from inspection. Disclosure of archaeological site information is covered under this code. Because this report contains sensitive archaeological site location information, the City of Clearlake may only allow distribution of this report to qualified personnel.

Cultural Impacts Evaluation:

The project could result in an adverse Impact on cultural resources, but with proper mitigation measures incorporated into the project in accordance with recommendations made in the project cultural resources evaluation report, the project should result in a less than significant impact on cultural resources.

Mitigation Measures:

- **CUL-1:** During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of any built features or artifact-bearing deposits. Significant historic cultural materials may include finds from the late 19th and early 20th centuries including structural remains, trash pits, isolated artifacts, etc.
- **CULT-1:** The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.
- **CUL-3:** If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", which parties agree will likely be the Koi Nation based upon the Tribe's ancestral ties to the area and previous designation as MLD on projects in the geographic vicinity. The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98.

SECTION F: ENERGY	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Consume energy resources in a wasteful, inefficient, or unnecessary amount during project construction and/or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion:

- a) An energy usage plan is included in the Business Operation Plan which indicates that the project will use a mixture of full sun/outdoor cultivation, mixed light, and indoor cultivation. The property will likely be provided by solar power energy source; however, PG&E is likely proposed depending on feasibility. Use of electricity provided by PG&E for indoor cannabis cultivation may require a commercial/agricultural account. When indoor cultivation operations are initiated, this Energy Use subplan should be updated, and energy calculations performed. Approximately (16) 1,000-watt fixtures will be installed across the two greenhouses (approximately under 25 watts per square foot). For the outdoor cultivation operation, a small solar-powered electrical system may be installed to power low voltage items such as security cameras, and water pumps for drawing groundwater and mixing liquid fertilizers into the irrigation systems.
- b) The project would not conflict with or obstruct an energy plan. The proposed use would adhere to all Federal, State and local agency requirements.

Energy Impact Evaluation:

The project is not anticipated to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The project will adhere to all Federal, State and local agency requirement regarding energy consumption.

SECTION G: GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
b. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	☐	☐	☒	☐
c. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
d. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	☐	☐	☒	☐
e. Result in substantial soil erosion or the loss of topsoil during project construction and/or operation?	☐	☐	☒	☐
f. 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐

g. 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?	☐	☐	☒	☐
h. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐
i. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Discussion:

- a) Like much of California, the City of Clearlake is subject to seismic activity, although the risk associated with seismic hazards is low, due to the distance between developed areas and active earthquake faults. The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones by the California Department of Conservation, Geological Survey along sufficiently active and well-defined faults. The purpose of the Act is to restrict construction of structures intended for human occupancy along traces of known active faults. Alquist-Priolo Zones are designated areas most likely to experience surface fault rupture, although fault rupture is not necessarily restricted to those specifically zoned areas (a - d)
- Earthquake Faults - There are no mapped earthquake faults on or adjacent to the subject site.
- b) Seismic Ground Shaking and Seismic-Related Ground Failure, including liquefaction: The project property does not contain any mapped unstable soils. It appears unlikely that ground shaking, ground failure or liquefaction will occur on this property in the future.
- c) Landslides: There is little to no risk of landslides based on the parcel's slope, which has an average cross slope of less than 10-15%. Additionally, all development will adhere to all Federal, State and local agency permits, including all Mitigations Measures and Conditions of Approval imposed on such project.
- d) According to the soil survey of Lake County, prepared by the U.S.D.A, the soil within the project area includes the following:
- **Phipps Complex, 30-50% slopes (soil unit 197):** This map unit is on uplifted, dissected hills. These soils are susceptible to slumping and gullyng. This soils classification is very deep, well drained and has a slow permeability. The average water capacity is 6.0 to 12 inches, with rapid runoff and the hazard for erosion is severe. The shrink well potential is high.
 - **Wolf-creek, Gravelly Loam, 0-2% slopes (soil unit 246):** This map unit is very deep, well drained soils which are generally located within flood plains. This soils classification has a slow permeability with an average water capacity of 7.5 to 10 inches. This soils classification is subject to rare period of flooding during prolonged high intensity storms. Surface runoff is very slow, and the hazard of erosion is slight.
- e) According to the soil survey of Lake County, prepared by the U.S.D.A., the soil at the site is considered "generally stable" and there is little to no potential for landslide, subsidence, debris flows, liquefaction or collapse. The applicant shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. The project shall adhere to all Federal, State, and local agencies requirements.
- f) According to the soil survey of Lake County, California prepared by the U.S.D.A, the soils discussed above in Section has a shrink-swell potential varies from "low to "high," and will not directly or indirectly cause substantial risk to life. The applicant shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent

and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. The project shall adhere to all Federal, State, and local agencies requirements.

The project is not anticipated to result in substantial soil erosion or the loss of topsoil. However, it may be necessary to grade approximately +/- 3,000 cubic yards of soil for project development. All disturbance will occur onsite and no soil will be exported and/or imported. The applicant shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. The project shall adhere to all Federal, State, and local agencies requirements.

- g) The project is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). Therefore, it will not create substantial direct or indirect risks to life or property.
- h) The operation will apply, obtain and adhere to all applicable Federal, State and local agency requirements regarding the installation and/or use of onsite waste management systems (septic tanks) or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.
- i) Refer to Cultural/Tribal Resource Section.

Evaluation of Soils and Geologic Impacts:

The project could result in an adverse Impact on geologic resources, but with proper mitigation incorporated into the project it should result in a less than significant impact on cultural resources.

Mitigation Measures:

GEO-1: The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.

SECTION H: GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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:

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). California has passed Assembly Bill 32, mandating a reduction in greenhouse gas (GHG) emissions and Senate Bill 97, evaluating and addressing GHG under CEQA. On April 13, 2009, Governor's Office of Planning and Research (OPR) submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for

GHG emission, as required by Senate Bill 97 {Chapter 185, 2007} and they became effective March 18, 2010. As a result of these revisions to the CEQA Guidelines, lead agencies are obligated to determine whether a project's GHG emissions significantly affect the environment and to impose feasible mitigation to eliminate or substantially lessen any such significant effects.

- a) In general, greenhouse gas emissions can come from construction activities (operation of equipment), from post-construction activities (manufacturing, vehicle trips, etc.) and the day-to-day operations of the facility. The project is located off of State Route 53 which is a heavily travelled road daily for commercial and residential uses. The hours of operation will be Monday through Sunday 8am to 5pm. All traffic will only enter and exit the property heading in the northbound direction until sufficient improvements are made to the entryway in coordination with Caltrans. According to the applicant, the operation is anticipated to generate the following vehicle trips per week. There will be +/- 1 distribution and/or commercial trips per week (depending on the season). The type of vehicles to be used will be approximately two (2) - Ford Transit Van (4400 lbs.) and 2014 Isuzu reefer truck (12000 lbs.)
- The applicant is anticipated to have up to 6 employees (or thirty per week). The estimated trips per employee is +/- 2 per day (+/- 84 per week).

Based on the anticipated trips for the proposed use the levels of greenhouse gasses emitted are not anticipated to be excessive and would not require intensive use of heavy equipment, and as such, would not degrade air quality or produce significant amounts of greenhouse gasses. Therefore, the operation would not generate a significant number of vehicle trips. The applicant shall adhere to all Federal, State and local agency requirements.

- b) This project will not conflict with any adopted plans or policies for the reduction of greenhouse gas emissions. The City of Clearlake is within an 'air attainment' basin. In accordance with the requirements of the Lake County Air Quality Management District, an air permit will be required as a condition of the use permit, prior to issuance of a building permit for the project.

Evaluation of Greenhouse Gas Emissions Impacts:

- Project is not expected to generate significant adverse amounts of greenhouse gas so the project is expected to result in a less than significant impact.**

SECTION I: HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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. Substantially physically interfere with the City's designated evacuation routes? | ☐ | ☐ | ☐ | ☒ |
| f. Expose people or structures, either directly or indirectly, to significant risk of loss, injury, or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

Discussion:

- a) Hazards are those physical safety factors that can cause injury or death, and while by themselves in isolation may not pose a significant safety hazard to the public, when combined with development of projects can exacerbate hazardous conditions. Hazardous materials are typically chemicals or processes that are used or generated by a project that could pose harm to people, working at the site or on adjacent areas. Many of these chemicals can cause hazardous conditions to occur should they be improperly disposed of or accidentally spilled as part of project development or operations. Hazardous materials are also those listed as hazardous pursuant to Government Code Section 65962.5.
- b) Lists of hazardous materials are maintained by federal and state agencies and are available for public review. The US Environmental Protection Agency (USEPA) maintains a database of hazardous materials as well as radiological materials as part of its RCRA Info database (USEPA, 2018). The State of California Department of Toxic Substances Control (DTSC) maintains a list of hazardous substances and contaminated sites as part of its Envirostor database (DTSC, 2018), as well as other hazardous and waste sites being overseen by the various State Water Resources Control Board which are inventoried in their Geotracker database (SWRCB, 2018). These databases are available to the public for review. No hazardous facilities or sites have been documented to be present at the project site, however, the site formerly contained an underground fuel storage tank (UST) that was identified as part of the State of California Leaking Underground Storage Tank (LUST) program. Documentation on the Geotracker data base indicates that this is a "Closed Case" meaning that the site has been cleaned up or remediated and a hazard or contamination from this case no longer exists.

Materials associated with the operation, such as gasoline, diesel, carbon monoxide, pesticides, fertilizers, and the equipment emissions may be considered hazardous if released into the environment. All hazards and hazardous materials will be stored in accordance with all Federal, State, and local agency requirements. Routine construction materials and all materials associated with the operation shall be transported and disposed of properly in accordance with all applicable Federal, State, and local regulations.

The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. All chemicals, pesticides, fertilizer, and other materials associated with the operation shall adhere to all Federal, State, and local agency requirements. As noted in the December 10, 2020 memorandum from Lake County Environmental Health, clearances will need to be obtained for hazardous material storage and handling. This will be a requirement of the use permit and building permit.

- c) The proposed project is not located within one-quarter mile of an existing or proposed school.
- d) The project site is not listed as a site containing hazardous materials in the databases maintained by the Environmental Protection Agency (EPA), California Department of Toxic Substance, and Control State Resources Water Control Board.
- e) The project would not impair or interfere with an adopted emergency response or evacuation plan. The project has been reviewed by the City of Clearlake Public Works/Roads Department, City of Clearlake Engineer, Lake County Fire Protection District, CalFire and the CA Department of Transportation (Caltrans) for consistency

with access and safety standards. Additionally, the operation shall adhere to all Federal, State, and local agency requirements.

- f) The project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires as it is located in a “*Low to Moderate*” Fire Hazard Severity Zone and within the Lake County Fire Protection District. The project was circulated for review to various agencies, include but not limited to City Engineer, City of Clearlake Police Department, City of Clearlake Building Official/Inspection, Lake County Fire Protection District and the California Department of Transportation (Caltrans). During the project review, no adverse comments were received. The application shall adhere to all current Federal, State, and local agency requirements, including all mitigation measures and conditions of approval imposed on such use.

Hazards and Hazardous Materials:

The project could result in an adverse Impact with regards to hazardous material, but with proper mitigation measures incorporated into the project, the project should result in a less than significant impact on cultural resources.

Mitigation Measures:

- **HAZ-1:** If the project involves storage of hazardous materials equal or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas the applicant will be required to submit a Hazardous Materials Inventory Disclosure Statement/ Business Plan to the Environmental Health Division via the California Electronic Reporting System. This plan shall be renewed and updated annually or if quantities increase.
- **HAZ-2:** If the amount of hazardous materials is less than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, the applicant will need to complete and submit a Hazardous Materials/ Waste Declaration stating the name of the material and the quantity to be stored on site.
- **HAZ-3:** Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site.
- **HAZ-4:** Industrial Waste shall not be disposed of on-site without review or permit from the Environmental Health Division or the Regional Water Quality Control Board.
- **HAZ-4:** Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.

SECTION J: HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 onsite or offsite? | ☐ | ☐ | ☒ | ☐ |
| d. 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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite? | ☐ | ☐ | ☒ | ☐ |
| e. 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 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of pollutant runoff? | ☐ | ☐ | ☒ | ☐ |
| f. 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 impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| g. Be located in a flood hazard zone and risk the release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |
| h. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

Discussion:

- a) According to the Project Application material submitted by the applicant; the cannabis will be grown in above ground pots/boxes within the greenhouses. The operation will be provided water through the existing onsite well located in the northern portion of the project parcel. The water then will be pump and stored in one (1) 25,000-gallon water storage tank. The applicant will also install one (1) 5,000- or 10,000-gallon water storage tank for fire suppression. The water will then be pump for the water storage tanks to the operations infrastructure. All cultivation areas are located at least 100 feet from the top of bank of any known perennial and/or season waterway.

To control runoff, the operation will incorporate appropriate Best Management Practices (BMPs) consistent with City code and State Storm Water Drainage Regulations to the maximum extent practicable to prevent or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements.

Therefore, the proposed operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Additionally, the applicant shall adhere, obtain and maintain all necessary federal, state and local agency permits.

- b) The operation would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. See Response to Section "(a)" Hydrology and Water Quality above.

- c - f.) The proposed development may alter the existing drainage pattern of the site or the area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that may cause erosion issues, increase the amount of runoff or create or contribute runoff which exceeds the capacity of the existing or planned storm water drainage system. However, the grading is anticipated to be less than +/- 3,000 cubic yards and Best Management Practices (BMPs) which include which may include the placement of straw, mulch, seeding, straw wattles, and silt fencing and planting of native vegetation on all disturbed areas to prevent erosion. All BMPs shall be routinely inspected and maintained for life of the project. Additionally, the project is located greater than 100 feet from any known water source. The applicant shall adhere to all Federal, State and local agency requirements.
- g) The project site is not located in an area of potential inundation by seiche or tsunami nor is the area to be developed within a known flood zone. The soils at the project site are generally stable; therefore, is minimal potential to induce mudflows.
- h) The project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Evaluation of Hydrology and Water Quality Impacts:

- **Project is expected to result in less than significant impacts on Hydrology and Water Quality.**

SECTION K: LAND USE AND PLANNING	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established neighborhood or community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation or applicable goal or policy from the City of Clearlake General Plan that was adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion:

- a) The project is located in the outskirts of the City limits, and in close proximity to the County of Lake's Jurisdiction. The surrounding development included but is not limited to commercial/industrial development and rural residential development. Therefore, the project will not physically divide an established community.
- b) The "SC" Scenic Corridor Combining District and "CB" Commercial Overlay Zoning District with allows cannabis operation upon securing a Use Permit Pursuant to the City of Clearlake Code. Additionally, the California Department of Food & Agriculture (CDFA) is responsible for licensing and regulation of cannabis cultivation and enforcements defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) and CDFA regulations related to cannabis cultivation. The applicant is required to obtain a license from the CDFA prior to legal cultivation occurring. Upon issuance of the Use Permit, pursuant the City of Clearlake Code and with the incorporated Mitigation Measures and conditions of approval, including obtaining all necessary federal, state and local agency permits the project would not conflict with any land use plan or policy intended for avoiding or mitigation an environmental effect

The proposed operation will not conflict with the City General Plan, any applicable habitat conservation plan or natural community conservation plan.

Evaluation of Land Use Impacts:

Project is expected to result in less than significant impacts on land use.

SECTION L: MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
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:

a - b.) The operation would not result in the loss of a known mineral resource or a locally important mineral resource recovery site delineated on a local general plan, specific plan or other plan or would be of value to the region and the residents of the state.

Evaluation of Mineral Resources Impacts:

- Project is not expected to result in any impact on mineral resources.

SECTION M: NOISE AND VIBRATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Generate construction noise levels that exceed the Noise Ordinance exterior or interior noise standards at residential properties during the hours that are specified in the City's General Plan Noise Element?	☐	☐	☒	☐
b. Generate a substantial temporary (non- construction) or permanent increase in noise levels at existing sensitive receptors in the vicinity of the project site?	☐	☐	☐	☒
c. Generate excessive ground borne vibration?	☐	☐	☐	☒

Discussion:

- Short-term increases in ambient noise levels to uncomfortable levels may be expected during project development, and routine maintenance of the project parcels. There will be vehicles entering and exiting the project premises, however these noise levels are minimal as Highway 53 is a heavily travelled road commercial and residential. The applicant shall adhere to all Federal, State, and local agency requirements regarding noise standards.
- The project is not expected to generate substantial temporary (non- construction) or permanent increase in noise levels at existing sensitive receptors in the vicinity of the project site.
- The project is not expected to create unusual ground-borne vibration due to site development or operation. The low-level truck traffic would create a minimal amount of ground-borne vibration.

Evaluation of Noise and Vibration Impacts:

The project will not result in any significant adverse noise impacts as long as the following mitigation measures are followed:

Mitigation Measures:

- **NOI-1:** All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents.
- **NOI-2:** Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.
- **NOI-3:** During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration.

SECTION N: POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly or indirectly?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

- The project would increase employment in the area that might Induce some increased population growth, however, this growth would be negligible and not induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure.
- The operation would increase some employment, but this would not displace a substantial number(s) of existing people or housing, necessitating the construction of replacement housing elsewhere.

Evaluation of Population and Housing Impacts:

Project is not expected to result any impacts on population or housing.

SECTION O: PUBLIC SERVICES AND RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered	☐	☐	☒	☐

government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services?

- Fire Protection
- Police Protection
- Schools
- Parks
- Other Public Services

- b. 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? ☐ ☐ ☐ ☒
- c. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ☐ ☐ ☐ ☒

Discussion:

a - c.) The project does not propose housing or other uses that would necessitate the need for new or altered government facilities. There will not be a need to increase fire or police protection, schools, parks or other public facilities as a result of the project's implementation.

Fire & Police Protection: The project parcel has adequate fire and police protection services through the Lake County Fire Protection District and the City of Clearlake Police Department. In their letter of December 12, 2020, the Lake County Fire Protection District, who services this property, indicated that the project would require compliance to several public safety code, including Installation and maintenance of water storage tanks. As a condition of the project and the building permit, all requirements of the District shall be complied with. In addition, the project shall pay all fees to the Fire District, including development Impact fees to address cumulative impacts on the District.

Schools: The project will not result in substantial adverse impact(s) on the local school district.

Parks: The project will not result in substantial adverse impact(s) on the local parks.

Other Public Facilities: The project is will not result in substantial adverse impacts on other public facilities

Evaluation of Public Service Impacts:

- Project is expected to result in less than significant impacts on public services.

SECTION Q: TRANSPORTATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a 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(b) for the reduction of vehicle miles travelled (VMT)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

Discussion:

- a) The project site is accessible from a legal accessway located off of Highway 53, which is maintained by the Department of Transportation (Caltrans). The project has been reviewed by Caltrans. Caltrans District 1 letter dated February 5, 2021, indicated some concerns with traffic safety with the Increased use of the driveway on Highway 53. They also mentioned concerns with increased vehicle trips and associated air quality impact, even suggesting installation of an electrical vehicle charging station.

However, after City staff met with Caltrans District 1 staff, an email of February 24, 2021, indicated that Caltrans concurred that the project would not result in significant traffic Impacts as long as a commercial driveway is constructed to Caltrans standards. Caltrans also suggested that the project explore the development of a second access via Ogulin Canyon Road in the event additional trips are generated beyond those contemplated here. As a condition of the use permits for this project, the City will require that an encroachment permit be secured from Caltrans and that all driveway and circulation Improvements associated with this permit be complete prior to project occupancy.

The project would cumulatively increase traffic levels on Highway 53 and in the area. In accordance with Chapter 3-8 of the Municipal Code, Development Impact Fees, the project will be required to pay traffic Impact fees to off-set the cumulative traffic impacts the project will have on the City.

- b) The project is expected to generate an average of +/- 1 distribution and/or commercial trips per week (depending on the season). The type of vehicles to be used will be approximately two (2) - Ford Transit Van (4400 lbs.) and two (2) 2014 Isuzu reefer truck (12000 lbs.)

The operation will have up to six (6) employees (or 30 per week). The average trips per week for the employees is expected to be +/- 2 per day (+/- 84 per week). The facility will be open for delivery and pick-ups Monday through Sunday, 8:00 AM to 5:00 PM.

Additionally, due to the rural nature of the site and Lake County in general, it is not common for one to travel 20+ miles to complete routine business. Therefore, the project would not be conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). As noted In Subsection a above, Caltrans reviewed the project and concurs with the conclusion that the project will not result in a significant adverse impact in this category.

- c) The project will improve the existing access located off Highway 53 to Commercial Driveway Standards which meets the California Department of Transportation (Caltrans) minimum standards. The applicant will obtain all the necessary Federal, State and local agency permits for any works that occurs with the right-of-way. Therefore, the project will not substantially be increased hazards due to design features.
- d) The project will not result in adequate emergency access. The project will improve the existing access located off Highway 53 to Commercial Driveway Standards which meets the California Department of Transportation (Caltrans) minimum standards. The applicant will obtain all the necessary Federal, State and local agency permits for any works that occurs with the right-of-way.

Evaluation of Transportation Impacts:

Project is expected to result in less than significant transportation impacts as long as the project constructs driveway improvements subject to Caltrans requirements.

Mitigation Measure:

- TRAN-1: Improvements shall be made to the project access off of Highway 53 as required by the California Department of Transportation (Caltrans). Encroachment permit shall be secured from Caltrans and verification of this permit submitted to the City prior to the City approving a building permit for the project. All access improvements shall be made to comply with the Caltrans Encroachment Permit prior to occupancy of any new development for the project as approved by the City.

SECTION R: UTILITIES AND SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a. Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
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. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion.

- The operation will not result in the relocation or expansion of existing infrastructure. However, it will require the installation of an onsite waste management system (septic) prior to operation. All onsite infrastructure shall adhere to all Federal, State and local agency requirements. All power utilities will be connected to PG&E infrastructure. The applicant shall adhere to all Federal, State, and local agency requirements.
- The project will not exacerbate wildfire risks and/or expose persons to pollutant concentrations in the event of a wildfire in the area. Additionally, the applicant will adhere to all Federal, State and local fire requirements/regulations, including all mitigation measure and/or conditions of approval imposed on such use.
- The project parcel will have adequate onsite wastewater treatment system (septic) upon installation. All on-site infrastructure shall adhere to all Federal, State and local agency requirements. All power utilities will be connected to PG&E infrastructure. The applicant shall adhere to all Federal, State, and local agency requirements. The applicant will connect a private/public sewer system if available. Additionally, the applicant may have temporary portable restroom made available.

- d) The project shall adhere, comply with, obtain and maintain all federal, state and local agencies permits regarding to solid waste. All waste shall be handled in accordance with all Federal, State and local agency requirements and brought an authorized facility to take such waste.
- e) The local landfills have the capacity to accommodate the project's solid waste disposal needs. The project shall adhere to all Federal, State and local agency requirements regarding the transportation and the disposal of waste. All hazardous materials/waste shall be transferred to an authorized facility to take such waste.

SECTION S: WILDFIRE	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
If located in or near areas or lands classified in the City of Clearlake's General Plan Safety Element as very high or high fire hazard severity zones, would the project:				
a. Substantially impair an adopted 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 and 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:

- a) The project is located in a "Low to Moderate" Fire Hazard Severity Zone and within the Lake County Fire Protection District. The majority of the site is free and clear of vegetation, except for the outer boundaries of the project area. A small cluster of trees will be removed for project development. The project was circulated for review to various agencies, include but not limited to City Engineer, City of Clearlake Police Department, City of Clearlake Building Official/Inspection, Lake County Fire Protection District and the California Department of Transportation (Caltrans). project shall comply with Federal, State and local agency requirements.
- b) The project will not exacerbate wildfire risks and/or expose persons to pollutant concentrations in the event of a wildfire in the area. Additionally, the applicant will adhere to all Federal, State and local fire requirements/regulations, including all mitigation measure and/or conditions of approval imposed on such use.
- c) All infrastructure will be routinely maintained to ensure all Federal, State, and local agency requirements are being satisfied, including all necessary City Codes and/or regulations. Additionally, prior to operation the applicant(s) will make all necessary improvements to the project site, such as access/roadways, fuels breaks, and emergency water source/water tanks.
- d) The project area to be developed is not located within the vicinity of known waterways nor is it located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to this project.

Evaluation of Wildfire Impacts:

Project is expected to result in less than significant impacts on wildfire safety.

SECTION T: MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation	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 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/Evaluation:

Based on the review of the proposed project site and surrounding area, appropriate mitigation measures were identified to mitigate potentially significant impacts to a level below adversity for Air Quality, Cultural Resources, Hazards & Hazardous Materials, Hydrology/ Water Quality, Traffic Circulation, and Tribal Cultural Resources. Assuming implementation of the identified measures and standard conditions of project approval of the City of Clearlake and other pertinent agencies, no adverse impacts are anticipated.

AGENCY COMMENTS

SEE NEXT PAGE

Agency Response Letters:

**LAKE COUNTY FIRE PROTECTION
DISTRICT**

14815 OLYMPIC DRIVE, CLEARLAKE,
CALIFORNIA 95422

707-994-2170 PHONE 707-994-4861 FAX

12/12/2020

To: City of Clearlake Planning department

From: Fire Marshal – Cory Smith

RE: Use permit applications UP 11-20, 12-20, and 13-20 for a cannabis operation located at 2560 Highway 53.

After review of the proposed application, Lake County Fire Protection District will require the following but not be limited to.

- Any new building constructed in excess of 1,000 sq. ft is required to be sprinklered and have a fire alarm. Green houses are exempt from fire sprinkler coverage.
- Submit (3) detailed plans that explains walls, doors, electrical, exiting, etc. Fire storage water tanks, electric gates, fire sprinkler with fire alarm plans will also need to be included.
- Provide 4290 and 4291 PRC codes for emergency vehicles.
- Knoxbox or knoxbox over ride at the entrance of property.
- Storage water tanks are required to be installed to NFPA 22 standard.

All fees with plan approval are required prior to construction and occupancy. Fees also include inspections.

DEPARTMENT OF TRANSPORTATION

DISTRICT 1

P O BOX 3700
EUREKA, CA 95502-3700
PHONE (707) 684-6889
FAX (707) 441-6314
TTY 711
www.dot.ca.gov/dist1



*Making Conservation
a California Way of Life.*

February 5, 2021

Mark Roberts
Principal Planner
City of Clearlake, Planning Dept
14050 Olympic Drive
Clearlake, CA 95422

Gustafson Cannabis project
1-LAK-53-4.756-4.88
UP 11-20

Dear Mr. Roberts:

Thank you for the opportunity to comment on the proposed Gustafson Use Permit request (UP 11-20) to develop a commercial cannabis operation at the 15.4-acre, undeveloped subject property located at 2560 State Route 53, APN 010-048-050, in the City of Clearlake, Lake County (LAK-53-4.756-4.88).

This rural property is zoned heavy service commercial/light industrial (C4-SC) and is within the City's commercial cannabis business (CB) combining district. The project requires a use permit and development agreement for proposed cannabis cultivation, manufacturing, processing and distribution uses and development. The project proposes to develop a 50,000-sf building with indoor cultivation and processing facilities, offices, storage, a future greenhouse site, ±26 parking spaces fencing and utilities. The project description states that business will operate 7 days/ week with 6 employees and generate ±84 employee vehicle trips and 1-2 truck deliveries per week.

The property is located on the east side of State Route (SR) 53, a segment of two-lane, access-controlled expressway. Property access to the highway is via a single driveway, located about 400 feet south of the Old Highway 53/SR 53 intersection.

The proposed commercial project will increase vehicle trips from the parcel to well above current (negligible) levels. The project is proposed to be developed in phases, and the application states that future development and permits are planned. We request consultation with City staff regarding any future development, beyond what is proposed for this Use Permit. We have the following project comments:

Traffic Safety

Our review of the project indicates that the potential trips generated by the project could be significantly greater than identified in the application. A summary of our estimates and comments will be provided in an attachment to follow.

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February 5, 2021
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- As the project is on access-controlled highway, there could be potential issues regarding access for future development. From GIS mapping, the driveway on the property extends through the parcel and appears to connect to a road that joins Ogulin Canyon Road. Please verify if the subject property connects to this road, and if the applicant has rights of access, as a potential secondary access for the project. If feasible, we recommend that this second access be developed for the project (and for future development/expansion) to access the parcel via the existing public street network (likely Ogulin Canyon Rd.). This would be more consistent with corridor plans for SR 53, as part of the Principal Arterial freeway/expressway route. As noted, the parcel has a legal 20-foot deeded access opening, an "agricultural field approach," likely originally included for the purpose of occasional agricultural activities. The existing driveway is a paved, gated approach. If the current access opening is to be used for the project, it will need to be upgraded to meet Caltrans standards. The project developer has indicated that this access will be used only as a right turn in/out, and will remain a gated access with a limited number of trips. We recommend that these features be required as conditions of approval, should this opening be used as access for the project.
- If development of other access, via the existing public road network, is infeasible, we recommend the City require the applicant to improve the existing road approach to State Route 53 as a project condition. The current driveway does not meet Caltrans minimum standards and needs to be brought up to our current Highway Design Manual standards for a commercial driveway, with a 20-foot throat width. Since a 20-foot access was typically granted for use only by 1 to 3 residential units and/or used for traditional agricultural activities, and a commercial access typically requires at least a 30-foot opening in access control, we request that any additional proposed future development/use, beyond that described in this current permit application, include additional review and potentially additional requirements by Caltrans. To assist the applicant in submitting a compliant design for the SR-53 driveway, please refer to the Caltrans Encroachment Permits Manual, Appendix J, Road Connections and Driveways. The Manual may be viewed here: <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/encroachment-permits/appendix-j-ada.pdf>.

Encroachment Permits

- Any work within Caltrans right of way will require an encroachment permit from Caltrans. Permits to construct, upgrade, own, and operate road approaches to the state highway system are issued to the individual or legal entity with ownership rights of that road approach. Proof of ownership/easement must be submitted with the application for a permit. If there is no ownership/easement rights, then the applicant may, with the property owner's written permission, apply for a permit on behalf of the owner as an authorized agent of the property owner.

