Wood Ranch Cannabis Cultivation Project
PLN-12426-CUP - Patient 2 Patient , Inc.

Initial Study – Mitigated Negative Declaration

prepared by

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Initial Study

1. Project Title

Wood Ranch Cannabis Cultivation Project – Patient 2 Patient, Inc.

2. Lead Agency Name and Address

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

3. Contact Person

Steve Lazar, Senior Planner
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4. Project Location

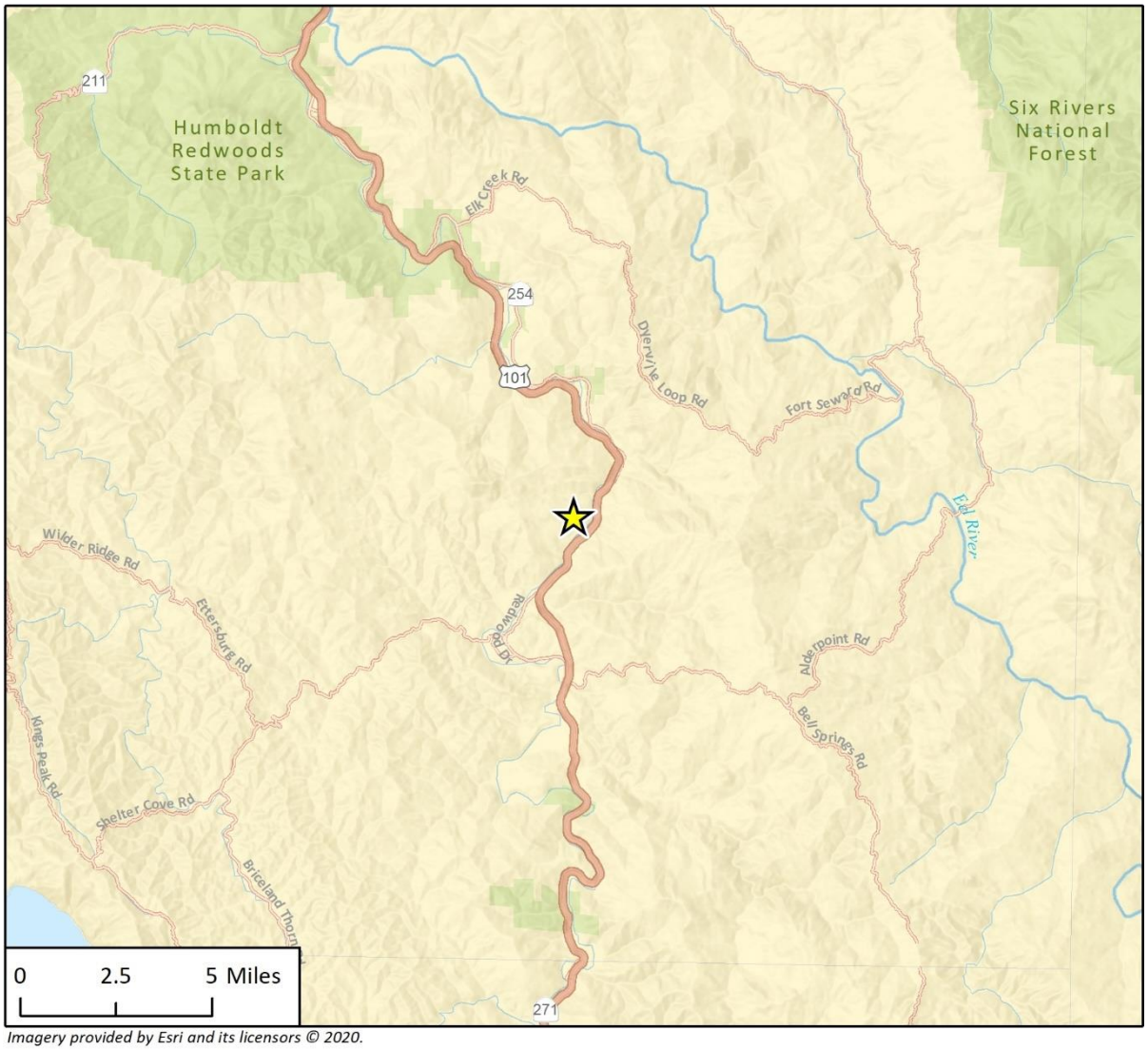
The project is located on a 361-acre parcel (Assessor's Parcel Number 214-142-012) in unincorporated southern Humboldt County, California, in the Wood Ranch area approximately 3 miles north of Redway. Access to the site is provided from Wood Ranch Road, and the property is located approximately 2.5 miles from the beginning of Wood Ranch Road near its intersection with the road to Eel River Conservation Camp #31. The eastern site boundary follows the South Fork Eel River and is adjacent to Highway 101. The regional location of the project site is shown in Figure 1. Figure 2 shows the project location and surrounding land uses.

5. Project Sponsor's Name and Address

Young Jacobsen
Central Balance Company, LLC
P.O. Box 2344
Redway, California 95560

Property Owner:
California Property Solutions
1482 East Valley Road SRE 708
Montecito, California 93108

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2020.

Project Location

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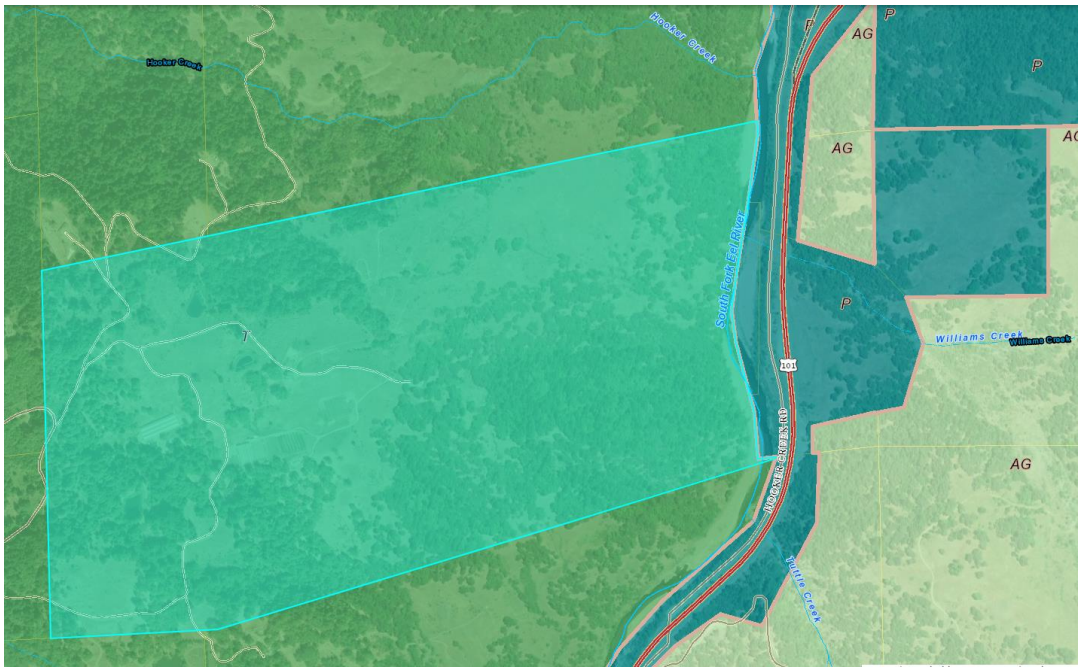
Figure 2 Project Location

Imagery provided by Microsoft Bing and its licensors © 2020.

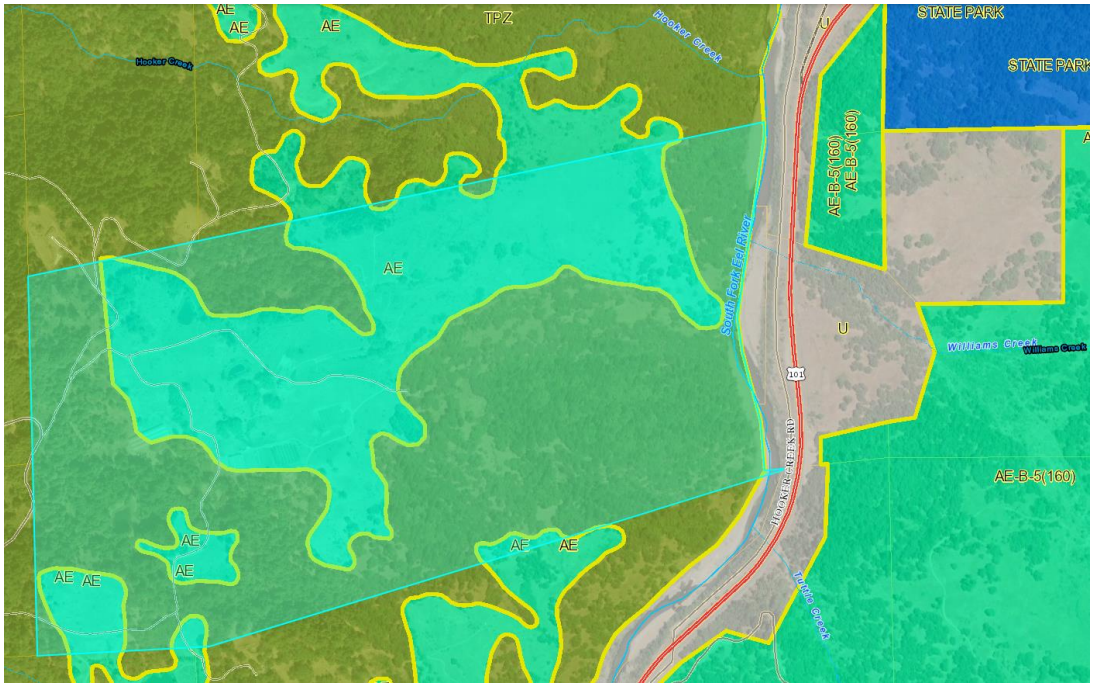
6. General Plan Designation

Timberland (T)



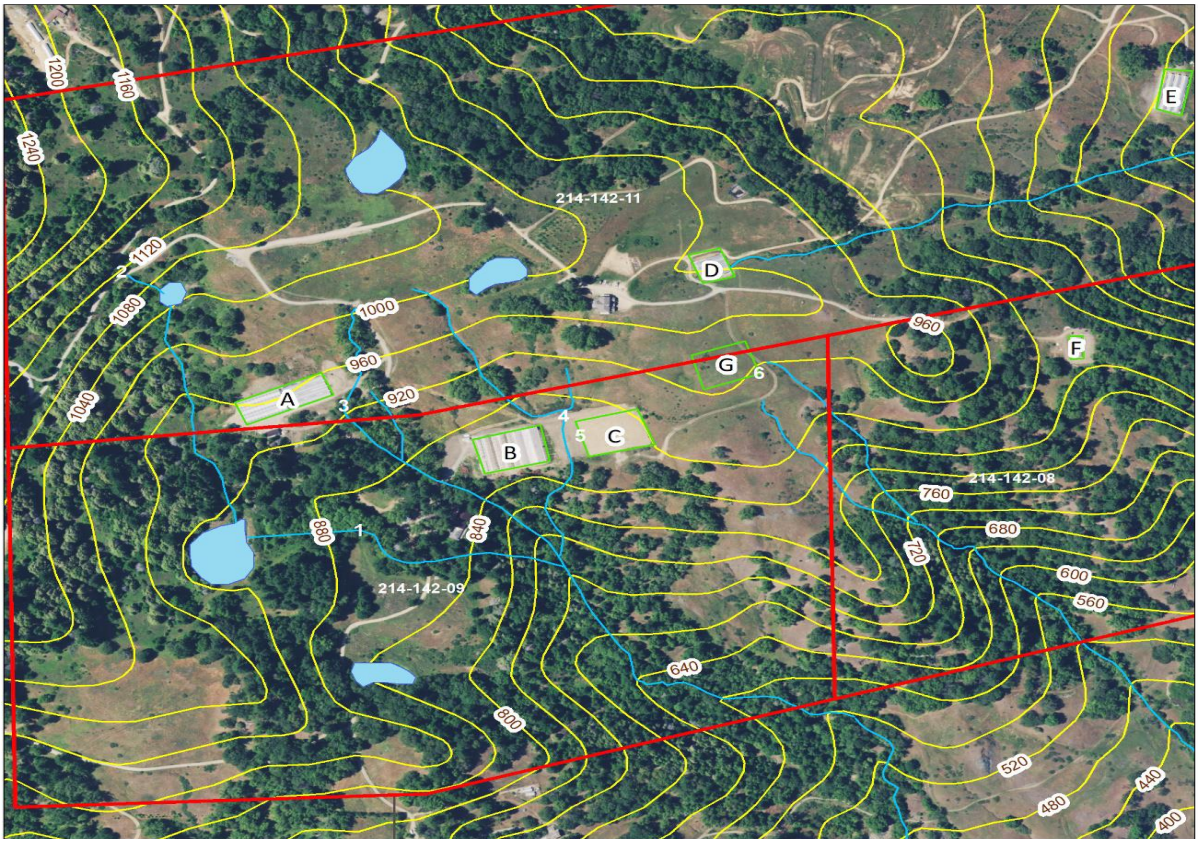
7. Zoning

Agriculture Exclusive (AE) and Timberland Production Zone (TPZ).



