COUNTY OF LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
Planning Division
Courthouse - 255 N. Forbes Street
Lakeport, California 95453
Telephone: (707) 263-2221 FAX: (707) 263-2225

April 24, 2023

CALIFORNIA ENVIRONMENTAL QUALITY ACT ENVIRONMENTAL CHECKLIST FORM INITIAL STUDY (UP 22-15, IS 22-14)

1.	Project Title:	Joel Michaely Farms
2.	Permit Numbers	Major Use Permit UP 22-15 Initial Study IS 22-14
3.	Lead Agency Name and Address:	County of Lake Community Development Department Courthouse, 3rd Floor, 255 North Forbes Street Lakeport, CA 95453
4.	Contact Person, Phone:	Eric Porter, Associate Planner (707) 263-2221
5.	Project Location(s):	11450 & 11474 Spruce Grove Road, Lower Lake, CA
6.	Project Name & Address:	Joel Michaely Grow / Nicolas Taix, Manager 473-455 Johnsonville Road, #11 Susanville, CA 96130
7.	General Plan Designation:	Rural Lands, Resource Conservation
8.	Zoning/Assessor's Parcel Numbers (APN):	"RL-WW" Rural Lands, Waterway/012-045-39 "RL-WW-FF" Rural Lands, Waterway, Floodway Fringe/012-045-40 "RL-WW-FF" Rural Lands, Waterway, Floodway Fringe/012-045-41 "RL-WW", Rural Lands, Waterway/012-045-42 "RL", Rural Lands/012-045-43 "A-WW-FF", Agriculture, Waterway, Floodway Fringe/012-059-10 "A-WW-FF", Agriculture, Waterway, Floodway Fringe/012-059-11 "RL", Rural Lands/012-059-12 "RL", Rural Lands/012-059-13 "RL", Rural Lands/012-059-14

9.	Supervisor District:	District 1
10.	Flood Zone:	X: Areas determined to be outside the 0.2% annual chance floodplain. A: Area inundated by the Base Flood with no Base Flood Elevations determined.
11.	Slope:	Varied; cultivation sites are less than 10%
12.	Fire Hazard Severity Zone:	SRA; High Fire Risk
13.	Earthquake Fault Zone:	None
14.	Dam Failure Inundation Area:	Not located within Dam Failure Inundation Area
15.	Parcel Size:	±502.39 Total Acres
16.	Previous Land Use Permits:	None
17.	Description of Project:	

The proposed project has two phases, referred to herein as 'stages' to avoid confusion with the term 'phasing' as found in the California Environmental Quality Act (CEQA). Stage I (year I) is proposing a Type 3A "outdoor" cultivation for a total cultivation and canopy area of up to 1,089,000 sq. ft. (25 acres). Stage II (year II) is proposing a Type 3B "mixed-light" cultivation for 550,000 sq. ft. (12.6 acres) of canopy area within a cultivation area of 861,128 sq. ft. (19.8 acres). The outdoor cultivation area would entirely convert to mixed-light with greenhouse cultivation in Stage II; this will occur in the footprint of Stage I cultivation.

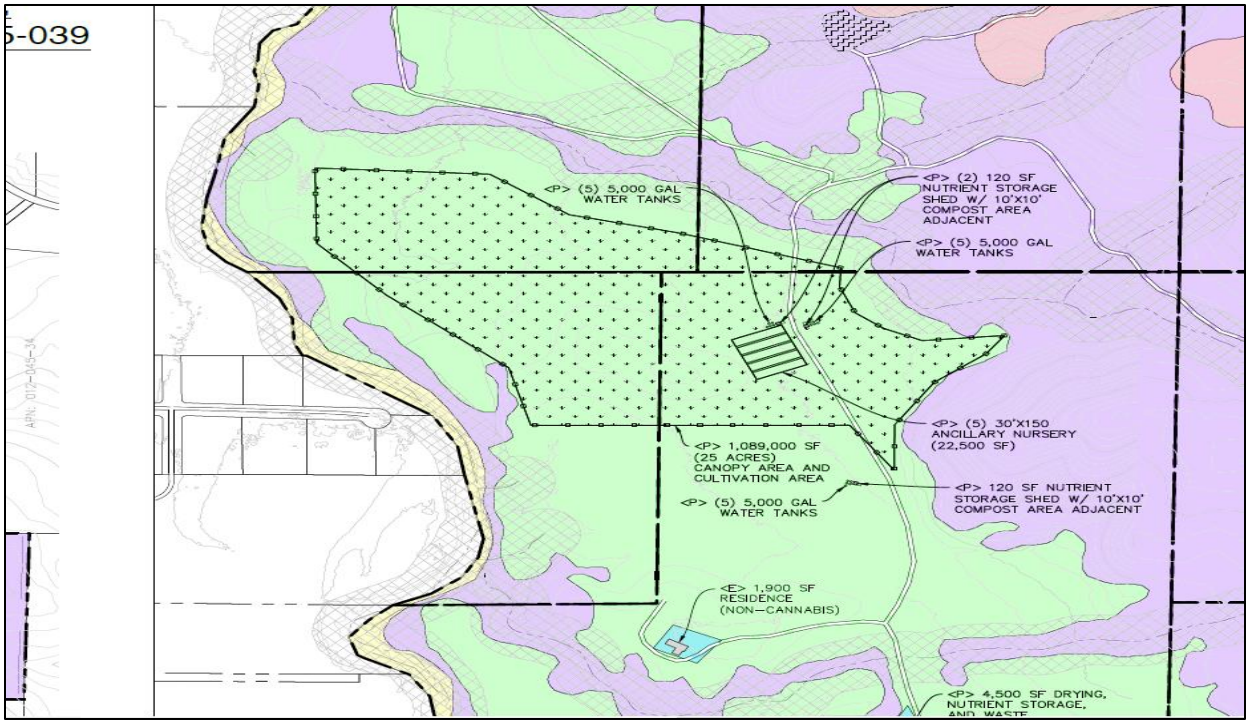
Construction – Stage I

Stage I construction is expected to take between 1 and 2 months, however the soil type under Stage I outdoor cultivation is high value (Farmland of Local Importance), however the property is not within a mapped Farmland Protection Zone (FPZ), thereby enabling Stage I to proceed as an outdoor cultivation activity (Figure 1).

Construction – Stage 2

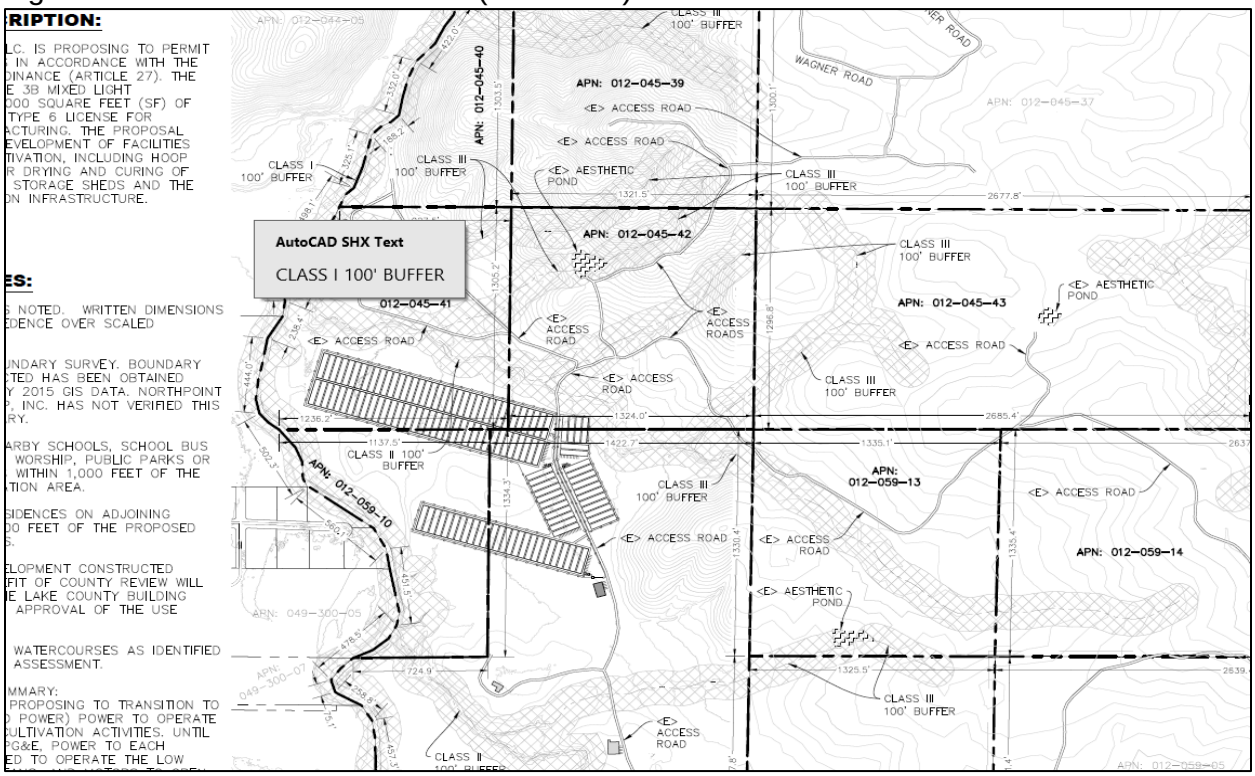
Stage 2 construction is expected to take between 2 and 4 months for greenhouse construction and for the 48' x 80' processing and non-volatile manufacturing building containing a restroom (Figures 2 and 3). Proposed according to the revised project description dated March 2022, are 122 30' x 150' greenhouses for mature plants; five 30' x 150' greenhouses for immature canopy; use of the existing 4,500 sq. ft. barn for processing (drying); new 3,840 sq. ft. (48' x 80') building for processing and non-volatile Type 6 manufacturing. The cultivation area will be enclosed by a 6' tall screening fence either made of chain link with privacy slats, or solid wood or metal. Fabric screening is not durable and is not permitted.

Figure 1: Stage I Cultivation (Sheet C2)



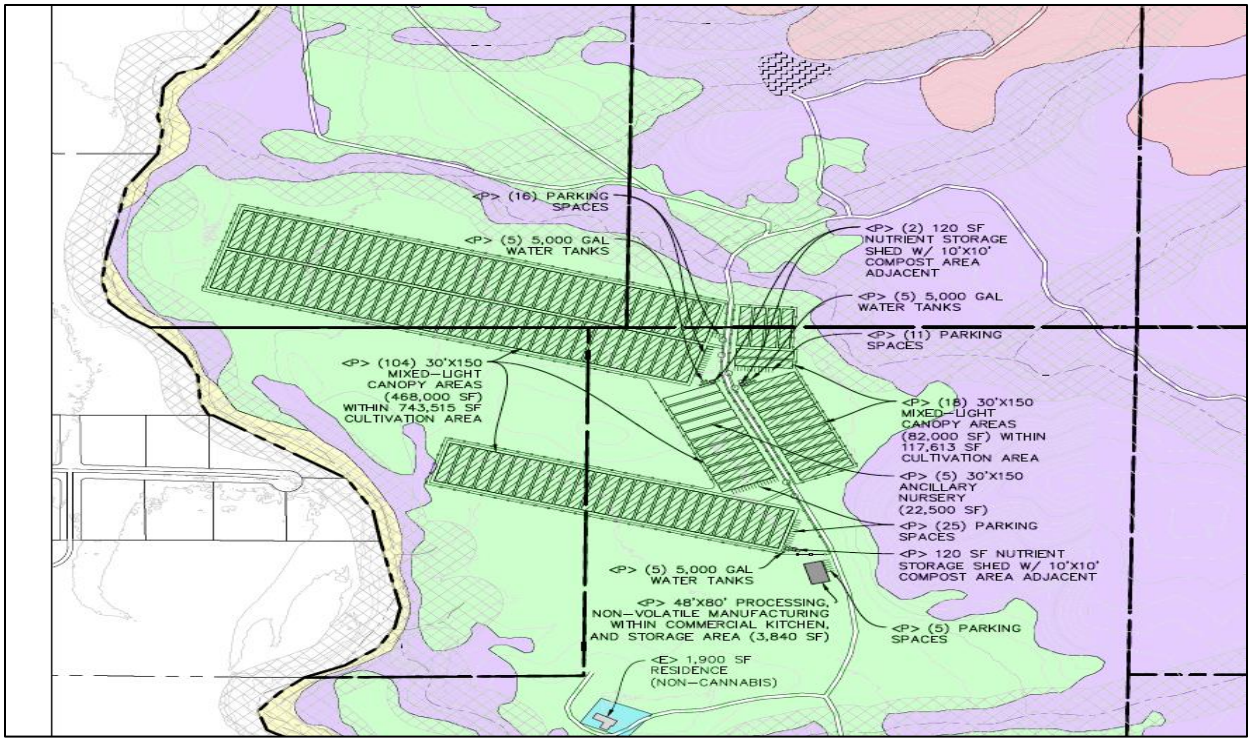
Source: Material Submitted by Applicant

Figure 2: Phase II Cultivation Area (Sheet CO)



Source: Material Submitted by Applicant

Figure 3: Stage II Cultivation Area (Sheet C3)



Source: *Material Submitted by Applicant*

Other project details

- Cultivation will be in raised garden beds or outdoor smart pots;
- Mixing tanks (plastic totes, 250 gallon) for making compost tea (liquid soil amendments or fertilizers);
- Drip irrigation system, consisting of a water storage tank, valves and filters, Polyvinyl chloride pipe, black polyvinyl flexible tubes, drip emitters;
- Waterproof storage shed/Conex container or similar for storage of chemicals and hand tools. Building permits are required for Conex containers.
- Irrigation water supplied via existing permitted groundwater well;
- Water storage in fifteen (15) 5,000-gallon water tanks;
- Electricity will be supplied by solar power and proposed to have a PG&E service;
- Parking, portable restrooms with hand washing stations, and trash enclosures will be provided within each fenced cultivation area.