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to enhance California's economy and livability"*

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- To streamline the process, we require the applicant arrange and participate in a pre-submittal meeting with the Caltrans encroachment permits staff, prior to application submittal. For more information or to request an encroachment permit, please contact the Ukiah permits office at 707-463-4743, and refer to this website: <https://dot.ca.gov/programs/traffic-operations/ep>.
- Please be advised that a permit application deposit of \$820 and performance bond of \$20,000 (due prior to permit issuance) will be required to process the permit application.

Additional Comments

- The application and plans show the greenhouse site to be a future phase, and that future permits are planned. Please confirm that we have received the full plan or extent of development phases and buildout for the property, to ensure that there are no issues of potential segmenting relating to the project, and that appropriate mitigation is included with the project
- Does the City have plans (specific plans, master plans) or projects relating to the future development of properties along this segment of SR 53? We noticed that the neighboring parcel south of the subject property on Route 53 is similarly sized and zoned for commercial/industrial and cannabis uses. Caltrans would like to be included in discussions relating to the planning and development projects along access-controlled highway areas, to help coordinate and address access issues and alternative options.
- In conformance with SB743, we recommend that projects include and identify measures to reduce traffic impacts and address Vehicle Miles Travelled and GHG emissions, such as bike parking, providing EV charging stations, use of electric delivery vehicles, shuttles, identify nearby transit, or other elements.

We may have some additional comments, likely to be sent next week. Please contact me with any questions about the comments in this letter at saskia.rymer-burnett@dot.ca.gov.

Thank you,

Saskia Rymer-Burnett

SASKIA RYMER-BURNETT
Caltrans District 1
Transportation Planning

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Sent: Thursday, February 18, 2021 11:48 AM

To: Mark Roberts <mroberts@clearlake.ca.us>

Cc: Gronemeyer, Brett A@DOT <brett.gronemeyer@dot.ca.gov>; Jackman, Rex A@DOT <rex.jackman@dot.ca.gov>

Subject: Caltrans comments: Gustafson cannabis project at 2560 SR 53, Clearlake

Hello Mark,

I wanted to get back to you regarding additional information that Caltrans planned to submit for this project. My apologies for the delay. I hope you received the voicemail I left at your planning office regarding this matter.

In our letter, dated February 5, 2021, (page 1 under “Traffic Safety”) Caltrans stated that trips generated by the project could potentially be greater than estimated in the permit application, and that we would provide additional information. Our Traffic Safety division did further review of the project and its land uses, and found that the project is not likely to generate significant traffic volumes. Therefore, we are not submitting any further information. Please see Traffic Safety’s comment:

Upon further review of the trip generation information provided by the applicant, we have determined that no additional mitigation, beyond improving the driveway width to match the 20-foot opening in the access control, and bringing it up to Caltrans current standards for a commercial driveway, are needed. We concur with the remaining comments in the letter to the City dated February 5, 2021, and the applicant’s own restriction of limiting ingress/egress to right turn-in/right turn out only. Please note the above comments (noted here), including those in the 2/5/2021 letter, only pertain to permitting the activities described in the applicant’s permit application and correspondence. Any use exceeding those described in the application or correspondence, including number of employees and deliveries per week, will require further review by Caltrans and may trigger additional mitigation requirements. As mentioned in the (2/5/2021) letter, we highly encourage the applicant to explore development of a second access via Ogulin Canyon Road, in the event the site generates more trips than originally estimated, or if they wish to expand their operations.

If you have questions, please feel free to contact me, or Brett Gronemeyer of the Traffic Safety division at, brett.gronemeyer@dot.ca.gov.

Thank you,

Saskia Rymer Burnett

Caltrans District 1 - *Working remotely.*

Transportation Planning

Work Cell (707) 684-6889

Cell: (707) 499-6871

saskia.rymer-burnett@dot.ca.gov

RE: DCR UP Gustafson Commercial Cannabis UP 11-20, 12-20, 13-20

Lori Baca <Lori.Baca@lakecountyca.gov>

Thu 12/10/2020 3:00 PM

To: Susanna Amaro-Gutierrez <sgutierrez@clearlake.ca.us>

Susanna,

Parcel 010-048-050 is outside of any Special Districts service area and UP 11-20 will have no impact.

Lori A. Baca

Customer Service Coordinator

Lori.Baca@lakecountyca.gov

Office Number (707) 263-0119

Fax (707) 263-3836



From: Susanna Amaro-Gutierrez [mailto:sgutierrez@clearlake.ca.us]

Sent: Tuesday, December 8, 2020 6:35 PM

To: Andrew White <awhite@clearlakepd.org>; swartz@cecusa.net; Dave Deakins <ddeakins@clearlake.ca.us>; Lee Lambert <llambert@clearlakepd.org>; swartz@cecusa.net; Fahmy Attar <FahmyA@lcaqmd.net>; Doug Gearhart <doug@lcaqmd.net>; Tina Rubin <Tina.Rubin@lakecountyca.gov>; Kelli Hanlon <Kelli.Hanlon@lakecountyca.gov>; Lori Baca <Lori.Baca@lakecountyca.gov>; a.tyler@elemindiancolony.org; a.garcia@elemindiancolony.org; speterson@middletownrancheria.com; mshaver@middletownrancheria.com; Cory Smith <CSmith@lakecountyyfire.com>; Dino Beltran <dbeltran@koination.com>; kn2@koination.com; Doug Gearhart <doug@lcaqmd.net>; Jackman, Rex A@DOT <rex.jackman@dot.ca.gov>; james.shupe@dot.ca.gov; kyle.stoner@wildlife.ca.gov; nwig@sonoma.edu; jeff@highlandswater.com; rick@highlandswater.com; cdfa.CalCannabis_Local_Verification@cdfa.ca.gov; MCLS.LocalRelations@cdph.ca.gov; kevin.ponce@cdfa.ca.gov

Cc: Alan Flora <aflora@clearlake.ca.us>; Mark Roberts <mroberts@clearlake.ca.us>

Subject: [EXTERNAL] DCR UP Gustafson Commercial Cannabis UP 11-20, 12-20, 13-20

Good Evening,

The City of Clearlake would like to request your review of use permit applications UP 11-20, 12-20, and 13-20 for a cannabis operation located at 2560 Highway 53 in the C4 Heavy Service Commercial - Light Industrial zone and the Scenic Corridor and Commercial Cannabis overlay districts. Please refer to the attachment for further information in addition to the summary below:

The applicant, Joey Gustafson is requesting approval of a use permit to operate a commercial cannabis operation involving cultivation, processing, and a delivery-only dispensary. The City recently removed the limit on the amount of cultivation, manufacturing, distribution, testing laboratory, nursery, processing, and delivery-only dispensary permits within the existing commercial cannabis combining district. The commercial operation, which requires a use permit, regulatory permit, and a development agreement, would consist of the following:

- A proposed 20,000 square foot indoor cultivation facility
- 10,000 square foot processing facility
- 36,000 square feet of hybrid greenhouses (18,000 feet each)
- A proposed parking lot/trash enclosure area



COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1164
FAX 707/263-1681

Denise Pomeroy
Health Services Director

Gary Pace, MD, MPH
Health Officer

Craig Wetherbee
Environmental Health Director

MEMORANDUM

DATE: December 10, 2020
TO: Susanna Amaro-Gutierrez, Assistant Planner
FROM: Tina Dawn-Rubin, Environmental Health Aide
RE: UP 11-20 use permit
Commercial Cannabis
APN: 010-048-05 2560 Highway 53, Clearlake

Lake County Division of Environmental Health (EH) has on file for the subject parcel:
APN: 010-048-05— a 1999 well permit WE 1697 for an agricultural well.

The applicant must meet the EH requirements regarding Onsite Wastewater Treatment System (OWTS) and potable water.

For any proposed building permits or projects where the parcel is serviced by an OWTS or well, the applicant may need to demonstrate the location of any proposed or existing structures including residential or commercial dwellings, garages, driveways, shed, barns, green houses, non-perimeter fences, well houses, etc., and the location of the proposed project on a to-scale site plan prior to building permit issuance and/or project approval.

EH may require a field clearance to validate septic or well locations prior to site plan approval.

If the applicant is proposing a commercial cannabis operation and the operation will be constructing or utilizing an existing structure (i.e., processing facility) that will have plumbing for a restroom, sink, etc, that structure will be required to have its own OWTS, separate from any existing or new OWTS designed to service a residential structure.

If the applicant is proposing portable toilets, EH has no concerns regarding OWTS..

If the applicant is proposing an OWTS, then applicant must apply for a site evaluation and, if the site is acceptable to support an OWTS, apply for a permit.

EH requires all applicants to provide a written declaration of the chemical names and quantities of any hazardous material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities hazardous materials declaration.

Promoting an Optimal State of Wellness in Lake County

Attachment A - Project Description Plan

Applicant Contact Information:

Joseph M. Gustafson
PO BOX 208
Lower Lake, CA
95457
707-350-0270

Gusto2000.JG@gmail.com

Project Location:

2560 Highway 53
Clearlake, CA
010-048-050

PROJECT DESCRIPTION

Joseph Gustafson, Gustafson Farms LLC, is apply for a Use Permit to cultivate, manufacture, process and distribute commercial cannabis within the State of California. The 15.37 acre vacant property is currently improved by an existing well. The following proposed structures include the following:

- 10,000 square feet prefabricated metal facility is for processing, trimming, curing, drying and distributing cannabis
- 20,000 square feet indoor cannabis cultivation
- 36,000 square feet in total gross floor area in cannabis cultivation within hybrid greenhouses with light deprivation

The processing facility will consist of 3 rooms used for processing, drying, and curing mature cannabis.

AIR QUALITY PLAN*1.0. Air Quality Setting, Potential Impacts, and Mitigation*

The project is in the Lake County Air Basin. The Lake County Air Quality Management District (LCAQMD) regulates air quality in Lake County. The U.S. Environmental Protection Agency (EPA) sets acceptable levels for seven air pollutants, and then determines — with the help of states and local air districts — where those standards are or are not met. Lake County currently meets the EPA's health standards for five of those pollutants: carbon monoxide; nitrogen dioxide; sulfur dioxide; lead; and coarse particulates. For the other two — ground-level ozone and fine particulate pollution — Lake County is considered to be a part of a regional non-attainment area.

There will be short-term grading or construction emissions produces fugitive dust and other particulate matter, as well as exhaust emissions generated by earthmoving activities from construction and during site preparation. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions (NOX, CO, ROG, PM10, and PM2.5) from heavy-duty construction equipment, motor vehicle operation, and fugitive dust from disturbed soil. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles as well as worker commuter traffic, but they also include road dust (PM10). However, only minor grading and metal building fabrication construction-related activities are needed for implementation of the proposed cultivation operations. Only a few persons working for a few weeks will be needed for site preparation, and such low numbers of man-hours would not generate significant vehicle emissions.

Operational emission sources consist of mobile emissions and area source emissions. Mobile source emissions estimates are derived from motor vehicle traffic from staff commuting. Area source emissions estimates are derived primarily from the consumption of electricity for greenhouse operations. Electrical generators will only be used to supply temporary electrical service during emergencies.

CDFA (2017) concluded that cannabis cultivation activities under the CalCannabis Licensing Program would not generate a substantial number of vehicle trips and would not require intensive use of heavy equipment, and as such, would not degrade air quality or produce significant amounts of greenhouse gasses. CDFA (2017) summarizes the impacts from small cannabis cultivation operations as follows:

“Despite the potential air quality emission-generating sources described above that are associated with cannabis cultivation activities, it is not anticipated that the Proposed Program would conflict with or obstruct implementation of air quality plans for the numerous reasons outlined below. First, the cannabis cultivation activities under the Proposed Program would not be anticipated to generate a substantial number of vehicle trips (see Section 4.12, Transportation and Traffic) that would affect air quality. In addition, outdoor and mixed-light cultivation activities would generally occur on such small acreages that these activities would often not require intensive use of heavy equipment.” (page 4.3-30)

Indoor and mixed cultivation operations have the potential to generate energy demands and GHG emissions as explained in this excerpt:

“Cannabis cultivation under the Proposed Program would generate energy demand and GHG emissions from use of high-intensity lighting, ventilation, and temperature control necessary to grow cannabis indoors and in mixed-light operations. The high energy demand of indoor cultivation represents the largest contributor of GHG emissions associated with the Proposed Program. Nurseries, outdoor, and mixed-light grow operations could also utilize fuel-powered equipment that would contribute to GHG emissions.” (CDFA 2017)

“Section 8315 would reduce the current levels of GHG emissions produced in the state from indoor cultivation to meet the state’s GHG reduction target (specifically, to assist in achieving the SB 32 goal of reducing statewide GHG emissions to 40 percent below 1990 levels by December 31, 2030). The measure requires that the energy provided must be from any combination of the following sources: (a) on-grid power with 42 percent renewable sources; (b) on-site zero-net-energy renewable sources providing 42 percent of power; or (c) purchase of carbon offsets for any portion of power above 58 percent not from renewable sources; (d) the cultivator must demonstrate that the equipment used is 42 percent more energy efficient compared to standard equipment, using 2014 as a baseline year. The implementation of these measures would reduce the current baseline energy demand and associated GHG emissions for cannabis cultivation in the state.” (CDFA 2017)

Construction and operational emissions indicate incremental contributions to greenhouse gasses from power consumption inside greenhouses. The CDFA CalCannabis Program concluded that small indoor cannabis cultivation operations would not contribute significantly to greenhouse gas emissions because of the requirement to achieve the State’s greenhouse gas emissions targets, as explained in the following excerpt:

“Licensees under the Proposed Program would also be required to comply with environmental protection measures established in Section 8313 and Section 8315 of the proposed regulations. These measures would potentially reduce criteria air pollutant emissions associated with cannabis cultivation compared to the baseline by prohibiting the use of diesel generators other than for backup power, and by requiring that indoor cultivators achieve the state’s greenhouse gas emissions reduction targets by utilizing renewable sources for their electrical power needs, purchasing carbon offsets, and/or use efficient equipment. For these reasons, licensed cannabis cultivation under the Proposed Program is generally not anticipated to conflict with or obstruct implementation of an applicable air quality plan, and/or violate any air quality standard or contribute substantially to an existing or projected air quality violation.” (CDFA 2017)

Air quality permits from the LCAQMD may be necessary to operate these proposed facilities if regulated machines or equipment are used. For cannabis operations, examples would be the constant use of electricity generators or large HVAC units, such as might be needed for indoor (greenhouse) operations. LCAQMD permits may be necessary to construct or operate the project as currently designed because fans and HVAC will be used in the greenhouses. Any LCAQMD permits obtained should be listed in this plan.

1.1. Dust Management

Cultivation operations may generate fugitive dust emissions through ground-disturbing activities such as ground tilling, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. The following are mitigation measures that can be used to control dust. Staff should be informed of speed limits and dust pollution. The roadways may be clearly

marked for limited speed to control dust. Dusty road segments will be armored with gravel, roadbase, or asphalt. A road maintenance program will be implemented. On tilled earth and stockpiles, fugitive dust can be controlled by wetting the soil with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy. Water applications may be concentrated during the late summer and early fall months, when soils have the lowest moisture content or when winds are severe. BMP Fact Sheets WE-1: Wind Erosion Control and NS-1: Water Conservation Practices will be implemented to provide dust control and prevent discharges from dust control activities and water supply equipment. Water application rates will be minimized as necessary to prevent runoff and ponding and water equipment leaks will be repaired immediately. During windy conditions (forecast or actual wind conditions of 25 miles per hour or greater), dust control may be applied to disturbed areas, including haul roads, to adequately control wind erosion. BMP Factsheet WM-3: Stockpile Management will be implemented using silt fences and plastic covers to prevent wind dispersal of sediment from stockpiles. The minimum amount of water should be used: refer to BMP Factsheet NS-1: Water Conservation Practices.

ODOR CONTROL PLAN

2.1. Odor Complaint / Response

Prior to cultivation and operation of the project business, a member of the staff will be assigned to handle any odor complaint and will respond accordingly with management.

These individual(s) are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays.

Property owners and residents of property within a 1,000 foot radius of the Cannabis facility should be provided with the contact information of the individual(s) responsible for responding to odor complaints. This facility will develop policies and procedures describing the actions to be taken when an odor complaint is received, including the training provided to the responsible party on how to respond to an odor complaint. When an odor complaint is received, it will be forwarded to the manager responsible for odor control. The complaint will be logged, including time and type of complaint, the location of the odor reception, and contact info of the person making the complaint. The incident will be investigated and the problem identified. The manager will visit the site or facility in question and determine any deficiencies in the odor control system (where applicable) and identify remedies. These remedies should be implemented immediately. The manager will prepare a written response and send it by certified mail to the person who made the complaint. The correspondence should acknowledge the complaint, describe the incident, and identify what remedial actions were taken. Each odor complaint will be logged in a master odor complaint log book.

2.2. Odor Monitoring Program

If necessary, an odor monitoring program will be implemented. Odor measurements will be recorded at each monitoring station. Odor data can be taken at the property boundary, the nearest road, or the nearest house. Measurements can be taken upwind and downwind of the odor source in order to characterize the odor plume line. Using a field olfactometer (e.g. Nasal Ranger Field Olfactometer, St. Croix Sensory), the odor strength will be measured as Dilution to Threshold (D/T) ratios, a dimensionless measure of odor concentration. Other odor parameters will be recorded, including descriptions of the odor's character, intensity, and offensiveness, and weather conditions.

2.3. Odor Mitigation

Cannabis cultivation, especially during the flowering phase, generates volatile compounds (terpenes) that some people find objectionable. No significant odor impacts are anticipated from this cultivation operation, due to the small size of the cultivation operation, the setbacks from roads and property lines, and wind dilution/dispersal effects.

If odors become problematic, odor mitigation must be implemented. The cultivation operation should be analyzed to determine the source of odor emission and any concentrating effects. Mitigation can include some combination of the following administrative controls and engineering controls.

2.3.1. Administrative Controls

When the facility is constructed and operational, this section should describe activities such as building management responsibilities (e.g., isolating odor-emitting activities from other areas of the buildings through closing doors and windows). This section should describe the organizational responsibilities and the roles of the staff members who will be trained about odor control; the specific administrative and engineering activities that the training will encompass; and the frequency, duration, and format of the training (e.g., 60 minute in-person training of X staff, including the importance of closing doors and windows and ensuring exhaust and filtration systems are running as required). This section should include a description of the records that will be maintained (e.g., records of purchases of replacement carbon, performed maintenance tracking, documentation and notification of malfunctions, scheduled and performed training sessions, and monitoring of administrative and engineering controls). Any examples of facility recordkeeping forms should be included as appendices to this plan.

2.3.2. Engineering Controls

If odors become problematic, engineering controls may need to be implemented. The cultivation operation should be analyzed to determine the source of odor emission and any concentrating effects. Mitigation can include some combination of the following:

- Windscreens could be erected that could partially contain odors within the cultivation compound.*

- *Powerful fans could be installed to guide air flow in the opposite direction.*
- *Alterations to atmospheric controls (temperature, air exchange, humidity) using dehumidifier, HVAC system, and/or fans.*
- *A high-pressure atomizing system could be installed on the perimeter. This system generates a water vapor (aerosol) that binds with the volatile compounds from Cannabis (terpenes) and makes them heavier, and then they drop out of the air.*
- *Biofiltration is a technology in the research phase that uses filters made of an organic medium such as wood chips that are inoculated with bacteria and consume odorous molecules. Biofiltration may be successful at treating biodegradable VOCs, but it requires a large footprint and careful operation control.*

Odor absorbing neutralizers: use oils and liquids from plant compounds and mist them into the exhaust air at cultivation facilities to neutralize odorous VOCs. Contact your odor control supplier about the effectiveness of VOC reduction as it will vary (20%-90%) by product and contact time.

Masking and counteractive agents: use of chemical odor control technologies that are misted at the cultivation facility's exhaust. The use of these agents may be subject to air quality regulations.

An ozone generator. Ozone destroys volatile compounds upon contact. Ozone generators: are mostly used for sanitization purposes and have also been used in industrial settings to control strong odors. These generators are harmful to humans and can damage or destroy crops because they are a direct emission source of ozone pollution, therefore ozone generators are not recommended as a best practice for odor control (Denver Dept. of Health and Environment 2018).

Charcoal (or activated carbon) filtration is an effective odor neutralizer for indoor cultivation operations. Air is mechanically drawn through the charcoal filters, then the Cannabis chemicals are bound to the carbon, and then clean air is expelled from the greenhouse.

ENERGY USAGE PLAN

3.1. Energy Calculations

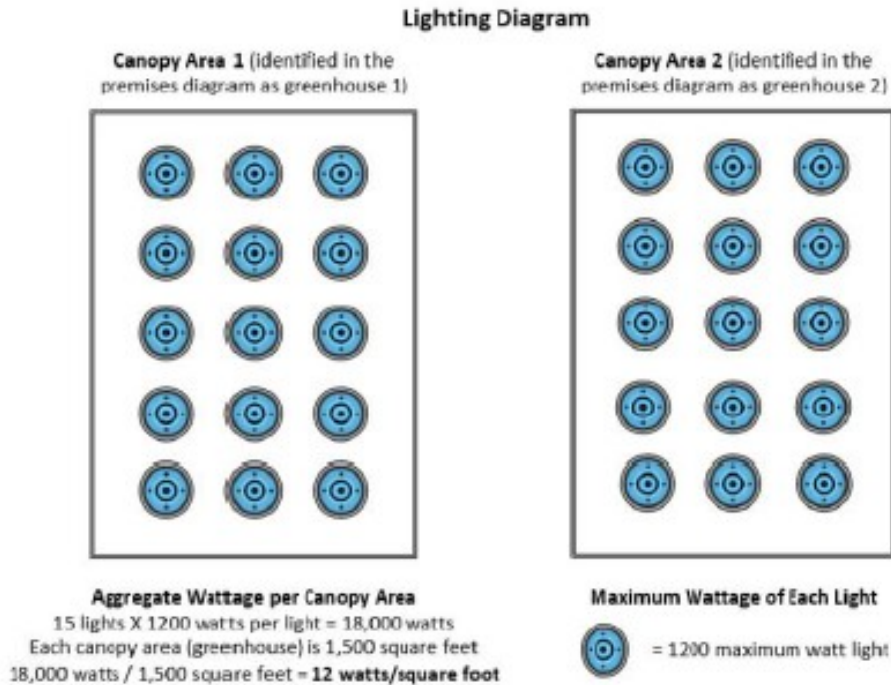
The proposed project is a mixture will be full sun/outdoor cultivation, mixed light, and indoor cultivation. The property will likely be provided by solar power energy source, however, PG&E is likely proposed depending on feasibility. Use of electricity provided by PG&E for indoor cannabis cultivation may require a commercial/agricultural account. When indoor cultivation operations are initiated, this Energy Use subplan should be updated, and energy calculations performed. Approximately (16) 1,000-watt fixtures will be installed across the two greenhouses (approximately under 25 watts per square foot).

For the outdoor cultivation operation, a small solar-powered electrical system may be installed to power low voltage items such as security cameras, and water pumps for drawing groundwater and mixing liquid fertilizers into the irrigation systems.

All new buildings, alterations, additions, and commercial buildings in California must comply with the Building Energy Efficiency Standards according to Title 24, Part 6 of California Code of Regulation. Energy compliance documentation is typically required at the building permit application phase. The following online resource can be used to calculate energy usage and conservation measures: <http://www.energy.ca.gov/title24/orc/>. Also refer to the 2016 Building Energy Efficiency Standards for Residential and Non-Residential Buildings.

CalCannabis has this example of a Cannabis facility lighting diagram:

EXAMPLE PLAN



Sample diagram of cannabis lighting plan

3.2. Energy Conservation Measures

A comprehensive list of energy conservation measures is available in the volume by Denver Public Health and Environment (2018)—Cannabis Environmental Best Management Practices. A combination of the following energy conservation measures may be employed at this operation:

- *use of solar power where electricity is needed, and use of high-efficiency storage batteries, such as lithium-ion*
- *use of passive solar energy techniques such as proper site selection, overhanging eaves, tree canopy cover, walls with high thermal inertia, etc.*
- *use of LED lights or other high-efficiency lighting*
- *use of ambient light whenever possible*
- *use of highly insulative materials to reduce energy needed for structure heating and cooling*
- *use of electric vehicles or bicycles instead of combustion-powered vehicles, whenever possible*
- *use of hand tools instead of power tools*

All new buildings, alterations, additions, and commercial buildings in California must comply with the Building Energy Efficiency Standards according to Title 24, Part 6 of California Code of Regulation.

3.3. Alternative Energy Sources

Solar Photovoltaic Systems (Solar PV), convert sunlight into usable electricity. Solar panels use sunlight to generate electricity, and inverters convert that electricity from variable direct current (DC) to alternating current (AC) at the correct voltage, frequency, and phase needed to tie into the facility's electrical infrastructure and the larger electrical grid.

The conceptual solar power system planned for each cultivation area will consist of an array of solar panels, an inverter, control panel, and batteries. For a typical 1-acre outdoor garden, we assume a power requirement of 5 kW hours/day, primarily to pump well water, mix nutrients in tanks, and operate security systems. The following assumptions were made: each solar panel produces 250 watts of power with a full sun input of 6 hours per day; this equates to 1 kWh/day (Solar-Estimate.org). Thus, at least 5 panels will be needed.

Small wind turbine systems can be installed alone or in conjunction with solar photovoltaic systems. The small size and variability of energy produced by these systems makes them most applicable for supplementing another power source. The amount of energy small wind turbines can provide depends on the site, size and height of the turbine, but small wind systems for commercial buildings typically generate 20 kilowatts to 100 kilowatts. To determine the amount of wind energy available at a site, installing an anemometer for at least 12 months prior to system purchase is recommended.

3.4. Monitoring Program

Energy consumption should be monitored and metered data stored. Energy consumption will be metered using Electric Meters (KWh Meters) for alternating current and DC meters that measure power in ampere-hours. The meters are included in the controllers / inverters that are part of the solar power system.

BUSINESS OPERATION PLANS

4.1. Staff Screening Process

The staff screening process will consist, at a minimum of: criminal reports / background checks; in-person interviews; and the requirement that all applicants must provide a comprehensive resume and contact info of several references. Staff should wear identification badges.

4.2. Hours of Operation

The business operation hours are:

- *Monday, from 8 a.m. to 5 p.m.*
- *Tuesday, from 8 a.m. to 5 p.m.*
- *Wednesday, from 8 a.m. to 5 p.m.*
- *Thursday, from 8 a.m. to 5 p.m.*
- *Friday, from 8 a.m. to 5 p.m.*
- *Saturday, from 8 a.m. to 5 p.m.*
- *Sunday, from 8a.m. to 5 p.m.*

4.2.1. Other Information

Measures that will be taken to minimize or offset the carbon footprint from operational activities are:

- *energy-saving measures (see Energy Usage subsection)*
- *water-saving measures*
- *solid waste reduction measures (see Waste Management subsection)*
- *air emissions reduction measures (see Air Quality Management subsection)*
- *proper site selection, use of existing contours instead of mass grading*
- *cultivation of fast-growing plants, which remove carbon dioxide from the air and fix it in plant biomass*

4.3. Groundskeeping

Good housekeeping measures will be implemented. The grounds will be inspected at least once per day and any litter picked up. Trash containers will be emptied when full. Roads will be maintained so that significant erosion does not occur. This may include wetting dusty roads, armoring with gravel, roadbase, or asphalt, patching holes, and maintaining drainage features such as water bars, culverts and side ditches. Weeds and grasses will be controlled by mulching or by cutting with a lawnmower or line trimmer. Drainage ditches and swales will regularly mowed and cleaned, including the removal of litter, debris, and sediment. Containers and ditches will be drained so that mosquitos do not breed. Areas inside cultivation compounds can be graveled or paved to prevent foot-borne filth. Live traps may be deployed to remove rodents from operational areas. Disposable coveralls (e.g. Tyvek) can be used to increase sanitation levels and reduce vectoring of mites and other pests.

Property maintenance will follow Best Management Practices. The following CASQA Industrial and Commercial Handbook BMP Fact Sheets are applicable:

- *BG-40 Landscape Maintenance*
- *SC-41 Building & Grounds Maintenance*
- *SC-40: Contaminated or Erodible Areas*
- *SC-43 Parking Area Maintenance*
- *SC-44 Drainage System Maintenance*

SECURITY PLAN

5.0. General Security Measures

General security measures will consist of the following:

- *A security plan, updated as needed*
- *staff screening process*
- *personnel rules and responsibilities (to be incorporated into an employee handbook in the future)*
- *physical barriers, including signage, road gates, security fencing with locked gates, and commercial-grade locks on all interior doors*
- *an alarm system that can notify security personnel and record incidents where physical barriers have been breached; • theft and loss control program*
- *video surveillance system.*

Any complaints or problems associated with the operation of the commercial cultivation establishment will be directed to the assigned security officer. The security officer should make every good faith effort to encourage neighborhood residents to call the designated security officer to resolve operating problems, if any, before any calls or complaints are made to the County. The security officer should maintain a record of all complaints and resolution of complaints and provide a tally and summary of issues the annual Performance Review Report. The staff screening process is described in the business operation subsection of this Plan.

Personnel rules and responsibilities are as follows:

- *Obey the rules of the security plan*
- *Sign in when entering the facility (or property) and sign out when exiting the facility (or property)*
- *Report suspicious activity*
- *Do not carry any weapons*
- *Do not engage in lengthy conversation with the public or respond directly to complaints:
direct all such concerns to the security officer.*

- *Only authorized vehicles are allowed in operational areas.*
- *Do not bring backpacks or other unnecessary storage devices that might complicate the theft control program. Lockers will be provided for personal items.*
- *Do not enter restricted areas unless authorized to do so.*

The cultivation operation is accessed by private gravel roads; the entrances will be secured with a metal bar gate and padlock and subject to video surveillance.

The cultivation operations are closed to the public. Visitation is only allowed when specific permission is granted. All staff, all suppliers, all product transporters, and all visitor must sign the log in / log out sheet. Signage will be posted that states that the operational areas have restricted access and are closed to the public. The signage will not advertise the presence of Cannabis products.