8. Environmental Baseline

The site has historically been developed for cannabis cultivation within seven (7) distinct areas which have been subject to grading and other land disturbance totaling approximately 6.7 acres. Three (3) of these areas hosted approximately 39,000 ft.² of pre-existing cultivation activities established and in operation prior to 2016. Site development in recent years (2015-2018) resulted in fill, alteration, and disturbance to a number of wetlands and watercourses on the property. In 2021, a Notice of Violation and Cleanup and Abatement Order (R1-2021-0003) were issued by the North Coast Regional Water Quality Control Board compelling the remediation and restoration of most of these sites. At this time, all cultivation activities have been suspended and greenhouses and other cultivation infrastructure have been completely removed from nearly all of the sites. A Cleanup, Restoration, and Monitoring Plan (CRMP) detailing remediation and restoration measures is awaiting final review and approval by the Regional Board. In addition to the former cultivation and propagation facilities/sites, the property is currently developed with water tanks, shed storage areas, restrooms, composting areas, drying areas, and unpaved roads and turnaround areas. The parcel also contains four ponds, several heavily wooded areas, and steep slopes from west to east descending towards the South Fork of the Eel River. Historically, generators housed within an existing shed supplied power production during the winter months when additional light and heat were needed for cultivation within the greenhouses.



9. Project Description

The project involves two primary components:

A. **Remediation and restoration of approximately 6.7 acres of land disturbance associated with seven (7) discrete areas historically used for cannabis cultivation.** The property was the subject of a Notice of Violation and Cleanup and Abatement Order issued by the North Coast Regional Water Quality Control Board in 2021 (R1-2021-0003). All remediation & restoration work is being designed to correct outstanding violations and comply with direction received from the Regional Board and Department of Fish & Wildlife, and Army Corps of Engineers. Remediation work is detailed in the draft Cleanup, Restoration, and Monitoring Plan (CRMP) which seeks to restore the sites to their pre-development state as closely as possible and which includes: (1) removing all development related material from the sites; (2) pulling back fill and fill slopes and re-contouring fill into source cut hill slopes to recreate pre-development, historic topography; (3) implementing erosion control measures to prevent sediment transport into water courses; (4) re-planting native vegetation; and (5) removing drainage structures as needed and improving drainage channels to the pre-development state. Work will likely also involve on and off-site compensatory mitigation for temporal impacts from the water quality violations, including wetland creation and enhancement activities and similar measures.

B. **Development and operation of approximately 86,000 square feet of new Outdoor cannabis cultivation in greenhouses within an approximately 6-acre area in the northern part of the project parcel.** This will require erection of forty-four (44) 2,000 square foot greenhouses (one of which will be used for 2,000 ft.^{2} of nursery/propagation activities) as well as construction of a 12,500 square foot drying barn within this same area. While the existing greenhouses have historically used artificial light controlled by timers and mechanical curtains, the proposed greenhouses will not initially include use of artificial lighting, with the exception of the nursery/propagation greenhouse. Use of artificial lighting is planned to resume in conjunction with a switch to Mixed-Light Cultivation, once grid power or on-site renewable energy infrastructure is in place and of sufficient capacity to supply the amount of power required. The parcel is developed with a well and several ponds providing a total of approximately 2.2 million gallons of stored water for cannabis irrigation, as well as an additional 20,000 gallons in hard tanks. Additional water tanks are proposed to be installed near the site of the proposed new greenhouses. With initially two harvests per year, approximately 866,240 gallons of water are required. When grid power or adequate on-site renewable energy is available, use of supplemental lighting will be possible allowing a third harvest and an approximately 50% increase in water use (totaling 1,299,360 gallons of water use annually). The cultivation stage will require minimal staffing as the plants will be watered using drip irrigation. The harvesting stage of production will require use of additional seasonal staff members to harvest and hang the plant for drying and curing, followed by removal of dried buds and trimming. The dried product will then either be packaged on-site and/or moved to a distribution facility. The project would employ ten (10) staff for regular operations, which would double seasonally to twenty (20) staff during the two or three annual harvests. The temporary staffing increases during harvest lasts approximately 30-days and ordinarily occurs during midsummer and fall.

Figure 3a Proposed Site Plan – NOT TO SCALE

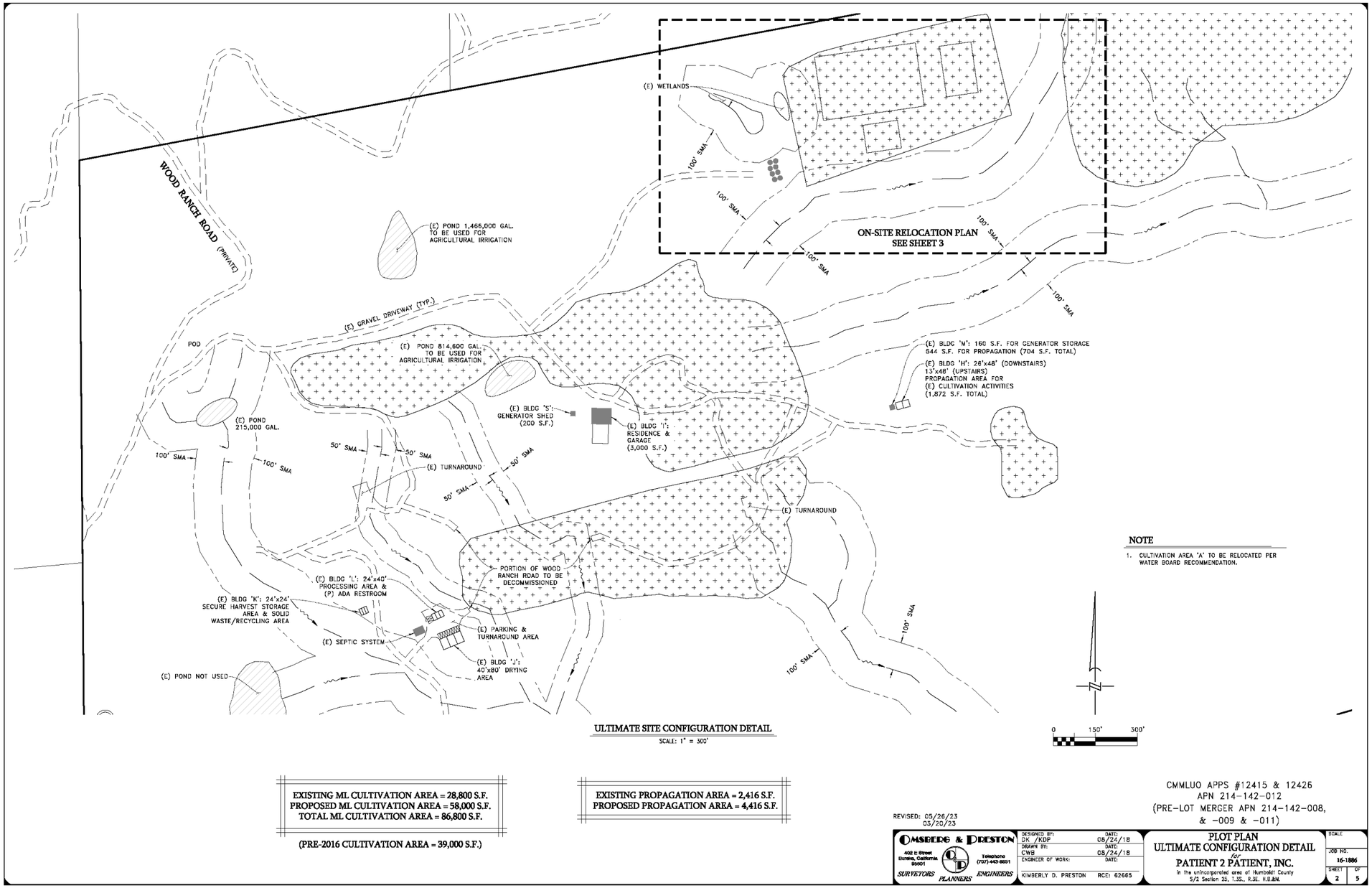


Figure 4b Relocation Area – NOT TO SCALE

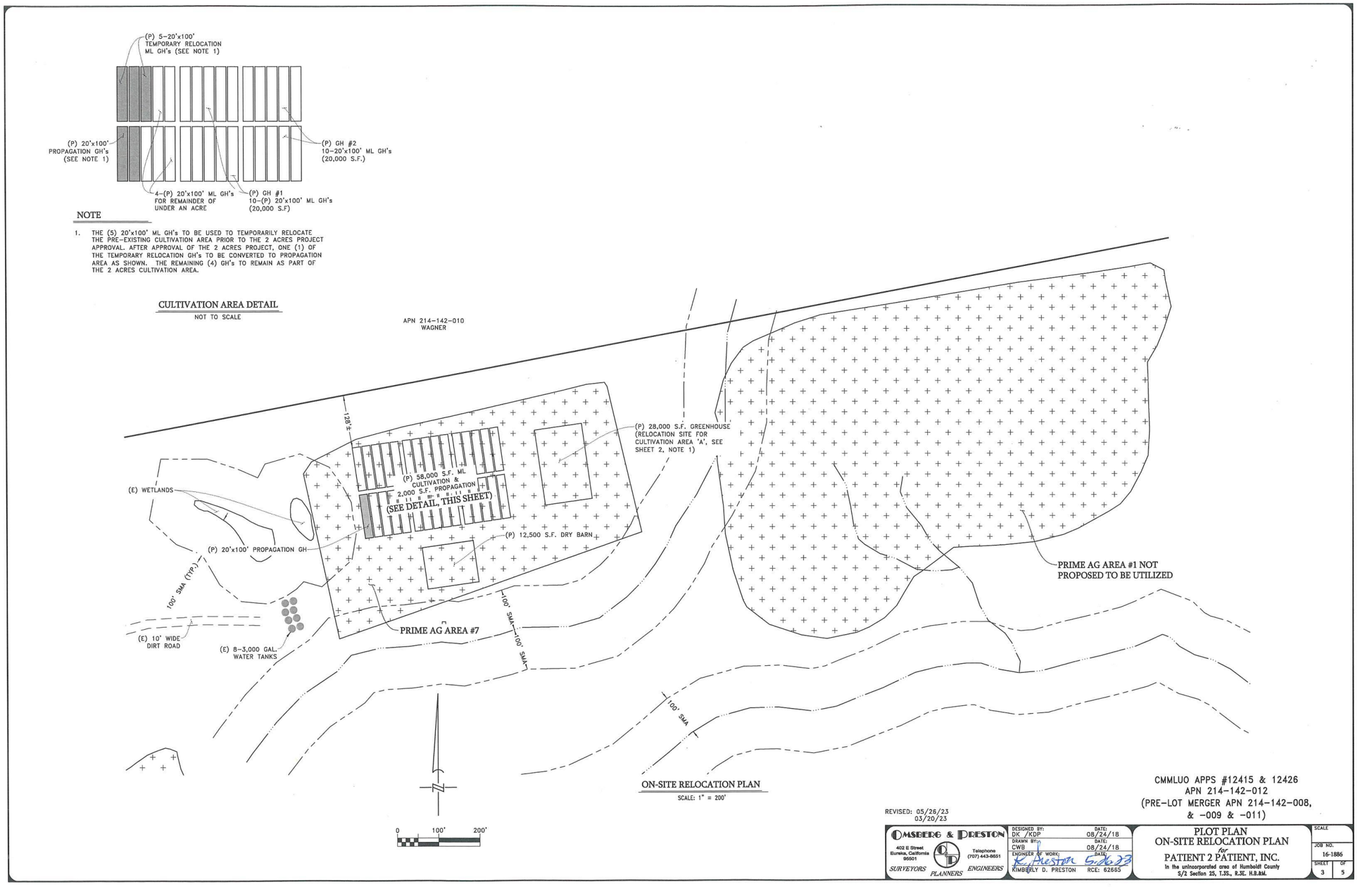
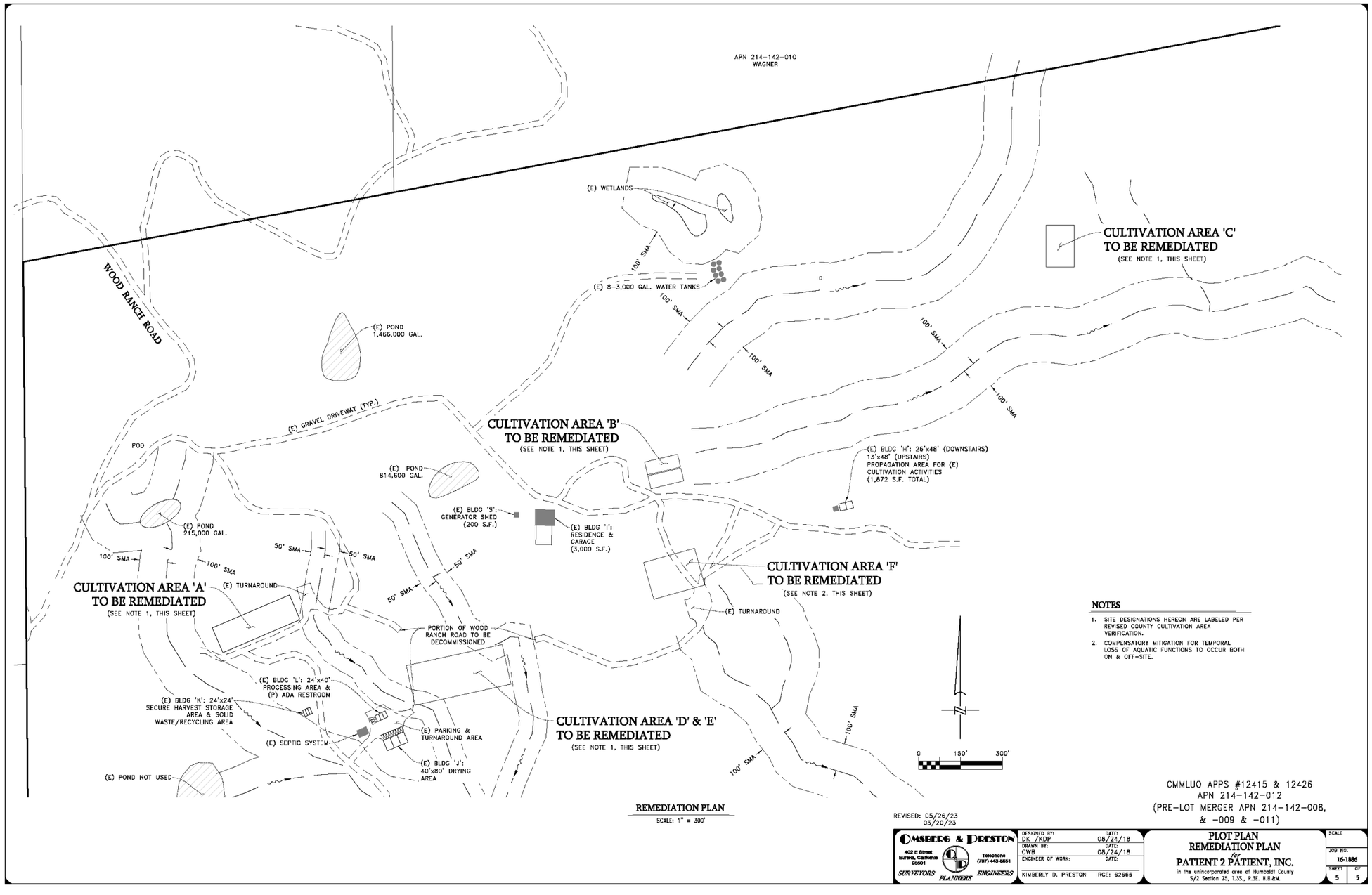


Figure 3c Proposed Remediation Plan – NOT TO SCALE



Employees/Vehicles/Trips

Employees are expected to carpool to and from the project site, resulting in 4 daily trips during regular operations and 8 daily trips during harvests. The average number of daily truck trips generated by the project site would be approximately 4 round trips per day on weekdays (8 daily trips) and 2 roundtrips per day on weekends (4 daily trips) for delivery of materials or supplies and shipment of product. The project proponent would continue to pay road maintenance fees related to upkeep of the unpaved roadways that lead to the project site.