Construction Equipment

The following equipment is expected to be required to construct the proposed project facilities:

- Excavator
- Backhoe
- Pickup trucks
- Water truck

Vehicle Trips During Construction

It is estimated that between 8 and 12 daily trips will result during construction of each of the two stages. If the project takes three months of construction time, a total of about 1,080 vehicle trips is probable. It is also estimated that 4 employees will work during construction; this will result in up to 8 to 12 trips per day including deliveries. Deliveries during construction will likely generate between 2 and 4 trips per day.

Operational Details

The proposed project will operate from 6 a.m. to 8 p.m. Monday through Saturday. Estimated number of employees - four during non-harvest season, and up to 25 during peak harvest season. Vehicle trips per day would be 8 to 12 daily trips during non-harvest season, and up to 50 during peak harvest season. The County anticipates that up to two deliveries per week on average will occur during operations and following site construction for each stage. The applicant is proposing 62 parking spaces.

Water Analysis

A Technical Memorandum (referred to as “Report” in this section) was prepared for this project by Annje Dodd, PhD and P.E. on behalf of Northpoint Consultants and is dated March 7, 2022. The Report evaluates annual water demand for the project; aquifer capacity and recharge rate during drought and non-drought years; evaluates drought management actions needed and provides well data on the on-site well.

Well Test

There is an existing permitted on-site groundwater well that will be used for irrigation, and which was evaluated in the Report. A well test was performed on January 11, 2022, by JAK Drilling and Pump. The well yielded approximately 70 gallons per minute (GPM) over a six-hour testing period. The water level dropped from 43 feet to 101.5 feet during the well test. After a 40-minute shut-down period, the well recovered to a depth of 47 feet.

Projected Water Demand

The Report projects the annual water usage for Stage I as being about 41.4 acre-feet per year, or about 13,457,663.9 gallons. The Report projects the annual water usage for Stage II as being about 34.8 acre-feet per year, or about 11,339,629.6 gallons. This estimate includes domestic water used by the dwelling, and the water usage anticipated for employees. The project will use a drip irrigation system to disperse water to the plants. The plants will be in fabric pots or raised beds; the drip irrigation systems are typically used for cannabis cultivation.

On-Site Water Storage

The materials submitted by the applicant show fifteen 5,000 gallon water tanks on site. Of these, one will be reserved for fire suppression.

Aquifer Data

The Report states that the project site is within the Lower Lake Valley Groundwater Basin (LLVGB) and the Copsey Creek Groundwater Basin (CCGB). The LLVGB consists of two water-bearing formations and is found at a varied depth of 18 feet below the ground's surface.

The CCGB basin, the primary water source for this project, contains an estimated 3,000 to 4,000 acre-feet of water; the usable amount of water is about 2,600 acre-feet. Recharge of this basin occurs from precipitation, and from seepage from the Copsey, Herndon and Seigler Canyon Creeks, as well as from Clear Lake.

The ground above the aquifer is about 414 acres in total area. The total existing water demand on this aquifer is 84 acre-feet per year. The project will add another 41.4 acre-feet of demand in year one, and will reduce to 34.8 acre-feet in year two and beyond. The total 'worst-case' water demand on this aquifer is 118.8 acre-feet per year. This estimates a total of 300 gallons of water per day per household, which is the daily usage standard accepted by the Environmental Protection Agency. This estimate does not take into consideration traditional crop irrigation occurring on other area farms.

Crop irrigation water demand in this aquifer is estimated to be 1,025 acre-feet per year, or about 39% of the CCGB storage capacity. Total combined annual demand is 1,143.8 acre-feet, or about 43% of the usable capacity of this basin. The total annual recharge is estimated to be 74 acre-feet per year during drought years, and 99 acre-feet per year during non-drought years.

Conclusion

The Report demonstrates that based on all the factors associated with water use and project demand, that there is adequate water supply for this project, even during drought years. The Report concludes that "It is recommended that the project applicant monitor water levels in the well. The purpose of the monitoring is to evaluate the functionality of the well to meet the long-term water demand of the proposed project. Water level monitoring is required by the Lake County Zoning Ordinance. Ordinance Article 27 Section 27.11(at) 3.v.e. requires the well to have a water level monitor.

Energy Usage

According to the application material submitted, the applicant will rely on solar and on-grid power, although the ratio of solar power versus on-grid power is not provided. Staff estimates a total of 66,000 amps would be needed to power 550,000 sq. ft. of greenhouse lighting using up to 25 watts per square foot of greenhouse area.

The applicant states in the December 2022 project description that the site would 'transition' to on-grid power, but no transitional time-frames were provided. PG&E sent an email regarding this project dated August 15, 2022, indicating that they had 'no comments' on the project.

The power demands for Stage I would be minimal since the cultivation activity will be outdoors. Stage I power would be needed for the five immature plant greenhouses; the processing building, surveillance equipment, the well pump, and any exterior lighting that is proposed. There is an existing 200 amp service providing on-grid power to the house.

Stage II power demand will increase due to the lighting needed inside the greenhouses. It is estimated that at least one additional 200 amp service would be needed for Stage II, bringing the total on-site power demand to at least 400 amps and potentially more depending on the power demands for 127 30' x 150' greenhouses, the barn, and the 48' x 80' manufacturing building, as well as exterior lighting, the well pump and on-site security system.

The greenhouse lighting will individually have a relatively low power demand for each greenhouse; the plants will be grown in a light-depravation area with up to, but less than 25 watts of lighting for each square foot inside of each greenhouse. However, given the number of greenhouses, the overall demand may require the applicant to upgrade the grid. A different project located near Hidden Valley Lake had a similar situation; the grid at that location was at capacity. PG&E indicated that a power grid upgrade could take between 3 and 5 years to complete.

Solid Waste Management

Annual non-hazardous solid waste generated by project operations is estimated to be about 1000 to 2000 pounds per year. All non-hazardous waste will be hauled to the nearest waste disposal facility located in Clear Lake. There are no capacity issues at the South Lake Waste Facility in Clear Lake, which has adequate capacity for three years with plans in place for expansion of the landfill within the next several years.

Wastewater Management

The site will install a restroom and a commercial kitchen in the 3,840 sq. ft. processing building, so a new septic system will be necessary. The project will be in part overseen by the Lake County Environmental Health Department regarding any septic systems and commercial kitchens. The ±502 acre property is large enough to support a 2nd septic system.

Stormwater Management

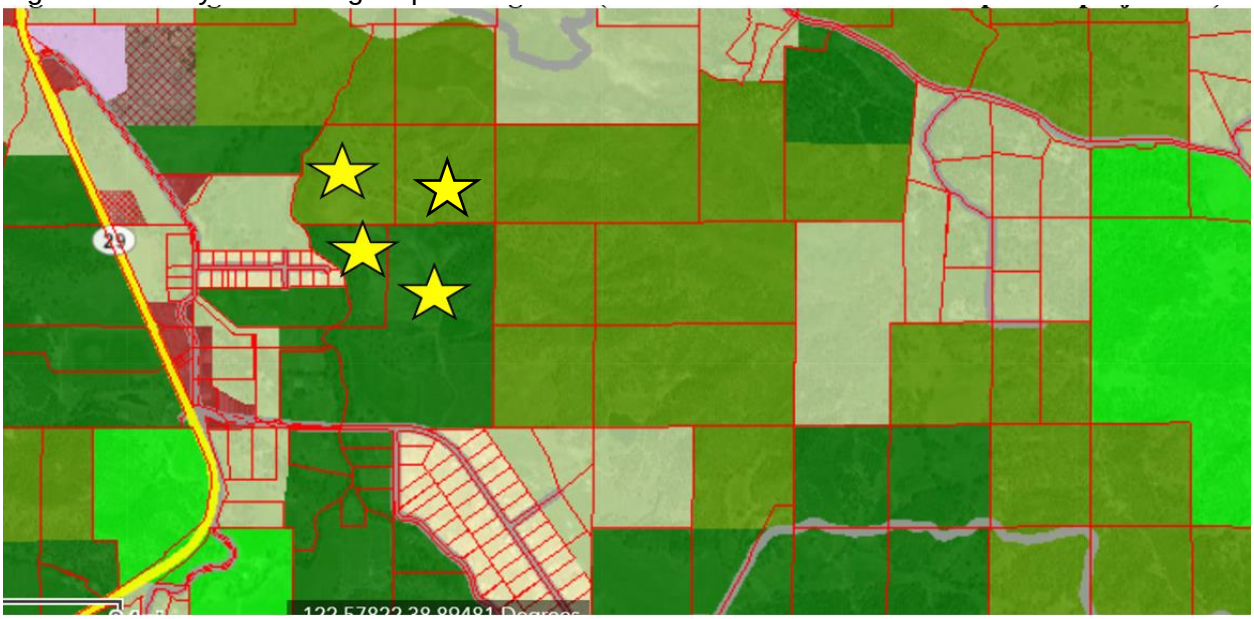
A Stormwater Management Plan (SMP) has been prepared and submitted to Lake County Community Development Department; the Plan identifies the method of stormwater containment in the cultivation area (straw wattles), which are typical for this type of cultivation activity. The cultivation area is set back more than 100 feet from all water courses on site. Setbacks from any surface water channel or above-ground water storage facility is 100 feet or more as is required by Article 27.11(at) of the Lake County Code.

17. Surrounding Land Uses and Setting:

All properties surrounding the project property are zoned "RL" Rural Lands, "RR" Rural Residential, and "SR" Suburban Reserve. The following neighboring lot characteristics are present.

- North: “RR” Rural Residential zoning; parcels vary in size from 5 acres to over 20 acres. Dwellings are present to the on several lots to the North.
- West: “SR” Suburban Reserve zoning containing small lots with dwellings, particularly on Ellen Springs Court. Land to the west also includes “RR” Rural Residentially-zoned land with a dwelling on a larger lot, and “RL” Rural Lands-zoning on a larger lot that also contains a dwelling.
- South: “SR” zoned lots containing dwellings.
- West: Large lots zoned “RL”; contains a dwelling on an 81 acre lot.

Figure 4: Vicinity and Zoning Map of Cultivation Sites



Source: Lake County GIS Mapping, 2023

18. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement).

    The extent of this environmental review falls within the scope of the Lead Agency, the Lake County Community Development Department, and its review for compliance with the Lake County General Plan, the Northshore Area Plan, the Lake County Code, and the Lake County Zoning Ordinance. Other organizations in the review process for permitting purposes, financial approval, or participation agreement can include but are not limited to:

    Lake County Department of Environmental Health
    Lake County Air Quality Management District
    Lake County Department of Public Works
    Lake County Department of Public Services
    Lake County Agricultural Commissioner
    Lake County Sheriff Department
    Northshore Fire Protection District
    Department of Motor Vehicles
    Central Valley Regional Water Quality Control Board
    California Water Resources Control Board
    California Department of Food and Agricultural

California Department of Pesticides Regulations
California Department of Public Health
California Bureau of Cannabis Control
California Department of Consumer Affairs
California Department of Fish & Wildlife (CDFW)
California Department of Forestry & Fire Protection (CAL FIRE)
California Department of Transportation (Caltrans)

19. 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.?

    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, per Public Resources Code (PRC) §21080.3.2. Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC section 21082.3 (c) contains provisions specific to confidentiality.

    Lake County sent letters to 11 tribes on July 29, 2022, informing them of the proposed project and offering consultation under AB-52. Of the 11 notified Tribes, the Yocha Dehe Tribe and Upper Lake Habematolel Tribe responded and deferred comment to the Middletown Rancheria Tribe, who never replied to the AB 52 notice.

    The applicant provided a Cultural Resource Assessment prepared by Natural Investigations, Inc., and dated December 2019 and updated December 2021. This Assessment yielded negative results (no finds of significance).

    The County requested comments from Sonoma State's Cultural Heritage group (CHRIS), who replied via emailed letter on August 11, 2022, and indicating that there is one mapped culturally-significant site located on one of the lots containing the project site. This sensitive area needs to be identified and avoided; this is added as a mitigation measure for the Michaely project.