5.1. Staff Training and Theft and Loss Control

The County requires an inventory system to track Cannabis material and personnel handling the material. This requirement will be fulfilled by following the requirements of the CalCannabis Licensing Program, which creates a Track-and Trace System. Sections 8401 through 8405 (quoted in part) state:

“The Department shall establish a track-and-trace system for unique identifiers of cannabis and nonmanufactured cannabis products, which all licensees shall use. Each licensee shall report in the track-and-trace system the disposition of immature and mature plants, as required by Section 8402 of this Chapter, and nonmanufactured cannabis products on the licensed premises and any transfers associated with commercial cannabis activity between licensees.

- 1. The licensee is responsible for the accuracy and completeness of all data and information entered into the track-and- trace system. Data entered into the track-and-trace system is assumed to be accurate and can be used to take enforcement action against the licensee if not corrected.*
- 2. Attempts to falsify or misrepresent data or information entered into the track-and-trace system is a violation and subject to enforcement.*
- 3. Each licensee shall use the track-and-trace system for recording all applicable commercial cannabis activities. Each licensee shall do all of the following activities: i) Establish an account in the track-and-trace system prior to engaging in any commercial cannabis activities associated with their license and maintain an active account while licensed;*
ii) Designate at least one of the owners or the responsible party named in the application to be

For this cultivation site, the Track-And-Trace System Administrators are:

Personnel will be granted access within the premises to only those areas necessary to complete job duties, and to those time frames specifically scheduled for completion of job duties. There will be supervision of tasks or processes with a high potential for diversion (including the loading and unloading of cannabis transportation vehicles). Supervision may include video surveillance and/or the requirement that the Security Officer or their designee be present.

An employee training program should be established to train staff in:

- *Burglary prevention*
- *Employee loss prevention*
- *Armed robbery prevention, security breaches, and response*
- *Protocols for storage of large amounts of currency and/or cannabis*
- *Cannabis laws and employee responsibilities*
- *Identification and management of color-coded identification card and appropriate access areas*
- *Application and Live Scan process and procedures*
- *Policies for handling employees that do not wear identification cards on premise*
- *Inspection procedures for compliance checks and license renewals*
- *Escort policy for non-employee, or contractor visits*
- *Identification of limited access areas*

5.2. Alarm System

The alarm system should be maintained by a licensed company with central monitoring capabilities. The alarm should contain a panic activation for onsite employees. A responsible person should be required to respond within 30 minutes upon request.

5.3. Video Surveillance

Each cannabis operation facility will have a comprehensive digital video surveillance system. Each camera will likely have the following specifications or closely related:

- *minimum resolution of 1080 pixels*
- *digitally record continuously 24 hours per day and at a minimum of 30 frames per second, color.*
- *exterior cameras shall be waterproof, I-66 minimum.*
- *interior cameras shall be moisture proof.*
- *display the current date and time of recorded events*
- *interior cameras shall have motion sensors that activates the camera when motion is detected.*
- *sufficient lighting shall be provided to illuminate the camera's field of vision*
- *thermal (infra-red) motion sensing technology shall be use for perimeter fencing.*

The video management software shall be capable of integrating cameras with door alarms. The video surveillance system shall be capable of recording all pre-determined surveillance areas in any lighting conditions. The video surveillance system shall be capable of supporting remote access by the permittee. To the extent reasonably possible, all video surveillance cameras shall be installed in a manner that prevents intentional obstruction, tampering with, and/or disabling. The system should also have a failure notification system.

Areas that shall be recorded on the video surveillance system include, but are not limited to, the following:

- 1) The perimeter of the cannabis cultivation site, cannabis nursery, processing facility, and distribution facility*
- 2) Areas where cannabis or cannabis products are weighed, packed, stored, quarantined, loaded and/or unloaded for transportation, prepared, or moved within the premises;*
- 3) Areas where cannabis is destroyed;*
- 4) Limited-access areas;*
- 5) Security rooms;*
- 6) Areas containing surveillance-system storage devices, in which case, at least one camera shall record the access points to such an area; and*
- 7) The interior and exterior of all entrances and exits to the cannabis cultivation sites and cannabis nursery including all buildings where cannabis or cannabis products are weighed, packed, stored, quarantined, loaded and/or unloaded for transportation, prepared, or moved within the premises.*

All recording shall be located in secure rooms or areas of the premises in an access and environment-controlled environment which is separate from the room where the computer and monitoring equipment is located. All surveillance recordings shall be kept on the applicant's recording device or other approved location for a minimum of 30 days. Data transfer will be by coax cable or by Wi-Fi router. Power supplies shall be self-contained, such as solar arrays and batteries.

5.4. Lighting

Adequate perimeter lighting must be installed inside and around the exterior of the premises and maintained in working order. An Outdoor Lighting Plan should include the following:

- diagrams that identify all lighting on the lot (bulb type, wattage, lumens, sensors, etc.).*
- security lighting should consist primarily of motion-sensor lights and avoid adverse impacts on properties surrounding the lot on which the cannabis activity is located.*
- Any outdoor lighting used for the illumination of parking areas and/or loading areas, and/or for security, shall be fully shielded and directed downward.*
- Lighting is typically prohibited in hoop structures.*

The following light pollution abatement measures will be implemented, as applicable:

- *Shielded directional flood lighting aimed so that direct glare is not visible from adjacent properties and not exceeding the allowed lumen output*
- *Ensuring that mixed-light or indoor growing facilities are fully shielded, and that no light escapes from these facilities.*

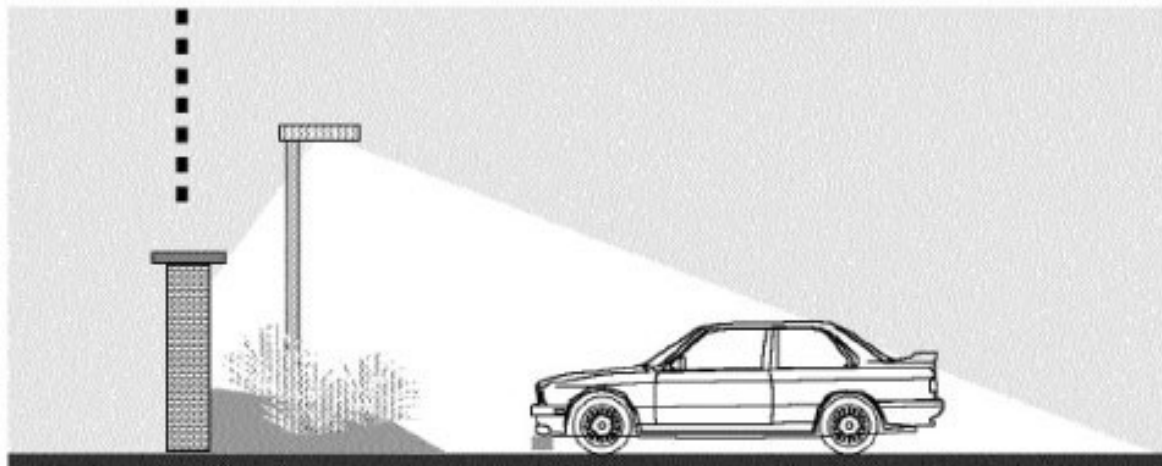
The following best management practices will be implemented, as applicable (IDA 2020):

- *LEDs and compact fluorescents (CFLs) can help reduce energy use and protect the environment, but only warm-colored bulbs should be used.*
- *Dimmers, motion sensors and timers can help to reduce average illumination levels and save even more energy.*
- *Outdoor lighting fixtures that shield the light source to minimize glare and light trespass help prevent light pollution.*
- *Switching to LED lighting allows for reduced illuminance without compromising visibility.*
- *Turn off unnecessary indoor lighting – particularly in empty office buildings at night.*
- *Avoid blue lights at night. Blue-rich white light sources are also known to increase glare and compromise human vision, especially in the aging eye. These lights create potential road safety problems for motorists and pedestrians alike. In natural settings, blue light at night has been shown to adversely affect wildlife behavior and reproduction. IDA recommends that only warm light sources be used for outdoor lighting. This includes Low-pressure Sodium (LPS), High-pressure Sodium (HPS) and low-color-temperature LEDs.*

130.34.020 Outdoor Lighting Standards

All outdoor lighting shall be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way as illustrated in Figure 130.34.020.1 (Light Source Not Directly Visible Outside Property Perimeter).

Figure 130.34.020.1 - Light Source Not Directly Visible Outside Property Perimeter



Property Line

Source: Dark Sky Society

5.5. Fencing

The cultivation site will be enclosed with a sturdy fence. The posts should be set in the ground and should be made of steel tubing (at least 3" diameter) or wood posts (at least 4" diameter). Terminal posts should be set in concrete or otherwise anchored to prevent leaning under the tension of stretched fence panels. Post interval should not exceed 10 feet. A top horizontal rail should be installed between each post interval. Fence panels should consist of metal mesh "cyclone" fabric or welded wire mesh. Barbed wire or razor wire is prohibited from use on the top rails. If required by the County, opaque screening will be added: this may consist of plastic slats for cyclone fencing or plastic woven fabric (e.g., wind screens).

Each fenced cultivation compound will have at least 1 locking swing gate. The gate will typically consist of metal tube frame and the paneling will be the same as described above. The gate should be large enough for a service vehicle to ingress/egress. The gate will be secured with a metal padlock. Keys or lock combinations should be controlled by the Security Officer. It is recommended that vegetation screening be planted to obscure views of the cultivation facilities from public roads.

WASTE MANAGEMENT

6.0. Solid Waste Sources and Volumes

The volume of solid waste generated at a typical cultivation site of 1 to 2 acres is estimated below on a peak daily basis and an annual basis, in pounds.

Estimated Solid Waste Generation Per Typical Cannabis Operation Site

Estimated Solid Waste Generation Per Typical Cultivation Site

	Annual Basis (pounds per year)	Peak daily (pounds per day)
Paper	20	1
Glass	10	<1
Metal	10	<1
Electronics	1	n/a
Plastic	100	10
Organics	2,000	100
Inerts*	10	1
Household hazardous waste	1	n/a
Special waste	1	n/a
Mixed residue	10	1

* Inert waste is waste which is neither chemically nor biologically reactive and will not decompose. Examples are sand and concrete.

6.0. Waste Collection, Storage, and Disposal

At least one solid waste bin will be located at each cultivation site and at any processing facility.

Waste bins will consist of trash cans (20 or 35 gallon) with lids or roll-off dumpsters with lids. These solid waste containers should not be used to dispose Cannabis green waste.

Recyclables will be segregated from solid waste and stored in bins. At weekly intervals, staff should transfer them by truck in trash cans, with tight lids or plastic garbage bags and tarped loads and deposit them in an appropriate recycling facility. Recyclables such as scrap metal, glass, metal and plastic containers, can be conveniently unloaded at a recycling drop-off center (a Lake County Integrated Waste Management facility or private facility). Cardboard and newspaper may be recycled or mixed in with other composting materials.

Yard waste, green waste, and other compostable materials will be segregated from the solid waste and shredded and composted onsite to produce mulch or to be used as a soil amendment, or deposited at an appropriate transfer facility. Non-cannabis compost and recyclable wood can be dropped off at any compost facility where it is processed as new compost/humus. Household toxic materials will be segregated from the solid waste and disposed of at a Lake County Integrated Waste Management facility.

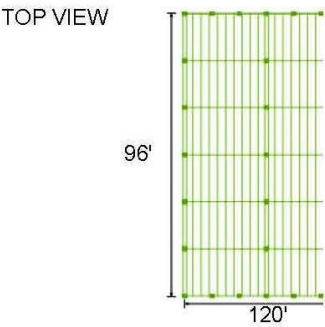
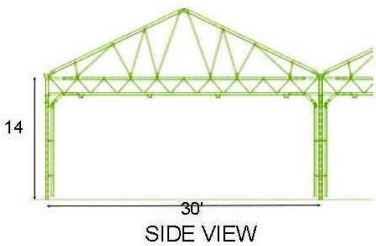
Waste will be transported to an appropriate licensed facility by cultivation operation staff using personal vehicles or be hauled by a private waste-hauling contractor, such as Waste Management, Inc., or C & S Waste Solutions. The licensed waste-hauler that is used at this facility is: Quackenbush Mountain Resource Recovery and Compost Facility, 16520 Davis Street, Clearlake

- Management/Ownership will provide a secure and functional trash and recycling enclosure constructed and approved by the City of Clearlake and the Lake County Waste Solutions Transfer Station and Recycling Center.*
- There will be 3 containers within a secure and functional enclosure for trash, recycling, and solid green waste matter.*
- All solid green waste matter will be chipped and composted onsite.*
- Any material that is deemed hazardous will be treated as hazardous waste and disposed of properly according to county and city code.*

GREENHOUSE
ELEVATIONS

COMMERCIAL GABLE

Total GH Size	120' x 96'
GH House Width	30'
GH House Length	96'
Gutter Height	14'
Truss Spacing	12'





STRUCTURE



Galvanized steel double truss Roll Formed frame with 12' column spacing



Covering options include 8mm twin wall polycarbonate on roof and sidewalls and White/Black/White twin wall polycarbonate on endwalls below Gable



Multiple standard widths including 30' and 41.5", and infinite custom widths available. Gutter Heights available in 12', 14' and 16'

ENVIRONMENTAL CONTROLS



Environmental Control system tailored specifically for this greenhouse structure such as Link4

LIGHT DEPRIVATION



Patent pending NEXT G3N Light Dep system with purpose built components and frame integration



Blackout system uses high quality 3-layer breathable material and reliable German built drive motors



Light Traps and housing allow cooling/air exchange capabilities when Light Deprivation is dosed

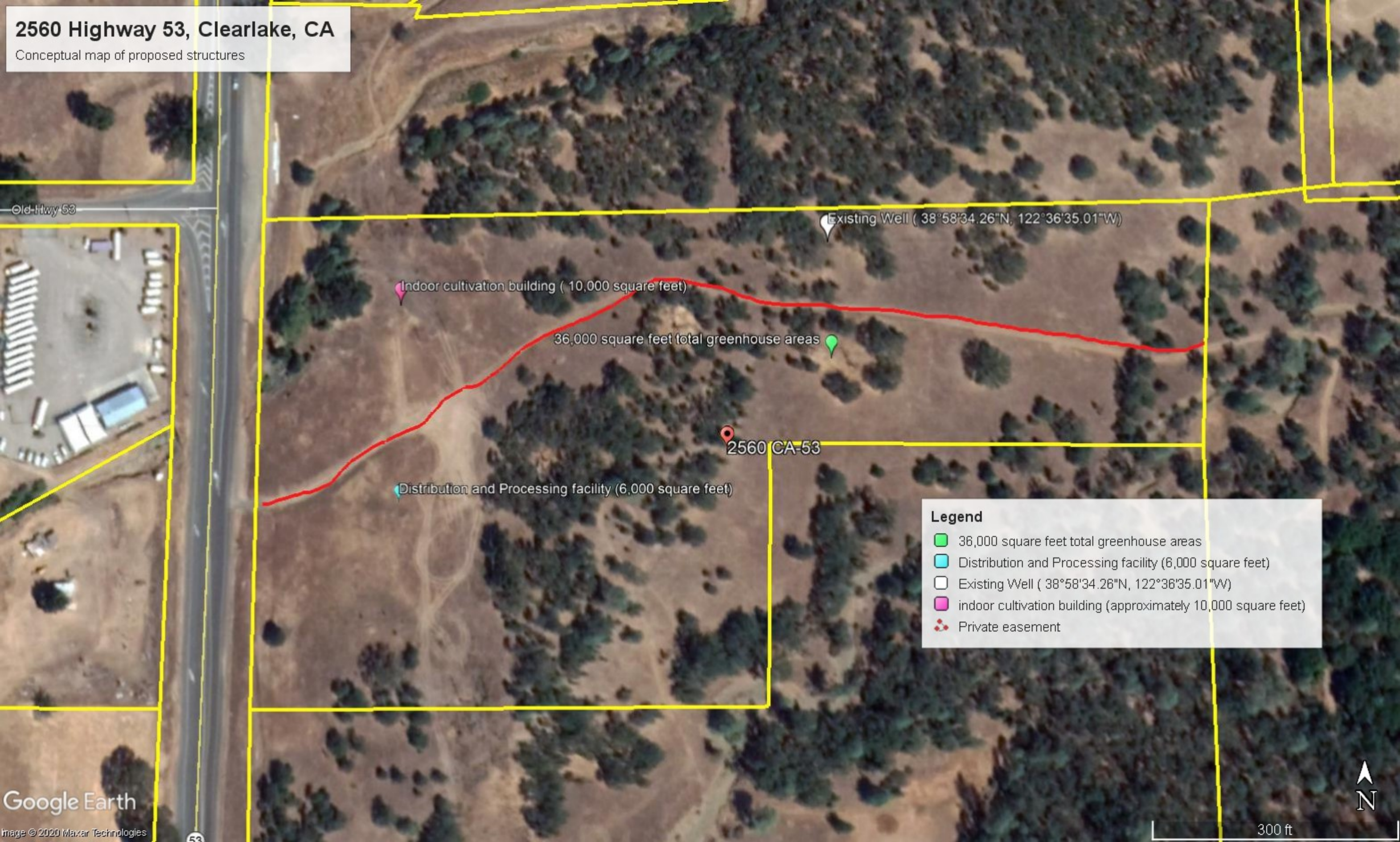
HEATING/COOLING



Unit Heaters, Bench/Floor heating, Evaporative Cooling Systems

2560 Highway 53, Clearlake, CA

Conceptual map of proposed structures



Old Hwy 53

Existing Well (38°58'34.26"N, 122°36'35.01"W)

Indoor cultivation building (10,000 square feet)

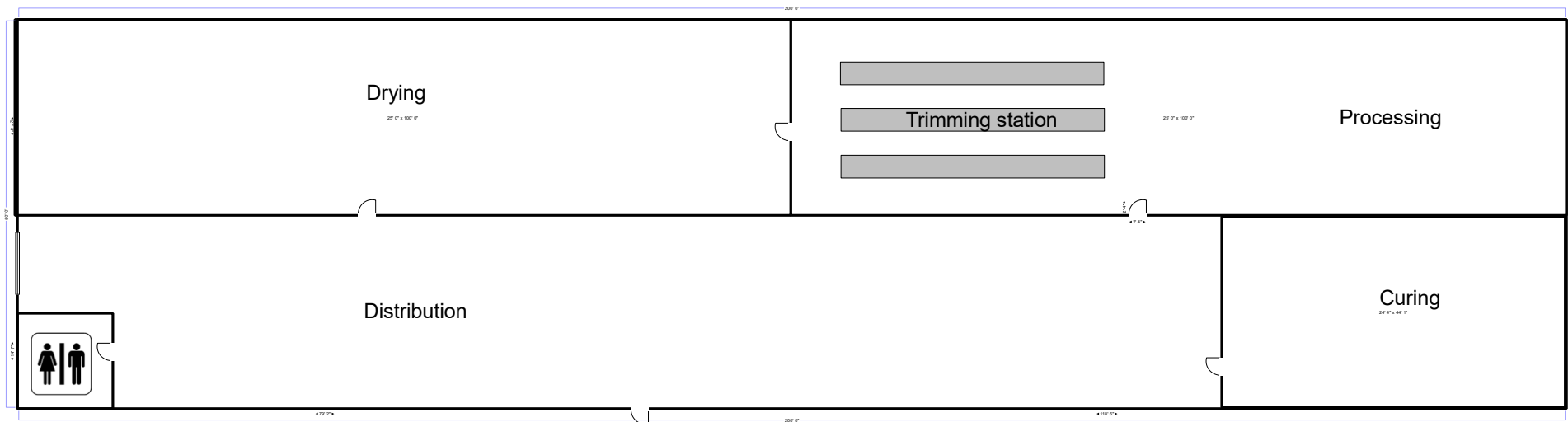
36,000 square feet total greenhouse areas

2560 CA-53

Distribution and Processing facility (6,000 square feet)

Legend

- 36,000 square feet total greenhouse areas
- Distribution and Processing facility (6,000 square feet)
- Existing Well (38°58'34.26"N, 122°36'35.01"W)
- indoor cultivation building (approximately 10,000 square feet)
- Private easement



2560 Highway 53, Clearlake, CA

Conceptual map of proposed structures

Existing Well (38°58'34.26"N, 122°36'35.01"W)

2560 CA-53

53

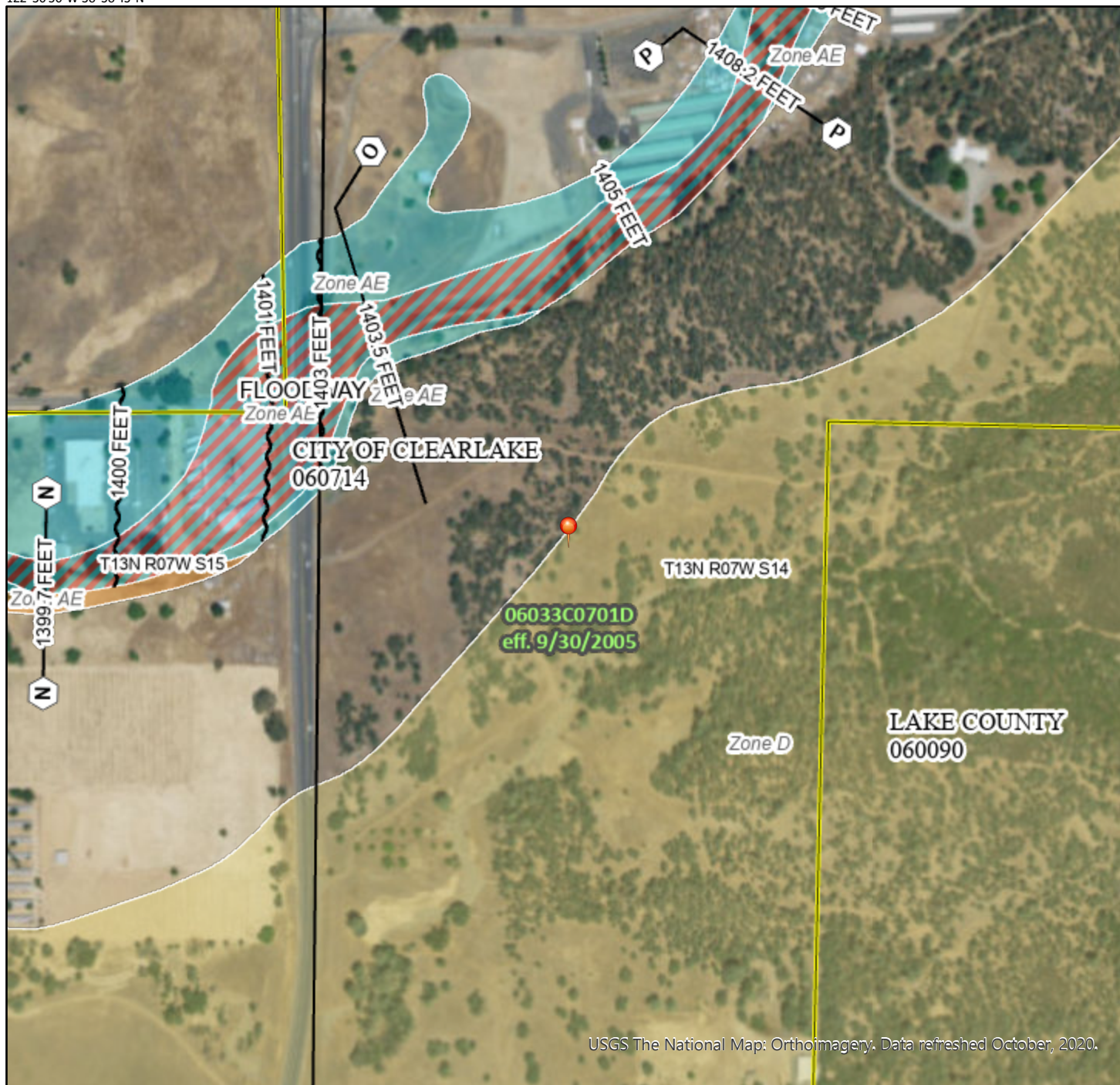


300 ft

National Flood Hazard Layer FIRMMette



122°36'56"W 38°58'45"N



USGS The National Map: Orthoimagery. Data refreshed October, 2020.

0 250 500 1,000 1,500 2,000 Feet

1:6,000

122°36'18"W 38°58'17"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/1/2020 at 12:23 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment B - Existing and Proposed Site Plans

DESIGN REVIEW PACKAGE

HIGHWAY 53

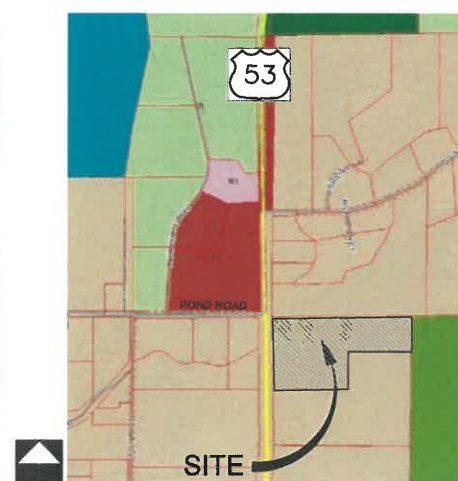
GROWING AND PROCESSING CENTER

2560 OLD HIGHWAY 53
CLEARLAKE, CALIFORNIA

December 10, 2020



VICINITY MAP



PROJECT STATISTICS

AP #	:	010-048-07
ZONING/GP	:	CITY
SITE AREA	:	20.32 ACRES (885,139 square feet)
PROPOSED BUILDING AREA	:	30,000 S.F. Footprint - 40,000 S.F. Total (10,000 s.f. on 2nd Floor)
BUILDING TYPE	:	II B (Sprinklered)
CURRENT USE	:	VACANT
REQUIRED PARKING	:	20
PROPOSED PARKING	:	30 (1: ACCESSIBLE, 25: EMPLOYEE, 4: LARGE TRUCK)
PROPOSED USES:		
- ADMIN / SUPPORT	:	15,615 S.F.
- CULTIVATION PRODUCTION	:	28,500 S.F.
- CULTIVATION PROCESSING	:	3,147 S.F.
- PROCESSING	:	2,738 S.F.
TOTAL	:	40,000 S.F.

INDEX TO DRAWINGS

A0.0	- COVER , VICINITY MAP , PROJECT STATISTICS
A1.1	- PROPOSED SITE PLAN
A2.1	- PROPOSED 1ST FLOOR PLAN
A2.2	- PROPOSED 2ND FLOOR PLAN
A3.1	- PROPOSED EXTERIOR ELEVATIONS
A3.2	- PROPOSED EXTERIOR ELEVATION & SECTION
A3.3	- PROPOSED EXTERIOR ELEVATIONS - OPTION B
A4.1	- 3d RENDERINGS - OPTION A
A4.2	- 3d RENDERINGS - OPTION B



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4849 Old Redwood Highway
Santa Rosa, California 95403
Tel: (707) 576 7766
www.wixaia.com



1
A1.1
1/60" = 1'-0"

PROPOSED SITE PLAN

HIGHWAY 53 BUILDING

0 30 60 120
CLEARLAKE, CALIFORNIA

DATE: DECEMBER 10, 2020

WIX JOB #: 2014.01

4849 OLD REDWOOD HIGHWAY, SANTA ROSA, CA - (707) 576-7766

A1.1



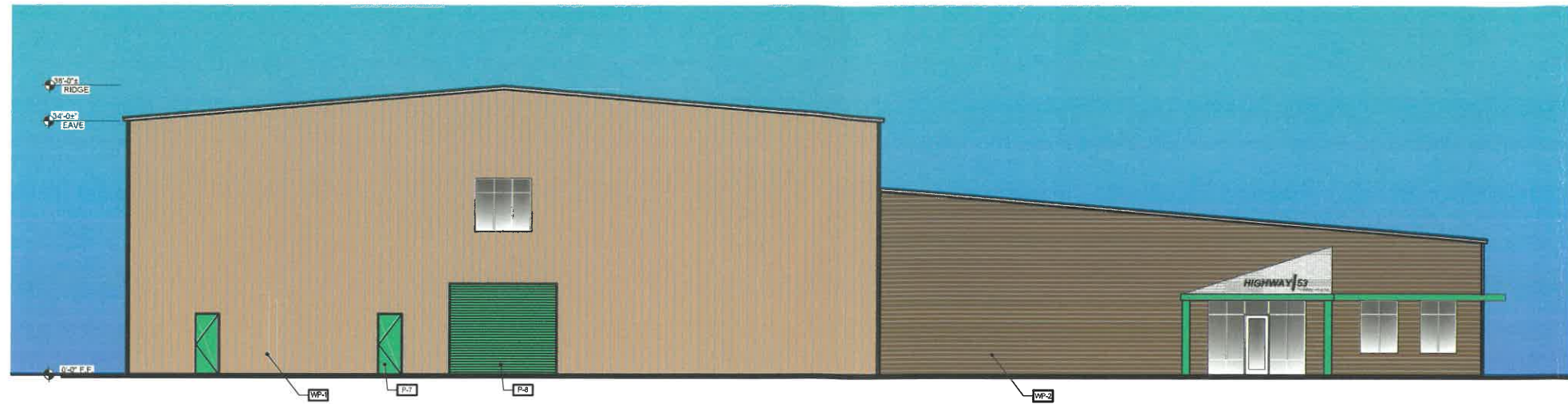


SUMMARY OF AREAS:	
1st Floor:	SQ. FT.
ADMIN / COMMON AREA:	10,115
CULTIVATION PRODUCTION:	14,000
CULTIVATION PROCESSING:	3,147
PROCESSING:	2,738
TOTAL FLOOR AREA:	30,000 S.F.