Utilities

Energy Source/Use

The applicant is seeking to relocate commercial cannabis cultivation activities from prior cultivation sites that are being decommissioned and remediated. Commercial cultivation has historically occurred in a "Mixed-Light" fashion, where supplemental lighting was provided during parts of the cultivation cycle to allow for multiple harvests throughout the year. Generators within an existing generator shed have historically been used for providing power during the winter months when additional light and heat are needed for plant cultivation in the existing greenhouses. Moving forward, the applicant has agreed not to resume Mixed-Light Cultivation until grid power or an on-site renewable energy system is developed with sufficient production (and storage) capacity to furnish all power required by the cultivation activities and equipment (fans, lights, dehumidifiers, heaters, pumps, etc.). Generator Power will continue to be used to supply energy to on-site propagation facilities until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use will be limited to providing emergency backup of the primary power source.

Water Source/Use

The parcel is developed with several existing off-stream ponds providing a total of approximately 2.2 million gallons of stored water for cannabis irrigation. Diversions for irrigation from three on-site ponds were previously permitted under a Lake and Streambed Alteration Agreement (LSAA) (Notification No. 1600-2015-0139-R1) with the California Department of Fish and Wildlife (CDFW), which expired in 2021. A new LSAA was submitted to CDFW (Notification No. 1600-2020-0303-R1), and an Amendment has been submitted to CDFW that includes two of these ponds for diversion, totaling 2,280,600 gallons of storage. Existing water tanks (two existing tanks with a total capacity of 10,000 gallons) and new water tanks (four proposed 5,000-gallon tanks with a total capacity of 20,000 gallons) would store water on site for existing and proposed uses. These tanks are located in several locations on the project site, including near the existing and proposed cultivation greenhouses. The parcel also hosts an existing well near the western property boundary. The well produces water at 25 gallons per minute, which is sufficient to provide irrigation and drinking water for the existing site uses as well as the proposed project uses. Water from the well can be used to supplement or substitute for stored water supplies in the ponds during dry periods. Eight 2,000-gallon water tanks are proposed to be installed to provide for additional on-site water storage, and will be located near the site of the proposed new greenhouses. All irrigation will be gravity-fed.

With initially two harvests per year, approximately 866,240 gallons of water are required.[1] When grid power or adequate on-site renewable energy is available, use of supplemental lighting will be possible enabling a third harvest and an approximately 50% increase in water use (totaling 1,299,360 gallons of water use annually). Because the project would not rely on public or off-site water to serve the proposed project, there would be no impact from the relocation or construction of new water facilities.

Sewer/Solid waste

The project will be served by an existing on-site septic system. Wastewater is constituted of domestic sewage produced at existing bathroom facilities as well as process wastewater produced through project operation and maintenance activities, including but not limited to wash water. All domestic sewage would be contained in the existing on-site septic system. The septic system would continue to be pumped on an as-needed basis, with no expansion of the existing septic tank required.

Any municipal solid waste generated at the project site would be contained in dumpsters and disposed of by Recology at the Redway Transfer Station. Plant trimming waste would be minimized by composting, which currently occurs in a 1,500-square foot area on the site.

10. Surrounding Land Uses and Setting

The project site is located on a parcel in the Wood Ranch area in an unincorporated portion of southern Humboldt County. The closest neighboring communities are Phillipsville to the north and Redway to the south. The eastern boundary of the project site abuts the South Fork Eel River, a designated National Wild and Scenic River. Across the river from the site, Highway 101 provides regional access to the project site and surrounding area. Surrounding land uses consist of rural residential homes and other agricultural and cannabis cultivation operations. Vegetation surrounding the subject parcel consists of grasslands mixed with conifer and hardwood stands. Natural ground slopes range from 15 to 50 percent. Wood Ranch Road provides local access to the project site and surrounding parcels. The project site is currently developed with a residence and remnant cannabis cultivation infrastructure. The 100 Year Flood Zone covers eastern portions of the property abutting the South Fork of the Eel River, located below 414 feet in elevation. Existing and proposed cultivation sites and infrastructure are located at elevations ranging between 630 and 950 feet, 200 to 400 feet above the flood zone. The property contains approximately 53 acres of prime agricultural soils, identified through a parcel-specific survey and analysis that was conducted in April 2022. The project site is not under Williamson Act contract although the land adjacent to and east of the South Fork Eel River is. Figure provides photographs of the site and surrounding areas.

11. Other Public Agencies Whose Approval is Required

The following permits and approvals are required from Humboldt County:

- **Zoning Clearance Certificate**. Prior to building permit approval, this certificate is required to establish that the proposed development conforms with the current requirements of the Zoning regulations as well as terms and conditions of any previously approved permits or variances.

1 Total annual project water demand is based on the applicant's Combined Cultivation Operations Plan. The estimated monthly water demand is as follows: January – 0 gallons, February – 0 gallons, March – 14,500 gallons, April – 29,000 gallons, May – 85,680 gallons, June – 154,300 gallons, July – 171,360 gallons, August – 171,360 gallons, September – 154,360 gallons, October – 85,680 gallons, November – 0 gallons, and December – 0 gallons.

- **Building Permit**. This permit ensures the project complies with applicable California model codes and is approved by the Humboldt County Planning and Building Department.
- **Commercial Cannabis Land Use Permit**. This permit is required for commercial cannabis activity on parcels 320-acres or larger in size to allow up to 43,560 square feet of cultivation per 100-acre increment, up to a maximum of 8 acres.
- **State Department of Cannabis Control License**. In addition to a local land use permit, a license is required to conduct various commercial cannabis activities, including: cultivation, processing, distribution, manufacturing, and sales.

The following additional permits would be required from other agencies:

- **License from State Department of Cannabis Control**. In addition to a local land use permit, a license is required to conduct various commercial cannabis activities, including: cultivation, processing, distribution, manufacturing, and sales.
- **Lake and Streambed Alteration Agreement.**
- **Construction General Permit.** State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES)

The following additional permits may be required:

- **404 Permit from the Army Corps of Engineers.**
- **401 Permit from Regional Water Quality Control Board**

12. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

No tribes have requested consultation pursuant to PRC 21080.3.1. Tribal engagement began early during the development of technical studies for the project, including surveys for cultural resources initiated in 2019. Letters to the Native American contacts provided by the NAHC were mailed on June 15, 2020. A Rincon archaeologist conducted a pedestrian survey of the project site on February 25, 2021. A copy of the cultural resources report was provided to the Tribal Historic Preservation Officer (THPO) of the Bear River Band of Rohnerville Rancheria prior to submittal to the applicant and county. On August 26, 2021, Vice-Chairman Edwin Smith recommended full time monitoring for all project ground disturbance. In February 2022, a separate Cultural Resources Investigation of the property was performed by the Archaeological Research and Supply Company, including the area targeted for on-site relocation. Conclusions of the investigation are documented in a Final Report. The Tribal Historical Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria and Director of the Intertribal Sinkyone Wilderness Council were contacted by the archaeological consultant in coordination with the survey and resulting report. Both were provided a copy of the final report and also contacted by Humboldt County planning staff (via email and phone) in August 2023. To date, no feedback has been received from the Intertribal Sinkyone Wilderness Council Director. On August 16, 2023 the Planning & Building Department received email confirmation from the Bear River THPO declining formal consultation and noting that their concerns had been satisfied through incorporation of the Mitigation Measures that have been included.

Figure 4 Site Photographs

Photo 1: Facing east from the center of the project site.

Photo 2: Facing west from the center of the project site.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to 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 "less than significant with mitigation incorporated" 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 potential significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

The project site is currently developed with approximately one acre of mixed-light cannabis cultivation and propagation facilities, including water tanks, shed storage areas, restrooms, composting areas, drying areas, and unpaved roads and turnaround areas. The site also contains four ponds, several heavily wooded areas, and steep slopes from west to east down to the South Fork Eel River. Land uses surrounding the project site consist of rural residential homes and other agricultural and cannabis cultivation operations.

a. Would the project have a substantial adverse effect on a scenic vista?

Humboldt County offers many scenic vistas and resources from key travel routes and recreational sites. Scenic resources associated with Humboldt County include features such as mountains, forests, agricultural lands, routes and roadways, and wild and scenic rivers. Potential visual effects associated with the proposed cultivation activities would generally include the presence of cultivation structures and operation of equipment, which may be both temporary and permanent in nature.

The project site is in unincorporated Humboldt County and the eastern boundary of the site abuts the South Fork Eel River, which is classified as a “recreational” river under the National Wild and Scenic

River Act. Since 1981, the entire Eel River has enjoyed recognition and listing and designation under the National Wild and Scenic Rivers System. Recreational river areas are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments (National Wild and Scenic River System 2020).

A popular summer swimming spot on the South Fork Eel River accessed from Hooker Creek Road is located near the eastern boundary of the project parcel. However, views of the existing and proposed cultivation areas are obstructed at this location due to the steepness of the terrain and vegetation within the river canyon. Visibility from higher elevation vantage points is possible but is unlikely given the nature of where publicly accessible land and roadways are found in this area. Both the Avenue of the Giants and Highway 101 follow the South Fork of the Eel at lower elevations.

The project site is currently developed with approximately one acre of cannabis cultivation and propagation facilities, including water tanks, shed storage areas, restrooms, composting areas, drying areas, and unpaved roads and turnaround areas. The project would construct new propagation and cultivation mixed-light greenhouses on the project site; however, these structures would be located approximately 0.4 mile west of the eastern site boundary. Additionally, the project site is heavily wooded and is blocked from view by large trees and dense vegetation. No trees would be removed as a part of the project. With the proposed setback from the South Fork Eel River and retention of existing trees, new structures would not be visible from roadways with scenic vistas. Therefore, impacts to scenic vistas would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Although there are eligible state scenic highways in Humboldt County, none are officially designated (California Department of Transportation [Caltrans] 2019). Because the highways are eligible, however, they are treated as scenic resources for purposes of this analysis. Highway 101 is located across the river from the project site and is considered "eligible" for official designation as a State scenic highway under the California State Scenic Highway Program.

The project would not demolish or modify any existing structures and all existing trees would be retained during project construction. The project site is located less than 2 miles east of the Bear Buttes, a scenic rocky peak that is highly visible from certain nearby locations including Garberville and Redway. However, no scenic rock outcroppings are located on site. As described above under *criterion a,* the project site is heavily wooded and obscured from view by the large trees on the eastern boundary. Although the project site is in the vicinity of Highway 101, the dense forested area blocks all views from the highway. Therefore, the project would not result in substantial damage to scenic resources in a State scenic highway. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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?

The project site is located in a non-urbanized area. The project would construct new propagation and cultivation mixed-light greenhouses on the project site. During project construction, equipment including haul trucks and excavators, materials stockpiles, partially constructed buildings, and environmental protection measures, such as runoff control would only be visible on the project site from immediately surrounding areas. Construction activities are a common occurrence in the region and are not considered to substantially degrade the area's visual quality. All construction equipment would be removed from the project site following completion of construction. As such, the temporary presence of construction equipment and activities at the project site would not substantially degrade the visual character of the surrounding area.

The project would alter the site's visual character by introducing new cultivation greenhouses. Due to the location of the project site within the parcel, proposed improvements would not be visible to adjacent properties, as existing trees and vegetation obstruct views of the project site. The project site is in a rural area of Humboldt County, Wood Ranch Road is a rural County road with limited traffic, views of the site are extremely limited to adjacent properties due to the heavily wooded nature of the site, and the proposed greenhouses are consistent with other commercial cannabis land uses found on neighboring properties within the vicinity. Because of these factors, the project would not substantially degrade the existing visual character or quality of the site and its surroundings.

LESS THAN SIGNIFICANT IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The project site currently contains existing outdoor lighting associated with the mixed-light cultivation areas and processing facilities. The new greenhouse structures proposed at the site would have exterior lighting to illuminate entrances as well as motion-activated security lights. All new outdoor lighting would not exceed the minimum lumens required for security purposes, would be directed downward, and would be shielded to prevent lighting spillover onto adjacent parcels.