    Staff reached out to the Middletown Rancheria Tribe on January 26, 2023 to see whether consultation was warranted due to this discovery. Staff emailed the Archaeological Study, comments from Sonoma State's Cultural History data base, site plans of the project, and the original AB 52 notice to Michael Rivera, Historic Officer with the Middletown Rancheria Tribe. No response has been received to date.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the lead Agency)
On the basis of this initial evaluation:

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

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Initial Study Prepared By:
Eric Porter, Associate Planner

EP

Date: 4-25-2023

SIGNATURE

Mireya Turner, Director
Community Development Department

SECTION 1
EVALUATION OF ENVIRONMENTAL IMPACTS:

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

I. AESTHETICS	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Except as provided in Public Resource Code Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☒	☐	☐	1, 2, 3, 4, 5, 6, 9
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒	☐	☐	2, 3, 4, 9
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒	☐	☐	1, 2, 3, 4, 5, 6, 9
d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	1, 2, 3, 4, 5, 6, 9

Discussion:

a) The project site is located on a relatively flat portion of the subject site, and will be visible from Ellen Springs Court, which contains a number of dwellings and is located about 600 feet from the south-western edge of the nearest cultivation site. The applicant has stated that a six foot tall wire fence will be installed around the cultivation areas, but does not provide details on the method of screening materials that will be used for the fence. Fabric screening tends to deteriorate quickly; the project will need to have screening fencing around the perimeter of the cultivation area because of its visibility and for security reasons, and the materials used must be durable and effective. A mitigation measure requiring this is added as follows:

Figure 4: View Looking Toward Site from Ellen Springs Court

Source: Google Earth Pro, 2023.

AES-1: the applicant shall install a minimum 6' tall screening fence around the cultivation areas. Fabric screening shall not be used; the screening material shall be chain link with slats, or a solid wood or metal fence. This shall occur prior to cultivation occurring on site.

Less than Significant with Mitigation Measures

b) The proposed project will be visible from Ellen Springs Road, and to a lesser extent from Spruce Grove Road. Ellen Springs is located about 600 feet from the cultivation area. The terrain is flat in this location, and the requirement for a 6' tall screening fence will help to screen the cultivation site from view from the road and from neighboring lots.

Less Than Significant with Mitigation Measure

c) The site is located within an area that contains a mixture of small (3/4 acre) and large (over 20 acre) lots. The cultivation site will not significantly impact the scenic quality of this area if it is screened as is required by mitigation measure AES-1.

Less Than Significant with Mitigation Measure AES-1

d) The project has potential to create additional light or glare due to greenhouses proposed for Stages I and II. Mitigation measures are needed to assure that light from these buildings does not impact the surrounding area. The following mitigation measures are added:

AES-2: Prior to Stage I cultivation, the processing building will have all lighting downcast and not visible from a public road or neighboring lot. A lighting plan showing Stage I and Stage II lighting shall be submitted prior to any cultivation occurring.

AES-3: Prior to any greenhouse cultivation, the applicant shall equip all greenhouses and transparent / translucent buildings with blackout screening. No light shall be directly visible from outside any structure that contains interior lighting.

Less Than Significant with Mitigation Measures AES-2 and AES-3

II. AGRICULTURE AND FORESTRY RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐	1, 2, 3, 4, 7, 8, 11, 13, 39
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	1, 2, 3, 4, 5, 7, 8, 11, 13
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐	1, 2, 3, 4, 5, 7, 8, 11, 13
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1, 2, 3, 4, 5, 6, 9
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐	1, 2, 3, 4, 5, 7, 8, 11, 13

Discussion:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board.

a) Most of the cultivation site is shown in areas that are mapped as 'farmland of local importance', but is not within a mapped FPZ are allowed. Stage I of this project proposes exclusively outdoor cultivation, including within this mapped 'farmland of local importance' area. Stage II would occur exclusively in greenhouses on site.

Less Than Significant Impact

b) The site is not under a Williamson Act contract, nor are any of the neighboring properties. This project will have no effect on any Williamson Act properties.

No Impact

c) The project site is zoned “A” Agriculture and “RL” Rural Lands, and is not zoned for forestland or timberland, nor has it been used historically for timber production.

Less Than Significant Impact

d) The project site does not contain land designated as forest lands and has not been used historically for timber production. Because forest land is not present on the project site, the proposed project has no potential to result in the loss of forest land or the conversion of forest land to non-forest use.

No Impact

e) The project would not adversely affect neighboring lots or the subject parcel in a manner that would inhibit or prevent agricultural uses on site or on surrounding lots.

Less Than Significant Impact

III. AIR QUALITY	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	1, 3, 4, 5, 21, 24, 31, 36
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard?	☐	☒	☐	☐	1, 2, 3, 4, 5, 21, 24, 31, 36
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	1, 2, 3, 4, 5, 10, 21, 24, 31, 36
d) Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?	☐	☒	☐	☐	1, 2, 3, 4, 5, 21, 24, 31, 36

Discussion:

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

a) The project site is located within the Lake County Air Basin, which is under the jurisdiction of the Lake County Air Quality Management District (LCAQMD). The LCAQMD applies air pollution regulations to all major stationary pollution sources and monitors air quality. The Lake County Air Basin is in attainment with both state and federal air quality standards.

According to the USDA Soil Survey and the ultramafic, ultrabasic, serpentine rock and soils map of Lake County, serpentine soils have not been found within the project area or project vicinity and would pose no threat of asbestos exposure during construction or operational of the project.

Due to the fact that the Lake County Air Basin is in attainment of both state and federal air quality standards, LCAQMD has not adopted an Air Quality Management Plan, but rather uses its rules and regulations to address air quality standards.

According to the Lake County Zoning Ordinance section on Commercial Cannabis Cultivation (§27.11), air quality must be addressed in the Property Management Plan (PMP). The intent of addressing this is to ensure that "all cannabis permittees shall not degrade the County's air quality as determined by the Lake County Air Quality Management District" and that "permittees shall identify any equipment or activity that may cause, or potentially cause the issuance of air contaminates including odor and shall identify measures to be taken to reduce, control or eliminate the issuance of air contaminants, including odors". This includes obtaining an Authority to Construct permit pursuant to LCAQMD Rules and Regulations.

The proposed project has the potential to result in short- and long-term air quality impacts from construction and operation of the proposed project.

Stage I site grading would be minimal, since the cultivation activities will occur outdoors. An estimated 200 cubic yards of potting soil would need to be imported to the site, however the cultivation site is flat and would not need to be altered significantly for the outdoor cultivation activity. Stage I site preparation will take between two (2) to four (4) weeks.

Stage II construction impacts, which includes site grading of over 30,000 cu. yds. of earth and pad preparation for the greenhouses, tilling the ground and trenching to provide utilities to the greenhouses, would be more significant in terms of the amount of earth that will be moved. Stage II construction would occur over an estimated five (5) to seven (7) week period.

The applicant has submitted a grading permit application and an engineered Grading and Erosion Control Plan, that addresses potential impacts and necessary mitigation measures to allow the grading to proceed (reference Sheet C0). This is addressed at greater length under findings for Geology and Soils in this report.

Operational impacts would include dust and fumes from site preparation of the greenhouse pads and vehicular traffic, including small delivery vehicles that would be contributors during and after site preparation and construction.

Implementation of conditions of approval would reduce air quality impacts to less than significant. Dust during site preparation would be limited during periods of high winds (over 15 mph). All visibly dry, disturbed soil and road surfaces would be watered to minimize fugitive dust emissions.

Dust and fumes may be released as a result of vehicular traffic, including small delivery vehicles. Carbon air filtration systems will be installed inside of greenhouses, which will help to minimize odors from escaping from greenhouses into the atmosphere.

AQ-1: Prior to obtaining the necessary permits and/or approvals for any Stage, applicant shall contact the Lake County Air Quality Management District (LCAQMD) and obtain an Authority to Construct (A/C) permit for all operations and for any diesel-powered equipment and/or other equipment with potential for air emissions. Alternatively, the applicant may provide proof that an Authority to Construct permit is not needed by the LCAQMD.

AQ-2: All mobile diesel equipment used must be in compliance with state registration requirements. Portable and stationary diesel-powered equipment must meet all federal, state, and local requirements, including the requirements of the State Air Toxic Control Measures for compression ignition engines. Additionally, all engines must notify LCAQMD prior to beginning construction activities and prior to engine use.

AQ-3: The applicant shall maintain records of all hazardous or toxic materials used, including a Material Safety Data Sheet (MSDS) for all volatile organic compounds utilized, including cleaning materials. Said information shall be made available upon request and/or the ability to provide the LCAQMD such information in order to complete an updated Air Toxic emission Inventory.

AQ-4: All vegetation during site development shall be chipped and spread for ground cover and/or erosion control. The burning of vegetation, construction debris, including waste material is prohibited.

AQ-5: The applicant shall have the primary access and parking areas surfaced with chip seal, asphalt, or an equivalent all weather surfacing to reduce fugitive dust generation. The use of white rock as a road base or surface material for travel routes and/or parking areas is prohibited.

AQ-6: All areas subject to infrequent use of driveways, overflow parking, etc., shall be surfaced with gravel, chip seal, asphalt, or an equivalent all weather surfacing. Applicant shall regularly use and/or maintain graveled area to reduce fugitive dust generations.

AQ-7: All grading shall be done in accordance with the Grading Plan, prepared by Northpoint Consulting Services (Sheet no. C0). Palliatives shall be applied to the soil during all grading activities to minimize dust, and inspections shall occur during certain intervals of the site preparation.

AQ-8: All greenhouses and processing / manufacturing buildings shall be equipped with carbon or similar air filtration systems to minimize odor drift prior to cultivation activities.

Less than Significant with Mitigation Measures AQ-1 through AQ-8

b) The Project area is in the Lake County Air Basin, which is designated as in attainment for state and federal air quality standards for criteria pollutants (CO, SO_2, NO_x, O_3, PM_{10}, $PM_{2.5}$, VOC, ROG, Pb). Any Project with daily emissions that exceed any of the thresholds of significance for these criteria pollutants should be considered as having an individually and cumulatively significant impact on both a direct and cumulative basis.

As indicated by the Project's Air Quality Management Plan, near-term construction activities and long-term operational activities would not exceed any of the thresholds of significance for criteria pollutants. Lake County has adopted Bay Area Air Quality Management District (BAAQMD) thresholds of significance as a basis for determining the significance of air quality and greenhouse gas impacts. Using the California Emissions Estimator Model, air emissions modeling performed for this Project, in both the construction Stage and the operational Stage, will not generate significant quantities of ozone or particulate matter and does not exceed the Project-level thresholds. Construction and operational emissions are summarized in the following tables:

Comparison of Daily Construction Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	1 to 10	54	Less than significant
NO_x	10 to 20	54	Less than significant
CO	10 to 30	548	Less than significant
SO_x	< 1	219	Less than significant
Exhaust PM_{10}	1 to 10	82	Less than significant
Exhaust $PM_{2.5}$	1 to 10	54	Less than significant
Greenhouse Gasses (CO_2e)	2,000 to 3,500	No threshold established	Less than significant

Comparison of Daily Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	1 to 10	54	Less than significant
NO_x	1 to 5	54	Less than significant
CO	1 to 10	548	Less than significant
SO_x	< 1	219	Less than significant
PM_{10} (total)	1 to 5	82	Less than significant
$PM_{2.5}$ (total)	1 to 5	54	Less than significant
Greenhouse Gasses (CO_2e)	1 to 20	No threshold established	Less than significant

Comparison of Annual Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions (tons/year)	BAAQMD Threshold (tons/year)	Significance
ROG (VOC)	0 to 1	10	Less than significant
NO_X	0 to 1	10	Less than significant
CO	0 to 1	100	Less than significant
SO_X	0 to 1	40	Less than significant
PM_{10}	0 to 1	15	Less than significant
$PM_{2.5}$	0 to 1	10	Less than significant
Greenhouse gasses (as CO_2 or methane)	1 to 100	10,000	Less than significant

Less than Significant with Mitigation Measures AQ-1 through AQ-8

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

There are no schools, parks, childcare centers, convalescent homes, or retirement homes located within one mile of the project site. The nearest off-site residence is located about 250 feet to the west of the cultivation area on APN: 41. While this is over the 200-foot setback for offsite residences from commercial cannabis cultivation as described in Article 27.11 of the Lake County Zoning, proximity to houses located on Ellen Springs Court is relatively close. The dwellings on Ellen Springs are located upwind from the site based on prevailing wind directions.

Stage I cultivation will occur outdoors. The potential for odor-related impacts exists, particularly during Stage I cultivation. Stage II cultivation will occur inside greenhouses that will be equipped with carbon air filtration systems, so odors can be captured in these filtration systems.

Pesticide application will be used during the growing season and, as described in the PMP, will be applied carefully to individual plants. The cultivation areas will be surrounded by a fence, which will reduce the risk of off-site drift of pesticides. Additionally, no demolition or renovation will be performed which would cause asbestos exposure, and no serpentine soils have not been detected and are not mapped onsite.