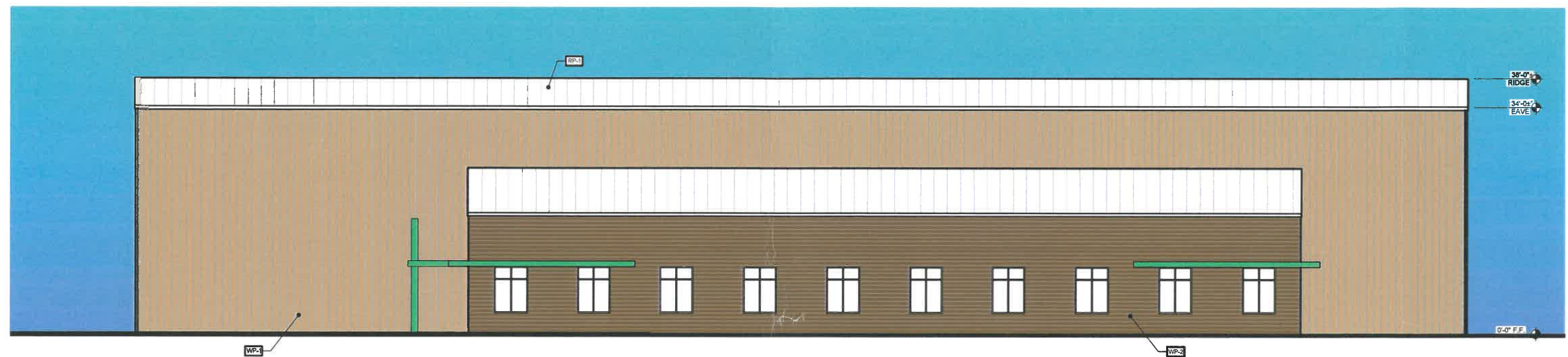


SUMMARY OF AREAS:
2nd Floor:
COMMON AREA: 5,500
CULTIVATION PRODUCTION: 14,500
TOTAL FLOOR AREA: 20,000 S.F.

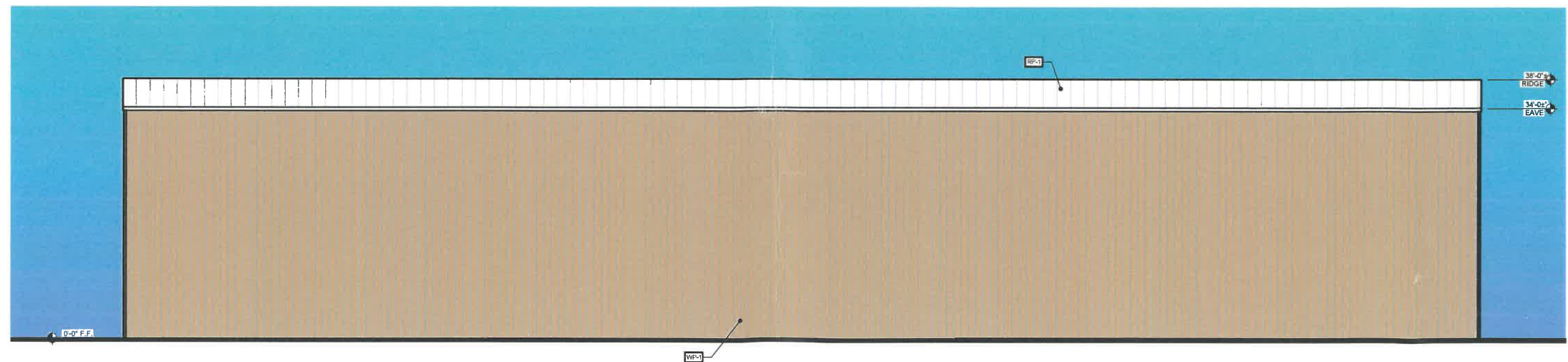




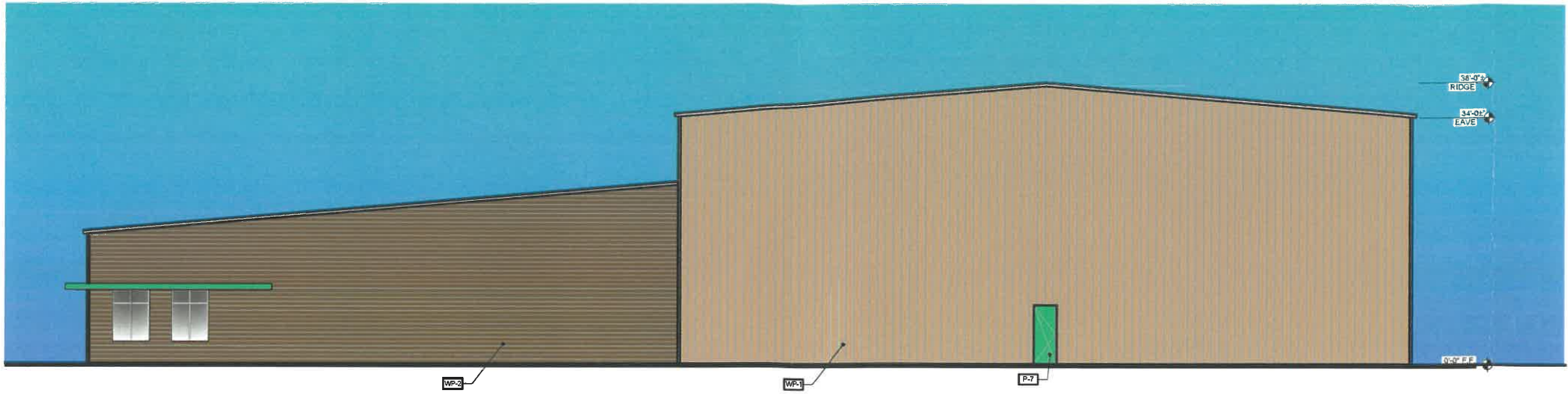
1 NORTH ELEVATION
A3.1 1/10" = 1'-0"



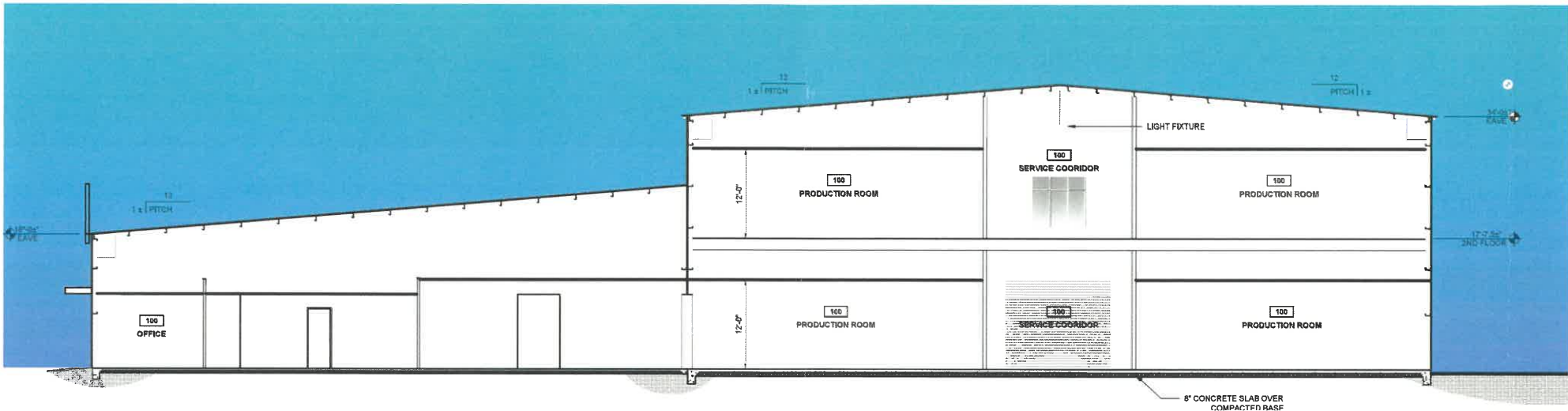
2 WEST ELEVATION
A3.1 1/10" = 1'-0"



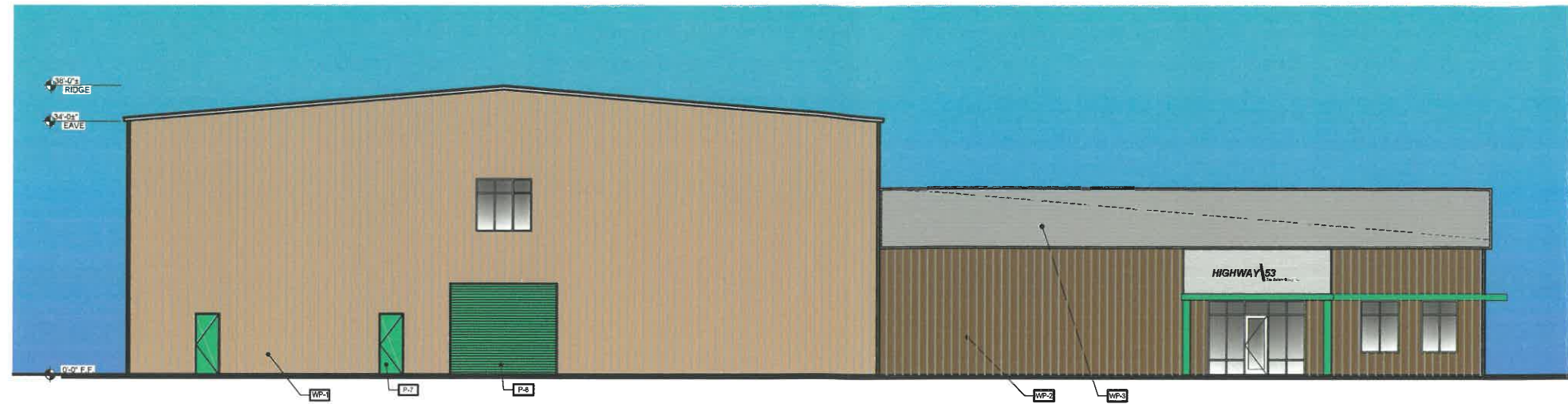
3 EAST ELEVATION
A3.1 1/10" = 1'-0"



1 SOUTH ELEVATION
A3.2 1/10" = 1'-0"



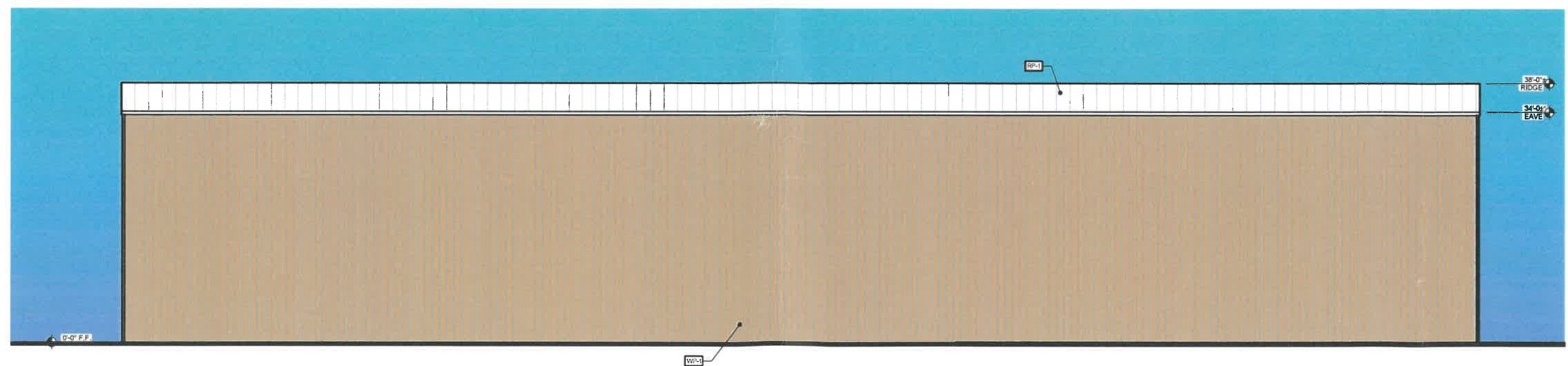
2 BUILDING SECTION
A3.2 1/10" = 1'-0"



1 NORTH ELEVATION
A3.1 1/10" = 1'-0"



2 WEST ELEVATION
A3.1 1/10" = 1'-0"



3 EAST ELEVATION
A3.1 1/10" = 1'-0"



1 RENDERING LOOKING SOUTHEAST
A4.1 1/10" = 1'-0"



2 RENDERING OF ENTRY
A4.1 1/10" = 1'-0"



3 RENDERING LOOKING NORTHEAST
A4.1 1/10" = 1'-0"

HIGHWAY 53 BUILDING - Option A

0 5 10 20
CLEARLAKE, CALIFORNIA

DATE: DECEMBER 10, 2020

WIX JOB #: 2014.01

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A4.1



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1
A4.2 RENDERING LOOKING SOUTHEAST
1/10" = 1'-0"



2
A4.2 RENDERING OF ENTRY
1/10" = 1'-0"



3
A4.2 RENDERING LOOKING NORTHEAST
1/10" = 1'-0"

HIGHWAY 53 BUILDING - Option B

0 5 10 20
CLEARLAKE, CALIFORNIA

DATE: DECEMBER 10, 2020

WIX JOB #: 2014.01

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A4.2



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Attachment C - Biological Assessment

BIOLOGICAL RECONNAISSANCE AND PROJECT FEASIBILITY ASSESSMENT REPORT

Assessor Parcel Numbers (APN):

010 – 048 – 05

Prepared For:

Joseph Gustafson

P.O. Box 208

Lower Lake, CA 95457

Prepared By:

Naiad
Biological
Consulting

www.naiadbiological.com

PO Box 121

Samoa, CA 95564

naiadbiological@gmail.com



Date Prepared:

January 9th, 2020

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

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Section 1 Summary of Findings and Conclusions

A Biological Reconnaissance and Project Feasibility Assessment was completed at APN: 010-048-05 as a preliminary measure to investigate the potential impacts of cannabis cultivation within the established Study Area.

The Study Area defined in this Report is located approximately 1.50 miles northeast of Clearlake, California in Lake County. The seasonal timing of the field visit did not fall within the blooming period of all rare and special-status plant species, and there, due to the unknown presence of these species, a protocol-level botanical survey is to be completed at the seasonally appropriate times at the location defined to be suitable for project development (and 200 ft surrounding any area that is to be disturbed) before any project related activities take place. No sensitive or special-status vegetation was observed during the site visit nor shall will be removed within the project area.

With the proposed recommendations observed, and depending on the findings from the protocol-level botanical survey, the development and activities associated with the proposed project is not anticipated to cause any direct or indirect impacts to the surrounding wildlife, environment and/or habitats.

Section 2 Introduction, Background, and Project Understanding

2.1 Purpose and Need

This Biological Reconnaissance and Project Feasibility Assessment Report has been prepared by request from the client. This Report describes an initial reconnaissance survey to assess potential biological resource and present habitat. This Report has been prepared as a preliminary measure to investigate the potential impacts of cannabis cultivation at the assessed parcel, referred to throughout this Report as the Study Area.

A biological assessment, as defined by the United States Fish and Wildlife Service's (USFWS), is "information prepared by a qualified biologist to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of a species that are proposed for listing; or (3) adversely modify proposed critical habitat. A biological assessment is a specific document required under Section 7 of the Federal Endangered Species Act (FESA) when project actions have the potential to result in "may affect" determination," (USFWS: Endangered Species Glossary, 2020).

The assessment aspect of this Report presents on the field survey and findings of the biological resource and habitat quality within the Study Area and proposed cultivation sites. This Report therefore addresses the status and possible utilization of the project site by special-status plant and animal species found within the region, and assesses the environmental impacts to these resources in association to the cultivation of cannabis within the defined project site locations. Special-status species, both plant and animal, include all state or federal rare, threatened, and/or endangered species and all species listed in the California Natural Diversity Database (CNDDB) list of *Special-Status Plants, Animals and Natural Communities*.

The locations and presence of potential wetland features and other sensitive habitats, within the Study Area assessed in this Report, were identified and mapped in order to determine adequate setbacks for the proposed cannabis cultivation to occur. This was done as a measure to address the environmental impacts of the cultivation areas within the Study Area.

This document has been prepared in accordance with legal requirements set forth under Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c), as well as all other acts and programs outlined in *Section 6 Regulatory Guidelines*. The FESA subsection (c) states that "...based on the best scientific and commercial data available, that such species [which are listed or proposed to be listed] may be present, such agency shall conduct a biological assessment for the purpose of identifying any endangered species or threatened species which [are] likely to be affected by such action. Such assessments shall be completed ... before any contract for construction is entered into and before construction is begun with respect to such action."¹

This document has also been prepared in response to the State Water Resource Control Board's Cannabis Cultivation Policy requirement and condition, which states in *Section 1 – General Requirements and Prohibitions*,

¹ **Section 7 of the Federal Endangered Species Act (FESA) (16 U.S. Code § 1536) subsection (c):** <https://www.fws.gov/endangered/laws-policies/section-7.html>

Term #10 that “[p]rior to commencing any cannabis land development or site expansion activities, the cannabis cultivator shall retain a Qualified Biologist to identify sensitive plant, wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and Qualified Biologist shall consult with CDFW and CAL FIRE to designate a no-disturbance buffer to protect identified sensitive plant, wildlife species, and communities. A copy of the report shall be submitted to the appropriate Regional Water Board.”²

2.2 Biologist’s Qualifications

The biological assessment for this Report was conducted by Mason London and Greg Davis.

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 11 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.

Greg, a contracted wetland scientist with Naiad Biological Consulting, holds a Bachelor of Science Degree in Rangeland Resource Science with a concentration in wildland soils from Humboldt State University and is a certified wetland delineator through Richard Chinn Environmental Training. Greg has over 4 years of professional experience conducting wetland delineations, watershed assessments, and botanical surveys in Northern California.

2.3 Study Area Description and Geographic Setting

This Report summarizes the results of a reconnaissance level survey, which assessed the Study Area for: (1) the potential to support special-status species; and (2) the potential presence of sensitive biological communities such as wetlands, riparian habitats and other sensitive biological resources protected by local, state, and federal laws and regulations.

This Assessment Report considers the potentially occurring species and communities that could be affected by cannabis cultivation within one (1) parcel, based on available spatial data, habitat requirements, and observations made during a site visit. The parcel was evaluated for potential habitat value to protect endangered, threatened, rare, and sensitive species by traversing the Study Area on foot to observe special-status species as well as overall habitat quality and habitat modification. In this regard, habitat quality directly relates to the distribution of individuals in space and influences the potential for resource acquisition. Habitat modification, both positive and/or negative, refers to the changes in habitat quality, which can induce changes in species acquisition of resources. Other proposed project related aspects, such as irrigation source, site location and cultivation methods were assessed in terms of ecological and biological impact.

The parcel assessed for the feasibility of cannabis cultivation, referred to as the Study Area, in this Report is Assessor Parcel Number (APN): 010-048-05 (Map 1 & Map 2).

² **State Water Resource Control Board: Cannabis Cultivation Policy:**

https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

APN: 010-048-05 is 15.37 acres (per Lake County Parcel View) with a high elevation of approximately 1485 ft (~453 meters) and a low elevation of approximately 1410 ft (~430 meters) (Google Earth Pro, 2020). This Study Area is located in Section 11, Township 13 North, Rang 07 West (S11, T13N, R07W) of the Mount Diablo Meridian (MDM).

The approximate center location of the Study Area is 38°58'32.2"N 122°36'36.6"W, which is located approximately 1.50 miles northeast of Clear Lake, California in Lake County (Map 1). The Study Area occurs within both the Lower Lake (Quad code: 3812285) 7.5-minute USGS quadrangle within the Cache Creek watershed. Cache Creek is a tributary of the Sacramento River which empties into the Pacific Ocean via the San Francisco Bay.

The location of this Study Area is under the jurisdiction of the Central Valley (Region 5) Regional Water Quality Control Board (RWQCB), and the North-Central Region (District 2) of the California Department of Fish & Wildlife (CDFW).

Section 3 Methods

3.1 Pre-Site Visit Data Compilation and Preparation

A list of special-status plant and animal species considered to have potential present within the Study Area was downloaded from the California Department of Fish and Wildlife's California Natural Diversity Database Biogeographic Information and Observation System (CNDDDB BIOS)(CDFW, 2020), the United State Fish and Wildlife Service Information for Planning and Conservation (IPaC, USFWS 2020) and Calflora Project (Calflora, 2020) for the USGS Lower Lake 9-quadrangle area. Animals on the CNDDDB list were primarily included based on state or federal listing status or CDFW designation. Native pollinators found in the area were also included based on the state rarity and their potential to be affected by cannabis cultivation.

The special status species in the 7.5 minute USGS Lower Lake quadrangle, and the eight (8) adjacent quadrangles, resulted in thirty nine (39) special-status animal species (4 amphibians, 11 birds, 4 fishes, 6 insect, 10 mammals, 3 mollusks, 1 reptile) (Table 1), one hundred and seven (107) special-status plant (3 bryophytes, 104 Vascular) (Table 2), and nine (9) special status habitat communities (2 aquatic, 7 terrestrial) (Table 3).

3.2 Biological Resource and Habitat Investigation

A biological resource and habitat investigation was conducted within the Study Area between 0900 and 1400 on October 22, 2020 by Mason London and Greg Davis (Map 3). The weather was sunny and clear.

The goal of the investigation and field survey was to determine suitable habitat for special-status species, and therefore potential impact to these species, within the Study Area. Impact to potentially occurring special-status species was assessed based on the likelihood for the project, and project related activities, to result in take, or incidental take, of the previously mentioned species (Table 1 & 2). The Federal Endangered Species Act (FESA) definitions take as any action that will "...[h]arass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C., §1532 (19)). Whereas harass is defined as "[a]n intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns (e.g., breeding, feeding, or sheltering)" (16 U.S.C., §1532 (20); 50 C.F.R. § 17.3) and harm is defined as "[a]n act which actually kills or injures wildlife. May include significant habitat modification or degradation that kills or injures wildlife by significantly impairing essential behavior patterns," (U.S.C., §1532 (20); 50 C.F.R. § 17.3.). Based on these impact assessment parameters, the Study Area habitat and habitat characteristics, as well as the surrounding area, was investigated.

The goal of the investigation was not to conduct a complete botanical field survey for special-status plants species, but rather a focused survey to determine suitable habitat for potential species within the habitats present within the Study Area, and document any of these species' occurrences. A focused survey is an on-site survey that is limited in scope, content, length and designed to gather information on a specific issue(s). Since a list of focal special-status species to target for this survey was generated from the CNDDDB list (Table 2), the habitats of potential likelihood of occurrence were surveyed based on predetermined features. Only habitats that were

determined to be potentially impacted by the proposed project were investigated for the presence of the focal special-status species. Therefore, a meandering, or wandering transect, approach to the survey was implemented in order to cover all habitats that could potentially harbor the listed species currently in bloom (Map 3). Since the focused survey targeted special-status species, not all species encountered were documented. The focused survey conducted within the Study Area is not an official protocol-level survey, and due to the timing of the site visit occurring outside of the bloom period for a majority of the species generated from the CNDDDB occurrence list, it is recommended that prior to project approval protocol-level botanical surveys be completed at the proposed project site as a measure to assess the presence of sensitive and special-status plant species.

A similar approach to assessing potential occurrences of special-status animal species was taken during the meandering survey throughout the Study Area. All major habitats within the parcels were investigated in order to determine current quality in context of species acquisition. The assessment of animal habitat within the Study Area is not an official protocol-level survey, which may be required for project approval by local, state, or federal agencies. Specific wildlife surveys may need to be required based on the location and timing of project development.

Dominant species in surrounding habitats, presence of sensitive habitats such as riparian areas and potential wetland features, and project site setbacks from watercourses were observed and recorded. These observations were ultimately used to determine the most suitable and environmentally superior locations to potentially cultivate cannabis within the Study Area. A TruPulse 200X laser rangefinder was used to make all of the distance and slope measurements and for determining adequate setbacks in the field. True buffers and setbacks, used in all of the maps associated with this Report were generated with GIS software out of the field.

3.2.1 Wetland Determination

Prior to the site investigation, the Study Area was assessed for the presence of wetlands utilizing several digital databases and resources including but not limited to the USFWS National Wetland Inventory (NWI), NRCS Web Soil Survey, USGS topographic maps, and inundation or saturation visible on aerial imagery.

No soil test pits were dug for evaluating the presence of hydric soil since other wetland indicators such as hydrophytic vegetation and wetland hydrology were visible during the time of the site visit investigation. However, only potential wetland features surrounding the proposed cultivation sites were targeted for investigation. The “err on the side of caution” approach to determining potential wetland habitats was implemented when visually assessing the site and determining setbacks. Field observations of identifiable plant communities were used to assist interpretation of aerial imagery in defining potential wetland areas and their boundaries. A thorough investigation during the spring would be more appropriate for evaluating the presence of wetland hydrology. The general extent of these potential wetland features was digitized utilizing field observations of plant communities and aerial imagery. Test pits for determining hydric soil presence would be recommended for confirming the determinations of potential wetland features within the Study Area. The assessment of wetlands within the Study Area described in this Report is not an official protocol-level survey, which may be required for project approval by local, state, or federal agencies.

3.2.2 Occurrence of Special-Status Species

Each species derived from the previously mentioned databases were evaluated for their potential of occurrence within the project site by the following criteria:

1. **“None.”** Species listed as having “none” potential of occurrence are those species for which there is no suitable habitat within the project area (elevation, hydrology, plant community, disturbance regime, etc.)
2. **“Low.”** Species listed as having a “low” potential of occurrence are those species for which there is no known occurrence of the species within the project area and there is limited or marginal suitable habitat present at the project area.
3. **“Moderate.”** Species listed as having “moderate” potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is suitable habitat present within the project area.
4. **“High.”** Species listed as having “high” potential of occurrence within the project area are those species for which there is a known record of occurrence within or in the vicinity of the project area and/or there is highly suitable habitat present within the project area.
5. **“Present.”** Species listed as having “present” potential of occurrence within the project area are those species for which the species was observed during the field survey.

Species with a ‘low’ potential of occurrence were not further investigated for likelihood to exist within or utilize the project site habitat. A rank of low was given to species that most likely will not occur, or are highly unlikely for them to occur, based on their habitat requirements. However, there are always exceptions to natural rules and so these species were not given the rank of ‘none’ because it is not entirely impossible for them to occur, just extremely unlikely.

Section 4 Results and Discussion

4.1 Study Area Habitat, Existing Site Conditions and Project Location Feasibility

The parcel consists of a series of low, rolling, generally west-facing clearings covered with blue oak dominated woodlands and annual grassland (Photo 1). Overall, the parcel consists of approximately 33.33% blue oak woodland, and approximately 66.66% annual grassland (Map 2).

4.1.1 Blue Oak Woodland

The blue oak woodland habitat is dominated by small to medium sized blue oak trees (*Quercus douglasii*) with other subdominant tree species including gray pine (*Pinus sabiniana*), ponderosa pine (*Pinus ponderosa*), black oak (*Quercus kelloggii*), and some pacific madrone (*Arbutus menziesii*). Native subdominant species include hoary manzanita (*Arctostaphylos canescens*), toyon (*Heteromeles arbutifolia*), poison oak (*Toxicodendron diversilobium*), Yerba Santa (*Eriodictyon californicum*), mountain mahogany (*Cercocarpus betuloides*), deer brush (*Ceanothus integerrimus*), common yarrow (*Achillea millefolium*), soap plant (*Chlorogalum pomeridianum*), large fruited lomatium (*Lomatium macrocarpum*), gumweed (*Madia gracilis*), Needle leaf navarretia (*Navarretia intertexta*), imbricate phacelia (*Phacelia imbricata*), whisker-brush (*Leptosiphon ciliatus*), twining brodiaea (*Dichelostemma volubile*), blue dicks (*Dichelostemma capitatum*), harvest brodiaea (*Brodiaea elegans*), blue eyed grass (*Sisyrinchium bellum*), Douglas' iris (*Iris douglasii*), Pacific sanicle (*Sanicula crassicaulis*), squirreltail grass (*Elymus elymoides*), and blue wildrye (*Elymus glaucus*) (Photo 2 & 3).

Non-native species in the woodland portion of the site include many of the grassland species described in Section 4.1.2, but also include wall bedstraw (*Galium parisiense*), tall oatgrass (*Arrhenatherum elatius*), red brome (*Bromus madritensis*), Chinook brome (*Bromus laevipes*), wild carrot (*Daucus carota*), and hayfield bindweed (*Convolvulus arvensis*).

These species are mentioned here to describe the general habitat type and the listing of these species does not represent an official protocol-level survey. It is assumed that a protocol-level botanical survey will be conducted prior to project related activities to determine presence of special-status species occurring within the project site boundaries.

4.1.2 Annual Grassland

Nonnative species dominate the grassland portions of the site and include wild oats (*Avena barbata*), dogstail grass (*Cynosurus echinatus*), Zorro fescue (*Festuca myuros*), ripgut brome (*Bromus diandrus*), foxtail chess (*Hordeum murinum*), hairgrass (*Aira caryophyllea*), soft chess (*Bromus hordeaceus*), Medusahead (*Elymus caput-medusae*), little rattlesnake grass (*Briza minor*), nit grass (*Gastridium phleoides*), yellow star thistle (*Centaurea solstitialis*), lamb's quarters (*Chenopodium album*), Italian thistle (*Carduus pycnocephalus*), black mustard (*Brassica nigra*), wild geranium (*Geranium molle*), chickweed (*Stellaria media*), field parsley (*Torilis arvensis*), Klamathweed (*Hypericum perforatum*), prickly lettuce (*Lactuca serriola*), bull thistle (*Cirsium vulgare*), woolly mullein (*Verbascum thapsus*), turkey mullein (*Croton setiger*), rose clover (*Trifolium hirtum*),

sheep sorrel (*Rumex acetocella*), hairy vetch (*Vicia villosa*), smooth cat's ear (*Hypochaeris glabra*), English plantain (*Plantago lanceolata*), big heron bill (*Erodium botrys*), and pineapple weed (*Matricaria discoidea*) (Photo 4 & 5).

Native species include those mentioned above, and also include Western buttercup (*Ranunculus occidentalis*), purple needlegrass (*Stipa pulchra*), small tarweed (*Madia exigua*), bird's foot trefoil (*Acmispon americanus*), common tarweed (*Centromadia pungens*), annual Vulpia (*Festuca microstachys*), hayfield tarweed (*Hemizonia congesta*), annual lupine (*Lupinus bicolor*), and ladies' tobacco (*Gnaphalium californicum*).

These species are mentioned here to describe the general habitat type and the listing of these species does not represent an official protocol-level survey. It is assumed that a protocol-level botanical survey will be conducted prior to project related activities to determine presence of special-status species occurring within the project site boundaries.