At certain times of the year artificial lighting would be used in the existing and proposed greenhouse structures. To ensure that light does not escape from the structures at night, the illuminated greenhouses would be shielded with blackout covers when the artificial lighting is in use between sunrise and sunset, pursuant to HCC Section 55.4.12.4.1. As such, artificial lighting used in the mixed light cultivation greenhouse would not create a new source of light that would be visible off site or affect nighttime views.

The new structures proposed would not be constructed of materials that would reflect light or cause any sources of glare that would impact surrounding land uses, or drivers on adjacent roadways. Therefore, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

2 Agriculture and Forestry Resources

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

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site and its surroundings are not designated under the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program. There is no land designated as Important Farmland within the vicinity of the project site (DOC 2016). Furthermore, the project would result in an increase in agricultural land uses on the site. Therefore, there is no potential dor adverse impacts to agricultural resources.

NO IMPACT

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

The site is planned Timberland (T) under the County General Plan and zoned AE (Agriculture Exclusive) and TPZ (Timberland Production Zone). Cannabis cultivation is an allowed use within the AE zone. The project site and neighboring properties of the Wood Ranch area not enrolled in a contract pursuant to the Williamson Act. To the west, the nearest parcels under contract are part of the Tosten preserve and are located approximately two miles west of the project area. The Hurlbutt preserve is located across Highway 101 immediately east of the project parcel. Neither of these preserves are likely to be impacted by the proposal given its location and nature. The project would increase agricultural operations within a parcel zoned for agricultural use; therefore, there would be no impact regarding a conflict with existing zoning for agricultural use or a Williamson Act contract. Consistency with the site's TPZ zoning is discussed below under *criteria c* and *d*.

NO IMPACT

c. Would the project 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))?

The project site is planned Timberland (T) under the County General Plan and zoned AE (Agriculture Exclusive) and TPZ (Timberland Production Zone). The project would involve intensification of agricultural land use on a site zoned for both agriculture and timberland. Cannabis cultivation is an allowed use within the AE zone. Per HCC Section 55.4.6.4.2, conversion of timberland for cannabis cultivation is prohibited unless the cultivation site is located within a non-forested area that was in existence prior to January 1, 2016. Historical satellite imagery of the project site shows that the portion of the parcel proposed for new cannabis cultivation use has been cleared since prior to January 1, 2016. No tree removal is proposed. Therefore, the project would not conflict with or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. Impacts would be less than significant. Additionally, the applicant is proposing to relocate operations to an environmentally superior area characterized by prime soils and Agriculture Exclusive zoning in conjunction with remediation and restoration and of former cultivation sites, including reforestation of areas where appropriate.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The installation of proposed cannabis cultivation and propagation greenhouses are located in natural open areas on the parcel and would not require the removal of any trees. As described above in *criterion c*, no tree removal during project construction is proposed or required. Therefore, there would be no impacts to forest land or conversion to non-forest use.

NO IMPACT

e. Would the project 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?

The proposed project would not result in the conversion of farmland or forest land. Growth inducing impacts are generally caused by projects that have a direct or indirect effect on economic growth, population growth, or land development. The project would employ 10 people regularly and up to 20

people seasonally. The economic benefits of this proposed employment would not be such that people might be attracted to the area as a result.

The project parcel is located within an area host to a number of other cultivation sites operated from neighboring properties. The project parcel is composed of several adjoining properties that were recently merged to create a parcel over 320 acres in size. This makes the project eligible to seek a permit for up to 3 acres of cultivation under the County's current Commercial Cannabis Regulations, which allow 1-acre per 100 acres on parcels that are 320 acres or larger in size. New cultivation operations or expansion of sites on neighboring properties is unlikely due to the current parcel sizes and size of existing cultivation operations. Therefore, the project would not lead to a conversion of farmland or forest land to non-ag or non-forest use in the area surrounding the site and there would be no impact.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	■	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

Overview of Air Pollution

The federal Clean Air Act and California Clean Air Act mandate the control and reduction of certain air pollutants. Under these laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards and the California Ambient Air Quality Standards for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic compounds (ROC),[2] nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROC and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

[2] CARB defines ROC and reactive organic gases (ROG) similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and ROC are considered comparable in terms of mass emissions, and the term ROC is used in this IS-MND.

- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Quality Standards and Attainment

The project site is located in the North Coast Air Basin which encompasses all of Del Norte, Humboldt, Trinity, Mendocino Counties and the northern part of Sonoma County. This air basin is under the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD). As the local air quality management agency, the NCUAQMD is required to monitor air pollutant levels to ensure that the National Ambient Air Quality Standards and California Ambient Air Quality Standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the NCUAQMD is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 1, are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The NCUAQMD is designated a nonattainment area for the state 24-hour PM_{10} standard (NCUAQMD 2021). The NCUAQMD is listed as "attainment" or "unclassified" for all other federal and state ambient air quality standards.

Table 1 Health Effects Associated with Non-Attainment Criteria Pollutants

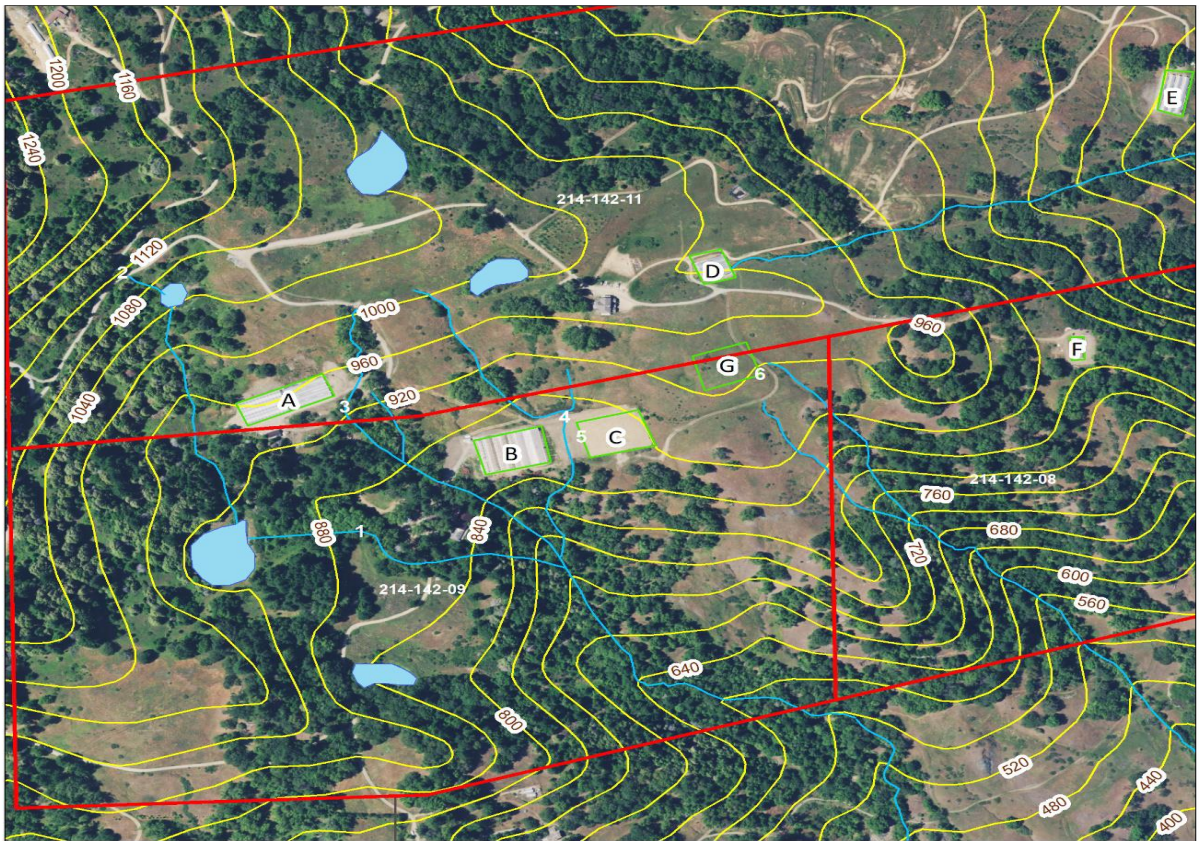
Pollutant	Adverse Effects
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]

Source: USEPA 2021

Air Quality Management

Under state law, the NCUAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The NCUAQMD prepared the Particulate Matter Attainment Plan, Draft Report, in May 1995. This report includes a description of the planning area, an emissions inventory, general attainment goals, and a listing of cost-effective control strategies. The NCUAQMD's attainment plan established goals to reduce PM_{10} emissions and eliminate the number of days in which standards are exceeded. The plan includes three areas of recommended control strategies to meet these goals: transportation, land use, and burning. Control strategies identified by the study include transportation control measures (public transit, ridesharing, vehicle buy-back

program, traffic flow improvements, bicycle incentives, etc.), land use measures to reduce reliance on automobiles, and open burning measures (NCUAQMD 1995).

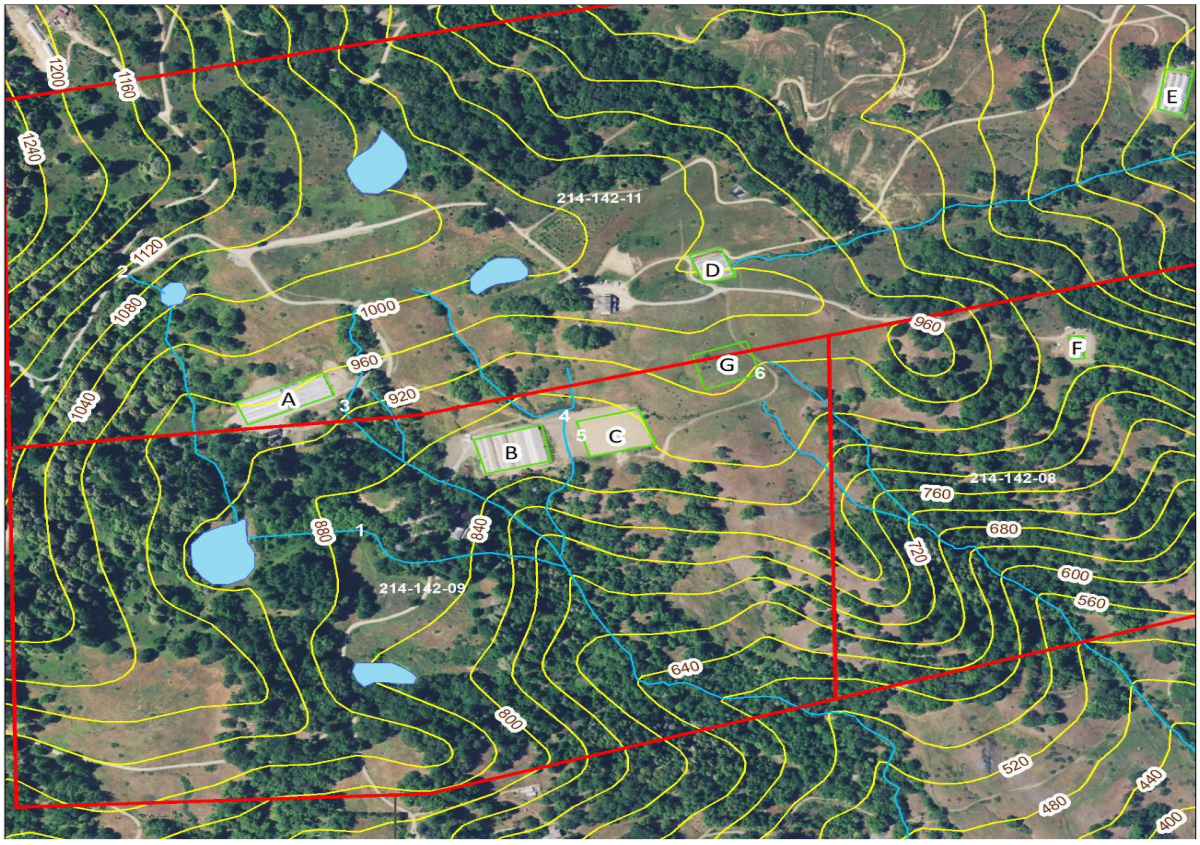


Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses (land area dedicated to different uses e.g. greenhouses, roads, etc.) and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under Initial Study Section 8, *Environmental Baseline*

The site has historically been developed for cannabis cultivation within seven (7) distinct areas which have been subject to grading and other land disturbance totaling approximately 6.7 acres. Three (3) of these areas hosted approximately 39,000 ft.² of pre-existing cultivation activities established and in operation prior to 2016. Site development in recent years (2015-2018) resulted in fill, alteration, and disturbance to a number of wetlands and watercourses on the property. In 2021, a Notice of Violation and Cleanup and Abatement Order (R1-2021-0003) were issued by the North Coast Regional Water Quality Control Board compelling the remediation and restoration of most of these sites. At this time, all cultivation activities have been suspended and greenhouses and other cultivation infrastructure have been completely removed from nearly all of the sites. A Cleanup, Restoration, and Monitoring Plan (CRMP) detailing remediation and restoration measures is awaiting final review and approval by the Regional Board. In addition to the former cultivation and propagation facilities/sites, the property is currently developed with water tanks, shed storage areas, restrooms, composting areas, drying areas, and unpaved roads and turnaround areas. The parcel also contains

four ponds, several heavily wooded areas, and steep slopes from west to east descending towards the South Fork of the Eel River. Historically, generators housed within an existing shed supplied power production during the winter months when additional light and heat were needed for cultivation within the greenhouses.



Project

The "Unrefrigerated Warehouse-No Rail" land use category was used as a proxy for the project's cultivation components, which would include erection and operation of the forty (44) 2,000-square foot greenhouses and a 12,500-square foot barn for drying and curing.