Less than Significant Impact with mitigation measures added

d) The proposed project has the potential to cause objectionable odors, particularly during the harvest season. However, the applicant is installing carbon filtration systems inside the greenhouses, and the closest neighboring residence is more than 1/4 mile away, a substantial number of people will not be adversely affected.

The proposed cultivation would generate minimal amounts of carbon dioxide from operation of small gasoline engines (tillers, weed eaters, lawn mowers, etc.) and from vehicular traffic associated with staff commuting, deliveries and pickups. Additionally, Mitigation Measures AQ-1 through AQ-8 would reduce impacts of dust generation from on-site roads and parking areas, as well as odors originating from greenhouse and processing / manufacturing buildings.

Less than Significant with Mitigation Measures AQ-1 through AQ-8

IV. BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	2, 5, 11, 12, 13, 16, 24, 29, 30, 31, 32, 33, 34
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐	1, 2, 3, 4, 5, 11, 12, 13, 16, 17, 29, 30, 31, 32, 33, 34
c) Have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐	1, 2, 3, 4, 5, 11, 12, 13, 16, 17, 21, 24, 29, 30, 31, 32, 33, 34
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?	☐	☐	☒	☐	13
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	1, 2, 3, 4, 5, 11, 12, 13
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	1, 2, 3, 5, 6

Discussion:

a) The Biological Resources Assessment (BA) was prepared by Natural Investigations Inc., and is dated December 7, 2021. The Assessment, which was done out of season, concluded that based on the site study undertaken, there would be no impact to sensitive plant or animal species, and no mitigation measures were recommended. The 'in season' biological report is necessary prior to cultivation; therefore the following mitigation measure is added:

BIO-1: Prior to cultivation, an 'in season' biological survey of the cultivation area and the areal surrounding the cultivation area is required. If sensitive specie(s) are discovered, they shall be avoided, and the area(s) containing sensitive specie(s) shall be fenced off from the cultivation area(s).

Less than Significant Impact with Mitigation Measure BIO-1

b) According to the Lake County General Plan Chapter 9.1 Biological Resources, "the County should ensure the protection of environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government," and upon review of the biological report on the parcel, it was determined that no substantial adverse effect will result from the project.

The BA did not identify any riparian habitats within the cultivation areas. The PMP submitted indicates that 'no removal of riparian or any other vegetation other than burned walnut trees is proposed as part of this project, which is limited to discing and ground preparation for the greenhouse pads.

Erosion control measures to control erosion and sedimentation during construction and operation have been identified in the PMP and in the grading plan submitted for this project (reference Sheet C3 submitted by applicant). Erosion control measures include straw wattles, vegetated swales, and buffer strips.

Less Than Significant Impact

c) According to the BA, there are no wetlands and vernal pools or other isolated wetlands within 100 feet of the project area.

Less Than Significant Impact

d) The BA stated that no specific wildlife corridors exist within or near the project area. Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in the CNDDB) exist within or near the cultivation area, the open space and the stream corridors in the cultivation area facilitate animal movement and migrations, primarily those of the black-tailed deer. The proposed Project would not have a significant impact on this movement because it would not create any unpassable barriers and the majority of the Study Area will still be available for corridor and migration routes. Of the 502 acres on the parcels, about 475 acres would remain available for natural habitat and wildlife corridors.

Implementation of the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Less than Significant Impact

e) In Article 27 of the County of Lake, CA Zoning Ordinance, under §27.13 on Conditions for Commercial Cannabis Cultivation, Tree Removal is listed under Prohibited Activities, whereas "(the) removal of any commercial tree species as defined by the California Code of Regulations section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and the removal of any true oak species (Quercus species) or Tan Oak (Notholithocarpus species) for the purpose of developing a cannabis cultivation site should be avoided and minimized."

The County of Lake General Plan Policy OSC-1.13 states the County shall support the conservation and management of oak woodland communities and their habitats, and Resolution Number 95-211 was adopted as a Management Policy for Oak Woodlands in Lake County, whereas the County of Lake aims to monitor oak woodland resources, pursue education of the public, federal, state and local agencies on the importance of oak woodlands, promote incentive programs that foster the maintenance and improvement of oak woodlands, and, through federal, state, and local agency land management programs, foster oak woodlands on their respective lands within the county.

As such, the PMP for the Project has incorporated conservation and mitigation measures similar to those that have been included in other county oak woodlands conservation plans used in the State of California, which follow Assembly Bill 242, referred to as the Oak Woodlands Conservation Act. The project does not propose to remove any trees greater than 6-inches DBH other than walnut trees that had been burned in the 2018 fire. There are no mapped sensitive species on the site.

Implementation of the project does not conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Less than Significant Impact

f) No special conservation plans have been adopted for this site and no impacts are anticipated.

No Impact

V. CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐	1, 3, 4, 5, 11, 14c, 15

b)	Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	☒	☐	☐	1, 3, 4, 5, 11, 14, 15
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1, 3, 4, 5, 11, 14, 15

Discussion:

a) A Cultural Resources Assessment (CRA) for the proposed cultivation project was completed by Natural Investigations Inc., dated December 2019 and updated December 2021 to identify potentially significant cultural resources.

A CHRIS records search was completed by the Northwest Information Center (NWIC) on August 11, 2022, and the Native American Heritage Commission (NAHC) returned the results of the Sacred Lands File (SLF) search in August 2022. The County sent an Assembly Bill AB52 notice to all eleven area tribes on July 29, 2022. The Upper Lake Habematolel Tribe and the Yocha Dehe Tribe submitted letters indicating that this project was not within their tribal ancestral areas and deferred to the Middletown Rancheria Tribe. Staff reached out to the Middletown Rancheria Tribe on January 26, 2023; to date, the Middletown Rancheria Tribe has not submitted any comments on this project or responded to staff's outreach regarding this project.

CHRIS comments indicated that there is some tribal evidence in the form of lithic scatter on site, but this area is not within a cultivation site. There is also a mapped sensitive area located on the 502 acre property, however this area is outside the project boundary and would not be impacted by this project.

Based on the findings of the CHRIS search, field survey, and outreach efforts with the eleven local area tribes, there is no indication that the project will impact any historical or archaeological resources as defined under CEQA Section 15064.5 or tribal cultural resources as defined under Public Resources Code Section 21074. It is possible, but unlikely, that significant artifacts or human remains could be discovered during Project construction. If, however, significant artifacts or human remains of any type are encountered it is recommended that the project sponsor contact the culturally affiliated tribe and a qualified archaeologist to assess the situation. The Sheriff's Department must also be contacted if any human remains are encountered.

Less than Significant with Mitigation Measures CUL-1 through CUL-3 added

CUL-1: Should any archaeological, paleontological, or cultural materials be discovered during site development, all activity shall be halted in the vicinity of the find(s), the applicant shall notify the culturally affiliated Tribe, and a qualified archaeologist to evaluate the find(s) and recommend mitigation procedures, if necessary, subject to the approval of the Community Development Director. Should any human remains be encountered, the applicant shall notify the Sheriff's Department, the culturally affiliated Tribe, and a qualified archaeologist for proper internment and Tribal rituals per Public Resources Code Section 5097.98 and Health and Safety Code 7050.5.

CUL-2: All employees shall be trained in recognizing potentially significant artifacts that may be discovered during ground disturbance. If any artifacts or remains are found, the culturally affiliated Tribe shall immediately be notified; a licensed archaeologist shall be notified, and the Lake County Community Development Director shall be notified of such findings.

CUL-3: Prior to cultivation, the applicant shall stake out the archaeologically sensitive site and avoid ground disturbance in this area. Avoidance of this site shall occur over the life of the project.

b) A CHRIS records search was completed by the Northwest Information Center (NWIC) to determine if the Project would affect archaeological resources. The record search found that there is one mapped historically significant site on the 502 acre property located outside the cultivation area.

Less than Significant with Mitigation Measures CUL-1 through CUL-3 added

c) The project site does not contain a cemetery and there are no known cemeteries are located within the immediate site vicinity. In the event that human remains are discovered on the project site, the project would be required to comply with the applicable provisions of Health and Safety Code §7050.5, Public Resources Code §5097 et. seq. and CEQA Guidelines §15064.5(e). California Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Pursuant to California Public Resources Code §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 by the Coroner.

If the Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted and the Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98. Mandatory compliance with these requirements would ensure that potential impacts associated with the accidental discovery of human remains would be less than significant.

Less than Significant with Mitigation Measure CUL-2 and CUL-3 added

VI. ENERGY	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resource, during construction or operation?	☐	☐	☒	☐	5
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐	1, 3, 4, 5

Discussion:

a) Onsite electricity will be supplied by on-grid power. The County estimates that a total of 400 amps are needed to power the greenhouses, security system, and well pump, as well as any other lighting that may be desired. There are no known grid capacity issues at this location, and the increase with 400 new amp services is realistic given the scope of the project.

Less than Significant Impact

b) According to the California Department of Cannabis Control's Title 4 Division 19 §15010 on compliance with the CEQA, all cannabis applications must describe their project's anticipated operational energy needs, identify the source of energy supplied for the project and the anticipated amount of energy per day, and explain whether the project will require an increase in energy demand and the need for additional energy resources.

Less than Significant Impact

VII. GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant With Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Directly or indirectly cause potentially substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special. Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1, 2, 3, 4, 5, 18, 19

iv) Landslides?

b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	1, 3, 4, 5, 19, 21, 24, 25, 30
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐	1, 2, 3, 5, 6, 9, 18, 21
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐	5, 7, 39
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐	2, 4, 5, 7, 13, 39
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	1, 2, 3, 4, 5, 14, 15

Discussion:

a) The Project site is located in a seismically active area of California and is expected to experience moderate to severe ground shaking during the lifetime of the project. That risk is not considered substantially different than that of other similar properties and projects in California.

Earthquake Faults (i)
According to the USGS Earthquake Faults map available on the Lake County GIS Portal, there are no earthquake faults in the vicinity of the subject site, however the North Bay has numerous faults that could rupture, and which could impact this site even though the faults are not mapped on site. This site is no more prone to ground shaking than other sites throughout the County, and all buildings requiring permits are evaluated for seismic structural integrity.

Seismic Ground Shaking (ii) and Seismic–Related Ground Failure, including liquefaction (iii)
Lake County contains numerous known active faults. Future seismic events in the Northern California region can be expected to produce seismic ground shaking at the site. All proposed construction is required to be built under Current Seismic Safety Construction Standards, and no large structures are proposed on this project site.

Landslides (iv)
The project cultivation sites are generally level without significant slopes, although the remaining portions of land are significantly sloped. There are some risks of landslides on

the parcel, however the proposed project's cultivation site is located on a flat area along the top of the ridgeline. According to the Landslide Hazard Identification Map prepared by the California Department of Conservation's Division of Mines and Geology, the area is considered generally stable. As such, the project's cultivation site is considered moderately susceptible to landslides and will not likely expose people or structures to substantial adverse effects involving landslides, including losses, injuries or death.

Less Than Significant Impact

b) The applicant is proposing about 30,000 cubic yards of which is significant. Phase I would be outdoors in above-ground pots, and would primarily involve importing soil. Phase II would involve grading for greenhouse pad preparation and tilling the soil to prepare for cultivation/ Both phases include the importing of soil for other cultivation activities. The applicant has submitted engineered Drainage and Erosion Control plans that show best management practices to control stormwater runoff. The amount of earth that needs to be moved requires the applicant to apply for and obtain a grading permit from the Lake County Community Development Department prior to ground disturbance. Grading permits are reviewed and issued by the Lake County Resource Planner.

Furthermore, the project is enrolled with the SWRCB for Tier 2, Low Risk coverage under Order No. WQ 2019-001-DWQ (Cannabis Cultivation General Order). The Cannabis Cultivation General Order implements Cannabis Policy requirements with the purpose of ensuring that the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, or springs. The Cannabis Cultivation General Order requires the preparation of a SMP (required for Tier 1 and Tier 2 sites), a Nitrogen Management Plan (NMP) (required for all Tier 2 sites), and the submittal of annual technical and monitoring reports demonstrating compliance. A Site Closure Report is required for all Tier 1 and Tier 2 sites. The purpose of the SMP is to identify Best Practicable Treatment or Control (BPTC) measures that the site intends to implement to bring any existing issues into compliance, and to apply moving forward to prevent erosion and potential sediment runoff which might affect the areas waterways. The purpose of the NMP is to identify how nitrogen is stored, used, and applied to crops in a way that is protective to water quality. The SMP and NMP are required prior to commencing cultivation activities and were submitted with the application materials. As part of the Applicant's enrollment, they are required to complete Annual Monitoring and Reporting to the State Water Board, which requires that winterization BPTC measures for erosion and sediment control are in place prior to the winter period.