4.1.3 Aquatic Habitat and Streamside Management Areas

A few sections of unnamed Class III watercourses exist within the parcel boundaries, but away from where proposed project development is to occur (Map 2; Photo 6). Section 1, Requirement 37 of the California State Water Resource Control Board's *Cannabis Cultivation Policy Attachment A: Definitions and Requirements for Cannabis Cultivation*³, states that for a Class III watercourse, which is defined as having "[n]o aquatic life present. Capable of sediment transport to a Class I or Class II under normal water flow conditions. Usually flows only in response to storms," a 50 ft buffer is required. This 50 ft buffer was measured in accordance to the state requirements, "...from the waterbody's bankfull stage (high flow water levels that occur every 1.5 to 2 years) or from the top edge of the waterbody bank in incised channels (Map 2).

No potential wetland features were identified during the site visit.

4.2 Special-Status Plant Species

Not all previously mentioned habitats within the Study Area were surveyed for special-status plant species with equal effort. The habitats investigated for presence of special-status plant species primarily consist of the habitats that were determined to be feasible sites for the development of cultivation sites, and therefore would have the potential to be impacted by proposed project activities. However, all species derived from the CNDDDB list were assessed for potential occurrence within the Study Area, both within the potential project locations, and within the surrounding habitats (Table 2).

According to the CNDDDB BIOS, three (3) special-status plant species have documented occurrences within the Study Area boundaries (Map 4). These species include: eel-grass pondweed (*Potamogeton zosteriformis*), Colusa layia (*Layia septentrionalis*), and Baker's navarretia (*Navarretia leucocephala ssp. bakeri*) (Occurrence Report 1, 2, & 3).

³ State Water Resources Control Board: Cannabis Cultivation Policy Principles and Guidelines for Cannabis Cultivation: https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

No listed special-status plant species were observed during the field survey. However, the site visit occurred during a time which is not seasonally appropriate to observe all floristic species in bloom, therefore further protocol-level botanical surveys are needed prior to any ground disturbance activities associated with the proposed project occur. According to the CDFW's *Protocols for Surveying and Evaluating Impacts to Species Status Native Plant Populations and Sensitive Natural Communities*⁴, botanical surveys need to occur "...in the field at the times of year when plants will be both evident and identifiable. Usually this is during flowering or fruiting," (CDFW, 2018).

Since certain special-status plant species, aside from the already identified three (3), were determined to have the potential to occur within the Study Area and therefore a protocol-level botanical survey will need to be completed to assess species presence before any ground disturbance or new development can occur (Table 2).

4.3 Special-Status Animals Species

Not all previously mentioned habitats within the Study Area were surveyed for special-status animals' species potential utilization with equal effort. The habitats investigated for presence and habitat requirements of special-status animal species primarily consist of the habitats that were determined to be feasible sites for the development of cultivation sites, and therefore these species would have the potential to be impacted by proposed project activities. However, all species derived from the CNDDDB list were assessed for potential occurrence within the Study Area, both within the potential project locations, and within the surrounding habitats (Table 1).

Within the locations determined to be feasible sites for project development, moderate potential habitat for ten (10) special-status animal species exist. The majority of these species are either birds or bats and would only utilize the site for hunting/foraging and would otherwise only pass over in flight (Table 1). These species are likely to not utilize the potential project site locations for nesting or shelter due to the void of canopy cover and other structures. Moreover, depending on the cultivation method proposed for these potential projects, mitigating the production of noise or light pollution is recommended in order to avoid the potential take from indirect disturbance of species utilizing surrounding habitats. Therefore, it is not expected that these certain species, or other special-status species likely residing in other habitats within the Study Area, will be impacted by the proposed project activities. The remaining special-status species include the Western Bumblebee (*Bombus occidentalis*), and the burrowing owl (*Athene cunicularia*).

The **Western Bumblebee (*Bombus occidentalis*)** is widely distributed in California and is known to pollinate a wide variety of flowering plants. This species lives in abandoned burrows and cavities and potential nesting locations may exist within the suitable project areas. Due to the project areas habitat quality, and due to the abundant suitable habitat within the Study Area, it is unlikely that there would be a significant loss of nesting habitat as a result of project development. Furthermore, it is unlikely that the potential project development would result in a significant decrease in forage material. It is not anticipated that the project will negatively impact this species.

⁴ **Botanical Survey Protocol:** <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

The **burrowing owl (*Athene cunicularia*)** occupy grasslands, shrub steppes, and savannas. They also occur in other open areas such as agricultural lands, old fields, extensive forest clearings, airports, golf courses, and spacious residential zones. They live underground in burrows they've dug themselves or taken over from a prairie dog, ground squirrel, or tortoise. It should be noted that no burrows were observed during the site visit, however, a survey for burrows should be conducted within 14 days of any ground disturbance to confirm that this habitat is still not being utilized by this species. The surrounding suitable habitat will not be disturbed in anyway related to proposed project activities and therefore this species is still capable of existing within the Study Area without a negative impact.

4.3.1 Other Special-Status Animal Species

The nearest known **northern spotted owl (*Strix occidentalis caurina*)** Activity Center (LAK0047), according to the most up to date CNDDDB Spotted Owl Viewer, is approximately 8.80 miles southwest of nearest boundary of the potential project locations (Map 5; Occurrence Report 4). *Strix occidentalis caurina* reside in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 2300 meters. They usually nest in trees or snag cavities, or in broken tops of large trees (Polite C. 1990). The habitat of the Study Area is not dominated by this forest type, and is therefore not preferred for nesting or roosting by *Strix occidentalis caurina*.

Even though this project will not “...remove or modify spotted owl nesting, roosting or foraging habitat...”, according to the USFWS Northern Spotted Owl Survey protocol: Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, the “... protocol should also be applied to activities that disrupt essential breeding activities and to activities that may injure or otherwise harm spotted owl other than through habitat modification (e.g., noise disturbance, smoke from prescribed fire),” (USFWS, 2012). It is noted that in general, noise levels of 70 dB or less, would not generate a significant disturbance unless within very close proximity (<25 m) to an active nest (USFWS 2006). Since all activities associated with the development of the potential cultivation sites will have cultivation methods that will mitigate all noise and light pollution, there is no expected disruptions towards essential breeding activities or any activities that may injure or harm this species, or any other species, related to this project. There will be no need for generators since the parcel is connected to PG&E grid power, and the client can avoid light pollution by completely covering greenhouses when artistically lit, if this method of cultivation is to be pursued.

4.4 Special-Status Habitat Communities

None of the seven (7) special-status habitat communities were observed within the Study Area during the site visit investigation (Table 3). Based on the CNDDDB RareFind database description of these habitats, the Study Area was determined to not have any of the suitable features to be considered any of the listed habitat communities.

Section 5 Conclusion

5.1 Potential Impacts and Recommended Mitigation

5.1.1 Potential Direct Impacts

Direct impacts are considered to be effects that may occur to the environment from direct interface with the proposed action. The Biological Reconnaissance and Project Feasibility Assessment of the Study Area resulted in locations that have been determined to be suitable sites for cannabis cultivation based on the preexisting habitat type and quality, observed species and the locations setbacks from sensitive habitats. These locations have been established as a means to minimize, or negate, the potential for direct impact to occur to the environment from direct interface with the project development.

If potential project related activities occur at the location defined in Map 2 there will likely be no negative impacts to sensitive habitats or severely alter the already disturbed habitat quality of the site any more than already has been. In regards to direct impacts to the site, a protocol-level botanical survey will need to be completed prior to any project development at these locations in order to determine potential significant impacts. Given the preexisting habitat quality to this site, and the fact that no sensitive vegetation is to be removed within and surrounding the Study Area, the effects of the project to the environment can be mitigated and no significant adverse effects to biological resources can be achieved if the actions associated with this project follow the recommendations listed in *Section 5.1.3*.

As a result of the abundance of invasive and nonnative species on the parcel and within the potential project site, the client is capable of improving the surrounding environment and habitat by removing these invasive species during the project site development process, and ultimately halting their spread. Because of these factors, the activities associated with the cultivation at the proposed sites would only potentially have direct impacts as disturbance-based.

Common disturbance-based impacts associated with cannabis cultivation include noise and light pollution. For the potentially proposed projects, no continuous noise (above 70 dB to the nearest tree line) or light is to be generated in association with this project. These disturbance-based impacts can be mitigated since the parcel comprising the Study Area is connected to PG&E grid power, avoiding the need for noise producing generators, and if the cultivation method proposed requires artificially lighting greenhouses, they shall be completely covered when lit to avoid any potential for light pollution. Therefore, there will be no expected disturbance-based impacts to the surrounding wildlife or habitats.

5.1.2 Potential Indirect Impacts

If best management practices are following, there are no foreseeable indirect impacts associated with this project to the environment, surrounding habitat, or wildlife.

5.1.3 Recommendations

The following recommendations should be followed and/or taken into consideration through the development of the proposed projects and operations:

- The buffers and setbacks identified in this Report, and throughout the associated maps, are to be respected when carrying on with the project plan as a measure to protect sensitive habitats and special-status species that may reside within these habitats. If the client proceeds with cultivating cannabis in other locations not defined in this Report, protocol level surveys may be required in specific locations in order to more accurately establish the project sites required setbacks from watercourse and delineated wetland features.
- During the development of this project best management practices (BMPs) should be used to prevent sediment, fuels or contaminants from entering the surrounding terrestrial and aquatic environments. The implementation of BMPs will be dependent on the project construction methods. Best Practicable Treatment or Control (BPTC) and BMPs have been listed in Appendix E for the client's reference when proceeding with any land development associated with the project assessed in this Report.
 - BMPs for this project should include the installation of waddles, silt fences, and berms to combat and prevent erosion and to eliminated contaminants and sediment movement toward to river, if major ground disturbances is proposed. Construction equipment fueling and greasing should occur within one location at the project site, at least 200 ft away from the river. This location should be clear of brush, flat and contain fuel mats in case of accidental spillage. Every morning, and throughout the day, during construction the equipment should be inspected for hydraulic fluid, oil or fuel leaks. If leaks are detected, they should be repaired immediately and before any further work in completed in order to prevent excess spillage entering the watercourse.
- A protocol-level botanical survey is required to be completed within the location defined as being feasible for project activities to occur within this Report. The survey should follow procedures recommended by CDFW, and are in accordance with the guidelines established by CNPS, from the document *Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Populations and Sensitive Natural Communities*⁵ (CDFW, 2018).
- Migratory bird nesting season occurs between February 1 and August 31. If project construction methods result in a sufficient amount of noise from the use of machinery, it is recommended that this construction occur between September 1 and January 31 in order to avoid disturbance to migratory nesting birds. This is also dependent on the location of project development and the projects proximity to nesting bird habitat, such as the riparian corridors identified within the Study Area. If construction is proposed to occur within the migratory bird nesting season (February 1 and August 31), it is recommended that a biologist survey for nesting birds within the proximity of the project area within a couple weeks (approximately 14 days) prior to the project construction and prior to any vegetation removal. This

⁵ **Botanical Survey Protocol:** <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

should be done as a measure to investigate if any migratory, or nonmigratory, birds have constructed nests in any of the trees within a proximity to the project that may be impacted by noise disturbance.

- The client should survey the site before any ground disturbance for borrows which may indicate burrowing owl presence. If burrows are observed, pre-construction surveys should be completed by a qualified biologist, before site development occurs. Ground disturbance of the project site, with the use of construction equipment, may result in the potential to injure or kill burrowing owls by crushing them in their dens or crushing den entrances, which would prevent the owls from escaping. The survey should be conducted to determine if the site location contains active dens and determine if avoidance of these active dens can occur. If active dens are determined to be present, owl relocation should occur to other onsite suitable habitat.
- If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and USFWS can further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the CDFW Survey and Monitoring Protocols and Guidelines, which can be located here:
<https://www.wildlife.ca.gov/conservation/survey-protocols>

5.2 Statement of Limitation

The data and findings presented in this Report are valid to the extent that they represent habitat analysis and/or actual sightings of the wildlife and special-status species described. These findings outlined in this Report are based on one (1) site visit and may not be seasonally appropriate for all conclusive results.

Deficiencies in these findings may result from the following:

- The floristic survey conducted at the time of the site visit investigation was not conducted as a protocol-level survey. A protocol-level floristic survey, conducted at the seasonally appropriate times, may be required for project approval by local, state, or federal agencies.
- The assessment of habitat utilization within the Study Area, by special-status animal species, was based upon the observations made during a single site visit and further studies and surveys may be required for project approval by local, state or federal agencies as well.
- The parcel boundaries displayed in the maps created for this Report do not represent a boundary survey. Parcel and property lines shown within these maps are approximated and were acquired from Lake County Web GIS, and any errors within these boundaries are a result of errors in Lake County's GIS database.
- This Report is not intended to be a complete biological survey report for all species generated from the CNDDb, but rather an initial reconnaissance and feasibility assessment based on present biological conditions.

- It has been assumed that prior to implementation of this project, protocol-level surveys will be conducted to verify field and data-based observations documented in this Report, if recommendations established in this Report are not followed.
- The biological resource buffers and setbacks defined in this Report, and presented in Map 2, only represent buffers to biological resources and do not include cultural resources (i.e. historical landmarks and/or cemeteries). Additional buffers and setbacks may be required for cultural resources which may alter the size of the potential cultivation areas defined in this Report.

The opinions, conclusions and recommendations in this Report are based on assumptions made by Naiad Biological Consulting staff members when undertaking services and preparing the Report. As a result of this Report being an initial biological reconnaissance and project feasibility assessment, and not a protocol-level survey, Naiad Biological Consulting expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with any of the assumptions being incorrect.

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Appendix A

Photo Documentation

APN: 010 – 048 – 05

**Biological Reconnaissance and
Project Feasibility Assessment Report**

October 2020



Photo 1. The general habitat on the parcel consisting of low, rolling, generally west-facing clearings covered with blue oak dominated woodlands and annual grasslands.



Photo 2. The blue oak woodland habitat which comprises approximately %33.33 of the parcel.



Photo 3. The blue oak woodland habitat which comprises approximately %33.33 of the parcel.



Photo 4. The annual grassland habitat which comprises approximately %66.66 of the parcel. Location where a portion of the project development will occur.



*Photo 5. The general habitat quality of the annual grassland dominated by nonnative species. Photo showing the dominance of Medusahead (*Elymus caput-medusae*).*



Photo 6. One of the few sections of Class III watercourses within the Study Area. Class III watercourse defined by red dashed line. This section of watercourse exists within in the northwestern portion of the Study Area.

Appendix B

Special-Status Species Tables

APN: 010 – 048 – 05

**Biological Reconnaissance and
Project Feasibility Assessment Report
October 2020**

Table 1 – Special-Status Animal Species – September 2020 – APN: 010 – 048 – 05 – Lower Lake and surrounding 7.5 min quadrangles

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	Habitats	Potential of Occurrence
Amphibians						
<i>Dicamptodon ensatus</i>	California giant salamander	None	None	SSC	temperate forests, rivers, freshwater lakes, and freshwater marshes in northern California.	None in project area. None in surrounding area
<i>Rana boylei</i>	foothill yellow-legged frog	None	Candidate Threatened	SSC	found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types.	None in project area. None in surrounding area
<i>Rana draytonii</i>	California red-legged frog	Threatened	None	SSC	Found mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover. Most common in lowlands or foothills. Frequently found in woods adjacent to streams. Breeding habitat is in permanent or ephemeral water sources; lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. Ephemeral wetland habitats require animal burrows or other moist refuges for estivation when the wetlands are dry.	None in project area. Low in surrounding area
<i>Taricha rivularis</i>	red-bellied newt	None	None	SSC	Broadleaved upland forest North coast coniferous forest Redwood Riparian forest Riparian woodland. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	None in project area. Low in adjacent area.
Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	None	None	WL	The Cooper's hawk tend to occur in various types of temperate deciduous forest and mixed forest. They are also adaptable in all seasons to forested mountainous regions, especially foothills. The species may further make itself at home in some pure conifer forest, including the extreme southern part of the taiga but also in many parts of the west. The species can habituate favorably while breeding to various kinds of open woodlands, including small woodlots, riparian woodlands in dry country, pinyon woodlands, farmlands and floodplains.	Low in project area. Moderate in surrounding area.
<i>Aquila chrysaetos</i>	golden eagle	None	None	FP ; WL	Ranges from sea level up to 3833 m (0-11,500 ft) (Grinnell and Miller 1944). Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert.	Low in project area. Moderate in surrounding area.

<i>Haliaeetus leucocephalus</i>	bald eagle	Delisted	Endangered	FP	Permanent resident, and uncommon winter migrant, now restricted to breeding mostly in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity cos. About half of the wintering population is in the Klamath Basin. More common at lower elevations	Low in project area. Moderate in surrounding area.
<i>Ardea alba</i>	great egret	None	None	-	The ideal location for great egrets is near any form of water. Streams, lakes, ponds, mud flats, saltwater and freshwater marshes are inhabited by this beautiful bird. Wooded swamps and wetlands are the preferred location for great egrets and other heron species.	None in project area. Low in surrounding area.
<i>Ardea herodias</i>	great blue heron	None	None	-	The great blue heron is fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills.	None in project area. Low in surrounding area.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	Threatened	Endangered	-	The Western yellow-billed cuckoo is thought to dwell west of the continental divide at northern latitudes and west of the Pecos River at southern latitudes. This cuckoo species is associated with riparian habitats with willow and cottonwood. The Western yellow-billed cuckoo is restricted to riparian areas, which provide cooler and more humid environments, in hot regions.	None in project area. Low in surrounding area.
<i>Falco mexicanus</i>	prairie falcon	None	None	WL	Breeds near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, mounds. Nest is a scrape on a depression or ledge in an open site. Will nest on human-made structures, and occasionally uses tree or snag cavities or old nests of other raptors.	None in project site. Moderate in surrounding area.
<i>Progne subis</i>	purple martin	None	None	SSC	A wetland area that may be permanently or intermittently covered in water, often dominated by woody vegetation. living in cities and large towns, landscapes dominated by human structures and activity.	None in project area. Low in surrounding area.
<i>Pandion haliaetus</i>	osprey	None	None	WL	Riparian forest. Ocean shore, bays, lakes and larger freshwater streams.	None in project area. Low in surrounding area.
<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	Burrowing owls occupy grasslands, shrub steppes, and savannas. They also occur in other open areas such as agricultural lands, old fields, extensive forest clearings, airports, golf courses, and spacious residential zones.	Moderate in project area. Moderate in surrounding area.
<i>Strix occidentalis caurina</i>	Northern spotted owl	Threatened	Threatened	SSC	Northern spotted owls typically nest or roost in multilayered, mature coniferous forest with high canopy closure, large overstory trees, and broken-topped trees or other nesting platforms (USFWS 2012). Confirmed breeding areas are widespread throughout Humboldt County (Hunter et al. 2005). Northern spotted owls may use a broad range of habitats for foraging. Their favored prey, the dusky-footed woodrat (<i>Neotoma fuscipes</i>), typically inhabits the forest edge (Harris 2005).	None in project area. Low in surrounding area.

Fish						
<i>Archoplites interruptus</i>	Sacramento perch	None	None	SSC	It inhabited sloughs, slow-moving rivers of the Pajaro and Salinas rivers, and lakes with emergent vegetation such as Clear Lake. This species has been eliminated from 90% of its natural habitat due to habitat destruction, egg predation by invasive fish species, and interspecific competition. Sacramento perch are quite rare now and found primarily in warm, turbid, and alkaline farm ponds, reservoirs, and recreational lakes that it has been introduced into.	None in project area. None in surrounding area.
<i>Lavinia exilicauda chi</i>	Clear Lake hitch	None	Threatened	-	Clear Lake hitch spawn in low-gradient tributary streams to Clear Lake, mostly in shallow riffles, runs, and backwater areas with clean, fine-to-medium gravel and water temperatures from about 57–64 degrees Fahrenheit. Hitch require resting pools that are found in healthy instream habitat. Adult hitch are usually found in the limnetic zone of Clear Lake. Juveniles require vegetated nearshore shallow-water habitats before moving into deeper offshore areas.	None in project area. None in surrounding area.
<i>Lavinia symmetricus ssp. 4</i>	Clear Lake - Russian River roach	None	None	SSC	Roach are generally found in small streams and are particularly well adapted to life in intermittent watercourses; dense populations are frequently observed in isolated pools.	None in project area. None in surrounding area.
<i>Hysteroecarpus traskii lagunae</i>	Clear Lake tule perch	None	None	SSC	The main population of Clear Lake tule perch spends it entire life cycle in Clear Lake, which is warm (summer temperatures 25-28°C) and shallow (average depth 6.5 m), with primarily sandy or soft bottom substrates.	None in project area. None in surrounding area.
Insects						
<i>Paracoenia calida</i>	Wilbur Springs shore fly	None	None	-	Thermal springs of Wilbur Hot Springs	None in project area. None in surrounding area.
<i>Ochthebius recticulus</i>	Wilbur Springs minute moss beetle	None	None	-	Thermal springs of Wilbur Hot Springs	None in project area. None in surrounding area.
<i>Saldula usingeri</i>	Wilbur Springs shorebug	None	None	-	Little habitat information available for this species, but known to occur on the mesic shores of Wilbur Hot Springs, Colusa County, Calif.	None in project area. None in surrounding area.
<i>Bombus occidentalis</i>	western bumble bee	None	Candidate Endangered	-	Pollinates a wide variety of flowers, nests in cavities or abandoned burrows	Moderate in project site. Moderate in surrounding area.
<i>Hedychridium milleri</i>	Borax Lake cuckoo wasp	None	None	-	Little habitat information available for this species, but known to occur in vernal pool habitats	None in project area. Low in surrounding area.

<i>Dubiraphia brunnescens</i>	brownish dubiraphian riffle beetle	None	None	-	Occurs among submerged roots, e.g., of willows, on rocky lake shores.	None in project area. None in surrounding area.
Mammals						
<i>Antrozous pallidus</i>	pallid bat	None	None	SSC	Pallid bats occur in semi-arid and arid landscapes in western North America. They are found primarily in grasslands, shrub-steppe, and desert environments with rocky outcrops, but also dry open oak or ponderosa forest, and open farmland.	Moderate project site (flyover). Moderate adjacent area.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None	None	SSC	This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range.	None/Low due to elevation range.
<i>Lasionycteris noctivagans</i>	silver-haired bat	None	None	-	Coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo Co. It also occurs in southern California from Ventura and San Bernardino Cos. south to Mexico and on some of the Channel Islands.	Moderate project site (flyover). Moderate adjacent area.
<i>Lasiurus blossevillii</i>	western red bat	None	None	SSC	Forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands.	Moderate project site (flyover). Moderate adjacent area.
<i>Lasiurus cinereus</i>	hoary bat	None	None	-	The hoary bat is the most widespread North American bat. May be found at any location in California, although distribution patchy in southeastern deserts.	Moderate project site (flyover). Moderate adjacent area.
<i>Myotis evotis</i>	long-eared myotis	None	None	-	This species has been found in nearly all brush, woodland, and forest habitats, from sea level to at least 2700 m (9000 ft), but coniferous woodlands and forests seem to be preferred	Moderate project site (flyover). Moderate adjacent area.
<i>Myotis lucifugus</i>	little brown bat	None	None	-	Fairly common in sagebrush, bitterbrush, alkali desert scrub, wet meadow, and montane chaparral. Least common in valley foothill woodlands, redwood, mixed chaparral, low sagebrush, alpine dwarf-shrub, coastal scrub, and grasslands.	Moderate project site (flyover). Moderate adjacent area.
<i>Myotis thysanodes</i>	fringed myotis	None	None	-	pinyon-juniper, valley foothill conifer and hardwood conifer	Moderate in project site (flyover). Moderate in adjacent area.
<i>Myotis yumanensis</i>	Yuma myotis	None	None	-	lower and upper montane conifer and riparian forest and woodland	Moderate in project site (flyover). Moderate in adjacent area.

<i>Pekania pennanti</i>	fisher - West Coast DPS	None	Threatened	SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure.	None in project site. Low in surrounding area.
Mollusks						
<i>Margaritifera falcata</i>	western pearlshell	None	None	-	coastal dunes coastal scrub, riparian redwood forest habitats	None in project area. None in surrounding area.
<i>Gonidea angulata</i>	western ridged mussel	None	None	-	cold creeks and streams	None in project area. None in surrounding area.
<i>Pyrgulopsis ventricosa</i>	Clear Lake pyrg	None	None	-	Found in sediment along the shores and submerged surfaces of Clear Lake in Lake Co. California.	None in project area. None in surrounding area..
Reptile						
<i>Emys marmorata</i>	western pond turtle	None	None	SSC	aquatic, flowing waters, standing waters, marsh, swamp, wetland	None in project area. Low in surrounding area.

Definitions of CDFW statuses:

FP

Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

SS

Species of Special Concern: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL

Watch List: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Definitions of Federal Statutes (Federal Endangered Species Act):

Endangered species:

As defined in the U.S. Government Code and California Fish and Game Code (16 U.S. Government Code 1532[6] and California Fish and Game Code Section 2062), a native species, subspecies, variety of organism, or distinct population segment that is in serious danger of becoming extinct throughout all or a significant portion of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

Threatened species:

Native species, subspecies, variety, or distinct population segment of an organism that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future throughout all of a significant portion of its range.

Candidate Species:

Not defined or addressed in statute or regulations. Candidate species are those which USFWS has sufficient information on their biological status and threats to propose listing, but for which the development of a proposed listing regulation is precluded by other higher priority listing activities. Candidates receive no protection under the ESA.

Definitions of State Statutes (California Endangered Species Act):

Endangered species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. Fish & G. Code, §2062

Threatened species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Fish & G. Code, §2067

Candidate Species:

A native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the Department for listing. Candidates are given full CESA protection. Fish & G. Code, §2068

Table 2 – Special-Status Plant Species – September 2020 – APN: 010 – 048 – 05 – Lower Lake and surrounding 7.5 min quadrangles

Scientific Name	Common Name	Federal Status	State Status	CESA	Bloom Period	Lifeform	Habitat	Micro Habitat	Elevation (m)	Potential of Occurrence
<i>Plagiobryoides vinosula</i>	wine-colored tufa moss	None	None	4.2	NA	Moss	• Cismontane woodland • Mojavean desert scrub • Meadows and seeps • Pinyon and juniper woodland • Riparian woodland	usually granitic rock or granitic soil along seeps and streams, sometimes clay.	30 - 1735	Low due to soil type.
<i>Grimmia torenii</i>	Toren's grimmia	None	None	1B.3	NA	Moss	• Chaparral • Cismontane woodland • Lower montane coniferous forest	Openings, rocky, boulder and rock walls, carbonate, volcanic	325 - 1160	Low.
<i>Mielichhoferia elongata</i>	elongate copper moss	None	None	4.3	NA	Moss	• Broadleafed upland forest • Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Subalpine coniferous forest	Metamorphic rock, usually acidic, usually vernal mesic, often roadsides, sometimes carbonate.	0 - 196	None due to elevation range.
<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	dwarf soaproot	None	None	1B.2	May-Aug	perennial bulbiferous herb	• Chaparral	serpentinite	305 - 1000	Low due to soil type.
<i>Allium fimbriatum</i> var. <i>purdyi</i>	Purdy's onion	None	None	4.3	Apr-Jun	Perennial bulbiferous herb	• Chaparral • Cismontane woodland	Serpentinite, clay.	300 - 600	Low due to soil type.
<i>Eryngium constancei</i>	Loch Lomond button-celery	Endangered	Endangered	1B.1	Apr-Jun	annual / perennial herb	• Vernal pools	NA	460 - 855	None due to elevation range.
<i>Lomatium hooveri</i>	Hoover's lomatium	None	None	4.3	Apr-Jul	Perennial herb	• Chaparral • Cismontane woodland	serpentinite, or rarely volcanic.	300 - 885	Low due to soil type.
<i>Lomatium repostum</i>	Napa lomatium	None	None	4.3	Mar-Jun	Perennial herb	• Chaparral • Cismontane woodland	Serpentinite.	90 - 830	Low due to soil type.
<i>Asclepias solanoana</i>	serpentine milkweed	None	None	4.2	May-Jul(Aug)	Perennial herb	• Chaparral • Cismontane woodland • Lower montane coniferous forest	Serpentinite	230 - 1860	Low due to soil type.
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	None	None	1B.2	Mar-Jun	Perennial herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	sometimes serpentinite.	45 - 1555	Low due to soil type.
<i>Centromadia parryi</i> ssp. <i>parryi</i>	pappose tarplant	None	None	1B.2	May-Nov	Annual herb	• Chaparral • Coastal prairie • Meadows and seeps	often alkaline.	0 - 420	None due to elevation range.