Construction emissions modeled include emissions generated by construction equipment used on site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the default construction schedule and construction equipment list. However, the default demolition and paving phase was removed since the site is currently vacant and no paving of parking areas would be needed. Construction would occur over approximately 11 months. It is assumed that all construction equipment used would be diesel-powered, and that cut and fill on the site would be balanced with no hauling trips. This analysis assumes that the project would comply with all applicable regulatory standards.

Operational emissions modeled include area source emissions, mobile source emissions (i.e., vehicle emissions), and stationary source emissions. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings. Mobile source emissions are generated by vehicle trips to and from the project site. During daily operation, approximately four trips per day would be generated by the project. The daily trips would increase to eight trips per day during the harvest season. To calculate a daily trip generation rate, the eight daily trips were used to represent the worst-scenario conditions. All trips were assumed to be worker trips and done with passenger vehicles (i.e., light-duty vehicles).

The stationary source emissions are tied to generators used to power the canopy lighting during the winter months and drying fans during the summer months. Due to the nature of mixed-light cultivation, electric lighting is only used in the winter months on days when there is not enough sun to support effective crop growth. It is estimated that the lights are currently used approximately 20 to 30 percent of the year for operations. Canopy lighting for the existing mixed-light greenhouses historically resulted in the production of criteria pollutant emissions from the use of generators to supply power to the lights and fans. The applicant has agreed not to resume Mixed-Light Cultivation until grid power or on-site renewable energy system is developed with sufficient production (and storage) capacity to furnish all power required by the cultivation activities and equipment (fans, lights, dehumidifiers, heaters, pumps, etc.). Consequently, project-related estimates for future stationary source emissions are very conservative. This is also required under Mitigation Measure GHG-1. No criteria pollutant emissions were attributed to energy use since the project would not consume natural gas.[3]

Default emissions generated by water use were altered to include the assumptions that cultivation activities would require approximately 866,240 gallons of water per year, as discussed in Environmental Checklist Section 19, *Utilities and Service Systems*. Default emissions generated by solid waste were altered to include the conservative assumption that cultivation activities would produce a maximum of 4 cubic yards of solid waste per week (400 pounds of solid waste per year), as discussed in Environmental Checklist Section 19, *Utilities and Service Systems*.

Significance Thresholds

In determining whether a project has significant air quality impacts on the environment, agencies often apply their local air district's thresholds of significance to projects in the review process. The NCUAQMD has not formally adopted specific significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emissions rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 – New Source Review and Prevention of Significant Deterioration, Section E.1 – BACT (NCUAQMD 2015). For the purpose of this analysis, air quality emissions are considered to have a significant individual and cumulative impact if they exceed the District's significance thresholds for BACT adoption, as shown below in Table 2.

Table 2 NCUAQMD Significance Thresholds for BACT Adoption

	Mass Daily Thresholds	
Pollutant	**Daily (lbs/day)**	**Annual (tpy)**
Carbon Monoxide (CO)	500	100

[3] Criteria air pollutant emissions from electricity generation are not attributed to individual projects because fossil fuel power plants are existing stationary sources permitted by air districts and/or the USEPA, and they are subject to local, state and federal control measures. Criteria pollutant emissions from power plants are associated with the power plants themselves and not individual projects.

Fluorides	15	2
Hydrogen sulfide (H_2S)	50	10
Lead	3.2	0.6
Nitrogen Oxides (NO_x)	50	40
PM_{10}	80	15
$PM_{2.5}$	50	10
Reactive Organic Compounds (ROC)[1]	50	40
Reduced Sulfur Compounds	50	10
Sulfur Oxides	80	40
Sulfuric Acid Mist	35	7
Total Reduced Sulfur Compounds	50	10

Notes: lbs/day = pounds per day; tpy = tons per year

[1] ROCs are formed during combustion and evaporation of organic solvents. ROCs are also referred to as Reactive Organic Gases (ROG) and Volatile Organic Compounds (VOC).

Source: Table 1.0 Significance Thresholds, NCUAQCB Rule and Regulations, Rule 110 – New Source Review (NSR) and Prevention of Significant Deterioration (PSD), Section E.1 – BACT, May 1995.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

A potentially significant impact to air quality would occur if the project would conflict with or obstruct the implementation of the applicable air management or attainment quality plan. Although the project would represent an incremental increase in air emissions in the air district, of primary concern is that project-related impacts have been properly anticipated in the regional air quality planning process and reduced whenever feasible. Therefore, it is necessary to assess the project's consistency with the applicable district air quality management or attainment plan(s).

The project design incorporates control measures identified in the PM_{10} Attainment Plan appropriate to this type of project, such as:

1. The project site is strategically located in close proximity to the communities of Phillipsville, Redway, and Garberville, two of which are major population centers for the Southern Humboldt area, located 4 miles (Redway) and 6.5 miles (Garberville) from the project site. The project site is approximately 2.5 miles from Highway 101 and only 4 miles from the nearest bus stop (Redway). Since motor vehicles are one source of PM_{10} emissions and vehicle miles associated with distribution and employee commuting will likely be significantly lower, it is reasonable to expect that the associated vehicular exhaust emissions generated by this site will be considerably less than those associated in other sites ordinarily found in far more remote locations.
2. The project would not require the use of woodstoves or fireplaces, thus avoiding another source of potential PM_{10} emissions that otherwise might result from a project involving residential development.

The site is planned Timberland (T) under the County General Plan and zoned AE (Agriculture Exclusive) and TPZ (Timberland Production Zone). The project proposes development of new cannabis cultivation and propagation greenhouses that would expand the total amount of cultivation on the parcel to two acres within the AE-zoned portions of the property. Both zones limit the amount of land that may be occupied by residences and associated accessory structures not directly related to

agriculture and timber uses. However, these restrictions are not applicable to greenhouses, barns, and similar structures directly tied to agricultural uses. As such, the proposed project is consistent with the density of agricultural development planned for in the Humboldt County General Plan.

The project does not include additional development growth or urban sprawl, nor would it result in a significant long-term increase in vehicle miles traveled. Therefore, the project would not obstruct implementation of the NCUAQMD Attainment Plan for PM_{10} and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of air quality standards by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant. The project would result in temporary construction emissions and long-term operational emissions. Construction and operational emissions associated with the project were estimated using CalEEMod version 2020.4.0 (see Appendix AQ for results).

Construction Emissions

Table 3 summarizes estimated construction emissions generated by the project along with NCUAQMD significance thresholds for applicable criteria pollutants. Emissions of fluorides, air-borne lead, and sulfuric acid mist are associated with industrial sources, while hydrogen sulfide emissions are associated with sewage and manure; air-borne lead emissions are also associated with aviation fuel. As the proposed project would not be a source of these air pollutants, they were not considered in the construction emissions analysis (USEPA 2014). As shown in

Table 3, construction emissions for the project would be within NCUAQMD recommended daily significance thresholds for all criteria pollutants.

Table 3 Construction Emissions Compared to NCUAQMD Significance Thresholds

Pollutant	Maximum Daily Emissions (lbs/day)	Daily Significance Threshold (lbs/day)	Maximum Annual Emissions (tpy)	Annual Significance Threshold (tpy)	Daily or Annual Threshold Exceeded?
ROC	26	50	1	40	No
NO_x	17	50	1	40	No
CO	19	500	1	100	No
SO_x[1]	<1	80	<1	40	No
PM_{10}	8	80	1	15	No
$PM_{2.5}$	4	50	1	10	No

[1.] CalEEMod provides estimated emissions for SO_2, which is the predominant form of SO_x emitted. Emission values are taken from the season with the highest value.

Pollutant	Maximum Daily Emissions (lbs/day)	Daily Significance Threshold (lbs/day)	Maximum Annual Emissions (tpy)	Annual Significance Threshold (tpy)	Daily or Annual Threshold Exceeded?

ROC = reactive organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur oxide; PM_{10} = particulate matter with a diameter of 10 or less microns; $PM_{2.5}$ = particulate matter with a diameter of 2.5 or less microns.

Sources: Appendix AQ (CalEEMod outputs); NCUAQMD Rule 110 (significance thresholds)

The project would also be required to comply with applicable NCUAQMD rules and regulations, including requirements to prevent fugitive dust emissions as stated in Section D of Rule 104, Prohibitions. In accordance with Rule 104, the construction contractor for the project would be required to take reasonable precautions to prevent particulate matter from becoming airborne, including, but not limited to, the following applicable provisions:

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

Compliance with Section D of Rule 104, regulating fugitive dust would ensure that construction emissions would not be cumulatively considerable and would not expose sensitive receptors to substantial pollutant concentrations. Impacts would therefore be less than significant.

Operational Emissions

Table 4 summarizes estimated emissions associated with operation of the project. Operational emissions would not exceed NCUAQMD thresholds for any criteria pollutant;

Table 4 Operational Emissions Compared to NCUAQMD Significance Thresholds

Pollutant	Maximum Daily Emissions (lbs/day)	Daily Significance Threshold (lbs/day)	Maximum Annual Emissions (tpy)	Annual Significance Threshold (tpy)	Exceed Threshold?
ROG	2	50	1	40	No
NO_x	<1	50	<1	40	No
CO	<1	500	<1	100	No
SO_x[1]	<1	80	<1	40	No
PM_{10}	<1	80	<1	15	No
$PM_{2.5}$	<1	50	<1	10	No

[1] CalEEMod provides estimated emissions for SO_2, which is the predominant form of SO_x emitted. Emission values are taken from the season with the highest value.

ROC = reactive organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; SO_x = sulfur oxide; PM_{10} = particulate matter with a diameter of 10 or less microns; $PM_{2.5}$ = particulate matter with a diameter of 2.5 or less microns.

Sources: Appendix AQ (CalEEMod outputs); NCUAQMD Rule 110 (significance thresholds)

Both Construction and Operational emissions would not exceed NCUAQMD thresholds for any criteria pollutant; therefore, the project would not contribute substantially to an existing or projected air quality violation. As such, air quality emissions would not be cumulatively considerable and would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. Sensitive receptors near the project site include rural residential homes, the closest home being located approximately 500 feet northwest of the site boundary.

As indicated by the air quality impact analysis under *criterion b*, the project would not produce significant quantities of criteria pollutants (e.g., PM_{10}) during short-term construction activities or long-term operation. In addition, regarding the potential for CO "hotspots", these types of effects only occur at intersections experiencing extremely high volumes of traffic. Due to the extremely low number of employee vehicle trips to and from the project site and the rural nature of the surrounding area, the project would not create a CO hotspot.

Cultivation projects are required by the NCUAQMD to conform with CARB's Airborne Toxic Control Measures for naturally occurring asbestos, which requires control measures during activities that involve ground disturbance. Any ground disturbance activity in locations where asbestos-containing soils are suspected or identified would be required to prevent exposure of naturally occurring asbestos to nearby receptors in accordance with adopted rules and regulations.

The NCUAQMD recommends the use of the latest version of the California Air Pollution Control Officers Association (CAPCOA) "Health Risk Assessments for Proposed Land Use Projects" to assess impacts from toxic air contaminants (TACs). Common sources of TACs include freeways and high traffic volume roads, goods distribution centers, rail yards, ports, refineries, chrome platers, dry cleaners using Perchloroethylene, and gasoline dispensing facilities (CAPCOA 2009). Because the project is neither a source of TACs, as defined in CAPCOA's guidance document, nor located in the vicinity of a source of toxic air contaminants, a health risk assessment is not required.

Construction and operation of the permitted cultivation and non-cultivation operations may involve the use of diesel-powered equipment that emit diesel particulate matter. However, construction activities would be limited and would be temporary. Operational activities would not include any major sources of TACs, and all new operations would be subject to setback requirements of the proposed ordinance resulting in at least a 300-foot buffer between operations and existing residential land uses. Given the minimal construction activities, no major sources of TACs, and the distance requirements to existing residential land uses, project operations would not expose existing receptors to substantial TAC concentrations. Impacts to sensitive receptors would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The project includes mixed-light cannabis cultivation which can produce potentially objectionable odors during flowering, harvest, drying, and processing. Although the project would not affect a substantial number of people, these odors could disperse through the air and be sensed by surrounding receptors. Accordingly, Section 55.4.6.4.4, Setbacks, of the County Commercial Cannabis Land Use Ordinance mandates that cultivation sites must be:

- 30 feet from any property line;
- 300 feet from any residence on an adjacent separately owned parcels, and 270 feet from any adjacent undeveloped separately owned parcel
- 600 feet from a church or other place of religious worship, public park, tribal cultural resource, or school bus stop currently; and
- 1,000 feet from all tribal ceremonial sites

The project would comply with the County's setback requirements.

The project is located in an area designated for agricultural uses. Surrounding land uses include active agriculture, rural residential, and undeveloped lands on parcels of similar size. With regard to the effects of cannabis odors on air quality, there are no standards for odors under either the federal or State Clean Air Acts. Accordingly, there are no objective standards through which the adverse effects of odors may be assessed. Although odors do affect "air quality", they are treated as a nuisance by the County and abated under the County's nuisance abatement procedures. Exposure to unpleasant odors may affect an individual's quality of life. As discussed above, odors are not considered an air pollutant under federal or state air quality laws.

Although cultivation and associated processing activities would potentially generate odors, cultivation would occur in the mixed-light greenhouses that are covered and located at the center of the site. The project site is currently operating as a cultivation and processing use, and the relocation and expansion of cultivation operations and addition of the proposed greenhouses would not likely generate additional odor beyond those associated with current operations. Additionally, the project site is located within an area historically hosting cultivation on a number of neighboring properties within the vicinity. There are 21 different cannabis that were filed on properties within a 3-mile range of the project parcel. Given these conditions, it is unlikely that the project would generate objectionable odors affecting a substantial number of people, and impacts can therefore be determined to be less than significant.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

The project site is currently undeveloped; however, it was previously developed and used as a motocross track as recently as 2015. The project parcel also contains four ponds near the site, several heavily wooded areas, and steep slopes from west to east down to the South Fork of the Eel River.