GEO-1: Prior to any ground disturbance for building construction, the permittee shall submit erosion control and sediment plans to the Water Resource Department and the Community Development Department for review and approval in conjunction with a Grading Permit application. Said erosion control and sediment plans shall protect the local watershed from runoff pollution through the implementation of appropriate Best Management Practices (BMPs) in accordance with the Grading Ordinance. Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt fencing, and the planting of native vegetation on all disturbed areas. No silt, sediment, or other materials exceeding natural background levels shall be allowed to flow from the project area. The natural background level is the level of erosion that currently occurs from the area in a natural, undisturbed state.

GEO-2: Excavation, filling, vegetation clearing, or other disturbance of the soil shall not occur between October 15 and April 15 unless authorized by the Community Development Department Director. The actual dates of this defined grading period may be adjusted according to weather and soil conditions at the discretion of the Community Development Director.

GEO-3: The permit holder shall monitor the site during the rainy season (October 15 – May 15), including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed.

Less Than Significant with Mitigation Measures GEO-1 through GEO-3

c) The primary geologic unit or soil types where the proposed Project site is situated are:

Type 175 – Maymen-Millsholm-Bressa complex, 30 to 50 percent slopes. This map unit is on hills. Permeability of this soil is moderate. Surface runoff is rapid, and the hazard of erosion is severe. This soil type is relatively stable with low to moderate shrink-swell potential.

The main limitations are steepness of slope, depth to bedrock, and the hazard of erosion on the land.

The applicant has submitted a Grading and Erosion Control Plan (sheet no. C3) in anticipation of the grading permit being a requirement. The Grading Plan has mitigation measures that will decrease the likelihood of the loss of topsoil due to erosion. The grading plan must be followed during the course of fulfilling the requirements of the grading permit. The Grading Permit is issued following the approval of the major use permit.

Less Than Significant Impact

d) The Uniform Building Code is a set of rules that specify standards for structures. Greenhouse structures are proposed that would require a building permit, and the soil subtypes are generally stable. The applicant has submitted an Grading and Erosion Control plan in anticipation of the grading permit being a requirement, and the Building Official has the ability to require engineered footings if he believes the soil has characteristics that warrant engineered foundation footings.

Cultivation activities proposed in the project would occur on type 175 soil, which does not have expansive characteristics.

Less Than Significant Impact

e) The proposed project will be served by an American Disability Act compliant portable toilet.

The parcels are over 500 acres in combined size. The lots are large enough that a new septic system will not have soils incapable of adequately supporting the use of septic tanks for the disposal of wastewater. In addition, any new septic system will be inspected and approved by the County Division of Environmental Health prior to obtaining a use permit.

Less Than Significant Impact

f) The project site does not contain any known unique geologic feature or paleontological resources, and the Cultural Resources Assessment performed by Natural Investigations, Inc., yielded negative results of finds of significance. Disturbance of sensitive prehistoric resources is not anticipated.

Less than Significant Impact

VIII. GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	1, 3, 4, 5, 36
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	1, 3, 4, 5, 36

Discussion:

a) The Project consists of 25 acres of outdoor cannabis canopy area (about 1,089,000 sq. ft.) for Stage I that will convert to 12.9 acres (561,924 sq. ft.) of greenhouse canopy area for Stage II. The project site is located within the Lake County Air Basin, which is under the jurisdiction of the Lake County Air Quality Management District (LCAQMD). The LCAQMD applies air pollution regulations to all major stationary pollution sources and monitors countywide air quality.

The Lake County Air Basin is in attainment for all air pollutants with a high air quality level, and therefore the LCAQMD has not adopted thresholds of significance for Greenhouse Gase (GHG) emissions. In the interim, emissions estimates have been calculated using the California Emissions Estimator Model (CalEEMod) and compared with thresholds defined by the Bay Area Air Quality Management District (BAAQMD).

The BAAQMD threshold for GHG (including CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) for projects other than stationary sources (power generating plants, mining sites, petroleum facilities, chemical plants, etc.) that are not under a GHG Reduction Plan is 1,100 metric tons of CO_2 per year. According to the CalEEMod estimates for this project (using figures from the PMP and other parameters that most closely match the project description) the estimated annual emissions of CO_2 for overall operations would be 32,724,000 grams of CO_2 per year (about 32.7 tons); this is assuming 25 employees driving individual vehicles 60 days per year during peak harvest season for a distance of 10 miles arriving and 10 miles departing. Non peak-harvest trips would be significantly less; an estimated 8 employees will be driving up to 10 miles to work and 10 miles home at the end of the day using a worst-case scenario. This would occur for about 210 days per year.

CO_2 emissions from vehicles average about 404 grams per mile traveled. If 25 employees are each driving 20 miles per day during the 60 day peak harvest season, a total of 12,120,000 grams of CO_2 during peak harvest season.

Non peak-harvest season would have up to 8 employees on site for an estimated 210 days per year. Assuming each of the 8 employees drives themselves to work each day, a total of 13,574,400 grams (13.57 tons) of CO_2 would result per year.

Total non-construction related CO_2 emissions would be about 25,694,400 grams of CO_2 per year, or about 25.7 tons of CO_2 per year. This is considerably less than the 1,100 metric tons of CO_2 *per project* that is the 'threshold of significance' for the Bay Area Air Quality safe air threshold. Using this threshold, it would take this project about 43 years to reach levels of significance for GHG emissions.

Estimates for site preparation and construction period (up to 60 days for Stage I and up to 150 days for Stage II) are about the same as operational CO_2 output. Total annual projected CO_2 output is well below the BAAQMD threshold of 1,110 tons per project. The remaining 478 acres of the site on the property will not be disturbed by this project. These calculations show that the project would have a less than significant impact on GHG emissions.

Less than Significant Impact

b) For purposes of this analysis, the Project was evaluated against the following applicable plans, policies, and regulations:

- The Lake County General Plan
- The Lake County Air Quality Management District
- AB 32 Climate Change Scoping Plan
- AB 1346 Air Pollution: Small Off-Road Equipment

Policy HS-3.6 of the Lake County General Plan on Regional Agency Review of Development Proposals states that the "County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality. The County shall continue to submit development proposals to the Lake County Air Quality Management District for review and comment, in compliance with the California Environmental Quality Act (CEQA) prior to consideration by the County." The proposed Project was sent out for review from the LCAQMD and the only concern was restricting the use of an onsite generator to emergency situations only.

The Lake County Air Basin is in attainment for all air pollutants with a high air quality level, and therefore the LCAQMD has not adopted an Air Quality Management Plan, but rather uses its rules and regulations for the purpose of reducing the emissions of greenhouse gases. The proposed Project does not conflict with any existing LCAQMD rules or regulations and would therefore have no impact at this time.

The 2017 AB Climate Change Scoping Plan recognizes that local government efforts to reduce emissions within their jurisdiction are critical to achieving the State's long term GHG goals, which includes a primary target of no more than six (6) metric tons CO_2 per capita by 2030 and no more than two (2) metric tons CO_2 per capita by 2050. As described in the PMP, the Project will have up to three (3) individuals working on site

(owners/operators) during normal operational hours, and with an expected 6.875 metric tons of overall operational CO_2 per year, the per capita figure of 2.29 metric tons of operational CO_2 per year meets the 2017 Climate Change Scoping Plan's 2030 target, and nearly meets the 2050 target.

On October 9, 2021, AB 1346 Air Pollution: Small Off-Road Equipment (SORE) was passed, which will require the state board, by July 1, 2022, consistent with federal law, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, as defined by the state board. The bill would require the state board to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations, and the applicant should be aware of and expected to make a transition away from SOREs by the required future date.

Less than Significant Impact

IX. HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1, 3, 5, 13, 21, 24, 29, 31, 32, 33, 34
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	1, 3, 5, 13, 21, 24, 29, 31, 32, 33, 34
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	1, 2, 5
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?	☐	☐	☐	☒	2, 40
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒	1, 3, 4, 5, 20, 22

f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	1, 3, 4, 5, 20, 22, 35, 37
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐	1, 3, 4, 5, 20, 35, 37

a) Materials associated with the proposed cultivation of commercial cannabis, such as gasoline, pesticides, fertilizers, alcohol, hydrogen peroxide and the equipment emissions may be considered hazardous if unintentionally released and could create a significant hazard to the public or the environment if done so without intent and mitigation. Per State Waterboard BPTC measures, fertilizers and petroleum products may not be stored together. According to the revised PMP for the proposed project, only organic fertilizers and pesticides will be used. The PMP indicates that all potentially harmful chemicals would be stored and locked in a secured building on site and measures will be taken to avoid any accidental release and environmental exposure to hazardous materials.

The project will comply with Section 41.7 of the Lake County Zoning Ordinance that specifies that all uses involving the use or storage of combustible, explosive, caustic, or otherwise hazardous materials shall comply with all applicable local, state, and federal safety standards and shall be provided with adequate safety devices against the hazard of fire and explosion, and adequate firefighting and fire suppression equipment.

The Lake County Division of Environmental Health, which acts as the Certified Unified Program Agency (CUPA) for Hazardous Materials Management, has been consulted about the project and the project is required to address Hazardous Material Management in the PMP, which has been reviewed by the Lead Agency to ensure the contents are current and adequate. In addition, the Project will require measures for employee training to determine if they meet the requirements outlined in the Plan and measures for the review of hazardous waste disposal records to ensure proper disposal methods and the amount of wastes generated by the facility.

The PMP also addresses the following:

Bulk fertilizers will be incorporated into the soil shortly after delivery and will not typically be stockpiled or stored on site. Should bulk fertilizers need to be stockpiled, they will be placed on a protective surface, covered with tarps, and secured with ropes and weights. Dry and liquid fertilizers will be stored in a stormproof shed inside each cultivation compound.

All other pesticides and fertilizers will be stored within one of the stormproof storage sheds, in their original containers with labels intact, and in accordance with the product labeling. Agricultural chemicals and petroleum products will be stored in secondary containment, within separate storage structures alongside compatible chemicals. The pesticide, fertilizer, chemical, and petroleum product storage buildings will have impermeable floors. The storage building will be located over 100 feet from any watercourses. There are two watercourses that are in vicinity of the cultivation area; Clayton Creek (Class I stream), and one unnamed seasonal drainage channel. Both are mapped and located beyond 100 feet of the cultivation area.

Any petroleum products brought to the site, such as gasoline or diesel to fuel construction equipment, will be stored and covered in containers deemed appropriate by the Certified Unified Program Agency. All pesticides and fertilizers products will be stored a minimum of 100 feet from all potentially sensitive areas and watercourses.

Cannabis waste will be chipped and spread on site or composted as needed. The burning of cannabis waste is prohibited in Lake County and will be not take place as part of Project operations.

A spill containment and cleanup kit will be kept on site in the unlikely event of a spill. All employees would be trained to properly use all cultivation equipment, including pesticides. Proposed site activities would not generate any additional hazardous waste.

All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of in accordance with applicable local, state, and federal regulations.

As long as the Project is in operation, the Certified Uniform Program Agency and Lead Agency will conduct regular and/or annual inspections and monitor activities to ensure that the routine transport, use, and disposal of hazardous materials will not pose a significant impact.

Less Than Significant Impact

b) The Project involves the use of organic fertilizers and pesticides which will be stored in a secure, stormproof structure. Flood risk is at the Project site is minimal and according to Lake County GIS Portal data and the Project is not located in or near an identified earthquake fault zone. Fire hazard risks on the Project site is very high; the applicant has indicated that fifteen (15) 5,000 gallon water tanks will be placed near the cultivation are, and that one 5,000 gallon water tank is exclusively for fire suppression use.

The project site does not contain any identified areas of serpentine soils or ultramafic rock, and risk of asbestos exposure during construction is minimal. The site preparation would require some construction equipment and would last for about five to seven weeks. All equipment staging shall occur on previously disturbed areas on the site.

A spill kit would be kept on site in the unlikely event of a spill of hazardous materials. All equipment shall be maintained and operated in a manner that minimizes any spill or leak of hazardous materials. Hazardous materials and contaminated soil shall be stored, transported, and disposed of consistent with applicable local, state, and federal regulations.

Less than Significant Impact

c) There are no schools located within one-quarter mile of the proposed project site.

No Impact

d) The California Environmental Protection Agency (CalEPA) has the responsibility for compiling information about sites that may contain hazardous materials, such as hazardous waste facilities, solid waste facilities where hazardous materials have been reported, leaking underground storage tanks and other sites where hazardous materials have been detected. Hazardous materials include all flammable, reactive, corrosive, or toxic substances that pose potential harm to the public or environment.

The following databases compiled pursuant to Government Code §65962.5 were checked for known hazardous materials contamination within ¼-mile of the project site:

- The SWRCB GeoTracker database
- The Department of Toxic Substances Control EnviroStor database
- The SWRCB list of solid waste disposal sites with waste constituents above hazardous waste levels outside the waste management unit.

The project site is not listed in any of these databases as a site containing hazardous materials as described above.

No Impact

e) The Project site is located approximately 20 miles from the nearest airport, Lampson Field, which has not adopted an Airport Land Use Compatibility Plan. In accordance with regional Airport Land Use Compatibility Plans, the site would not be located within an area of influence for the airport. Therefore, there will be no hazard for people working in the project area from Lampson Field.