							• Marshes and swamps (coastal salt) • Valley and foothill grassland (vernally mesic)			
<i>Centromadia parryi</i> <i>ssp. rudis</i>	Parry's rough tarplant	None	None	4.2	May-Oct	annual herb	• Valley and foothill grassland • Vernal pools	alkaline, vernally mesic, seeps, sometimes roadsides.	0 - 100	None due to elevation range.
<i>Erigeron greenei</i>	Greene's narrow-leaved daisy	None	None	1B.2	May-Sep	Perennial herb	• Chaparral	serpentinite or volcanic	80 - 1005	Low due to soil type.
<i>Harmonia hallii</i>	Hall's harmonia	None	None	1B.2	Apr-Jun	Annual herb	• Chaparral	serpentinite	305 - 975	Low due to soil type.
<i>Helianthus exilis</i>	serpentine sunflower	None	None	4.2	Jun-Nov	Annual herb	• Chaparral • Cismontane woodland	serpentinite seeps.	150 - 1525	Low due to soil type.
<i>Hemizonia congesta</i> <i>ssp. calyculata</i>	Mendocino tarplant	None	None	4.3	Jul-Nov	annual herb	• Cismontane woodland • Valley and foothill grassland	sometimes serpentinite.	225 – 1400	Low/Moderate due to soil type.
<i>Hemizonia congesta</i> <i>ssp. congesta</i>	congested-headed hayfield tarplant	None	None	1B.2	Apr-Nov	Annual herb	• Valley and foothill grassland	sometimes roadsides.	20 - 560	Moderate/high.
<i>Lasthenia burkei</i>	Burke's goldfields	Endangered	Endangered	1B.1	Apr-Jun	Annual herb	• Meadows and seeps • Vernal pools	mesic	15 - 600	Low/Moderate
<i>Layia septentrionalis</i>	Colusa layia	None	None	1B.2	Apr-May	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	sandy, serpentinite.	100 - 1095	Assumed extant (High).
<i>Senecio clevelandii</i> <i>var. clevelandii</i>	Cleveland's ragwort	None	None	4.3	Jun-Jul	Perennial herb	• Chaparral	serpentinite seeps	365 - 900	Low due to soil type.
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	None	None	1B.2	Mar-Jun	Annual herb	• Coastal bluff scrub • Cismontane woodland • Valley and foothill grassland	NA	3 - 500	Moderate/high.
<i>Cryptantha dissita</i>	serpentine cryptantha	None	None	1B.2	Apr-Jun	Annual herb	• Chaparral	serpentinite	395 - 580	Low due to soil type.
<i>Cryptantha excavata</i>	deep-scarred cryptantha	None	None	1B.1	Apr-May	Annual herb	• Cismontane woodland	sandy or gravelly	100 - 500	Moderate
<i>Arabis blepharophylla</i>	coast rockcress	None	None	4.3	Feb-May	perennial herb	• Broadleafed upland forest • Coastal bluff scrub • Coastal prairie • Coastal scrub	rocky.	3 - 1100	Low
<i>Arabis modesta</i>	modest rockcress	None	None	4.3	Mar-Jul	Perennial herb	• Chaparral • Lower montane coniferous forest	NA	120 - 800	Low
<i>Arabis oregana</i>	Oregon rockcress	None	None	4.3	May	Perennial herb	• Chaparral • Lower montane coniferous forest	serpentinite.	600 - 1830	None due to elevation range.

<i>Streptanthus brachiatus</i> ssp. <i>brachiatus</i>	Socrates Mine jewelflower	None	None	1B.2	May-Jun	Perennial herb	• Closed-cone coniferous forest • Chaparral	usually serpentinite.	545 - 1000	None due to elevation range.
<i>Streptanthus brachiatus</i> ssp. <i>hoffmanii</i>	Freed's jewelflower	None	None	1B.2	May-Jul	Perennial herb	• Chaparral • Cismontane woodland	serpentinite.	490 - 1220	None due to elevation range.
<i>Streptanthus hesperidis</i>	green jewelflower	None	None	1B.2	May-Jul	Annual herb	• Chaparral (openings) • Cismontane woodland	serpentinite, rocky.	130 - 760	Low due to soil type.
<i>Streptanthus morrisonii</i> ssp. <i>kruckebergii</i>	Kruckeberg's jewelflower	None	None	1B.2	Apr-Jul	Perennial herb	• Cismontane woodland	serpentinite	215 - 1035	Low due to soil type.
<i>Thelypodium brachycarpum</i>	short-podded thelypodium	None	None	4.2	May-Aug	Perennial herb	• Chaparral • Lower montane coniferous forest • Meadows and seeps	serpentinite, adobe, alkaline.	670 - 2560	None due to elevation range.
<i>Brasenia schreberi</i>	watershield	None	None	2B.3	Jun-Sep	perennial rhizomatous herb (aquatic)	• Marshes and swamps	freshwater	30 - 2200	None
<i>Downingia willamettensis</i>	Cascade downingia	None	None	2B.2	Jun-Jul(Sep)	annual herb	• Cismontane woodland • Valley and foothill grassland • Vernal pools	lake margins	15 - 1110	None
<i>Legenere limosa</i>	legenere	None	None	1B.1	Apr-Jun	Annual herb	• Vernal pools	NA	1 - 880	Low/moderate
<i>Extriplex joaquinana</i>	San Joaquin spearscale	None	None	1B.2	Apr-Oct	Annual herb	• Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland	alkaline.	1 - 835	Low due to soil type.
<i>Calystegia collina</i> ssp. <i>oxyphylla</i>	Mt. Saint Helena morning-glory	None	None	4.2	Apr-Jun	Perennial rhizomatous herb	• Chaparral • Lower montane coniferous forest • Valley and foothill grassland	serpentinite	279 - 1010	Low due to soil type.
<i>Calystegia collina</i> ssp. <i>venusta</i>	South Coast Range morning-glory	None	None	4.3	Apr-Jun	Perennial rhizomatous herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	serpentinite or sedimentary.	425 - 1490	Low due to soil type.
<i>Calystegia collina</i> ssp. <i>tridactylosa</i>	three-fingered morning-glory	None	None	1B.2	Apr-Jun	perennial rhizomatous herb	• Chaparral • Cismontane woodland	serpentinite, rocky, gravelly, openings.	0 - 600	Low due to soil type.
<i>Sedella leiocarpa</i>	Lake County stonecrop	Endangered	Endangered	1B.1	Apr-May	Annual herb	• Cismontane woodland • Valley and foothill grassland • Vernal pools	vernally mesic depressions in volcanic outcrops.	365 - 790	Low/moderate
<i>Carex praticola</i>	northern meadow sedge	None	None	2B.2	May-Jul	perennial herb	• Meadows and seeps	mesic	0 - 3200	Low/moderate
<i>Equisetum palustre</i>	marsh horsetail	None	None	3	unknown	Perennial rhizomatous herb	• Marshes and swamps	NA	45 - 1000	Low/moderate

<i>Arctostaphylos manzanita</i> ssp. <i>elegans</i>	Konocti manzanita	None	None	1B.3	(Jan)Mar-May(Jul)	perennial evergreen shrub	• Chaparral • Cismontane woodland • Lower montane coniferous forest	volcanic.	395 - 1615	moderate
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>	Raiche's manzanita	None	None	1B.1	Feb-Apr	perennial evergreen shrub	• Chaparral • Lower montane coniferous forest (openings)	rocky, often serpentinite.	450 - 1035	Low due to elevation range.
<i>Astragalus breweri</i>	Brewer's milk-vetch	None	None	4.2	Apr-Jun	Annual herb	• Chaparral • Cismontane woodland • Meadows and seeps • Valley and foothill grassland	often serpentinite, volcanic (open, often gravelly)	90 - 730	Low due to soil type.
<i>Astragalus clevelandii</i>	Cleveland's milk-vetch	None	None	4.3	Jun-Sep	Perennial herb	• Chaparral • Cismontane woodland • Riparian forest	serpentinite seeps.	200 - 1500	Low due to soil type.
<i>Astragalus rattanii</i> var. <i>jepsonianus</i>	Jepson's milk-vetch	None	None	1B.2	Mar-Jun	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	often serpentinite.	295 - 700	Low due to soil type.
<i>Astragalus rattanii</i> var. <i>rattanii</i>	Rattan's milk-vetch	None	None	4.3	Apr-Jul	perennial herb	• Chaparral • Cismontane woodland • Lower montane coniferous forest	gravelly streambanks.	30 - 825	Low due to soil type.
<i>Lupinus milo-bakeri</i>	Milo Baker's lupine	None	Threatened	1B.1	Jun-Sep	annual herb	• Cismontane woodland • Valley and foothill grassland	often along roadsides	395 - 430	Low due to elevation.
<i>Lupinus sericatus</i>	Cobb Mountain lupine	None	None	1B.2	Mar-Jun	Perennial herb	• Broadleafed upland forest • Chaparral • Cismontane woodland • Lower montane coniferous forest	NA	275 - 1525	moderate
<i>Trifolium hydrophilum</i>	saline clover	None	None	1B.2	Apr-Jun	Annual herb	• Marshes and swamps • Valley and foothill grassland • Vernal pools	mesic, alkaline	0 - 300	Low due to soil type.
<i>Calochortus uniflorus</i>	pink star-tulip	None	None	4.2	Apr-Jun	Perennial bulbiferous herb	• Coastal prairie • Coastal scrub • Meadows and seeps • North Coast coniferous forest	NA	10 - 1070	Moderate
<i>Erythronium helenae</i>	St. Helena fawn lily	None	None	4.2	Mar-May	Perennial bulbiferous herb	• Chaparral • Cismontane woodland • Lower montane coniferous forest • Valley and foothill grassland	volcanic or serpentinite.	350 - 1220	Low due to soil type.
<i>Fritillaria pluriflora</i>	adobe-lily	None	None	1B.2	Feb-Apr	Perennial bulbiferous herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	often adobe.	60 - 705	Low due to soil type.
<i>Fritillaria purdyi</i>	Purdy's fritillary	None	None	4.3	Mar-Jun	Perennial bulbiferous herb	• Chaparral • Cismontane woodland • Lower montane coniferous forest	usually serpentinite.	175 - 2255	Low due to soil type.
<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	woolly meadowfoam	None	None	4.2	Mar-May(Jun)	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland • Vernal pools	vernally mesic.	60 - 1335	Moderate.
<i>Hesperolinon adenophyllum</i>	glandular western flax	None	None	1B.2	May-Aug	annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	usually serpentinite.	150 - 1315	Low due to soil type.

<i>Hesperolinon bicarpellatum</i>	two-carpellate western flax	None	None	1B.2	May-Jul	Annual herb	• Chaparral	serpentinite	60 - 1005	Low due to soil type.
<i>Hesperolinon didymocarpum</i>	Lake County western flax	None	Endangered	1B.2	May-Jul	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	serpentinite	330 - 365	None due to elevation range.
<i>Hesperolinon drymarioides</i>	drymaria-like western flax	None	None	1B.2	May-Aug	Annual herb	• Closed-cone coniferous forest • Chaparral • Cismontane woodland • Valley and foothill grassland	serpentinite.	100 - 1130	Low due to soil type.
<i>Hesperolinon sharsmithiae</i>	Sharsmith's western flax	None	None	1B.2	May-Jul	Annual herb	• Chaparral	serpentinite.	270 - 300	None due to elevation range.
<i>Malacothamnus helleri</i>	Heller's bush-mallow	None	None	3.3	May-Jul	Perennial deciduous shrub	• Chaparral • Riparian woodland	Sandstone, gravel	305 - 635	low
<i>Sidalcea keckii</i>	Keck's checkerbloom	Endangered	None	1B.1	Apr-May(Jun)	Annual herb	• Cismontane woodland • Valley and foothill grassland	serpentinite, clay.	75 - 650	Low due to soil type.
<i>Sidalcea oregana ssp. hydrophila</i>	marsh checkerbloom	None	None	1B.2	(Jun)Jul-Aug	perennial herb	• Meadows and seeps • Riparian forest	mesic	1100 - 2300	None due to elevation range.
<i>Toxicoscordion fontanum</i>	marsh zigadenus	None	None	4.2	Apr-Jul	Perennial bulbiferous herb	• Chaparral • Cismontane woodland • Lower montane coniferous forest • Meadows and seeps • Marshes and swamps	vernally mesic, often serpentinite	15 - 1000	Low due to soil type.
<i>Calyptridium quadripetalum</i>	four-petaled pussypaws	None	None	4.3	Apr-Jun	Annual herb	• Chaparral • Lower montane coniferous forest	sandy or gravelly, usually serpentinite.	315 - 2040	Low due to soil type.
<i>Clarkia gracilis ssp. tracyi</i>	Tracy's clarkia	None	None	4.2	Apr-Jul	Annual herb	• Chaparral	openings, usually serpentinite	65 - 650	Low/moderate due to soil type.
<i>Piperia leptopetala</i>	narrow-petaled rein orchid	None	None	4.3	May-Jul	Perennial herb	• Cismontane woodland • Lower montane coniferous forest • Upper montane coniferous forest	NA	380 - 2225	Moderate
<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	None	None	1B.2	Apr-Jun	Annual herb (hemiparasitic)	• Chaparral (openings) • Cismontane woodland • Meadows and seeps • Valley and foothill grassland	serpentinite	20 - 910	Low due to soil type.
<i>Cordylanthus tenuis ssp. brunneus</i>	serpentine bird's-beak	None	None	4.3	Jul-Aug	Annual herb (hemiparasitic)	• Closed-cone coniferous forest • Chaparral • Cismontane woodland	usually serpentinite.	305 - 915	Low due to soil type.
<i>Cordylanthus tenuis ssp. capillaris</i>	Pennell's bird's-beak	Endangered	Rare	1B.2	Jun-Sep	annual herb (hemiparasitic)	• Closed-cone coniferous forest • Chaparral	serpentinite.	45 - 305	None due to elevation range.
<i>Orobanche valida ssp. howellii</i>	Howell's broomrape	None	None	4.3	Jun-Sep	Perennial herb (parasitic)	• Chaparral	serpentinite or volcanic	180 - 1740	Low due to soil type.

<i>Erythranthe nudata</i>	bare monkeyflower	None	None	4.3	May-Jun	Annual herb	• Chaparral • Cismontane woodland	serpentinite seeps	200 - 700	Low due to soil type.
<i>Antirrhinum subcordatum</i>	dimorphic snapdragon	None	None	4.3	Apr-Jul	annual herb	• Chaparral • Lower montane coniferous forest	sometimes serpentinite.	185 - 800	Low/moderate due to soil type.
<i>Antirrhinum virga</i>	twig-like snapdragon	None	None	4.3	Jun-Jul	Perennial herb	• Chaparral • Lower montane coniferous forest	rocky, openings, often serpentinite	100 - 2015	Low/moderate due to soil type.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	None	Endangered	1B.2	Apr-Aug	Annual herb	• Marshes and swamps • Vernal pools	Clay, lake margins	10 - 2375	Low due to soil type.
<i>Penstemon newberryi</i> var. <i>sonomensis</i>	Sonoma beardtongue	None	None	1B.3	Apr-Aug	Perennial herb	• Chaparral	rocky	700 - 1370	low
<i>Calamagrostis ophitidis</i>	serpentine reed grass	None	None	4.3	Apr-Jul	Perennial herb	• Chaparral • Lower montane coniferous forest • Meadows and seeps • Valley and foothill grassland	serpentinite, rocky (open, often north-facing slopes)	90 - 1065	Low due to soil type.
<i>Imperata brevifolia</i>	California satintail	None	None	2B.1	Sep-May	perennial rhizomatous herb	• Chaparral • Coastal scrub • Mojavean desert scrub • Meadows and seeps (often alkali) • Riparian scrub	mesic	0 - 1215	Low
<i>Orcuttia tenuis</i>	slender Orcutt grass	Threatened	Endangered	1B.1	May-Sep(Oct)	Annual herb	• Vernal pools	Often gravelly	35 - 1760	moderate
<i>Panicum acuminatum</i> var. <i>thermale</i>	Geysers panicum	None	Endangered	1B.2	Jun-Aug	annual / perennial herb	• Closed-cone coniferous forest • Riparian forest • Valley and foothill grassland	geothermally-altered soil, sometimes streamsides.	305 - 2470	Low due to soil type.
<i>Puccinellia simplex</i>	California alkali grass	None	None	1B.2	Mar-May	annual herb	• Chenopod scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	Alkaline, vernal mesic; sinks, flats, and lake margins.	2 - 930	Low due to soil type.
<i>Collomia diversifolia</i>	serpentine collomia	None	None	4.3	May-Jun	Annual herb	• Chaparral • Cismontane woodland	serpentinite, rocky or gravelly	200 - 600	Low due to soil type.
<i>Eriastrum brandegeae</i>	Brandegee's eriastrum	None	None	1B.1	Apr-Aug	annual herb	• Chaparral • Cismontane woodland	volcanic, sandy.	425 - 840	Low
<i>Eriastrum tracyi</i>	Tracy's eriastrum	None	Rare	3.2	May-Jul	annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	NA	315 - 1780	Moderate
<i>Leptosiphon acicularis</i>	bristly leptosiphon	None	None	4.2	Apr-Jul	Annual herb	• Chaparral • Cismontane woodland • Coastal prairie • Valley and foothill grassland	NA	55 - 1500	Moderate
<i>Leptosiphon grandiflorus</i>	large-flowered leptosiphon	None	None	4.2	Apr-Aug	annual herb	• Coastal bluff scrub • Closed-cone coniferous forest • Cismontane woodland • Coastal dunes	usually sandy.	5 - 1220	Low/moderate

							• Coastal prairie • Coastal scrub • Valley and foothill grassland			
<i>Leptosiphon jepsonii</i>	Jepson's leptosiphon	None	None	1B.2	Mar-May	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	usually volcanic	100 - 500	moderate
<i>Leptosiphon latisectus</i>	broad-lobed leptosiphon	None	None	4.3	Apr-Jun	Annual herb	• Broadleaved upland forest • Cismontane woodland	NA	170 - 1500	moderate
<i>Navarretia cotulifolia</i>	cotula navarretia	None	None	4.2	May-Jun	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	adobe	4 - 1830	Low due to soil type.
<i>Navarretia jepsonii</i>	Jepson's navarretia	None	None	4.3	Apr-Jun	Annual herb	• Chaparral • Cismontane woodland • Valley and foothill grassland	serpentinite	175 - 855	Low due to soil type.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	Baker's navarretia	None	None	1B.1	Apr-Jul	Annual herb	• Cismontane woodland • Lower montane coniferous forest • Meadows and seeps • Valley and foothill grassland • Vernal pools	Mesic	5 - 1740	Assumed extant.
<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i>	few-flowered navarretia	Endangered	Threatened	1B.1	May-Jun	Annual herb	• Vernal pools	volcanic ash flow	400 - 855	Low due to soil type.
<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	many-flowered navarretia	Endangered	Endangered	1B.2	May-Jun	Annual herb	• Vernal pools	volcanic ash flow	30 - 950	Low due to soil type.
<i>Navarretia linearifolia</i> ssp. <i>pinnatisecta</i>	pinnate-leaved navarretia	None	None	4.3	Jun-Aug	annual herb	• Chaparral • Lower montane coniferous forest	serpentinite or volcanic.	300 - 2200	Low due to soil type.
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	adobe navarretia	None	None	4.2	Apr-Jun	Annual herb	• Valley and foothill grassland vernally mesic • Vernal pools sometimes	clay, sometimes serpentinite	100 - 1000	Low due to soil type.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	shining navarretia	None	None	1B.2	(Mar)Apr-Jul	annual herb	• Cismontane woodland • Valley and foothill grassland • Vernal pools	Sometimes clay.	65 - 1000	Low due to soil type.
<i>Navarretia paradoxinota</i>	Porter's navarretia	None	None	1B.3	May-Jun(Jul)	Annual herb	• Meadows and seeps	Serpentinite, openings, vernally mesic, often drainages.	165 - 840	Low due to soil type.
<i>Eriogonum nervulosum</i>	Snow Mountain buckwheat	None	None	1B.2	Jun-Sep	Perennial rhizomatous herb	• Chaparral	serpentinite	300 - 2105	Low due to soil type.
<i>Eriogonum tripodum</i>	tripod buckwheat	None	None	4.2	May-Jul	Perennial deciduous shrub	• Chaparral • Cismontane woodland	often serpentinite.	200 - 1600	Low/moderate due to soil type.

<i>Potamogeton zosteriformis</i>	eel-grass pondweed	None	None	2B.2	Jun-Jul	Annual herb (aquatic)	• Marshes and swamps	assorted freshwater	0 - 1860	None (regardless of report)
<i>Delphinium uliginosum</i>	swamp larkspur	None	None	4.2	May-Jun	Perennial herb	• Chaparral • Valley and foothill grassland	serpentinite seeps	340 - 610	Low due to soil type.
<i>Myosurus minimus ssp. apus</i>	little mousetail	None	None	3.1	Mar-Jun	Annual herb	• Valley and foothill grassland • Vernal pools	alkaline	20 - 640	Low due to soil type.
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus	None	None	1B.1	Feb-Jun	Perennial evergreen shrub	• Closed-cone coniferous forest • Chaparral • Cismontane woodland	volcanic or serpentinite	75 - 1065	Low/moderate due to soil type.
<i>Ceanothus divergens</i>	Calistoga ceanothus	None	None	1B.2	Feb-Apr	Perennial evergreen shrub	• Chaparral	serpentinite or volcanic, rocky	170 - 950	Low/moderate due to soil type.
<i>Horkelia bolanderi</i>	Bolander's horkelia	None	None	1B.2	(May)Jun-Aug	Perennial herb	• Chaparral • Lower montane coniferous forest • Meadows and seeps • Valley and foothill grassland	edges, vernal mesic areas.	450 - 1100	Low due to elevation range.
<i>Brodiaea rosea</i>	Indian Valley brodiaea	None	Endangered	3.1	May-Jun	perennial bulbiferous herb	• Closed-cone coniferous forest • Chaparral • Cismontane woodland • Valley and foothill grassland	serpentinite.	335 - 1450	Low due to soil type.

Global Conservation Status Definition

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

- G1 Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
- G3 Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
- G4 Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 Secure** – Common; widespread and abundant.
- G#G# Range Rank** – A numeric range (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Intraspecific Taxon Conservation Status Ranks

T# **Infraspecific Taxon** (trimonial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a “T-rank” following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon’s informal taxonomic status.

Subnational (S) Conservation Status Ranks

- S1** **Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.
- S2** **Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.
- S3** **Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4** **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5** **Secure** – Common, widespread, and abundant in the jurisdiction.
- S#S#** **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

- ?** **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status
- Q** **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower-priority (numerically higher) conservation status rank. The “Q” modifier is only used at a global level and not at a national or subnational level.

Table 3 – Special-Status Habitat Communities – September 2020 – APN: 010 – 048 – 05 – Lower Lake and surrounding 7.5 min quadrangles

Habitat Type	Habitat
Aquatic	Central Valley Drainage Rainbow Trout/Cyprinid Stream
Aquatic	Clear Lake Drainage Resident Trout Stream
Terrestrial	Coastal and Valley Freshwater Marsh
Terrestrial	Great Valley Mixed Riparian Forest
Terrestrial	Northern Basalt Flow Vernal Pool
Terrestrial	Northern Interior Cypress Forest
Terrestrial	Northern Volcanic Ash Vernal Pool
Terrestrial	Serpentine Bunchgrass
Terrestrial	Wildflower Field

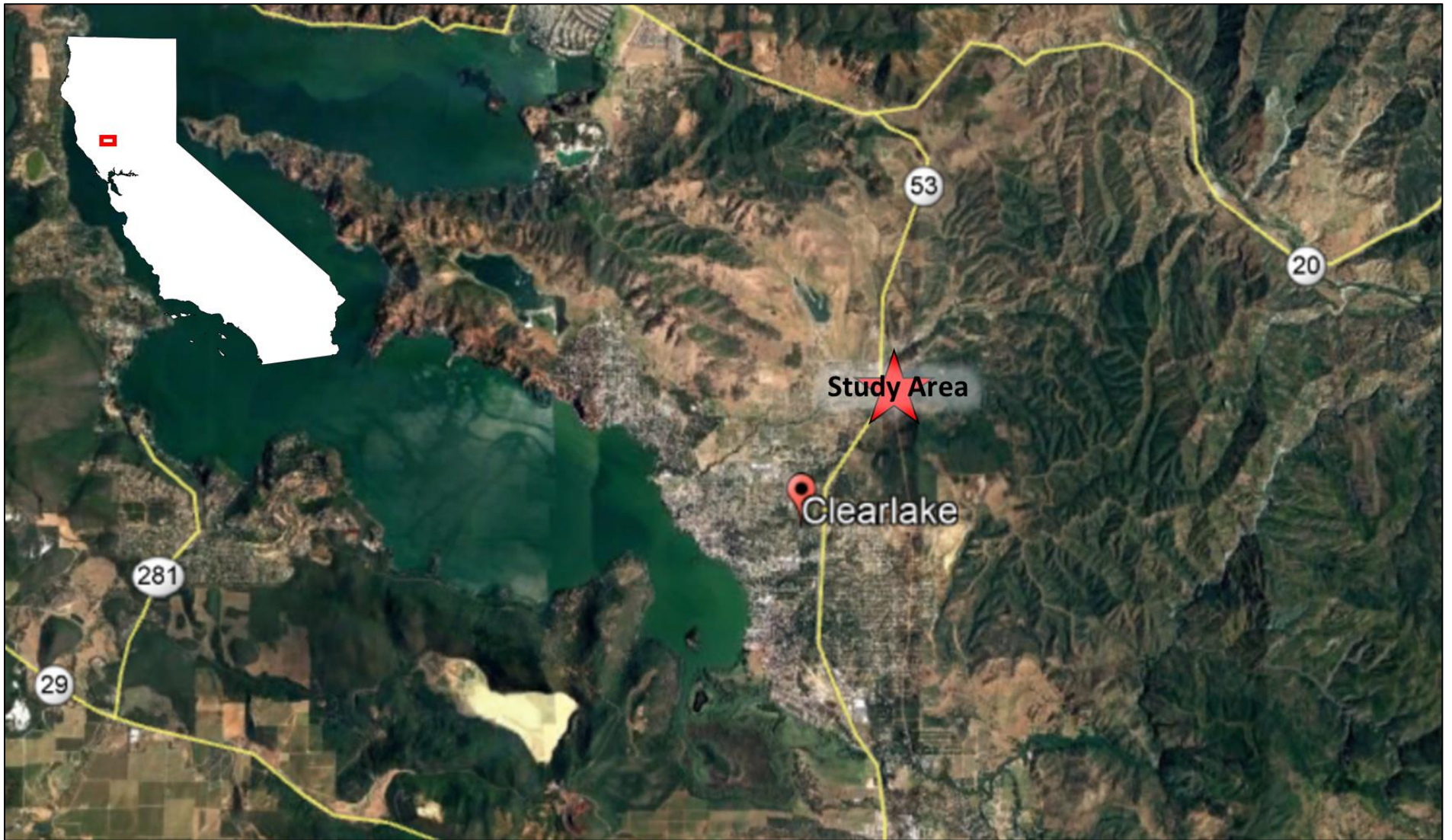
Appendix C

Maps

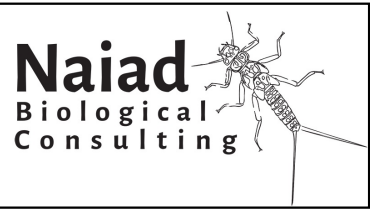
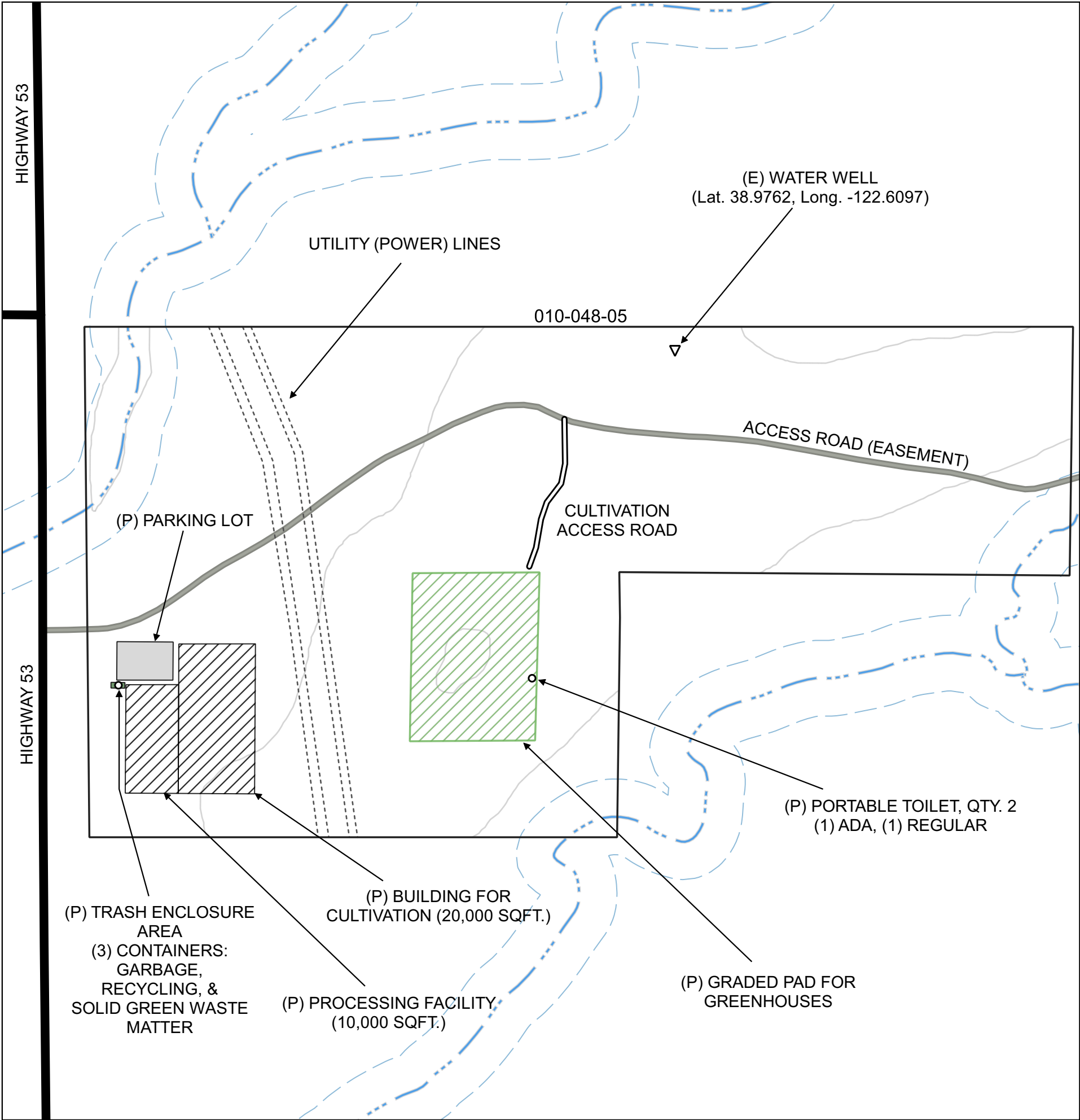
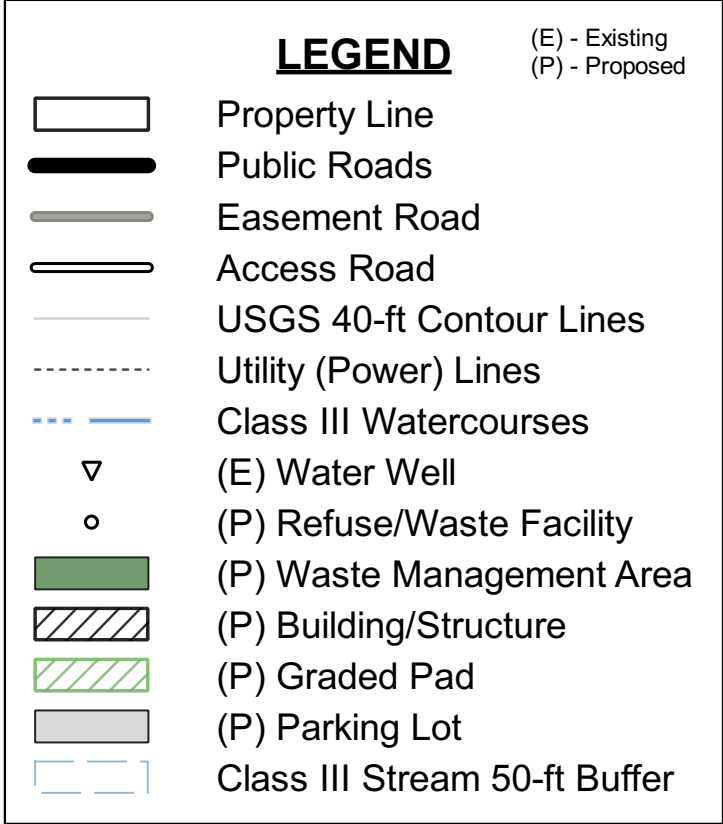
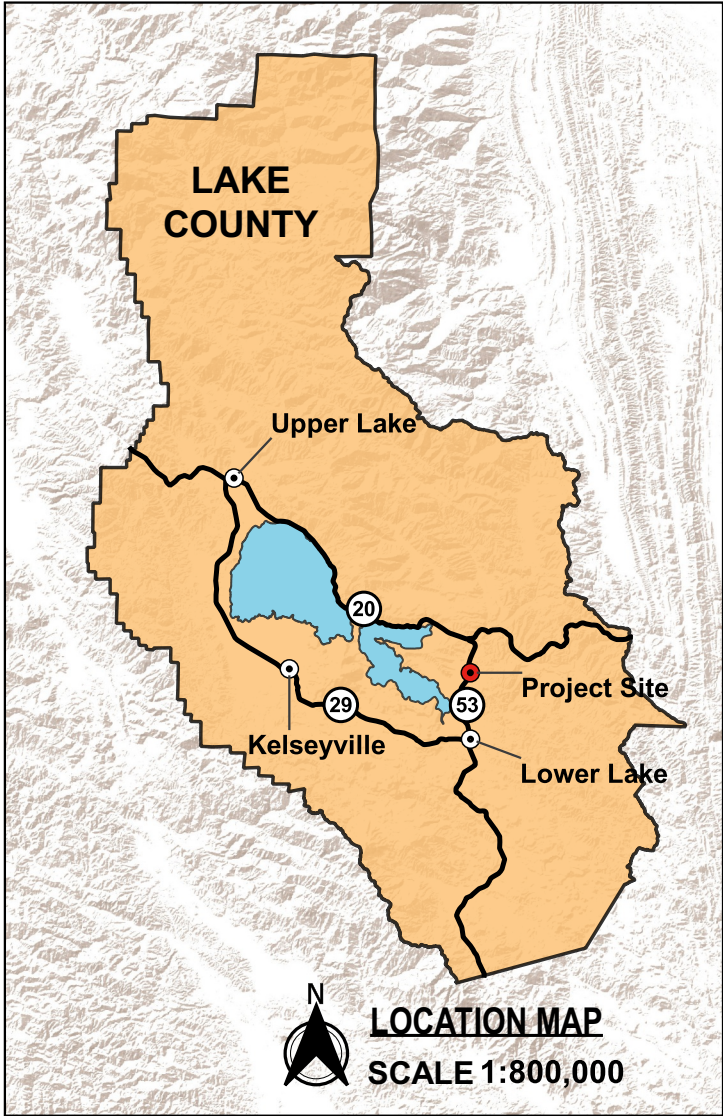
APN: 010 – 048 – 05

**Biological Reconnaissance and
Project Feasibility Assessment Report**

October 2020



Map 1. Location of Study Area apprixomitaly 1.50 miles northeast of Clearlake, CA within Lake County.