This analysis incorporates the findings an analysis included in the Biological Resources Assessment (BRA) conducted by Rincon Consultants for the proposed project consisting of new cannabis cultivation, which is included as Appendix BRA.

Rincon conducted a literature review to characterize the nature and extent of biological resources on and adjacent to the site, including an evaluation of current and historical aerial photographs of the site, regional and site-specific topographic maps, climatic data, and other available background information. The following additional studies conducted on the project site to inform design for avoidance of aquatic habitats and sensitive biological resources: a Feasibility Assessment (Naiad 2021a) and a spring Botanical Survey (Naiad 2021b).

Rincon conducted queries of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; UFWS 2021a), CDFW California Natural Diversity Database (CNDDB 2021a), and California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants of California (2021) to obtain comprehensive information regarding State and federally listed species, as well as other special status species, considered to have potential to occur within the *Miranda, California* USGS 7.5-minute topographic quadrangles and the surrounding eight quadrangles (*Weott, Myers Flat, Blocksburg, Ettersburg, Fort Seward, Briceland, Garberville*, and *Harris*).

Rincon reviewed the following resources for additional information on existing conditions relating to biological resources in the vicinity of the proposed project:

- Aerial photographs of the maintenance sites and vicinity
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (2021)
- USFWS Critical Habitat Portal (2021b)
- CDFW CNDDB map of State and federally listed species that have been previously documented within a 5-mile (8-kilometer) radius of the project sites (2021a)
- CNDDB Biogeographic Information and Observation System (BIOS) (2021b)
- CDFW Special Animals List (2021a)
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (2021b)
- A Feasibility Assessment prepared for the proposed project to identify potentially sensitive areas for avoidance (Naiad 2021a)
- Protocol-level Botanical Survey Memorandum, Initial Findings for the Early Season Protocol-Level Botanical Survey APN 214-142-012 (Naiad 2021b)

A Rincon biologist conducted a reconnaissance-level field survey of the project site for new cannabis cultivation on February 12, 2021. The survey consisted of pedestrian transects throughout the project site to document and field-verify vegetation communities and site conditions, and map the boundaries of vegetation communities and other land-cover types, documented the approximate limits of jurisdictional waters (waters of the state and waters of the U.S., including basins, drainages, vernal pools, ponds, lakes, and creeks as applicable), mapped occurrences of incidental observation of special status species (including state and federal listed species), and developed a list of observed plants and wildlife.

The BRA concludes that one natural vegetation community was documented within the project site, annual grassland. However, this community was heavily disturbed by previous use of the site as a motocross track and therefore project impacts were evaluated based on that baseline condition. No special status plants are expected to occur in the studied area, however, four special status wildlife have some potential to occur: northern spotted owl (Strix occidentalis caurina) federally and state threatened, wester pond turtle (Emys marmorata) state species of special concern (SSC), northern red-legged frog (Rana aurora) SSC, Cooper's hawk (Accipiter cooperii) SSC. No sensitive natural communities or jurisdiction areas were observed during the BRA.

Following the Biological Assessment conducted by Rincon, a Wetland Delineation Report was performed by Naiad Biological Consulting, which identified a 0.07-acre depressional wetland west of the location chose for development of new cultivation facilities and infrastructure.

The presence of an ephemeral watercourse to the south and seasonal wetland west of the area targeted for the relocation and expansion of the cultivation facilities affects the overall area available for cultivation. Maintaining the 100-foot setback required pursuant to the SWRCB General Order reduces the area available for new cultivation activities & infrastructure by approximately 2 acres. Nevertheless, there remains sufficient space to accommodate the footprint of cultivation being sought (58,000 ft.^{2} / 1.3 acres). Setbacks of over 100-feet from these areas will be observed for any cultivation activities (Appx. WDR). Mitigation of these potential impacts are discussed further below.

For the areas involving the remediation component of the project, an aquatic resources delineation survey, and an aquatic resources impact assessment were prepared by Kyle S. Wear, Botanical Consultant in September of 2019 and March of 2022. These reports identified the extent of impacts of legacy cultivation in those remediation sites (Appx. ARD & ARIA). In March of 2022, Samara Restoration prepared a Revegetation and Replanting Plan (Appx. RPP) for rehabilitation of the disturbed wetlands with the goal of restoration of those sites to pre-disturbance conditions. Onsite remediation and restoration recommendations include: replanting with native wetland vegetation, additional planting, erosion control and implementation of best management practices, submitting vegetation monitoring reports to responsible agencies, and implementing a three-year monitoring program. All riparian buffers that have been disturbed onsite will be restored with native riparian and upland vegetation per the Revegetation and Replanting plan.

In consultation with the Regional Water Quality Control Board, off-site mitigation of project effects in the areas to be remediated has been proposed. The precise scope of on and off-site remediation and mitigation measures and has not been fully determined, as aquatic functions have not yet been restored. However, it should be noted that off-site mitigation may include in watershed or out of watershed areas based on mitigation bank availability, with support from the Regional Water Board. Off-site mitigation may require future/further environmental review depending on circumstances and location.

a. Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Based on the database and literature review and reconnaissance survey, 14 special-status plant species and 20 special-status wildlife species were identified as known to occur in the vicinity of the project site (Appendix BRA).

Of the 14 special-status plant species, 12 were excluded from potentially occurring on the project site due to the absence of natural vegetation communities, species-specific habitat requirements, lack of suitable soils and hydrology, and historical disturbance experienced on the project site (Appendix BRA). The remaining two special-status plants have a low potential to occur within the project site: Humboldt County milk-vetch (*Astragalus agnicidus*), state endangered; and Howell's montia (*Montia howellii*), California Rare Plant Rank (CRPR) 2B.2. However, neither of these species were found during the seasonally-timed botanical survey that's been performed (Naiad 2021b). Therefore, there no impacts to special-status plants are expected since none have been found to occur within the project site.

Of the 20 special-status wildlife species, 16 species are not expected to occur on the project site or immediate vicinity based on the absence of suitable habitat and/or because the species' range does not overlap the project site. Only four special-status wildlife species have potential to occur within the project site based upon known ranges, habitat preferences, records of species occurrence(s) in the vicinity of the project site, and presence of suitable habitat: northern spotted owl (*Strix occidentalis caurina*), western pond turtle (state species of special concern [SSC]; *Emys marmorata*), northern red-legged frog (SSC; *Rana aurora*), and Cooper's hawk (SSC; *Accipiter cooperii*). All of these species have a low potential to occur within the impact footprint of the proposed development due to the surrounding habitats.

Additionally, non-game migratory birds are protected under the California Fish and Game Code (CFGC) Section 3503 and have the potential to breed and forage throughout the project site. Species of birds common to the area include red-tailed hawk (*Buteo jamaicensis*), California scrub jay, Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), American crow, and Brewer's blackbird (*Euphagus cyanocephalus*). Nesting by a variety of common birds protected by CFGC Section 3503 could occur in virtually any location throughout the project site containing native or non-native vegetation.

Northern spotted owls are nocturnal and would only occur in the vicinity of the project site at night during foraging or dispersal and therefore are not expected to be affected by daytime construction or activities. Noise from use of generators has the potential to result in harassment and is being addressed through a Mitigation Measure GHG-1 which requires that the applicant cease using generators and not resume Mixed-Light cultivation until adequate grid power or on-site renewable energy is developed and available for use.

Western pond turtle and northern red-legged frog may also occur briefly during upland movement and may take temporary refuge in shrubs and vegetation. If individuals are present during construction, they may be injured or killed by equipment. Coopers hawk may nest in the surrounding woodlands. If construction work occurs during the nesting season, noise disturbance and human presence may cause nest abandonment. Nesting birds protected under CFGC may also occur throughout the project site and in adjacent areas, and construction activities could result in destruction or abandonment of nests. Because the potential for individuals occurring in the work area is low, impacts to western pond turtle, northern red-legged frog, and Coopers hawk would be less than significant. The potential for nesting birds protected by the MBTA is high however, and would be considered potentially significant, and mitigation is required.

Mitigation Measures

BIO-1 Worker Environmental Awareness Program

Prior to initiation of construction activities (including staging and mobilization) all personnel associated with project construction should attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the construction area. The specifics of this program should include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information should also be prepared for distribution to all contractors, their employees, and other personnel involved with construction. All employees should sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form should be submitted to the County by the contractor to document compliance.

BIO-2 Nesting Bird Pre-construction Surveys

For construction activities occurring during the nesting season (generally February 1 to August 31), surveys for nesting birds covered by the MBTA and CFGC should be conducted by a qualified biologist no more than 14 days prior to initiation of construction activities, including construction staging and vegetation removal. The surveys should include the entire disturbance areas plus a 200-foot buffer around any disturbance areas. If active nests are located, all construction work should be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer should be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The biologist should have full discretion for establishing a suitable buffer. The buffer area(s) should be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist should confirm that breeding/nesting has completed and young have fledged the nest prior to removal of the buffer.

Significance After Mitigation

Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce impacts related to archaeological resources to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The only sensitive natural community known to occur within the 9-quadrangle search area is Upland Douglas Fir Forest; however, this community was not observed within areas of the property affected by project activities, which are primarily characterized by grassland. Given the disturbed nature of the vegetation community within the project site it would not be considered sensitive by CDFW. The annual grassland found within the project site is not considered to be a sensitive natural community. Critical habitat for marbled murrelet occurs within 5 miles of the project site, approximately 2.6 miles to the south near the community of Redway; however, suitable old growth habitat is not present onsite or in the immediate vicinity.

No riparian habitat or sensitive plant communities occur within portions of the site targeted for new development activities as part of the remediation and relocation plan. Therefore, no impacts to riparian habitat or other sensitive natural communities would occur.

Mitigation Measures

BIO-3 Accidental Spill Prevention

All refueling and maintenance of equipment and vehicles shall occur a minimum of 250 feet from ephemeral drainages and ponds, and in a location from which a spill would not drain directly toward these habitats (e.g., on a slope that drains away from the water), or in a containment structure. Prior to the onset of work, a plan shall be developed for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take in the event of a spill. Should any debris or equipment from the work area fall into the wetland, riparian habitat, and the concrete drainage, it shall be removed immediately.

BIO-4 Revegetation and Planting

Prior to revegetation efforts, all existing structures will be removed from the delineated wetland areas and will be graded back to their natural contours as shown in the grading plan. A series of shallow berms will be installed across graded wetland areas to retain and pool water. The roads adjacent to the restored wetlands will be decommissioned by ripping and grading back to their natural contours. The adjacent cut/fill areas will be graded to their natural grade as shown in the grading plan. All graded areas will be seeded according to Hydroseed Specifications in the Revegetation and Planting Plan. Planting strategy will focus on planting a range of native species and to allow for natural competition and evolution of native plant species distribution. The plants will be selected based on the surrounding intact wetland populations surrounding the sites. Planting will occur post hydroseeding with tight spacing to reduce the potential for colonization of non-native species. Plants will be installed in clustered groups of each species to create patches that will naturalize the site. Plants shall be obtained from stock within Humboldt County, unless approved by a governing agency.

BIO-5 Off-Site Mitigation Credits

In consultation with responsible agencies, off-site mitigation bank credits will be obtained as they become available to mitigate temporal impacts of legacy development in wetland and stream channels which have occurred at the project. Off-site mitigation areas may be in-watershed or out of watershed in consultation with responsible agencies.

Significance After Mitigation

Implementation of Mitigation Measures BIO-3, BIO-4 and BIO-5 would reduce potential impacts to jurisdictional areas to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Several wetlands have been observed and identified on the project parcel (Appendix BRA), though none are located within the area targeted for new development. An ephemeral drainage was documented south of the project site and would be avoided by project construction. However, project

construction has the potential to result in accidental spills or runoff which could enter the drainage. This impact would be potentially significant, and mitigation is required. All buffers required to be maintained from jurisdictional areas will be observed during the course of construction and project implementation as shown on the site plan and maps contained in the BRA.

Within the remediation and restoration areas, potential impacts will be mitigated through the mitigation recommendations contained in the Samara Restoration Report prepared in March of 2022, along with proposed off-site remediation, the scope of which will be determined in consultation with the Regional Water Board as part of the Cleanup, Restoration, and Mitigation Plan.

Mitigation Measures

BIO-3 Accidental Spill Prevention

All refueling and maintenance of equipment and vehicles shall occur a minimum of 250 feet from ephemeral drainages and ponds, and in a location from which a spill would not drain directly toward these habitats (e.g., on a slope that drains away from the water), or in a containment structure. Prior to the onset of work, a plan shall be developed for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take in the event of a spill. Should any debris or equipment from the work area fall into the wetland, riparian habitat, and the concrete drainage, it shall be removed immediately.

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Prior to revegetation efforts, all existing structures will be removed from the delineated wetland areas and will be graded back to their natural contours as shown in the grading plan. A series of shallow berms will be installed across graded wetland areas to retain and pool water. The roads adjacent to the restored wetlands will be decommissioned by ripping and grading back to their natural contours. The adjacent cut/fill areas will be graded to their natural grade as shown in the grading plan. All graded areas will be seeded according to Hydroseed Specifications in the Revegetation and Planting Plan. Planting strategy will focus on planting a range of native species and to allow for natural competition and evolution of native plant species distribution. The plants will be selected based on the surrounding intact wetland populations surrounding the sites. Planting will occur post hydroseeding with tight spacing to reduce the potential for colonization of non-native species. Plants will be installed in clustered groups of each species to create patches that will naturalize the site. Plants shall be obtained from stock within Humboldt County, unless approved by a governing agency.