No Impact

f) Access to the project site is from Spruce Grove Road, a paved County collector road in this location. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route or is located adjacent to an emergency evacuation route. During long-term operation, access for emergency vehicles via Spruce Grove Road and connecting roadways will be available. The project is not proposing alteration to the design or capacity of any public road that would impair or interfere with the implementation of evacuation procedures. Because the project would not interfere with an adopted emergency response or evacuation plan, impacts are less than significant and no mitigation measures are required.

Less than Significant Impact

g) The project site is on an area of high fire risk. CalFire's requirement for defensible space in high fire risk areas requires the removal of brush and vegetation that would reduce fire risk. Additionally, the proposed project proposes one 5,000 gallon tank to be exclusively used as a water for fire suppression if needed.

The applicant would adhere to all federal, state, and local fire requirements and regulations for setbacks and defensible space required for any new buildings that require a building permit. All proposed construction will comply with current State of California Building Code construction standards. To construct the proposed greenhouses, the applicant will be required to obtain a building permit with Lake County to demonstrate conformance with local and state building codes and fire safety requirements.

Less than Significant Impact

X. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐	1, 2, 3, 5, 6, 29, 30
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐	1, 2, 3, 5, 6, 29, 30
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 that would: i) Result in substantial erosion or siltation on-site or off-site; ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) Impede or redirect flood flows?	☐	☐	☒	☐	1, 2, 3, 5, 6, 7, 15, 18, 29, 32
d) In any flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐	1, 2, 3, 5, 6, 7, 9, 23, 32
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐	1, 2, 3, 5, 6, 29

Discussion:

a) The Project parcel has no stream crossings and the nearest major watercourse, with only one ephemeral watercourse in proximity to the cultivation area, located approximately 150 feet from the project site. There is an above-ground pond on the property that is located more than 200 feet from the nearest cultivation site that will not be used for cannabis irrigation purposes.

According to the proposed Project's Property Management Plan – Waste Management Plan, the cultivation operation is enrolled in the State Water Resources Control Board's Order WQ 2019-0001-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order). Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Practicable Treatment or Control (BPTC) measures, buffer

zones, erosion and sediment controls, inspections and reporting, and regulatory oversight. Note also that a sediment and erosion control plan is being implemented as part of the PMP, and is the plan used to evaluate the grading permit that is concurrent with this CEQA evaluation.

Potential adverse impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation, the filling of wetlands, or by increased erosion and sedimentation in receiving water bodies due to soil disturbance. Project implementation will not directly impact any channels or wetlands. Soil disturbance from project implementation could increase erosion and sedimentation. Regulations at both the County and State levels require the creation and implementation of an erosion control and SMP. Furthermore, as the total area of ground disturbance from project implementation is greater than one (1) acre, the Project proponent will need to enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

The County's Cannabis Ordinance requires that all cultivation operations be located at least 100-feet away from all waterbodies (i.e. spring, top of bank of any creek or seasonal stream, edge of lake, wetland or vernal pool). State setbacks from above-ground water sources are 150 feet, which differs from the County's 100 foot required setback distance, however the County complies with the State's distance of 150 feet from Class I watercourses.

Additionally, cultivators who enroll in the State Water Board's Waste Discharge Requirements for Cannabis Cultivation Order WQ 2019-001-DWQ must comply with the Minimum Riparian Setbacks. Cannabis cultivators must comply with these setbacks for all land disturbances, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement).

As described above, the current project site has been placed as far away as possible from waterbodies and in the flattest practical areas to reduce the potential for water pollution and erosion.

The following mitigation measure will reduce potential impacts to the above-ground pond to 'less than significant' levels:

HYD-1: The applicant shall not use the above-ground pond for cannabis irrigation purposes.

Less Than Significant Impact with mitigation measure HYD-1 added

b) Due to the existing exceptional drought conditions, on July 27, 2021, the Lake County Board of Supervisors passed an Urgency Ordinance (Ordinance 3106) requiring land use applicants to provide enhanced water analysis during a declared drought emergency. Ordinance 3106 requires that all project that require a CEQA analysis of water use include the following items in a Hydrology Report prepared by a licensed professional experienced in water resources:

- Approximate amount of water available for the project's identified water source,
- Approximate recharge rate for the project's identified water source, and
- Cumulative impact of water use to surrounding areas due to the project

Water Analysis

The Water Report was prepared for this project by Annje Dodd, PhD and P.E. in behalf of Northpoint Consultants, and is dated March 7, 2022. The Report evaluates annual water demand for the project; aquifer capacity and recharge rate during drought and non-drought years; evaluates drought management actions needed and provides well data on the on-site well.

Well Test

There is one existing permitted on-site well that will be used for irrigation, and which were evaluated in the Report. A well test was performed on January 11, 2022 by JAK Drilling and Pump. The well yielded 70 gallons gpm over a six-hour testing period. The water level dropped from 43 feet to 101.5 feet during the well test. After a 40 minute shut-down period, the well recovered to a depth of 47 feet.

Projected Water Demand

The Report projects the annual water usage for Stage I as being about 41.4 acre-feet per year, or about 13,457,663.9 gallons. The Report projects the annual water usage for Stage II as being about 34.8 acre feet per year, or about 11,339,629.6 gallons. This estimate includes domestic water used by the dwelling, and the water usage anticipated for employees. The project will use a drip irrigation system to disperse water to the plants. The plants will be in fabric pots or raised beds; the drip irrigation systems are typically used for cannabis cultivation.

On-Site Water Storage

The materials submitted by the applicant show fifteen 5,000 gallon water tanks on site with one being designated as fire suppression supply.

Aquifer Data

The Report states that the project site is near the Lower Lake Valley Groundwater Basin (LLVGB), but uses the Copsey Creek Groundwater Basin (CCGB) for irrigation water.

The CCGB contains an estimated 3,000 to 4,000 acre-feet of water; the usable amount is about 2,600 acre-feet. Recharge of this basin occurs from precipitation, and from seepage from the Copsey, Herndon and Seigler Canyon Creeks, as well as from Clear Lake.

The ground above the aquifer is about 414 acres in total area. The total combined existing water demand on this aquifer is 84 acre-feet per year. The project will add another 41.4 acre-feet of demand in year 1, and will reduce to 34.8 acre-feet in year 2 and beyond. The total ‘worst-case’ water demand on this aquifer is 118.8 acre-feet per year. This estimate assumes a total of 300 gallons of water per day per household, which is the daily usage standard accepted by the EPA. This estimate does not take into consideration crop irrigation.

Crop irrigation water demand in this aquifer is estimated to be 1,025 acre-feet per year, or about 39% of the basin’s storage capacity. Total combined annual demand is 1,143.8 acre-feet, or about 43% of the usable capacity of this basin. The total annual recharge is estimated to be 74 acre-feet per year during drought years, and 99 acre-feet per year during non-drought years.

Conclusion

The Report demonstrates that based on all the factors associated with water use and project demand, that there is adequate water supply for this project, even during drought years. The Report concludes that "It is recommended that the project applicant monitor water levels in the well. The purpose of the monitoring is to evaluate the functionality of the well to meet the long-term water demand of the proposed project. Water level monitoring is required by the Lake County Zoning Ordinance. Ordinance Article 27 Section 27.11(at) 3.v.e. requires the well to have a water level monitor.

Less Than Significant Impact

c) According to Lake County Ordinance Section 27.13 (at) 3, the PMP must have a section on storm water management based on the requirements of the California Regional Water Quality Control Board Central Valley Region or the California Regional Water Quality Control Board North Coast Region, with the intent to protect the water quality of the surface water and the stormwater management systems managed by Lake County and to evaluate the impact on downstream property owners. All cultivation activities shall comply with the California State Water Board, the Central Valley Regional Water Quality Control Board, and the North Coast Region Water Quality Control Board orders, regulations, and procedures as appropriate.

The cultivation operation is enrolled in the State Water Resources Control Board's General Order. Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices, buffer zones, sediment and erosion controls, inspections and reporting, and regulatory oversight. A sediment and erosion control plan is also being implemented as part of the larger Site Management Plan.

According to the Storm Water Management Plan, located within the Property Management Plan for this project, the cultivation operations are not expected to alter the hydrology of the parcels significantly. Establishment of the cultivation operations will require some grading, but they have been located in areas partially cleared for past, non-Cannabis land uses. Establishment of the cultivation operations does not require the construction of new buildings, paved roads, or other significantly permanent and impermeable surfaces that would alter runoff significantly.

In addition to significantly exceeding all setback requirements, generous vegetative buffers exist between the cultivation area and the nearest water resource. These vegetated areas will be preserved as much as possible, with the exception of any fire breaks needed for wildfire protection.

BPTC measures will be deployed in a sequence to follow the progress of site preparation, tilling, and cultivation. As the locations of soil disturbance change, erosion and sedimentation controls should be adjusted accordingly to control stormwater runoff at the downgrade perimeter and drain inlets. BPTCs to be implemented include monitoring weather to track conditions and alert crews to the onset of rainfall events, stabilizing disturbed soils with temporary erosion control or with permanent erosion control as soon as possible after grading or construction is completed, and establishing temporary or permanent erosion control measures prior to rain events. Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt fencing, and planting of native vegetation on all disturbed areas to prevent erosion.

Due to the natural conditions of the Project site and with these erosion mitigation measures, the project will not result in substantial erosion or siltation on-site or off-site; will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite; will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and will not impede or redirect flood flows.

Less than Significant Impact

d) The Project site is not located in an area of potential inundation by seiche or tsunami. The project site is located in Flood Zone X – areas of minimal flooding – not in a special flood hazard area. Clayton Creek is located more than 100 feet from the cultivation area; the cultivation site is outside of this floodway. While the type 175 soil on the cultivation site portion of the parcels are susceptible to erosion, soils at the project site are relatively flat and stable, with a minimal potential to induce mudflows.

The Grading and Erosion Control plan submitted by the applicant shows mitigation measures associated with the grading permit that must be followed during site disturbance.

Less than Significant Impact

e) The Project has adopted a Drought Management Plan (DMP) as part of the requirements of Lake County Ordinance 3106, passed by the Board of Supervisors on July 27, 2021, which depicts how the applicant proposes to reduce water use during a declared drought emergency and ensures both the success and decreased impacts to surrounding areas. The project also proposes water metering and conservation measures as part of the standard operating procedures, and these measures will be followed whether or not the region is in a drought emergency.

The project is required to implement ongoing water monitoring and conservation measures that would reduce the overall use of water. These measures are included in the Water Use Management Plan (Section 15.2) as required by Article 27, Section 27.13 (at) 3 of the Lake County Zoning Ordinance. On-going water conservation measures include:

- No surface water diversion
- The selection of plant varieties that are suitable for the climate of the region
- The use of driplines and drip emitters rather than spray irrigation
- Covering drip lines with straw mulch or similar materials to reduce evaporation
- Using water application rates modified from data obtained from soil moisture meters and weather monitoring
- Utilizing shutoff valves on hoses and water pipes
- Daily visual inspections of irrigation systems
- Immediate repair of leaking or malfunctioning equipment
- Water-use metering and budgeting

A water budget will be created every year and water use efficiency from the previous year will be analyzed.

In addition to water use metering, water level monitoring is also required by Lake County Zoning Ordinance Article 27 Section 27.11 (at) 3, specifically that wells must have a meter

to measure the amount of water pumped as well as a water level monitor. Well water level monitoring and reporting will be performed as follows:

Seasonal Static Water Level Monitoring

The purpose of seasonal monitoring of the water level in a well is to provide information regarding long-term groundwater elevation trends. The water level in each well will be measured and recorded once in the Spring (March or April), before cultivation activities begin, and once in the fall (October) after cultivation is complete, as the California Statewide Groundwater Monitoring Program (CASGEM) monitors semi-annually, around April 15 and October 15 of each year. Records shall be kept, and elevations reported to the County as part of the project's annual reporting requirements. Reporting shall include a hydrograph plot of all seasonal water level measurements, for all project wells, beginning with the initial measurements. Seasonal water level trends will aid in the evaluation of the recharge rate of the well. If the water level in a well measured during the Spring remains relatively constant from year to year, then the water source is likely recharging each year.

Water Level Monitoring During Extraction

The purpose of monitoring the water level in a well during extraction is to evaluate the performance of the well and determine the effect of the pumping rate on the water source during each cultivation season. This information will be used to determine the capacity and yield of the Project's wells and to aid the cultivators in determining pump rates and the need for water storage. The frequency of water level monitoring will depend on the source, the source's capacity, and the pumping rate. It is recommended that initially the water level be monitored twice per week or more, and that the frequency be adjusted as needed depending on the impact that the pumping rate has on the well water level. Records will be kept and elevations reported to the County as part of the project's annual reporting requirements. Reporting will include a hydrograph plot of the water level measurements for all project wells during the cultivation season and compared to prior seasons.