**Map 2.
PROJECT
SITE MAP**



MAP SCALE
1:1,720

**APPLICANT CONTACT
INFORMATION**

JOSEPH GUSTAFSON
P.O. BOX 208
LOWER LAKE,
CALIFORNIA 95457
PH. 707-350-0270

SITE ADDRESS

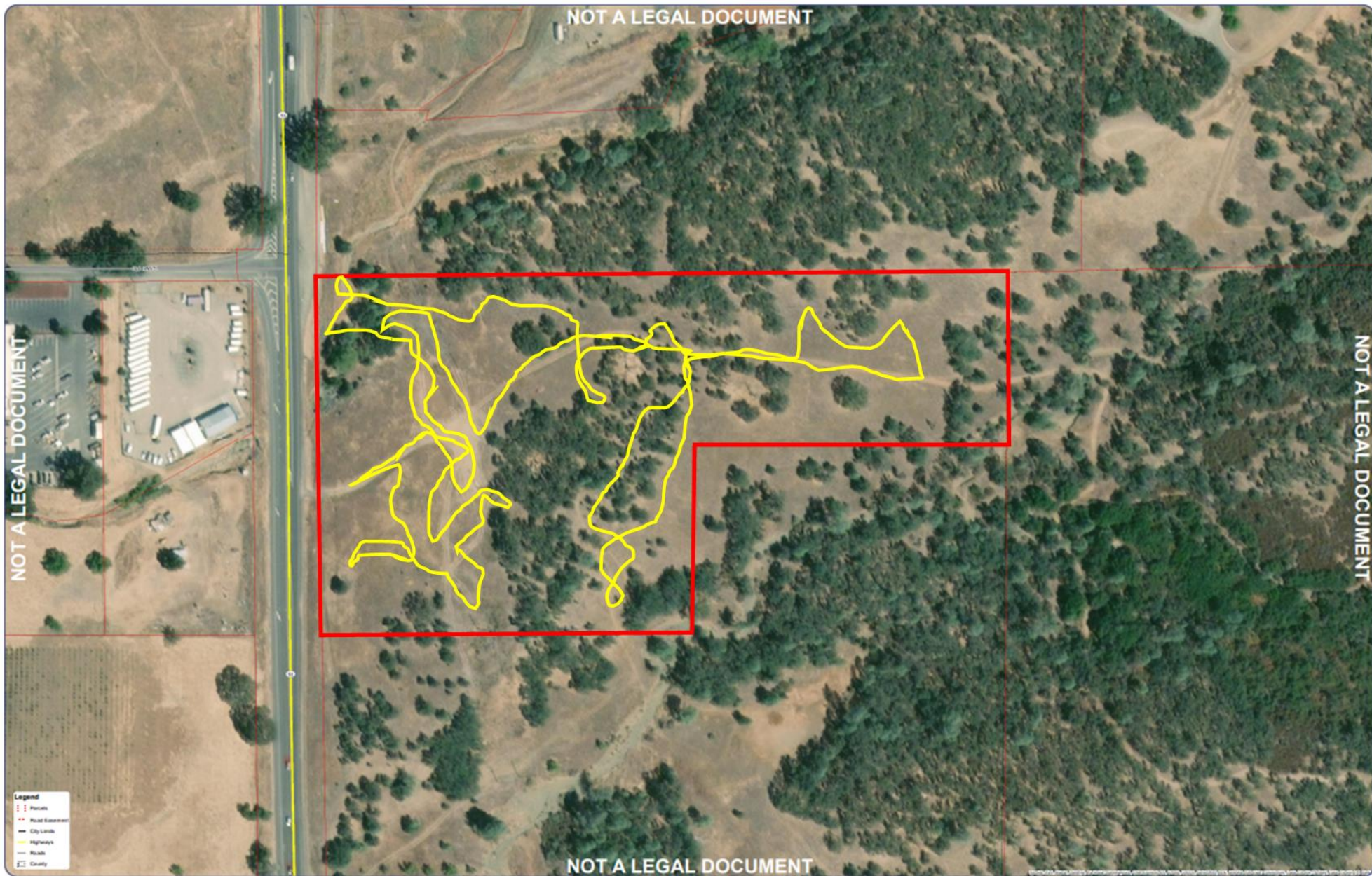
2560 HIGHWAY 53
CLEARLAKE,
CALIFORNIA 95422

LAKE CO. APN:
010-048-050

DIRECTIONS TO SITE

FROM LAKESHORE DR/
CA-53 INTERSECTION:

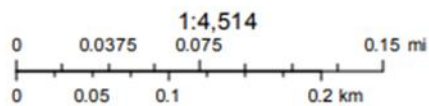
HEAD NORTH FROM
INTERSECTION ON
CA-53 N FOR APPROX.
1.9 MILES AND THE
SITE IS LOCATED TO
THE RIGHT ON A
PRIVATE DRIVEWAY



Map 4. Special Status Species Occurrences

California Natural Diversity
Database (CNDDB) Commercial
[ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



January 9, 2021



Map 5. Nearest NSO Activity Center to Study Area

Spotted Owl Observations
[ds704]

- Nest
- + Young
- ◇ Pair
- Other Positive Observation
- Negative Observation
- Activity Center
- Abandoned Activity Center
- ✕ Not Valid Activity Center
- Study Area



1:144,448
January 9, 2021

Source: Esri, Maxar, GeoEye, IGN, GeoSatellite, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Author: naidbiological@gmail.com
Printed from <http://bios.dfg.ca.gov>

Appendix D

Special-Status Species Occurrence Reports

APN: 010 – 048 – 05

**Biological Reconnaissance and
Project Feasibility Assessment Report
October 2020**



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species> IS <(Potamogeton zosteriformis)

Map Index Number:	50797	EO Index:	50797
Key Quad:	Clearlake Highlands (3812286)	Element Code:	PMPOT03160
Occurrence Number:	8	Occurrence Last Updated:	2003-03-27

Scientific Name:	<i>Potamogeton zosteriformis</i>	Common Name:	eel-grass pondweed
Listing Status:	Federal: None State: None	Rare Plant Rank:	2B.2
CNDDDB Element Ranks:	Global: G5 State: S3	Other Lists:	

General Habitat:	Micro Habitat:
MARSHES AND SWAMPS.	PONDS, LAKES, STREAMS. 90-2135 M.

Last Date Observed:	1945-09-04	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1945-09-04	Occurrence Rank:	Unknown
Owner/Manager:	UNKNOWN	Trend:	Unknown
Presence:	Presumed Extant		

Location:
CLEAR LAKE NEAR WYGALS RESORT AT SOUTH END OF LAKE.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN GENERAL VICINITY OF SOUTH END OF CLEAR LAKE.

Ecological:
SHALLOW WATER.

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1945 COLLECTION BY BAKER. NEEDS FIELDWORK.

PLSS:	T13N, R08W, Sec. 13 (M)	Accuracy:	5 miles	Area (acres):	0
UTM:	Zone-10 N4314109 E526216	Latitude/Longitude:	38.97557 / -122.69734	Elevation (feet):	

County Summary:	Quad Summary:
Lake	Lower Lake (3812285), Clearlake Highlands (3812286), Kelseyville (3812287), Benmore Canyon (3912215), Clearlake Oaks (3912216), Lucerne (3912217)

Sources:
BAK45S0010 BAKER, M. - BAKER #11198 UC #1100084 1945-09-04



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species> IS <(*Layia septentrionalis*)

Map Index Number:	42617	EO Index:	20017
Key Quad:	Lower Lake (3812285)	Element Code:	PDAST5N0F0
Occurrence Number:	18	Occurrence Last Updated:	2011-03-03

Scientific Name:	<i>Layia septentrionalis</i>	Common Name:	Colusa layia
Listing Status:	Federal: None State: None	Rare Plant Rank:	1B.2
CNDDDB Element Ranks:	Global: G2 State: S2	Other Lists:	BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley

General Habitat:	Micro Habitat:
CHAPARRAL, CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND.	SCATTERED COLONIES IN FIELDS AND GRASSY SLOPES IN SANDY OR SERPENTINE SOIL. 15-1100 M.

Last Date Observed:	1999-06-07	Occurrence Type:	Natural/Native occurrence
Last Survey Date:	1999-06-07	Occurrence Rank:	Good
Owner/Manager:	PVT	Trend:	Unknown
Presence:	Presumed Extant		

Location:
EAST OF BURNS VALLEY, ABOUT 0.2-0.5 MILE EAST OF HIGHWAY 53, NORTH OF LOWER LAKE.

Detailed Location:
9 COLONIES MAPPED IN 6 POLYGONS AT CNDDDB, WITHIN THE S 1/2 OF SECTION 14.

Ecological:
GROWING UNDER QUERCUS DOUGLASII WITH BROMUS HORDEACEOUS, TRITELEIA LAXA, IRIS DOUGLASIANA, COLLINSIA HETEROPHYLLA, MADIA GRACILIS, ACHYRACHAENA MOLLIS, ET AL.

Threats:
A PORTION OF THIS SITE IS PROPOSED FOR VINEYARD CONVERSION.

General:
9 COLONIES RANGING IN SIZE FROM 4 TO 50 PLANTS OBSERVED IN 1999. TWO COLLECTIONS BY BOWMAN IN 1902 AND 1909, WITH LOCATIONS GIVEN AS BURNS VALLEY, ALSO ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCE #35.

PLSS:	T13N, R07W, Sec. 14, S (M)	Accuracy:	specific area	Area (acres):	14
UTM:	Zone-10 N4314131 E534227	Latitude/Longitude:	38.97549 / -122.60486	Elevation (feet):	1,500

County Summary:	Quad Summary:
Lake	Lower Lake (3812285)

Sources:

BAL91U0001	BALDWIN, B. & S. BAINBRIDGE - LETTER WITH INFORMATION ON SEVERAL RARE PLANTS 1991-08-13
BOW02S0001	BOWMAN - BOWMAN #151 DS #3250 & #3260, CAS-BOT-BC #329320 & #329321 1902-04-XX
BOW09S0001	BOWMAN - BOWMAN #225 (CITED IN BAL91U0001) 1909-04-XX
MCB99F0001	MCBRIDE, G. - FIELD SURVEY FORM FOR LAYIA SEPTENTRIONALIS 1999-06-07
MCB99S0002	MCBRIDE, G. - MCBRIDE SN JEPS #95204 1999-05-12



Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Species> IS <(*Navarretia leucocephala* ssp. *bakeri*)

Map Index Number: 90252

Key Quad: Lower Lake (3812285)

Occurrence Number: 55

EO Index: 91271

Element Code: PDPLM0C0E1

Occurrence Last Updated: 2013-09-05

Scientific Name: *Navarretia leucocephala* ssp. *bakeri*

Common Name: Baker's navarretia

Listing Status: Federal: None

Rare Plant Rank: 1B.1

State: None

Other Lists:

CNDDDB Element Ranks: Global: G4T2

State: S2

General Habitat:

CISMONTANE WOODLAND, MEADOWS AND SEEPS, VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

VERNAL POOLS AND SWALES; ADOBE OR ALKALINE SOILS. 3-1680 M.

Last Date Observed: 1945-06-22

Occurrence Type: Natural/Native occurrence

Last Survey Date: 1945-06-22

Occurrence Rank: Unknown

Owner/Manager: UNKNOWN

Trend: Unknown

Presence: Presumed Extant

Location:

3.5 MILES NORTH OF LOWER LAKE.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG STATE ROUTE 53 AROUND 3.5 ROAD MILES NORTH OF LOWER LAKE, IN THE VICINITY OF CLEARLAKE.

Ecological:

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1945 COLLECTION BY HOWELL. NEEDS FIELDWORK.

PLSS: T13N, R07W, Sec. 22 (M)

Accuracy: non-specific area

Area (acres): 132

UTM: Zone-10 N4312642 E532855

Latitude/Longitude: 38.96213 / -122.62077

Elevation (feet):

County Summary:

Lake

Quad Summary:

Lower Lake (3812285)

Sources:

HOW45S0031 HOWELL, J. - HOWELL #21224 CAS #327770, CAS-BOT-BC #230342 1945-06-22

Data Version Date:
06/29/2020

Report Generation Date:
1/9/2021

Report #2 - Observations Reported

List of observations reported by site.



Meridian, Township, Range, Section (MTRS) searched:

M_12N_08W Sections(09,10,11,14,15,16,21,22,23);

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
Masterowl: LAK0047 Subspecies: NORTHERN											
AC	1990-07-01		0				1	38.892648	-122.737508	M 12N 08W 15	Contributor
NEG	2000-03-22	1833	0					38.888898	-122.733048	M 12N 08W 15	Section centroid
NEG	2000-03-30	1910	0					38.888898	-122.733048	M 12N 08W 15	Section centroid
NEG	2000-05-03	1915	0					38.889266	-122.770152	M 12N 08W 17	Section centroid
NEG	2000-05-22	2052	0					38.888898	-122.733048	M 12N 08W 15	Section centroid
NEG	2000-06-01	1957	0					38.903370	-122.714114	M 12N 08W 11	Section centroid
NEG	2000-06-08	2018	0					38.903370	-122.714114	M 12N 08W 11	Section centroid
NEG	2003-03-21	2000	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2003-05-16	2045	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2003-05-30	2040	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2003-06-07	2050	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2003-06-15	2102	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2003-06-21	2112	0					38.895560	-122.743150	M 12N 08W 16	Contributor
NEG	2004-03-08	0640	0					38.888993	-122.751612	M 12N 08W 16	Section centroid
NEG	2004-03-15	0653	0					38.888993	-122.751612	M 12N 08W 16	Section centroid
NEG	2004-03-22	1859	0					38.888993	-122.751612	M 12N 08W 16	Section centroid

<i>Type</i>	<i>Date</i>	<i>Time</i>	<i>#Adults</i>	<i>Age/Sex</i>	<i>Pair</i>	<i>Nest</i>	<i>#Young</i>	<i>Latitude DD NAD83</i>	<i>Longitude DD NAD83</i>	<i>MTRS</i>	<i>Coordinate Source</i>
Additional surveys within the search area with no Spotted Owls detected											
NEG	2003-03-21	2021	0					38.872443	-122.724180	M 12N 08W 22	Contributor
NEG	2003-05-16	2101	0					38.872443	-122.724180	M 12N 08W 22	Contributor
NEG	2003-05-30	2102	0					38.872443	-122.724180	M 12N 08W 22	Contributor
NEG	2003-06-07	2115	0					38.872443	-122.724180	M 12N 08W 22	Contributor
NEG	2003-06-15	2120	0					38.872443	-122.724180	M 12N 08W 22	Contributor
NEG	2003-06-21	2134	0					38.872443	-122.724180	M 12N 08W 22	Contributor

Appendix E

Best Practicable Treatment or Control and Best Management Practices

APN: 010 – 048 – 05

**Biological Reconnaissance and
Project Feasibility Assessment Report
October 2020**

Cannabis Cultivation

Best Practicable Treatment or Control (BPTC) and Best Management Practices (BMP)

Adapted from

State Water Resources Control Board Cannabis General Order WQ 2017-0023-DWQ Attachment A

BBTCs and BMPs are designed to prevent, minimize, and control the discharge of waste and pollutants associated with site operations and maintenance for the aforementioned project. Many of these BMPs are considered enforceable conditions under State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

No.	TERM
Land Development and Maintenance, Erosion Control, and Drainage Features	
Limitations on Earthmoving	
1.	Landowners shall not conduct grading activities for land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, or agriculture; whichever is more stringent shall apply. The grading prohibition on slopes exceeding 50 percent does not apply to site mitigation or remediation if the landowner is issued separate WDRs or an enforcement order for the activity by the Regional Water Board Executive Officer.
2.	Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent and should conform to the natural pre-grade slope whenever possible.
3.	Landowners shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized under 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board. This requirement does not prohibit driving on established, maintained access roads that are in compliance with this various agency standards.
4.	Land development and access road construction shall be designed by qualified professionals. Landowners shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat.
5.	The landowner shall control all dust related to operation activities to ensure dust does not produce sediment-laden runoff. The landowner shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Landowners shall grade access roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction, or when needed use a water truck to control dust and soil moisture.
Construction Equipment Use and Limitations	
6.	Landowners shall employ spill control and containment practices to prevent the discharge of fuels, oils, solvents and other chemicals to soils and waters of the state.

7.	Landowners shall stage and store equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials in locations that minimize the potential for discharge to waters of the state. At a minimum, the following measures shall be implemented: 1. Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Landowner shall not conduct any maintenance activity or refuel equipment in any location where the petroleum products or other pollutants may enter waters of the state as per Fish and Game Code section 5650 (a)(1). 2. Frequently inspect equipment and vehicles for leaks. 3. Immediately clean up leaks, drips, and spills. Except for emergency repairs that are necessary for safe transport of equipment or vehicles to an appropriate repair facility, equipment or vehicle repairs, maintenance, and washing onsite is prohibited. 4. If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled off-site. 5. Properly dispose of all construction debris off-site. 6. Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. Sweep up, contain, and properly dispose of spilled dry materials.
Erosion Control	
8.	The landowner shall use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground.
9.	The landowner shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Invasive Pest Plant Council's database, available at: www.cal-ipc.org/paf/. Locally native, non-invasive, and non-persistent grass species may be used for temporary erosion control benefits to stabilize disturbed land and prevent exposure of disturbed land to rainfall.
10.	Landowners shall incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of the project activities. The erosion prevention and sediment capture measures shall be effective in protecting water quality. • Interim erosion prevention and sediment capture measures shall be implemented within seven days of completion of grading and land disturbance activities, and shall consist of erosion prevention measures and sediment capture measures including: ○ Erosion prevention measures are required for any earthwork that uses heavy equipment (e.g., bulldozer, compactor, excavator, etc.). Erosion prevention measures may include surface contouring, slope roughening, and upslope storm water diversion. Other types of erosion prevention measures may include mulching, hydroseeding, tarp placement, revegetation, and rock slope protection. ○ Sediment capture measures include the implementation of measures such as gravel bag berms, fiber rolls, straw bale barriers, properly installed silt fences, and sediment settling basins. • Long-term erosion prevention and sediment capture measures shall be implemented as soon as possible and prior to the onset of fall and winter precipitation. Long-term measures may include the use of heavy equipment to reconfigure access roads or improve access road drainage, installation of properly-sized culverts, gravel placement on steeper grades, and stabilization of previously disturbed land. • Maintenance of all erosion protection and sediment capture measures is required year round. Early monitoring allows for identification of problem areas or underperforming erosion or sediment control measures. Verification of the effectiveness of all erosion prevention and sediment capture measures is required as part of winterization activities.
11.	Landowners shall only use geotextiles, fiber rolls, and other erosion control measures made of loose-weave mesh (e.g., jute, coconut (coir) fiber, or from other products without welded weaves). To minimize the risk of ensnaring and strangling wildlife, Landowners shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control for any project activities. This prohibition includes photo- or bio-degradable plastic netting.

12.	Cultivation sites constructed on or near slopes with a slope greater than or equal to 30 percent shall be inspected for indications of instability. Indications of instability include the occurrence of slope failures at nearby similar sites, weak soil layers, geologic bedding parallel to slope surface, hillside creep (trees, fence posts, etc. leaning downslope), tension cracks in the slope surface, bulging soil at the base of the slope, and groundwater discharge from the slope. If indicators of instability are present, the landowner shall consult with a qualified professional to design measures to stabilize the slope to prevent sediment discharge to surface waters.
13.	For areas outside of riparian setbacks or for upland areas, Landowners shall ensure that rock placed for slope protection is the minimum amount necessary and is part of a design that provides for native plant revegetation. If retaining walls or other structures are required to provide slope stability, they shall be designed by a qualified professional.
14.	Landowners shall monitor erosion control measures during and after each storm event that produces at least 0.5 in/day or 1.0 inch/7 days of precipitation, and repair or replace, as needed, ineffective erosion control measures immediately.
Access Road/Land Development and Drainage	
15.	Access roads shall be constructed consistent with the requirements of California Code of Regulations Title 14, Chapter 4. The Road Handbook describes how to implement the regulations and is available at http://www.pacificwatershed.com/PWA-publications-library . Existing access roads shall be upgraded to comply with the Road Handbook.
16.	Landowners shall obtain all required permits and approvals prior to the construction of any access road constructed for project activities. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits.
17.	Landowners shall ensure that all access roads are hydrologically disconnected to receiving waters to the extent possible by installing disconnecting drainage features, increasing the frequency of (inside) ditch drain relief as needed, constructing out-sloped roads, constructing energy dissipating structures, avoiding concentrating flows in unstable areas, and performing inspection and maintenance as needed to optimize the access road performance.
18.	New access road alignments should be constructed with grades (slopes) of 3- to 8- percent, or less, wherever possible. Forest access roads should generally be kept below 12-percent except for short pitches of 500 feet or less where road slopes may go up to 20- percent. These steeper access road slopes should be paved or rock surfaced and equipped with adequate drainage. Existing access roads that do not comply with these limits shall be inspected by a qualified professional to determine if improvements are needed.
19.	Landowners shall decommission or relocate existing roads away from riparian setbacks whenever possible. Roads that are proposed for decommissioning shall be abandoned and left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls. Abandoned roads shall be blocked to prevent unauthorized vehicle traffic.
20.	If site conditions prohibit drainage structures (including rolling dips and ditch-relief culverts) at adequate intervals to avoid erosion, the landowner shall use bioengineering techniques ¹² as the preferred measure to minimize erosion (e.g., live fascines). If bioengineering cannot be used, then engineering fixes such as armoring (e.g., rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g., gravel-filled "pillows" in an inside ditch to trap sediment) may be used for problem sites. The maximum distance between water breaks shall not exceed those defined in the Road Handbook.
21.	Landowners shall have a qualified professional design the optimal access road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures.
22.	Landowners shall ensure that access road surfacing, especially within a segment leading to a waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize access road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All access roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper access road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited.
23.	Landowners shall install erosion control measures on all access road approaches to surface water diversion sites to reduce the generation and transport of sediment to streams.
24.	Landowners shall ensure that access roads are out-sloped whenever possible to promote even drainage of the access road surface, prevent the concentration of storm water flow within an inboard or inside ditch, and to minimize disruption of the natural sheet flow pattern off a hill slope to a stream.

25.	If unable to eliminate inboard or inside ditches, the landowner shall ensure adequate ditch relief culverts to prevent down-cutting of the ditch and to reduce water runoff concentration, velocity, and erosion. Ditches shall be designed and maintained as recommended by a qualified professional. To avoid point-source discharges, inboard ditches and ditch relief culverts shall be discharged onto vegetated or armored slopes that are designed to dissipate and prevent runoff channelization. Inboard ditches and ditch relief culverts shall be designed to ensure discharges into natural stream channels or watercourses are prevented.
26.	Landowners shall ensure that access roads are not allowed to develop or show evidence of significant surface rutting or gullyng. Landowners shall use water bars and rolling dips as designed by a qualified professional to minimize access road surface erosion and dissipate runoff.
27.	Landowners shall only grade ditches when necessary to prevent erosion of the ditch, undermining of the banks, or exposure of the toe of the cut slope to erosion. Landowners shall not remove more vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment.
28.	Access road storm water drainage structures shall not discharge onto unstable slopes, earthen fills, or directly to a waterbody. Drainage structures shall discharge onto stable areas with straw bales, slash, vegetation, and/or rock riprap.
29.	Sediment control devices (e.g., check dams, sand/gravel bag barriers, etc.) shall be used when it is not practical to disperse storm water before discharge to a waterbody. Where potential discharge to a wetland or waterbody exists (e.g., within 200 feet of a waterbody) access road surface drainage shall be filtered through vegetation, slash, other appropriate material, or settled into a depression with an outlet with adequate drainage. Sediment basins shall be engineered and properly sized to allow sediment settling, spillway stability, and maintenance activities.
Drainage Culverts (See also Watercourse Crossings)	
30.	Landowners shall regularly inspect ditch-relief culverts and clear them of any debris or sediment. To reduce ditch-relief culvert plugging by debris, Landowners shall use 15- to 24-inch diameter pipes, at minimum. In forested areas with a potential for woody debris, a minimum 18-inch diameter pipe shall be used to reduce clogging. Ditch relief culverts shall be designed by a qualified professional based on site-specific conditions.
31.	Landowners shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a qualified professional.
Cleanup, Restoration, and Mitigation	
32.	Landowners shall limit disturbance to existing grades and vegetation to the actual site of the cleanup or remediation and any necessary access routes.
33.	Landowners shall avoid damage to native riparian vegetation. All exposed or disturbed land and access points within the stream and riparian setback with damaged vegetation shall be restored with regional native vegetation of similar native species. Riparian trees over four inches diameter at breast height shall be replaced by similar native species at a ratio of three to one (3:1). Restored areas must be mulched, using at least 2 to 4 inches of weed-free, clean straw or similar biodegradable mulch over the seeded area. Mulching shall be completed within 30 days after land disturbance activities in the areas cease. Revegetation planting shall occur at a seasonally appropriate time until vegetation is restored to pre-operation or pre-Legacy condition or better. Landowners shall stabilize and restore any temporary work areas with native vegetation to pre-operation or pre-Legacy conditions or better. Vegetation shall be planted at an adequate density and variety to control surface erosion and regenerate a diverse composition of regional native vegetation of similar native species.
34.	Landowners shall avoid damage to oak woodlands. Landowner shall plant three oak trees for every one oak tree damaged or removed. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to the local county.