BIO-5 Off-Site Mitigation Credits

In consultation with responsible agencies, off-site mitigation bank credits will be obtained as they become available to mitigate temporal impacts of legacy development in wetland and stream channels which have occurred at the project. Off-site mitigation areas may be in-watershed or out of watershed in consultation with responsible agencies.

Significance After Mitigation

Implementation of Mitigation Measure BIO 3, BIO 4 and BIO 5 would reduce potential impacts to jurisdictional areas to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project 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?

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Habitat linkages are typically contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Wildlife movement corridors may occur at either large or small scales.

The project site consists of open grassland. No Essential Connectivity Areas or Natural Landscape Blocks are mapped within the project site on the Biogeographic Information and Observation System (CNDDB 2021b), and there are no habitat linkages or natural features that would facilitate wildlife movement. The project site is also surrounded by low density residential areas, and therefore does not represent a significant corridor for wildlife movement (Appendix BRA). No corridors for wildlife movement occur within the project site. Additionally, broad perimeter fencing and similar features that have the potential to obstruct or entrap wildlife are not a component of this project. Therefore, no impacts to wildlife movement are expected to result from the project.

NO IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Humboldt County General Plan and Streamside Management Areas and Wetlands Ordinance found within the County Zoning Regulations includes protection for "Streamside Management Areas" (SMAs) (Policy BR-S5 / 314-61.1). The seasonal wetland and ephemeral drainage observed adjacent to the relocation site, as well as existing ponds, streams, and similar features mapped within the parcel are protected by standard minimum development setbacks, including 100-foot buffers where applicable (Naiad 2021a). The site of the relocation area is situated outside of the SMA buffers. The seven (7) former cultivation sites targeted for remediation and restoration will be in compliance with plans awaiting final approval by state and federal agencies. It is therefore not expected that implementation of the project would conflict with local policies or ordinances protecting biological resources.

LESS THAN SIGNIFICANT IMPACT

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not within any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.

NO IMPACT

5 Cultural Resources

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

Rincon Consultants, Inc performed initial work on evaluating the project's potential for impacts to Cultural Resources. Rincon requested a records search of the California Historical Resources Information System from the Northwest Information Center at Sonoma State University for the parcel containing the project site and a 0.5-mile radius. The records search also included a review of the National Register of Historic Places, the California Register of Historical Resources (CRHR), the Archaeological Determinations of Eligibility List, and the Historic Resources Inventory. On July 9, 2020, Rincon received records search results for the original area consisting of the entire parcel. The Northwest Information Center records search identified three previously conducted cultural resources studies in a 0.5-mile radius of the parcel containing the project site; however, none of the studies are located in the current project site. The search identified no previously recorded resources in the project site or a 0.5-mile radius surrounding the parcel containing the project site.

Rincon contacted the Native American Heritage Commission (NAHC) on September 26, 2019, to request a sacred lands file (SLF) search of the project site. The NAHC emailed a response on June 11, 2020, stating that the SLF search returned negative results. Rincon sent letters to the Native American contacts provided by the NAHC to request information regarding their knowledge of cultural resources in the vicinity of the project site on June 15, 2020. Mr. Jesse Lopez of the Bear River Band of Rohnerville Rancheria responded on June 16, 2020 recommending a 600-foot buffer be included during the survey and that the Bear River Band of Rohnerville Rancheria receive the cultural resources report (Appendix CRS) prior to submittal to client and county. Both of these requests were accommodated. A Rincon archaeologist conducted a pedestrian survey of the project site and as well as the requested 600-foot buffer on February 25, 2021. The field survey did not identify cultural resources in the project site. On August 26, 2021, Vice-Chairman Edwin Smith recommended full time monitoring for all project ground disturbance.

In February 2022, a separate Cultural Resources Investigation of the property was performed by the Archaeological Research and Supply Company, including the area targeted for on-site relocation. The investigation included a crew of three people who performed 10-meter transects within the survey area, including the Area of Potential Effect (APE) plus a 600-foot buffer zone. There is no record of

previous encounters with cultural resources and no cultural resources were discovered during this additional survey. Conclusions of the investigation are documented in a Final Report. The Tribal Historical Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria and Director of the Intertribal Sinkyone Wilderness Council were both contacted by the archaeological consultant during the report preparation process. Both were also contacted by planning staff (via email and phone) in August 2023. To date, no feedback has been received from the Intertribal Sinkyone Wilderness Council Director. On August 16, 2023 the Planning & Building Department received email confirmation from the Bear River THPO declining formal consultation and noting that their concerns had been satisfied through incorporation of the Mitigation Measures that have been included, which require use of a cultural monitor during project-related ground disturbance and protocol for handling inadvertent discovery (Mitigation Measures CR-1 and CR-2).

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No buildings or structures are currently located in the proposed greenhouse and dry barn location. No CRHR-listed resources are recorded within the project site parcel. Additionally, no historical resources have been recorded within 0.5 mile of the project site parcel. Furthermore, neither of the cultural resource consultants evaluating the property discovered or identified any structures potentially eligible for listing on the California Register of Historical Resources (CRHR). The proposed project would result in aboveground modifications to the project site; however, the site is generally not visible from neighboring parcels due to topography and tree cover. Therefore, the project would not alter the context of off-site historic resources nor change the significance of historical resources.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Background research did not identify any previously recorded cultural resources in the project site or a 0.5-mile radius. Although three studies have been conducted within the 0.5-mile radius, none covered the project site or 600-foot buffer. The pedestrian field survey did not identify any cultural resources in the project site or a 600-foot buffer.

The visibility for the majority of the survey was poor (0-30 percent). While the SLF search returned negative results, the Bear River Band of Rohnerville Rancheria indicated that the area is sensitive for prehistoric archaeological deposits. The project site is located on an open bench area between two steeper inclines, which sometimes housed temporary summer habitation sites, and is less than 0.5 miles away from the South Fork Eel River, which has a history of prehistoric use. Therefore, discovery of archaeological resources during grading and similar site preparation activities remain a distinct possibility and could be potentially significant. Consequently, it is appropriate to require use of cultural monitors during all project-related ground disturbance. Mitigation Measure CR-1 is required. Additionally, there is always the potential to uncover previously unidentified archaeological resources during ground disturbing activities; therefore, Mitigation Measure CR-2 is required.

Mitigation Measures

CR-1 Archaeological and Native American Monitoring

Native American monitoring should be provided by the Bear River Band of the Rohnerville Rancheria (BRB) or their designee. The monitor(s) shall have the authority to halt and redirect work should any

archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and the find shall be evaluated for listing in the CRHR and National Register of Historical Places. The Tribe may request that archaeological monitoring be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983).

The monitoring schedule shall be established by the Bear River Band of the Rohnerville Rancheria and may be adjusted based on the scale of disturbance and sensitivity of the location where ground disturbance will occur. Monitoring may be decreased to spot-checking at the discretion of the monitors, as warranted by conditions such as encountering bedrock. If monitoring is decreased to spot-checking, spot-checking should occur when ground-disturbance moves to a new location in the project site and when ground disturbance extends to depths not previously reached (unless those depths are within bedrock).

CR-2 Inadvertent Discovery of Cultural Resources

If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

The Native American Heritage Commission (NAHC) can provide information regarding the appropriate Tribal point(s) of contact for a specific area; the NAHC can be reached at 916-653-4082. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the NAHC will then be contacted by the Coroner to detegallonrmine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99

Significance After Mitigation

Implementation of Mitigation Measures CR-1 and CR-2 would reduce impacts related to archaeological resources to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

While no known human burials are located on site, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the Coroner shall notify the NAHC, which shall determine and notify a most likely descendant. The most likely descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated

with Native American burials. Compliance with these requirements would ensure impacts are less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

Overview of Energy Consumption

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration 2021). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. Most of California's electricity is generated in state with approximately 28 percent imported in 2019; however, the state relies on out-of-state natural gas imports for nearly 90 percent of its supply (California Energy Commission [CEC] 2021a, 2021b). In addition, approximately 32 percent of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2021a). In 2018, Senate Bill 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. If grid power was used by the project in lieu of the backup generators, electricity would be provided to the project by PG&E. Table 5 summarizes the electricity and natural gas consumption for Humboldt, in which the project site would be located, and for PG&E, as compared to statewide consumption.

Table 5 2020 Electricity and Natural Gas Consumption

Energy Type	Humboldt County	PG&E	California	Proportion of PG&E Consumption	Proportion of Statewide Consumption[1]
Electricity (GWh)	774	78,519	279,510	0.99%	0.28%

GWh = gigawatt-hours; PG&E = Pacific Gas and Electric Company

[1] For reference, the population of Humboldt County (130,851 persons) is approximately 0.33% percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021c

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (CEC 2021d). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 12.5 billion gallons sold in 2020 (CEC 2021e). Diesel, which is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 1.7 billion gallons sold in 2020 (CEC 2021e). Table 6 summarizes the petroleum fuel consumption for Humboldt County, in which the project site would be located, as compared to statewide consumption.

Table 6 2020 Annual Gasoline and Diesel Consumption

Fuel Type	Humboldt County (gallons)	California (gallons)	Proportion of Statewide Consumption[1]
Gasoline	56	12,572	0.44%
Diesel	6	1,744	0.34%

[1] For reference, the population of Humboldt (130,851 persons) is approximately 0.33% percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021d

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Environmental Checklist Section 3, *Air Quality*, and Environmental Checklist Section 8, *Greenhouse Gas Emissions*, respectively.

Regulatory Setting

The Humboldt County 2017 General Plan Energy Element outlines the goals, policies, standards, and implementation measures regarding energy resources within the County. The Energy Element promotes self-sufficiency, independence, and local control in energy management and supports diversity and creativity in energy resource development, conservation, and efficiency. Goals include increasing energy efficiency and conservation, increasing the energy supply from renewable resources, reducing transportation energy consumption, and moving Humboldt County toward energy self-sufficiency.

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project's construction and operational energy usage were estimated using CalEEMod, version 2020.4.0 (see Appendix AQ). CalEEMod uses project-specific information, including the project's land uses, total land area dedicated to various uses (e.g., utilities), and location, to estimate a project's construction and operational emissions and energy consumption. Consumption factors were drawn from CalEEMod for project natural gas and electricity consumption. Construction activity would use energy in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles

used to deliver materials to the site. The project would involve site preparation and grading; greenhouse construction; and architectural coating.

Energy demand for off-road construction equipment is based on anticipated equipment, usage hours, horsepower, load factors, and construction phase duration provided by the CalEEMod output, as well as "Exhaust and Crankcase Emission Factors for Nonroad Compression Ignition Engines."

Operational energy demand considers transportation-based fuel consumption as well as electricity and natural gas consumption associated with the project. Transportation fuel demand for operation of the project was estimated based on the annual vehicle miles travelled (VMT) generated after project buildout. Electricity consumption for the project was based on existing consumption of the 600 4.5-amp, 240-volt lights in use for the current mixed-light operation at the project site. It was assumed that similar lighting would be required for the new mixed-light greenhouses, so the energy consumption factor for existing operations was applied to the new greenhouse square footage.

Construction

Total project consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod (Appendix AQ). Table 7 summarizes the estimated construction energy consumption for the project. Diesel fuel consumption, including construction equipment operation, hauling trips, and vendor trips, would consume an estimated 35,291 gallons of fuel over the project construction period. Worker trips would consume an estimated 7,957 gallons of petroleum fuel during project construction.

Table 7 Estimated Fuel Consumption during Construction

	Fuel Consumption (gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	N/A	35,291
Construction Worker Vehicle Trips	7,957	N/A

N/A = not applicable

See Appendix EN for energy calculation sheets.

The above construction energy estimates represent a conservative estimate as the construction equipment used in each phase of construction were assumed to be operating every day of construction. Construction equipment would be maintained to all applicable standards as required, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is also reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. In addition, energy demand associated with project construction would be temporary and typical of similar utilities projects. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction and construction-related energy impact would be less than significant.

Operation

Mixed-light cannabis cultivation requires electrical energy for supplemental lighting, nutrient and water pumping, and other cultivation-related activities. As described in Environmental Checklist Section 3, *Air Quality*, due to the nature of mixed-light cultivation, electric lighting is only used in the

winter months on days when there is not enough sun to support effective crop growth. It is estimated that the lights are currently used approximately 20 to 30 percent of the year for operations. The proposed energy source for the greenhouse supplemental lighting is the two existing generators that are currently in use for cultivation operations.

Based on applicant-provided information detailing supplemental lighting usage, Mixed-Light cultivation ordinarily requires approximately 1,974,179 kilowatt hours (kWh) of electricity per year. The proposed project generators would have the capacity to supply all energy demand for the proposed project. The necessary 70-kVA and 400-kVA generators consume approximately 4.8 gallons per hour and 25.1 gallons per hour at full capacity (100 percent load), respectively (Hardy Diesel 2022). The 70-kVA generator operate at 270 hours per month between May 1 and October 15 (1,485 annual hours), and the 400-kVA generator operate at 400 hours per month between October 15 and May 1 (2,600 annual hours). Given the expected operational schedule (assuming 100 percent load during each operational hour), calculations suggest a combined consumption of approximately 72,388 gallons per year of diesel occurs.

Long-term energy use would be associated with operation of the commercial cannabis cultivation business. The project is subject to review in accordance with HCC Section 314-55.4 of Chapter 4 of Division I of Title III, Commercial Medical Marijuana Land Use Ordinance. Under this ordinance there is no prohibition against the use of generators to supply energy to projects where on-grid power is not available. According to the Humboldt County Energy Element, the total electrical transmission capacity into Humboldt County through existing lines is approximately 70 megawatts, which only accounts for less than half of the county's current peak demand (County of Humboldt 2005). Therefore, local electrical generators are critical to meet rural and remote needs. The only restrictions to generator use under the Commercial Medical Marijuana Land Use Ordinance relate to noise generation near neighboring residences or as it may result in harassment of federally listed wildlife species.