Measuring a water level in a well can be difficult and the level of difficulty will depend on site-specific conditions. As part of the well monitoring program, the well owner or operator will work with a well expert to determine the appropriate methodology and equipment to measure the water level, as well as who will conduct the recording and monitoring of the well level data. The methodology of the well monitoring program will be described and provided in the project's annual report.

In addition to monitoring and reporting, an analysis of the water level monitoring data will be provided and included in the project's annual report, demonstrating whether or not use of the project wells is causing significant drawdown and/or impacts to the surrounding area and what measures can be taken to reduce their impacts. If there are impacts, a revised Water Management Plan will be prepared and submitted to the County for review and approval, which demonstrates how the project will mitigate the impacts in the future.

Drought Emergency Water Conservation Measures

In addition to the above on-going water monitoring and conservation measures, during times of drought emergencies or water scarcity the project may implement the following additional measures as needed or appropriate to the site in order to reduce water use and ensure both the success and decreased impacts to surrounding areas:

- Cover the soil and drip-lines with removable plastic covers or similar to reduce evaporation

- Irrigate only in the early morning hours or before sunset
- Cover plants with shaded meshes during peak summer heat to reduce plant water needs
- Use a growing medium that retains water in a way to conserve water and aid plant growth. Organic soil ingredients like peat moss, coco coir, compost and other substances like perlite and vermiculite retain water and provide a good environment for cannabis to grow
- Install additional water storage

In the event that the well cannot supply the water needed for the project, the following measures may be taken:

- Reduce the amount of cultivation and/or length of cultivation season
- Install additional water storage
- If possible, develop an alternative, legal, water source that meets the requirements of Lake County Codes and Ordinances.

Less Than Significant Impact

XI. LAND USE PLANNING	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	1, 2, 3, 5, 6
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐	1, 3, 4, 5, 20, 21, 22, 27

Discussion:

a) The project site consists of ±502 acres of undeveloped land in the Lower Lake Planning Area. The closest community growth boundary accessible by road is Lower Lake, which is approximately 3 miles west of the subject site.

The area is characterized by large parcels of rural, marginally developed and undeveloped land. No changes to the interior road are proposed, and minimal improvements are needed to the driveway for it to be made to comply with PRC 4290 and 4291 commercial driveway standards. The proposed project site would not physically divide an established community.

No Impact

b) The General Plan Land Use Zone and Zoning District designation currently assigned to the Project site is Rural Land ("RL"). The Lake County Zoning Ordinance allows for commercial outdoor cannabis cultivation in the "RL" land use zone with a major use permit.

Less than Significant Impact

XII. MINERAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
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?	☐	☐	☐	☒	1, 3, 4, 5, 26
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?	☐	☐	☐	☒	1, 3, 4, 5, 26

Discussion:

a) The Lake County Aggregate Resource Management Plan does not identify the portion of the Project parcel planned for cultivation as having an important source of aggregate resources. According to the California Department of Conservation, Mineral Land Classification, there are no known mineral resources on the project site.

No Impact

b) According to the California Geological Survey's Aggregate Availability Map, the Project site is not within the vicinity of a site being used for aggregate production. In addition, the site not delineated on the County of Lake's General Plan, the Lower Lake Area Plan nor the Lake County Aggregate Resource Management Plan as a mineral resource site. Therefore, the project has no potential to result in the loss of availability of a local mineral resource recovery site.

No Impact

XIII. NOISE	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	1, 3, 4, 5, 13
b) Result in the generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐	1, 3, 4, 5, 13

c)	Result in the generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☒	1, 3, 4, 5, 11, 14, 15

Discussion:

a) Noise related to outdoor cannabis cultivation typically occurs either during construction, or as the result of machinery related to post construction equipment such as well pumps or emergency backup generators during power outages. Emergency generators are not proposed as part of this project. Energy will be supplied by solar power.

This project will have some noise related to site preparation, and hours of construction are limited through standards described in the conditions of approval.

Although the property size and location will help to reduce any noise detectable on at the property line, mitigation measures will still be implemented to further limit the potential sources of noise.

Less than Significant Impact with Mitigation Measures NOI-1 and NOI-2 incorporated:

NOI-1: All construction activities including engine warm-up shall be limited Monday Through Friday, between the hours of 7:00 a.m. and 7:00 p.m., and Saturdays from 12:00 noon to 5:00 p.m. to minimize noise impacts on nearby residents. Back-up beepers shall be adjusted to the lowest allowable levels. This mitigation does not apply to night work.

NOI-2: Maximum non-construction related sounds levels shall not exceed levels of 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA between the hours of 10:00 p.m. to 7:00 a.m. within residential areas as specified within Zoning Ordinance Section 21-41.11 (Table 11.1) at the property lines.

Less Than Significant with Mitigation Measures NOI-1 and NOI-2

b) Under existing conditions, there are no known sources of ground-borne vibration or noise that affect the project site such as railroad lines or truck routes. Therefore, the Project would not create any exposure to substantial ground-borne vibration or noise.

The project would not generate ground-borne vibration or noise, except potentially during the construction Stage from the use of heavy construction equipment. There will be moderate grading required for the greenhouse pads, however earth movement is not expected to generate ground-borne vibration or noise levels. According to California Department of Transportation's Transportation and Construction-Induced Vibration Guidance Manual, ground-borne vibration from heavy construction equipment does not create vibration amplitudes that could cause structural damage, when measured at a distance of 10 feet. The nearest existing off-site structures are located one quarter mile from the nearest point of construction activities and would not be exposed to substantial ground-borne vibration due to the operation of heavy construction equipment on the Project site.

Furthermore, the project is not expected to employ any pile driving, rock blasting, or rock crushing equipment during construction activities, which are the primary sources of ground-borne noise and vibration during construction. As such, impacts from ground-borne vibration and noise during near-term construction would be less than significant.

Less Than Significant Impact

c) The project site is located approximately 10 miles from Lampson Field, administered by the Lake County Airport Land Use Commission, which has not adopted an Airport Land Use Compatibility Plan. Therefore, no impact is anticipated.

No Impact

XIV. POPULATION AND HOUSING	Potentially Significant Impact	Less Than Significant With Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	1, 3, 4, 5
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1, 3, 4, 5

Discussion:

a) The project is not anticipated to induce significant population growth to the area. The increased employment will be approximately five (5) fulltime and up to twenty-five (25) seasonal employees to be hired locally, so no impacts to population are anticipated.

No Impact

b) The project will not displace any existing housing, thus no impact is expected.

No Impact

XV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other	☐	☐	☒	☐	1, 2, 3, 4, 5, 20, 21, 22, 23, 27, 28, 29, 32, 33, 34, 36, 37

performance objectives for any of the public services:

1) Fire Protection?
2) Police Protection?
3) Schools?
4) Parks?
5) Other Public Facilities?

Discussion:

1) Fire Protection

The South Lake Fire Protection District and CALFIRE provide fire protection services to the proposed project area. Development of the proposed project would impact fire protection services by increasing the demand on existing County Fire District resources. To offset the increased demand for fire protection services, the proposed project is conditioned by the City to provide a minimum of fire safety and support fire suppression activities and installations, including compliance with State and local fire codes, as well as minimum private water supply reserves for emergency fire use. With these measures in place, the project would have a less than significant impact on fire protection.

2) Police Protection

The Project site falls under the jurisdiction of the Lake County Sheriff's Department. Article 27 of the Lake County Zoning Ordinance lays out specific guidelines for security measures for commercial cannabis cultivation to prevent access of the site by unauthorized personnel and protect the physical safety of employees. This includes 1) establishing a physical barrier to secure the perimeter access and all points of entry; 2) installing a security alarm system to notify and record incident(s) where physical barriers have been breached; 3) establishing an identification and sign-in/sign-out procedure for authorized personnel, suppliers, and/or visitors; 4) maintaining the premises such that visibility and security monitoring of the premises is possible; and 5) establishing procedures for the investigation of suspicious activities. Accidents or crime emergency incidents during operation are expected to be infrequent and minor in nature, and with these measures the impact is expected to be less than significant.

3) Schools

The proposed project is not expected to significantly increase the population in the local area and would not place greater demand on the existing public school system by generating additional students. No impacts are expected.

4) Parks

The proposed project will not increase the use of existing public park facilities and would not require the modification of existing parks or modification of new park facilities offsite. No impacts are expected.

5) Other Public Facilities

As the staff will be hired locally, no increase in impacts are expected.

Less than Significant Impact

XVI. RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒	1, 2, 3, 4, 5
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	1, 3, 4, 5

Discussion:

a) There will be no increase in the use of existing neighborhood and regional parks or other recreational facilities that would be the direct result of this project, and no impacts are anticipated to parks in Lake County.

No Impact

b) The proposed project does not include any recreational facilities and will not require the construction or expansion of existing recreational facilities, and no impacts are expected.

No Impact

XVII. TRANSPORTATION	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐	1, 3, 4, 5, 9, 20, 22, 27, 28, 35
b) For a land use project, would the project conflict with or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☒	☐	1, 3, 4, 5, 9, 20, 22, 27, 28, 35
c) For a transportation project, would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?	☐	☐	☐	☒	1, 3, 4, 5, 9, 20, 22, 27, 28, 35
d) Substantially increase hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐	1, 3, 4, 5, 9, 20, 22, 27, 28, 35

e) Result in inadequate emergency access?	☐	☐	☒	☐	1, 3, 4, 5, 9, 20, 22, 27, 28, 35

Discussion:

a) Roadway Analysis

The project is located off of Spruce Grove Road. Vehicles traveling to the site will use Spruce Grove Road to access the project site.

The project site is accessed by a private driveway that intersects with Spruce Grove Road, a paved, 2-lane County-maintained collector road at this location with two 10' wide travel lanes and 2' wide shoulders. The access driveway off of Spruce Grove Road will be 20 feet wide with turnouts at the cultivation area (20' x 60'; for emergency vehicle use if needed). The interior driveways will have 6" of gravel base in order to support a 75,000 pound emergency vehicle, typically a semi truck hauling a bulldozer. As proposed, the two interior driveways will meet California Public Resource Code (PRC) 4290 and 4291 road standards for fire equipment access. The interior driveway will need to be improved to meet Public Resource Code (PRC) 4290 and 4291 road standards. This is a typical condition of approval for all cannabis projects.

The proposed project does not conflict with any existing program plan, ordinance or policy addressing roadway circulation, including the Lake County General Plan Chapter 6 – Transportation and Circulation, and a less than significant impact on road maintenance is expected.

Transit Analysis

The Lake County Transit Authority Route 1 – North Shore, Clearlake to Lakeport, runs along California State Highway 29, with a transit stop located in Lower Lake, approximately 1/2 mile from the cultivation site. This distance would make the use of public transit possible.

Bicycle Lane and Pedestrian Path Analysis

The proposed Project does not conflict with any existing program plan, ordinance or policy addressing bicycle and/or pedestrian issues, including Chapter 6 of the General Plan.

Less than Significant Impact

b) State CEQA Guidelines Section 15064.3, Subdivision (b) states that for land use projects, transportation impacts are to be measured by evaluating the proposed Project's vehicle miles traveled (VMT), as follows:

"*Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact*."

To date, the County has not yet formally adopted its transportation significance thresholds or its transportation impact analysis procedures. As a result, the project-related VMT impacts were assessed based on guidelines described by the California Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018.

The OPR Technical Advisory identifies several criteria that may be used to identify certain types of projects that are unlikely to have a significant VMT impact and can be "screened" from further analysis. One of these screening criteria pertains to small projects, which OPR defines as those generating fewer than 110 new vehicle trips per day on average.

OPR specifies that VMT should be based on a typical weekday and averaged over the course of the year to take into consideration seasonal fluctuations. The estimated trips per day for the proposed project are between 25 and 50 daily trips during peak season operation (25 employees) over a period of two months (60 days), and approximately the same number of trips during construction. Non peak harvest trips are estimated at between 5 and 10 employee trips over a period of 210 days (five employees), plus two weekly delivery trips.

The applicants will be operating under an A-Type 13 Cannabis Distributor Transport Only, Self-distribution License. In the "RL" zoning district the Type 13 Distributor Only, Self-distribution State licenses are an accessory use to an active cannabis cultivation or cannabis manufacturing license site with a valid minor or major use permit. The parcel where the Type 13 license will is located, as required by Article 27.11, shall front and have direct access to a State or County maintained road or an access easement to such a road, the permittee shall not transport any cannabis product that was not cultivated by the permittee, and all non-transport related distribution activities shall occur within a locked structure.

The proposed Project would not generate or attract more than the threshold of 110 trips per day, and therefore it is not expected for the Project to have a potentially significant level of VMT. Impacts related to CEQA Guidelines section 15064.3. subdivision (b) would be less than significant.

Less than Significant Impact

c) The Project is not a transportation project. The proposed use will not conflict with and/or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(2).

No Impact

d) The Project does not propose any changes to road alignment or other features, does not result in the introduction of any obstacles, nor does it involve incompatible uses that could increase traffic hazards.