35.	Landowners shall develop a revegetation plan for: • All exposed or disturbed riparian vegetation areas, • any oak trees that are damaged or removed, and • temporary work areas. Landowners shall develop a monitoring plan that evaluates the revegetation plan for five years. Landowners shall maintain annual inspections for the purpose of assessing an 85 percent survival and growth of revegetated areas within a five-year period. The presence of exposed soil shall be documented for three years following revegetation work. If the revegetation results in less than an 85 percent success rate, the unsuccessful vegetation areas shall be replanted. Landowners shall identify the location and extent of exposed soil associated with the site; pre- and post-revegetation work photos; diagram of all areas revegetated, the planting methods, and plants used; and an assessment of the success of the revegetation program. Landowners shall maintain a copy of the revegetation plan and monitoring results onsite and make them available, upon request, to Water Boards staff or authorized representatives. An electronic copy of monitoring results is acceptable in Portable Document Format (PDF).
36.	Landowners shall revegetate soil exposed as a result of project activities with native vegetation by live planting, seed casting, or hydroseeding within seven days of exposure.
37.	Landowners shall prevent the spread or introduction of exotic plant species to the maximum extent possible by cleaning equipment before delivery to the Site and before removal, restoring land disturbance with appropriate native species, and post-project activities monitoring and control of exotic species.
Stream Crossing Installation and Maintenance	
Limitations on Work in Watercourses and Permanently Poned Areas	
38.	Landowners shall obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), and a CDFW LSA Agreement.
39.	Landowners shall avoid or minimize temporary stream crossings. When necessary, temporary stream crossings shall be located in areas where erosion potential and damage to the existing habitat is low. Landowners shall avoid areas where runoff from access roadway side slopes and natural hillsides will drain and flow into the temporary crossing. Temporary stream crossings that impede fish passage are strictly prohibited on permanent or seasonal fish-bearing streams.
40.	Landowners shall avoid or minimize use of heavy equipment ¹³ in a watercourse. If use is unavoidable, heavy equipment may only travel or work in a waterbody with a rocky or cobbled channel. Wood, rubber, or clean native rock temporary work pads shall be used on the channel bottom prior to use of heavy equipment to protect channel bed and preserve channel morphology. Temporary work pads and other channel protection shall be removed as soon as possible once the use of heavy equipment is complete.
41.	Landowners shall avoid or minimize work in or near a stream, creek, river, lake, pond, or other waterbody. If work in a waterbody cannot be avoided, activities and associated workspace shall be isolated from flowing water by directing the water around the work site. If water is present, then the landowner shall develop a site-specific plan prepared by a qualified professional. The plan shall consider partial or full stream diversion and dewatering. The plan shall consider the use of coffer dams upstream and downstream of the work site and the diversion of all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe with intake screens that protect and prevent impacts to fish and wildlife. Project activities and associated work shall be performed outside the waterbody from the top of the bank to the maximum extent possible.
Temporary Watercourse Diversion and Dewatering: All Live Watercourses	
42.	Landowners shall ensure that coffer dams are constructed prior to commencing work and as close as practicable upstream and downstream of the work area. Cofferdam construction using offsite materials, such as clean gravel bags or inflatable dams, is preferred. Thick plastic may be used to minimize leakage but shall be completely removed and properly disposed of upon work completion. If the coffer dams or stream diversion fail, the landowner shall repair them immediately.

43.	When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the landowner shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937.
44.	If possible, gravity flow is the preferred method of water diversion. If a pump is used, the landowner shall ensure that the pump is operated at the rate of flow that passes through the site. Pumping rates shall not dewater or impound water on the upstream side of the coffer dam. When diversion pipe is used it shall be protected from project activities and maintained to prevent debris blockage.
45.	Landowners shall only divert water such that water does not scour the channel bed or banks at the downstream end. Landowner shall divert flow in a manner that prevents turbidity, siltation, and pollution and provides flows to downstream reaches. Landowners shall provide flows to downstream reaches during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Block netting and intake screens shall be sized to protect and prevent impacts to fish and wildlife.
46.	Once water has been diverted around the work area, Landowners may dewater the site to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, or upland area, or to another location approved by CDFW or the appropriate Regional Water Board Executive Officer prior to re-entering the watercourse.
47.	Upon completion of work, Landowners shall immediately remove the flow diversion structure in a manner that allows flow to resume with a minimum of disturbance to the channel substrate and that minimizes the generation of turbidity.
Watercourse Crossings	
48.	Landowners shall ensure that watercourse crossings are designed by a qualified professional.
49.	Landowners shall ensure that all access road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Consult CAL FIRE 100-year Watercourse Crossings document for examples and design calculations, available at: http://calfire.ca.gov/resource_mgt/downloads/100%20yr%20revised%208-08-17%20(final- a).pdf .
50.	Landowners shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any access road crossing structure on watercourses that supports fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines: • CDFW's <i>Culvert Criteria for Fish Passage</i>; • CDFW's <i>Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings</i>; and • National Marine Fisheries Service, <i>Southwest Region Guidelines for Salmonid Passage at Stream Crossings</i>.
51.	Landowners shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris. Refer to California Board of Forestry Technical Rule No. 5 available at: http://www.calforests.org/wp-content/uploads/2013/10/Adopted-TRA5.pdf .
52.	Landowners shall only use rock fords for temporary seasonal crossings on small watercourses where aquatic life passage is not required during the time period of use. Rock fords shall be oriented perpendicular to the flow of the watercourse and designed to maintain the range of surface flows that occur in the watercourse. When constructed, rock shall be sized to withstand the range of flow events that occur at the crossing and rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion. Rock must extend on either side of the ford up to the break in slope. The use of rock fords as watercourse crossings for all-weather access road use is prohibited.
53.	Landowners shall ensure that culverts used at watercourse crossings are designed to direct flow and debris toward the inlet (e.g., use of wing-walls, pipe beveling, rock armoring, etc.) to prevent erosion of road fill, debris blocking the culvert, and watercourses from eroding a new channel.

54.	Landowners shall regularly inspect and maintain the condition of access roads, access road drainage features, and watercourse crossings. At a minimum, Landowners shall perform inspections prior to the onset of fall and winter precipitation and following storm events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation. Landowners are required to perform all of the following maintenance: • Remove any wood debris that may restrict flow in a culvert. • Remove sediment that impacts access road or drainage feature performance. • Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment. • Maintain records of access road and drainage feature maintenance and consider redesigning the access road to improve performance and reduce maintenance needs.
55.	Landowners shall compact access road crossing approaches and fill slopes during installation and shall stabilize them with rock or other appropriate surface protection to minimize surface erosion. When possible, Landowners shall ensure that access roads over culverts are equipped with a critical dip to ensure that, if the culvert becomes blocked or plugged, water can flow over the access road surface without washing away the fill prism. Access road crossings where specific conditions do not allow for a critical dip or in areas with potential for significant debris accumulation, shall include additional measures such as emergency overflow culverts or oversized culverts that are designed by a qualified professional.
56.	Landowners shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) embedded or installed at the same level and gradient of the streambed in which they are being placed to prevent erosion.
Soil Disposal and Spoils Management	
57.	Landowners shall store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability.
58.	Landowners shall separate large organic material (e.g., roots, woody debris, etc.) from soil materials. Landowners shall either place the large organic material in long-term, upland storage sites, or properly dispose of these materials offsite.
59.	Landowners shall store erodible soil, soil amendments, and spoil piles to prevent sediment discharges in storm water. Storage practices may include use of tarps, upslope land contouring to divert surface flow around the material, or use of sediment control devices (e.g., silt fences, straw wattles, etc.).
60.	Landowners shall contour and stabilize stored spoils to mimic natural slope contours and drainage patterns (as appropriate) to reduce the potential for fill saturation and slope failure.
61.	For soil disposal sites Landowners shall: • revegetate soil disposal sites with a mix of native plant species, • cover the seeded and planted areas with mulched straw at a rate of two tons per acre, and • apply non-synthetic netting or similar erosion control fabric (e.g., jute) on slopes greater than 2:1 if the site is erodible.
62.	Landowners shall haul away and properly dispose of excess soil and other debris as needed to prevent discharge to waters of the state.
Riparian and Wetland Protection and Management	
63.	Landowners shall not disturb aquatic or riparian habitat, such as pools, spawning sites, large wood, or shading vegetation unless authorized under a CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), or a CDFW LSA Agreement.
64.	Landowners shall maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharge.
Water Storage and Use	
Water Supply, Diversion, and Storage	

65.	Landowners shall only install, maintain, and destroy wells in compliance with county, city, and local ordinances and with California Well Standards as stipulated in California Department of Water Resources Bulletins 74-90 and 74-81.
66.	All water diversions for project activities from a surface stream, subterranean stream flowing through a known and definite channel (e.g., groundwater well diversions from subsurface stream flows), or other surface waterbody are subject to the surface water Numeric and Narrative Instream Flow Requirements. This includes lakes, ponds, and springs (unless the spring is deemed exempt by the Deputy Director). See Section 3. Numeric and Narrative Instream Flow Requirements of this Attachment A for more information.
67.	Groundwater diversions may be subject to additional requirements, such as a forbearance period, if the State Water Board determines those requirements are reasonably necessary.
68.	Landowners are encouraged to use appropriate rainwater catchment systems to collect from impermeable surfaces (e.g., roof tops, etc.) during the wet season and store storm water in tanks, bladders, or off-stream engineered reservoirs to reduce the need for surface water or groundwater diversions.
69.	Landowners shall not divert surface water unless it is diverted in accordance with an existing water right that specifies, as appropriate, the source, location of the point of diversion, purpose of use, place of use, and quantity and season of diversion. Landowners shall maintain documentation of the water right at the project site. Documentation of the water right shall be available for review and inspection by the Water Boards, CDFW, and any other authorized representatives of the Water Boards or CDFW.
70.	Landowners shall ensure that all water diversion facilities are designed, constructed, and maintained so they do not prevent, impede, or tend to prevent the passing of fish, as defined by Fish and Game Code section 45, upstream or downstream, as required by Fish and Game Code section 5901. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream aquatic life movement and migration. Landowners shall allow sufficient water at all times to pass past the point of diversion to keep in good condition any fish that may be planted or exist below the point of diversion as defined by Fish and Game Code section 5937. Landowners shall not divert water in a manner contrary to or inconsistent with these Requirements.
71.	Landowners issued an SIUR by the State Water Board shall not divert surface water unless in compliance with all additional SIUR conditions required by CDFW.
72.	Water diversion facilities shall include satisfactory means for bypassing water to satisfy downstream prior rights and any requirements of policies for water quality control, water quality control plans, water quality certifications, waste discharge requirements, or other local, state or federal instream flow requirements. Landowners shall not divert in a manner that results in injury to holders of legal downstream senior rights. Landowners may be required to curtail diversions should diversion result in injury to holders of legal downstream senior water rights or interfere with maintenance of downstream instream flow requirements.
73.	Fuel powered (e.g., gas, diesel, etc.) diversion pumps shall be located in a stable and secure location outside of the riparian setbacks unless authorized under a 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board. Use of non-fuel powered diversion pumps (solar, electric, gravity, etc.) is encouraged. In all cases, all pumps shall: 1. be properly maintained, 2. have suitable containment to ensure any spills or leaks do not enter surface waterbodies or groundwater, and 3. have sufficient overhead cover to prevent exposure of equipment to precipitation.
74.	No water shall be diverted unless the landowner is operating the water diversion facility with a CDFW-approved water-intake screen (e.g. fish screen). The water intake screen shall be designed and maintained in accordance with screening criteria approved by CDFW. The screen shall prevent wildlife from entering the diversion intake and becoming entrapped. The landowner shall contact the regional CDFW Office, LSA Program for information on screening criteria for diversion(s). ¹⁵ The landowner shall provide evidence that demonstrates that the water intake screen is in good condition whenever requested by the Water Boards or CDFW. Points of re-diversion from off-stream storage facilities that are open to the environment shall have a water intake screen, as required by CDFW.
75.	Landowners shall inspect, maintain, and clean water intake screens and bypass appurtenances as directed by CDFW to ensure proper operation for the protection of fish and wildlife.

76.	Landowners shall not obstruct, alter, dam, or divert all or any portion of a natural watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, 404/401 CWA permits, a CDFW LSA Agreement, coverage under a water quality certification, or site-specific WDRs issued by the Regional Water Board.
77.	Landowners shall plug, block, cap, disconnect, or remove the diversion intake associated with project activities during the surface water forbearance period, unless the diversion intake is used for other beneficial uses, to ensure no water is diverted during that time.
78.	Landowners shall not divert from a surface water or from a subterranean stream for the project site at a rate more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right.
82.	Onstream storage reservoirs are prohibited unless either: · The landowner has an existing water right with irrigation as a designated use, issued prior to October 31, 2017, that authorizes the onstream storage reservoir, or · The landowner obtains an appropriative water right permit with irrigation as a designated use prior to diverting water from an onstream storage reservoir for the project site. Landowners with a pending application or an unpermitted onstream storage reservoir shall not divert for project activities until the landowner has obtain a valid water right.
83.	Landowners are encouraged to install separate storage systems for water diverted for irrigation and water diverted for any other beneficial uses, ¹⁶ or otherwise shall install separate measuring devices to quantify diversion to and from each storage facility, including the quantity of water diverted and the quantity, place, and purpose of use (e.g., crop irrigation, domestic, etc.) for the stored water.
84.	The landowner shall install and maintain a measuring device(s) for surface water or subterranean stream diversions. The measuring device shall be, at a minimum equivalent to the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.7. The measuring device(s) shall be located as close to the point of diversion as reasonable. Landowners shall maintain daily diversion records for water diverted. Landowners shall maintain separate records that document the amount of water used for project activities separated out from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Landowners shall maintain daily diversion records at the site and shall make the records available for review or by request by the Water Boards CDFW, or any other authorized representatives of the Water Boards or CDFW. Daily diversion records shall be retained for a minimum of five years. Compliance with this term is required for any surface water diversion, even those under 10 acre-feet per year.
85.	The State Water Board intends to develop and implement a basin-wide program for real- time electronic monitoring and reporting of diversions, withdrawals, releases and streamflow in a standardized format if and when resources become available. Such real- time reporting will be required upon a showing by the State Water Board that the program and the infrastructure are in place to accept real-time electronic reports. Implementation of the reporting requirements shall not necessitate amendment to this Requirement.
86.	Landowners shall not use off-stream storage reservoirs and ponds to store water for irrigation unless they are sited and designed or approved by a qualified professional in compliance with Division of Safety of Dams (DSOD), county, and/or city requirements, as applicable. If the DSOD, county, and/or city do not have established requirements they shall be designed consistent with the Natural Resource Conservation Service National Engineering Manual. Reservoirs shall be designed with an adequate overflow outlet that is protected and promotes the dispersal and infiltration of flow and prevents channelization. All off-stream storage reservoirs and ponds shall be designed, managed, and maintained to accommodate average annual winter period precipitation and storm water inputs to reduce the potential for overflow. Landowners shall plant native vegetation along the perimeter of the reservoir in locations where it does not impact the structural integrity of the reservoir berm or spillway. The landowner shall control vegetation around the reservoir berm and spillway to allow for visual inspection of berm and spillway condition and control burrowing animals as necessary.
87.	Landowners shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented under the direction of a qualified biologist, if appropriate after consultation with CDFW (pursuant to Fish and Game Code section 6400). Eradication methods can be direct or indirect. Direct methods may include hand- held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by CDFW.

88.	Water storage bladders are not encouraged for long-term use. If bladders are used, the landowner shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the landowner shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Landowners shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed.
89.	Landowners shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 110 percent of bladder's capacity). Secondary containment systems shall be of sufficient strength and stability to withstand the forces of released contents in the event of catastrophic bladder failure. In addition, secondary containment systems that are open to the environment shall be designed and maintained with sufficient capacity to accommodate precipitation and storm water inputs from a 25-year, 24-hour storm event.
90.	Landowners shall not cause or allow any overflow from off-stream water storage facilities that are closed to the environment (e.g., tanks and bladders) if the off-stream facilities are served by a diversion from surface water or groundwater. Landowners shall regularly inspect for and repair all leaks of the diversion and storage system.
91.	Water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment shall not be located in a riparian setback or next to equipment that generates heat. Landowners shall place water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment in areas that allow for ease of installation, access, maintenance, and minimize road development.
92.	Landowners shall install vertical and horizontal tanks according to manufacturer's specifications and shall place tanks on properly compacted soil that is free of rocks and sharp objects and capable of bearing the weight of the tank and its maximum contents with minimal settlement. Tanks shall not be located in areas of slope instability. Landowners shall install water storage tanks capable of containing more than 8,000 gallons only on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten) per the recommendations of a qualified professional.
93.	To prevent rupture or overflow and runoff, Landowners shall only use water storage tanks and bladders equipped with a float valve, or equivalent device, to shut off diversion when storage systems are full. Landowners shall install any other measures necessary to prevent overflow of storage systems to prevent runoff and the diversion of more water than can be used and/or stored.
94.	Landowners shall ensure that all vents and other openings on water storage tanks are designed to prevent the entry and/or entrapment of wildlife.
95.	Landowners shall retain, for a minimum of five years, appropriate documentation for any hauled water ¹⁸ used for irrigation. Documentation for hauled water shall include, for each delivery, all of the following: 1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler, 2. A copy of the Water Hauler's License (California Health and Safety Code section 111120), 3. A copy of proof of the Water Hauler's water right, groundwater well, or other authorization to take water, and the location of the water source, and 4. The quantity of water delivered or picked up from a water source, in gallons. Documentation shall be made available, upon request, to Water Boards or CDFW staff and any other authorized representatives of the Water Boards or CDFW.
Water Conservation and Use	
96.	Landowners shall regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.
97.	Landowners shall use weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.
98.	Landowners shall implement water conserving irrigation methods (e.g., drip or trickle irrigation, micro-spray, or hydroponics).

99.	Landowners shall maintain daily records of all water used for irrigation. Daily records may be calculated by the use of a measuring device or, if known, by calculating the irrigation system rates and duration of time watered (e.g., irrigating for one hour twice per day using 50 half-gallon drips equates to 50 gallons per day (1*2*50*0.5) of water used for irrigation). Landowners shall retain, for a minimum of 5 years, irrigation records at the site and shall make all irrigation records available for review by the Water Boards, CDFW and any other authorized representatives of the Water Boards or CDFW.
Irrigation Runoff	
100.	Landowners shall regularly inspect for leaks in mainlines ¹⁹ , laterals ²⁰ , in irrigation connections, sprinkler heads, or at the ends of drip tape and feeder lines and immediately repair any leaks found upon detection.
101.	The irrigation system shall be designed to include redundancy (e.g., safety valves) in the event that leaks occur, so that waste of water and runoff is prevented and minimized.
102.	Landowners shall regularly replace worn, outdated, or inefficient irrigation system components and equipment to ensure a properly functioning, leak-free irrigation system at all times.
103.	Landowners shall minimize irrigation deep percolation ²¹ by applying irrigation water at agronomic rates.
Fertilizers, Pesticides, and Petroleum Products	
104.	Landowners shall not mix, prepare, over apply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides, and other chemicals as defined in the applicable water quality control plan) in any location where they could enter the riparian setback or waters of the state. The use of agricultural chemicals inconsistently with product labeling, storage instructions, or DPR requirements for pesticide applications is prohibited. Disposal of unused product and containers shall be consistent with labels.
105.	Landowners shall keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, hazardous materials, and other substances which may degrade waters of the state. The landowner shall immediately notify the California Office of Emergency Services at 1-800-852-7550 and immediately initiate cleanup activities for all spills that could enter a waterbody or degrade groundwater.
106.	Landowners shall establish and use a separate storage area for pesticides, and fertilizers, and another storage area for petroleum or other liquid chemicals (including diesel, gasoline, oils, etc.). All such storage areas shall comply with the riparian setback Requirements, be in a secured location in compliance with label instructions, outside of areas of known slope instability, and be protected from accidental ignition, weather, and wildlife. All storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Storage tanks and containers must be of suitable material and construction to be compatible with the substances stored and conditions of storage, such as pressure and temperature.
107.	Throughout the wet season, Landowners shall ensure that any temporary storage areas have a permanent cover and side-wind protection or be covered during non-working days and prior to and during rain events.
108.	Landowners shall only use hazardous materials in a manner consistent with the product's label.
109.	Landowners shall only keep hazardous materials in their original containers with labels intact and shall store hazardous materials to prevent exposure to sunlight, excessive heat, and precipitation. Landowners shall provide secondary containment for hazardous materials to prevent possible exposure to the environment. Disposal of unused hazardous materials and containers shall be consistent with the label.
110.	Landowners shall only mix, prepare, apply, or load hazardous materials outside of the riparian setbacks.
111.	Landowners shall not apply agricultural chemicals within 48 hours of a predicted rainfall event of 0.25 inches or greater with a probability greater than 50-percent. In the Lake Tahoe Hydrologic Unit, Landowners shall not apply agricultural chemicals within 48 hours of any weather pattern that is forecast to have a 30 percent or greater chance of precipitation greater than 0.1 inch per 24 hours. This requirement may be updated based on amendments to the Lahontan Regional Water Board construction storm water general order.
Fertilizers and Soils	

112.	To minimize infiltration and water quality degradation, Landowners shall irrigate and apply fertilizer to consistent with the crop need (i.e., agronomic rate).
113.	When used, Landowners shall apply nitrogen to cultivation areas consistent with crop need (i.e., agronomic rate). Landowners shall not apply nitrogen at a rate that may result in a discharge to surface water or groundwater that causes or contributes to exceedance of water quality objectives, and no greater than 319 pounds/acre/year unless plant tissue analysis performed by a qualified individual demonstrates the need for additional nitrogen application. The analysis shall be performed by an agricultural laboratory certified by the State Water Board's Environmental Laboratory Accreditation Program.
114.	Landowners shall ensure that potting soil or soil amendments, when not in use, are placed and stored with covers, when needed, to protect from rainfall and erosion, to prevent discharge to waters of the state, and to minimize leaching of waste constituents into groundwater.
Pesticides and Herbicides	
115.	Landowners shall not apply restricted materials, including restricted pesticides, or allow restricted materials to be stored at the site.
116.	Landowners shall implement integrated pest management strategies where possible to reduce the need and use of pesticides and the potential for discharges to waters of the state.
Petroleum Products and Other Chemicals	
117.	Landowners shall only refuel vehicles or equipment outside of riparian setbacks. Landowners shall inspect all equipment using oil, hydraulic fluid, or petroleum products for leaks prior to use and shall monitor equipment for leakage. Stationary equipment (e.g., motors, pumps, generators, etc.) and vehicles not in use shall be located outside of riparian setbacks. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be stored onsite at all locations where equipment is used or staged.
118.	Landowners shall store petroleum, petroleum products, and similar fluids in a manner that provides chemical compatibility, provides secondary containment, and protection from accidental ignition, the sun, wind, and rain.
119.	Use of an underground storage tank(s) for the storage of petroleum products is allowed if compliant with all applicable federal, state, and local laws; regulations; and permitting requirements.
Cultivation-Related Waste	
120.	Landowners shall contain and regularly remove all debris and trash associated with cultivation activities from the cultivation site. Landowners shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Landowners shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Plant material may be disposed of onsite in compliance with any applicable CDFA license conditions.
121.	Landowners shall only dispose or reuse spent growth medium (e.g., soil and other organic media) in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or waters of the state. Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse. Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants. Landowners shall use erosion control techniques, as needed, for any reused or stored spent growth medium to prevent polluted runoff.
Refuse and Domestic Waste	
122.	Landowners shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (includes food sources) does not contaminate soil or enter the riparian setback or waters of the state.
123.	Landowners shall not dispose of domestic wastewater unless it meets applicable local agency and/or Regional Water Board requirements. Landowners shall ensure that human or animal waste is disposed of properly. Landowners shall ensure onsite wastewater treatment systems (e.g., septic system) are permitted by the local agency or applicable Regional Water Board.

124.	If used, chemical toilets or holding tanks shall be maintained in a manner appropriate for the frequency and conditions of usage, sited in stable locations, and comply with the riparian setback Requirements.							
Winterization								
125.	Landowners shall implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by the onset of the winter period.							
126.	Landowners shall block or otherwise close any temporary access roads to all motorized vehicles no later than the onset of the winter period each year.							
127.	Landowners shall not operate heavy equipment of any kind at the site during the winter period, unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction.							
128.	Landowners shall apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length at the frequency specified below.							
						Slope (percent)	Sheet Flow Length Not to Exceed (feet)	
						0 – 25	20	
						25 – 50	15	
						>50	10	
129.	Landowners shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation to determine if maintenance or cleaning is required.							
130.	Landowners shall stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance.							
131.	Landowners shall cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being used as needed to prevent erosion by storm water. The landowner shall have adequate cover and berm materials available onsite if the weather forecast indicates a probability of precipitation.							
132.	Landowners shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to waters of the state.							
133.	As part of the winterization plan approval process, the Regional Water Board may require Landowners to implement additional site-specific erosion and sediment control requirements if the implementation of the Requirements in this section do not adequately protect water quality.							

Attachment D - Mitigation Monitoring Program (MMRP)



City of Clearlake – Mitigation Monitoring Checklist

Project Name: Gustafson Conditional Cannabis Cultivation, Processing and Distribution Use Permits.

File Numbers: Use Permit UP11-20 Cultivation, UP12-20 Processing, UP13-20 Distribution, Design Review, Cannabis Business/Regulatory Permit and Development Agreement

Approval Date: _____ **Neg. Dec.:** Mitigated Negative Declaration

The mitigation measures outlined below were incorporated into the approval for this project in order to reduce potentially significant environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented and fulfills the City's monitoring pursuant to Section 15097 of the CEQA Guidelines.

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
AES-1		All exterior lighting shall incorporate down-light shielding and other designs to avoid excessive light bleed off site and to avoid excessive night sky lighting glare in accordance with the Zoning Code.		
AIR-1	Air Quality	Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.		
AIR-2	Air Quality	Driveways, access roads and parking areas shall be surfaced in a manner to minimize dust. Driveway approaches shall be constructed of concrete and built to minimum City of Clearlake standards.		
AIR-3.	Air Quality	The burning of construction debris is prohibited. Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District.		
AIR 4.	Air Quality	During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site (Hwy 53).		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
AIR 5.	Air Quality	Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded.		
AIR-6.	Air Quality	All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times.		
BIO-1.	Biological Resources	Prior to development, a protocol-level botanical survey shall be completed within the location defined as being feasible for project activities to occur within this Report. The survey shall follow procedures recommended by CDFW and in accordance with the guidelines established by CNPS, from the document <i>"Protocols for Surveying and Evaluating Impacts to Specie Status Native Plant Opulations and Sensitive Natural Communities"</i> .		
BIO-2.	Biological Resources	If project development results in a sufficient amount of noise from the use of machinery, construction shall occur between September 1 and January 31 to avoid disturbance to migratory nesting birds or a buffer shall be established by a qualified biologist if nesting birds are present.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
BIO-3.	Biological Resources	If construction occurs within the migratory bird nesting season (February 1 and August 31), a qualified biologist shall conduct a nesting birds survey fourteen (14) days prior to project development, including vegetation removal.		
BIO-4.	Biological Resources	Prior to any ground disturbance, the applicant shall conduct a site inspection for Burrowing Owls Presence within the project area. If Burrow Owls are observed, a pre-construction surveys shall be completed by a qualified biologist fourteen (14) days prior to site development. The survey shall be conducted to determine if the project area has active dens and determine if avoidance of these active dens can occur. If active dens are determined to be present, owl relocation shall occur to other onsite suitable habitat prior to development.		
BIO-5.	Biological Resources	If additional activities are proposed that may result in take of a listed species, agency personnel from CDFW and SFWS shall further analyze the potential impacts and provide technical assistance for any listed species. If required, guidelines for these reconnaissance surveys should be followed in accordance to the CDFW Survey and Monitoring Protocols and Guidelines, which can be located here: https://www.wildlife.ca.gov/conservation/survey-protocols		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
CUL-1.	Cultural and Tribal	During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the applicant shall retain a qualified cultural resources consultant from the City's approved list of consultants to identify and investigate any subsurface historic remains, and define their physical extent and the nature of any built features or artifact-bearing deposits. Significant historic cultural materials may include finds from the late 19th and early 20th centuries including structural remains, trash pits, isolated artifacts, etc.		
CUL-2.	Cultural and Tribal	The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted		

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		prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project.		
CUL-3.	Cultural and Tribal	If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", which parties agree will likely be the Koi Nation based upon the Tribe's ancestral ties to the area and previous designation as MLD on projects in the geographic vicinity. The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
GEO-1	Geology and Soils	The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.		
HAZ-1.	Hazards and Hazardous Materials	If the project involves storage of hazardous materials equal or greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas the applicant will be required to submit a Hazardous Materials Inventory Disclosure Statement/ Business Plan to the Environmental Health Division via the California Electronic Reporting System. This plan shall be renewed and updated annually or if quantities increase.		
HAZ-2.	Hazards and Hazardous Materials	If the amount of hazardous materials is less than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, the applicant will need to complete and submit a Hazardous Materials/Waste Declaration stating the name of the material and the quantity to be stored on site.		
HAZ-3.	Hazards and Hazardous Materials	Collected hazardous or toxic materials shall be recycled or disposed of through a registered waste hauler to an approved site.		
HAZ-4.	Hazards and Hazardous Materials	Industrial Waste shall not be disposed of on-site without review or permit from the Environmental Health Division or the Regional Water Quality Control Board.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
HAZ-5.	Hazards and Hazardous Materials	Hazardous Waste must be handled according to all Hazardous Waste Control Laws. Any generation of a hazardous waste must be reported to Lake County Environmental Health within thirty days.		
NOS-1.	Noise	All construction activities including engine warm-up shall be limited to weekdays and Saturday, between the hours of 7:00am and 7:00pm to minimize noise impacts on nearby residents.		
NOS-2.	Noise	Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.		
NOS-3.	Noise	During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
TRAN-1.	Transportation	Improvements shall be made to the project access off of Highway 53 as required by the California Department of Transportation (Caltrans). Encroachment permit shall be secured from Caltrans and verification of this permit submitted to the City prior to the City approving a building permit for the project. All access improvements shall be made to comply with the Caltrans Encroachment Permit prior to occupancy of any new development for the project as approved by the City.		

Explanation of Headings

Type = Project (mitigation for this specific project), ongoing, and/or cumulative.

Monitoring Department = Department or agency responsible for monitoring a particular mitigation measure.

Shown on Plans = When a mitigation measure is shown on the construction plans, this column must be initialed and dated.

Verified Implementation = When mitigation measure has been implemented, this column must be initialed and dated.

Remarks = Area for describing status of ongoing mitigation measure, or other information.