Less Than Significant Impact

e) The proposed project would not alter the physical configuration of the existing roadway network serving the area, and will have no effect on access to local streets or adjacent uses (including access for emergency vehicles). Internal gates and roadways will meet CALFIRE requirements for vehicle access according to PRC §4290 and 4291, including adequate width requirements, overhead clearances, on-site turn-arounds, sufficient base materials use. Furthermore, as noted above under impact discussion (a), increased project-related operational traffic would be minimal. The proposed project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. The proposed project would not interfere with the City's adopted emergency response plan.

Less than Significant Impact

XVIII. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) 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)?	☐	☒	☐	☐	1, 3, 4, 5, 11, 14, 15
b) 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, the lead agency shall consider the significance of the +resource to a California Native American tribe?	☐	☒	☐	☐	1, 3, 4, 5, 11, 14, 15

Discussion:

a) A Cultural Resources Report (CRR) for the proposed cultivation Project was completed by Natural Investigations Inc. dated December 2019 and updated December 2021 and submitted to the County for this project. The Report did not identify any sensitive relics or items on site. However, California Historic Resource Information System (CHRIS) records indicate that there is one area of the ±502 acre property that has a sensitive archaeological site that is mapped. All eleven area tribes were notified of this action; of these tribes, only the Upper Lake Habematolel and Yocha Dehe tribes responded with both indicating that they were deferring to the Middletown Rancheria tribe, who did not provide any comments on this project.

A CHRIS records search was completed by the Northwest Information Center (NWIC) on August 11, 2022, and the Native American Heritage Commission (NAHC) returned the results of the Sacred Lands File (SLF) search in August 2022. The County sent an AB52 notice to all eleven area tribes on July 29, 2022. The Upper Lake Habematolel Tribe and the Yocha Dehe Tribe submitted letters indicating that this project was not within their tribal ancestral areas and deferred to the Middletown Rancheria Tribe. To date, the Middletown Rancheria Tribe has not submitted any comments on this project.

CHRIS comments indicated that there is some tribal evidence in the form of lithic scatter on site, but this area is not within a cultivation site. There is also a mapped sensitive area located on the 502 acre property, however this area is outside the project boundary and would not be impacted by this project.

Based on the findings of the CHRIS search, field survey, and outreach efforts with the eleven local area tribes, there is no indication that the project will impact any historical or archaeological resources as defined under CEQA Section 15064.5 or tribal cultural resources as defined under Public Resources Code Section 21074. It is possible, but unlikely, that significant artifacts or human remains could be discovered during Project construction. If, however, significant artifacts or human remains of any type are encountered it is recommended that the project sponsor contact the culturally affiliated tribe and a qualified archaeologist to assess the situation. The Sheriff's Department must also be contacted if any human remains are encountered.

Less than Significant with Mitigation Measures CUL-1 and CUL-2

b) The CHRIS records search showed the presence of one tribal cultural resources on the project site. The Natural Investigations Assessment however produced negative findings following an on-site survey of the cultivation portion of the site. The lead agency has determined that, in its discretion and supported by substantial evidence, no resources pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1 will be affected by the proposed project because the sensitive site is located outside the cultivation area boundary. With mitigation measures CUL-1 and CUL-2, the impact will be less than significant.

Less than Significant with Mitigation Measures CUL-1 and CUL-2

XIX. UTILITIES	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
Would the project:					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐	1, 3, 4, 5, 29, 32, 33, 34, 37

b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐	1, 2, 3, 5, 6, 22, 31
c)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	1, 2, 3, 5, 6, 22
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?	☐	☐	☒	☐	1, 2, 3, 5, 6, 35, 36
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐	1, 2, 3, 5, 6, 35, 36

Discussion:

a) The proposed project will be served by an existing onsite irrigation well and is proposing on-grid power, potentially up to 400 amps. There is a proposed ADA compliant portable toilet and handwashing station that will be used on the project site.

The Project will not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects

Less than Significant Impact

b) The subject parcel is served by three existing wells as described in the Hydrology Study and submitted with the Use Permit application, and the cultivation operation is enrolled as a Tier II / Low Risk cultivation operation in the State Water Resources Control Board's *Order WQ 2017-0023-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities* (General Order). Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of BPTC measures for water conservation, including shut-off valves on water tanks, drip irrigation, continued maintenance of equipment, in addition to buffer zones, sediment and erosion controls, inspections and reporting, and regulatory oversight.

Less than Significant Impact

c) The project will rely on the use of portable toilets and hand washing station for cultivation operations.

Less than Significant Impact

d) The existing landfill has sufficient capacity to accommodate the project's solid waste disposal needs. Estimated annual solid waste will be between 1 and 2 tons.

Eastlake Landfill, South Lake Refuse Center, and Quackenbush Mountain Resource Recovery and Compost Facility are located within reasonable proximity of the Project site. Lake County Waste Solutions Transfer Station and Recycling Center is located approximately 25 miles northwest of the subject parcel. As of 2019, the Eastlake Landfill had 659,200 cubic yards available for solid waste, with an additional 481,000 cubic yards approved in 2020.

The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure.

Less than Significant Impact

e) The project will be in compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

Less than Significant Impact

XX. WILDFIRE	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐	1, 2, 3, 5, 6, 23, 25, 28, 29
b) Would the project, 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?	☐	☐	☒	☐	1, 2, 3, 5, 6, 23, 25, 28, 29
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☒	☐	☐	1, 2, 3, 5, 6
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?	☐	☒	☐	☐	1, 2, 3, 5, 6, 21, 23, 32

Discussion:

a) The project will not further impair an adopted emergency response plan or evacuation plan. The applicant will adhere to all regulation of California Code Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, and Article 1 through 5 shall apply to this project; and all regulations of California Building Code, Chapter 7A, Section 701A, 701A.3.2.A.

In April 2021, Lake County Planning and Building Division staff conducted a Public Resource Code (PRC) 4290 and 4291 site inspection and determined that the site could be accessed by emergency vehicles, and that the on-site driveway needed to be upgraded to meet PRC 4290 and 4291 standards.

Less than Significant with Mitigation Measure WDF-1

b) The Project site is situated on a high risk fire hazard zone, and the overall parcel boundary is considerably sloped, despite the project site being relatively flat. The cultivation area does not further exacerbate the risk of wildfire, or the overall effect of pollutant concentrations on area residents in the event of a wildfire. The project would be required to improve fire access and the ability to fight fires from the project site and other sites accessed from the same roads through the upkeep of the property area. The applicant is proposing the installation of a PRC §4290-compliant 5,000 gallon water tank for use as a fire suppression tank, in addition to the other proposed water tanks.

Less than Significant Impact

c) The proposed Project, as described in the application documents and confirmed through site visits to the property, would not exacerbate fire risk through the installation of maintenance of associated infrastructure. The proposed project will require maintenance to meet and/or maintain roadway and driveway standards. A steel or fiberglass fire suppression water tank will be located at the cultivation site.

On March 21, 2021, CalFire provided comments on the proposed project, including the need for Fire Access Roads to meet the requirements of CCR 1273/PRC §4290a and 4291, the installation of approved address numbers to be placed on all buildings and/or driveways in such a position as to be plainly visible and legible from the street or road fronting the property with numbers that shall contrast with their background will be required, and the installation of a rapid entry lock box, approved by the fire district if any gate is installed will also be required.

CalFire raised on-grid power at this location as a point of concern, and indicated that all fire suppression measures must be in place before any work can begin on site.

WDF-1: The interior driveway shall be improved to meet PRC 4290 and 4291 road standards for private driveways serving commercial uses, including turn-arounds every 400 feet or less for emergency vehicles.

WDF-2: The applicant shall maintain 30’ of defensible space around all structures for the life of the project. Clearing these areas shall occur prior to a building permit being issued.

Less than Significant with Mitigation Measure WDF-1 and WDF-:

d) There is little chance of increased risks associated with post-fire slope runoff, instability, or drainage changes based on the lack of site changes that would occur by the Project parcel.

The Project site, along with much of the parcel, burned in 2018 in the Mendocino Complex fire, and the stability of the soil on the relatively flat sections where the Project parcel is located. Steeper sections of the parcel are heavily vegetated and remain stable. The erosion mitigation measures and BMPs to be implemented will provide further stability on and around the Project site, and with no neighboring people or structures within range of downstream flooding or landslides, the impact will be less than significant impact with mitigation measures WDF-3 through WDF-5 implemented.

WDF-3: Any vegetation removal or manipulation will take place in the early morning hours before relative humidity drops below 30 percent.

WDF-4: A Water tender will be present on site during earth work to reduce the risk of wildfire and dust.

WDF-5: The applicant shall designate one (1) 5,000 gallon water tank exclusively for fire protection. The tank shall have connectors that can be used by emergency services, and shall be made of a material that meets the specifications of the applicable Fire Code.

Less than Significant Impact with Mitigation Measures WDF-3 through WDF-5

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact	Source Number
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	ALL
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)?	☐	☒	☐	☐	ALL
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	ALL

Discussion:

a) According to the biological and cultural studies conducted, the cannabis cultivation project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory when mitigation measures are implemented.

   All setbacks for watercourses will exceed local, state, and federal regulations to prevent significant impacts on water quality. With the implementation of mitigation measures described in the biological assessment and the Best Management Practices and other mitigation measures described throughout this initial study, the potential impact on important biological resources will be reduced to less than significant.

   Less than Significant with Mitigation Measures

b) Potentially significant impacts have been identified related to Aesthetics, Air Quality, Biological Resources, Cultural and Tribal Resources, Geology and Soils, Hydrology and Water Quality, Noise, and Wildfire. These impacts in combination with the impacts of other past, present, and reasonably foreseeable future projects could cumulatively contribute to significant effects on the environment.

   Implementation of and compliance with mitigation measures identified in each section as project conditions of approval would avoid or reduce potential impacts to less than significant levels and would not result in any cumulatively considerable environmental impacts.

   Less than Significant with Mitigation Measures

c) The proposed project has the potential to result in adverse indirect or direct effects on human beings. In particular, Aesthetics, Air Quality, Biological Resources, Geology and Soils, Cultural and Tribal Resources, Hydrology and Water Quality, Wildfire, and Noise have the potential to impact human beings. Implementation of and compliance with mitigation measures identified in each section as conditions of approval would not result in substantial adverse indirect or direct effects on human beings and impacts would be considered less than significant.

   Less than Significant with Mitigation Measures

Source List

1. Lake County General Plan
2. Lake County GIS Database
3. Lake County Zoning Ordinance
4. Lower Lake Area Plan
5. Joel Michaely Cannabis Cultivation Application – Major Use Permit.
6. U.S.G.S. Topographic Maps
7. U.S.D.A. Lake County Soil Survey
8. Lake County Important Farmland Map, California Department of Conservation Farmland Mapping and Monitoring Program
9. Department of Transportation's Scenic Highway Mapping Program, *(*https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways)
10. Lake County GIS Serpentine Soil Mapping
11. California Natural Diversity Database (https://wildlife.ca.gov/Data/CNDDB)
12. U.S. Fish and Wildlife Service National Wetlands Inventory
13. Biological Resources Assessment for Joel Michaely, prepared by Natural Investigations Inc., dated December 7, 2021.
14. Cultural Resources Assessment, prepared by Natural Investigations Inc., dated December 2019 and updated December 2021.
15. California Historical Resource Information Systems (CHRIS); Northwest Information Center, Sonoma State University; Rohnert Park, CA.
16. Water Resources Division, Lake County Department of Public Works Wetlands Mapping.
17. U.S.G.S. Geologic Map and Structure Sections of the Clear Lake Volcanic, Northern California, Miscellaneous Investigation Series, 1995
18. Official Alquist-Priolo Earthquake Fault Zone maps for Lake County
19. 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
20. Lake County Emergency Management Plan
21. Lake County Hazardous Waste Management Plan, adopted 1989
22. Lake County Airport Land Use Compatibility Plan, adopted 1992
23. California Department of Forestry and Fire Protection - Fire Hazard Mapping
24. National Pollution Discharge Elimination System (NPDES)
25. FEMA Flood Hazard Maps
26. Lake County Aggregate Resource Management Plan
27. Lake County Bicycle Plan
28. Lake County Transit for Bus Routes
29. Lake County Environmental Health Division
30. Lake County Grading Ordinance
31. Lake County Natural Hazard database
32. Lake County Countywide Integrated Waste Management Plan and Siting Element, 1996
33. Lake County Water Resources
34. Lake County Waste Management Department
35. California Department of Transportation (Caltrans)
36. Lake County Air Quality Management District website
37. South Lake Fire Protection District
38. Site Visit – August 2022

39. United States Department of Agriculture – Natural Resources Conservation Service Web Soil Survey
40. Hazardous Waste and Substances Sites List,
41. State Water Resources Control Board (SWRCB) Cannabis Policy and General Order
42. Lake County Groundwater Management Plan, March 31st, 2006.
43. Lake County Rules and Regulations (LCF) for On-Site Sewage Disposal
44. Lake County Municipal Code: Sanitary Disposal of Sewage (Chapter 9: Health and Sanitation, Article III)