Consistent with state emergency regulations set forth in the California Code of Regulations (CCR) Title 3, Division 8, Chapter 1, beginning January 1, 2022, the applicant/operator is required to provide information on the electricity usage and GHG emission intensity. In addition, Section 8305 requires that beginning January 1, 2023, tier 2 mixed-light license types use electrical power for cultivation that meets the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewable Portfolio Standards Program.

While the existing greenhouses have historically used artificial light controlled by timers and mechanical curtains, the proposed new greenhouses will not initially include use of artificial lighting, with the exception of the proposed greenhouse to be used for nursery/propagation activities. Use of artificial lighting is planned to resume in conjunction with a switch to Mixed-Light Cultivation, once grid power or on-site renewable energy infrastructure is in place and of sufficient capacity to supply the amount of power required.

Mitigation Measure GHG-1 requires that all energy for Mixed-Light Cultivation will need to either be supplied by connection to the electrical grid or through developing and maintaining an on-site independent electrical energy generation system. This restriction will dramatically reduce energy use below baseline levels and bring the project into conformance with local and state-specific energy policy and goals.

Gasoline consumption would be associated with vehicle trips generated by employees carpooling to the site. All trips are assumed to be done with passenger vehicles (light-duty vehicles). Table 8 summarizes estimated operational energy consumption for the proposed project. Adherence to

Mitigation Measure GHG-1 would prevent energy use by cultivation operations from being wasteful, inefficient, or unnecessary. Impacts related to operational energy use would be less than significant with the incorporation of mitigation.

Table 8 Estimated Project Annual Operational Energy Consumption

Source	Energy Consumption[1]	
Transportation Fuel (gasoline)	2,148 gallons	236 MMBtu
Electricity	2.0 GWh	6,736 MMBtu
Generators (Diesel Engines)	72,388 gallons	9,227 MMBtu
Total Annual Operational Energy Consumption		**16,199 MMBtu**

MMBtu = million metric British thermal units; GWh = gigawatt-hours

[1] Energy consumption is converted to MMBtu

See Appendix EN for energy calculation sheets and Appendix AQ for CalEEMod output results for electricity and natural gas usage.

Mitigation Measures

Mitigation Measure GHG-1 (Energy Source for Cultivation):
Power used by Mixed-Light Cultivation activities shall exclusively be supplied by an on-site renewable energy system, or grid power from renewable energy sources, or grid power from non-renewable source with purchase of carbon offset credits. This includes all power used by fans, lights, dehumidifiers, heaters, pumps, or similar equipment or activities. Power from a generator may be used to supply energy for on-site propagation activities within a designated nursery area until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use shall be limited to providing emergency backup of the primary power source in the event that power from the electrical grid or on-site renewable system is suddenly and unexpectedly lost.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce impacts related to energy use to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Historically, Mixed-Light cultivation has relied solely on use of existing diesel-powered generators to meet project-related energy needs. As noted under *criterion a*, the generators are USEPA Tier 4 Final Certified for nonroad diesel engines meaning emissions of particulate matter and nitrogen oxides are reduced by 90 percent largely due to more efficient energy consumption.

While the existing greenhouses have historically used artificial light controlled by timers and mechanical curtains, the proposed greenhouses will not initially include use of artificial lighting, with the exception of the proposed greenhouse to be used for nursery/propagation activities. Use of artificial lighting is planned to resume in conjunction with a switch to Mixed-Light Cultivation, once grid power or on-site renewable energy infrastructure is in place and of sufficient capacity to supply the amount of power required.

Consistent with state emergency regulations set forth in the California Code of Regulations (CCR) Title 3, Division 8, Chapter 1, beginning January 1, 2022, the applicant is required to provide information on the electricity usage and GHG emission intensity. In addition, Section 8305 requires that beginning January 1, 2023, tier 2 mixed-light license types use electrical power for cultivation that meets the average electricity greenhouse gas emissions intensity required of their local utility provider pursuant to the California Renewable Portfolio Standards Program.

Mitigation Measure GHG-1 requires that all energy for Mixed-Light Cultivation will need to either be supplied by connection to the electrical grid or through developing and maintaining an on-site independent electrical energy generation system. This restriction will dramatically reduce energy use below baseline levels and bring the project into conformance with local and state-specific energy policy and goals.

If the project is ever interconnected to the local grid the electrical energy would be provided by the Redwood Coast Energy Authority (RCEA) and delivered by PG&E. Provided both PG&E and RCEA maintain their ability to meet the state Renewable Portfolio Standards requirements, the project would not conflict with or obstruct these standards. Both PG&E and the Redwood Coast Energy Authority offer customers the ability to specify and select the type of energy source used to supply the grid power they consume, including sources that are 100% renewable and/or clean energy. Alternately, the applicant/operator may choose to develop an on-site renewable energy system capable of supplying the necessary power to the cultivation site. The project would therefore not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

Mitigation Measures

Mitigation Measure GHG-1 (Energy Source for Cultivation):
Power used by Mixed-Light Cultivation activities shall exclusively be supplied by an on-site renewable energy system, or grid power from renewable energy sources, or grid power from non-renewable source with purchase of carbon offset credits. This includes all power used by fans, lights, dehumidifiers, heaters, pumps, or similar equipment or activities. Power from a generator may be used to supply energy for on-site propagation activities within a designated nursery area until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use shall be limited to providing emergency backup of the primary power source in the event that power from the electrical grid or on-site renewable system is suddenly and unexpectedly lost.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce impacts related to energy use to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	■	☐
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	■	☐

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

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

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

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

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

There are no earthquake faults delineated on Alquist-Priolo Fault Zone maps within the project site or surrounding area (Division of Mines and Geology 2018). Thus, the probability of surface fault rupture is considered to be very low. Since the project area is not traversed by a known active fault and is not within 200 feet of an active fault trace, surface fault rupture is not considered to be a significant hazard at the project site. Therefore, the project would not expose people or structures to substantial adverse effects from a fault rupture and impacts are less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Earthquakes on active faults in the region have the capacity to produce a range of ground shaking intensities in the project area, as ground shaking may affect areas hundreds of miles distant from an earthquake's epicenter. Ground motion during an earthquake is described by the parameters of acceleration and velocity as well as the duration of the shaking. Because the project site is located within a seismically active region, some degree of ground motion resulting from seismic activity in the region is expected during the long-term operation of the project. However, because there are no active faults within 10 miles of the project site, the proposed project would not expose people or structures to substantial adverse effects from seismic grounding shaking and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

According to the Humboldt County Web GIS system, the project site is not designated as an area subject to liquefaction. The project would incorporate appropriate engineering practices to ensure seismic stability of new structures as required by the California Building Code. The project would not expose people or structures to potential substantial adverse effects involving seismic-related ground failure, including liquefaction. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Slopes within the project parcel range from 15 to 50 percent. The project parcel contains heavily wooded areas and steep slopes from west to east down to the South Fork Eel River; however, the project site itself is in a relatively flat portion of the parcel. Humboldt County Web GIS data does not identify any areas of historic landslides on the project site (County of Humboldt 2018). The potential risk to people or structures from landslide is determined to be low, and there would be a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

This project would construct new greenhouses and a dry barn for the cultivation and processing of cannabis products. Grading, ground disturbance, and the removal of on-site groundcover and vegetation within the project footprint would occur during construction. As described in Initial Study Section 9, *Description of Project*, the footprint of the proposed project's facilities covers approximately 46,800 square feet and cut earthwork would be reused on site. The size of the area identified for soil removal and its relatively level slope is not anticipated to contribute a significant impact to soil erosion. Humboldt County Building Code requirements relating to soil stability would be adhered to during construction as part of the Building Permit. Additionally, the project would be required to obtain coverage under the SWRCB NPDES Construction General Permit, which requires preparation of a Stormwater Pollution Prevention Plan, including site-specific best management practices (refer to Environmental Checklist Section 10, *Hydrology and Water Quality*, for additional details).

The project does not involve the removal of any vegetation outside of the project footprint that could result in erosion. Per the project site's LSAA, a minimum of 50-foot setbacks surround all on-site watercourses, ponds, standing water, or wetlands, where no structures are allowed. The potential to impact the hydrology of the drainage features adjacent to the site is discussed in Environmental Checklist Section 9, *Hydrology and Water Quality*, along with appropriate mitigation and applicant-proposed operating restrictions to minimize impacts. Therefore, the proposed project would not result in substantial soil erosion, or the loss of topsoil and impacts are less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As discussed under *criterion a.4.*, the project site is not in a liquefaction zone and would not be subject directly to instability resulting from liquefaction, subsidence, spreading, landslide, or collapse. Furthermore, the project does not propose any habitable structures that would be at risk of collapse under unstable soil conditions. Therefore, the project would not be located on a site that is unstable or at risk of being unstable, nor would it place structures at risk of collapse under unstable soil conditions onto the project site. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Humboldt County Web GIS data does not identify any areas of geologic hazard on the project site (County of Humboldt 2018). Therefore, the project would not be located on an area prone to landslide, lateral spreading, liquefication, or expansive soils creating substantial risks to life or property. Impacts would be less than significant, and no mitigation would be necessary.

LESS THAN SIGNIFICANT IMPACT

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project site is in an unincorporated area of southern Humboldt County, approximately 3.2 miles north of Redway, which is not served by a wastewater treatment system. The proposed project would be served by an existing on-site septic system. No expansion of the existing septic system would be required to accommodate the proposed project, as the system has adequate capacity to serve the proposed project, as indicated by the applicant. The septic system would continue to be pumped on an as-needed basis, with no expansion of the existing septic tank required. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project activities would include excavation at depths of approximately 24-inch round and 2 to 4 feet deep holes that would be drilled and concreted in the ground to accommodate posts for greenhouse construction. Given the small disturbance area and shallow depth of ground disturbance, is highly unlikely that previously unknown paleontological resources would be encountered during construction activities. While there is always the potential for the unanticipated discovery of paleontological resources during ground disturbing activities, the potential for encounter is extremely slim, so mitigation is not warranted.

LESS THAN SIGNIFICANT IMPACT

8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	■	☐	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	■	☐	☐

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change 2021).[4]

Anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the concentration of GHGs in the atmosphere that trap heat. Since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (USEPA 2020). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change

[4] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Regulatory Framework

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as Senate Bill (SB) 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO_2e by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

- **SB 100**: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- **California Building Standards Code (CCR Title 24)**: The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2020.4.0, with the assumptions described under Environmental Checklist Section 3, *Air Quality*.

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative

effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. The County of Humboldt has not yet adopted a climate action plan or qualified GHG reduction strategy, but a draft version of the climate action plan is available online. Additionally, the NCUAQMD has not set any thresholds with which to assess the significance of GHG emissions under CEQA (NCUAQMD 2020b).

CEQA Guidelines Section 15064.4 expressly provides that a "lead agency shall have discretion to determine, in the context of a particular project," whether to "[u]se a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." A lead agency also has discretion under the CEQA Guidelines to "[r]ely on a qualitative analysis or [quantitative] performance-based standards."

In the absence of specific NCUAQMD thresholds, it is appropriate to refer to guidance from other agencies when discussing GHG emissions. The Mendocino County Air Quality Management District (MCAQMD) is directly south of the NCUAQMD and is in the same air basin North Coast Air Basin. MCAQMD has adopted a project-level threshold is 1,100 metric tons of carbon dioxide equivalent (MT CO_2e) (MCAQMD 2010), which is based on the Bay Area Air Quality Management District's GHG threshold for projects operational in or prior to 2020. Although the MCAQMD has not yet quantified a threshold for 2030, a reduction of the 1,100 MT CO_2e on per year threshold by 40 percent to 660 MT CO_2e per year would be consistent with the State reduction target established in SB 32. As such, the adjusted brightline threshold of 660 MT CO_2e per year is the most appropriate threshold for the project.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction activities, energy use, and daily operational activities due to the project would generate GHG emissions. As discussed in Environmental Checklist Section 3, *Air Quality*, CalEEMod version 2020.4.0 was used to calculate emissions resulting from project construction and operational haul trips.

Project construction would generate GHG emissions from the operation of heavy machinery, motor vehicles, and worker trips to and from the site. Construction GHG emissions would be temporary, however, and would cease upon completion. Based on CalEEMod results, construction of the proposed project would generate an estimated 241 MT of CO_2e (Appendix AQ).

Long-term GHG emissions would be associated with employee trips to the site, water consumption, solid waste generation, and generator use. Table 9 summarizes the project's operational and mobile GHG emissions generated from the addition of the proposed greenhouses and dry barn. As shown below, annual operational emissions would total approximately 486 MT of CO_2e, which would

primarily result from the use of diesel generators. The 486 MT CO_2e would not exceed the MCAQMD brightline threshold of 660 MT CO_2e per year.

Table 9 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2e in metric tons)
Area	<1
Mobile	11
Solid Waste	<1
Water	6
Stationary Source	469
Total	**486**

Notes: See Appendix AQ for CalEEMod worksheets. Some numbers may not add up due to rounding.

The potential for the project generating substantial emissions creating a significant impact is high, and would be considered potentially significant. As such, mitigation is required.

Mitigation Measures

Mitigation Measure GHG-1 (Energy Source for Cultivation):
Power used by Mixed-Light Cultivation activities shall exclusively be supplied by an on-site renewable energy system, or grid power from renewable energy sources, or grid power from non-renewable source with purchase of carbon offset credits. This includes all power used by fans, lights, dehumidifiers, heaters, pumps, or similar equipment or activities. Power from a generator may be used to supply energy for on-site propagation activities within a designated nursery area. After January 1, 2026, any cultivation-related generator use will be restricted to scenarios where emergency backup is required in the event that power from the energy grid or on-site renewable system is suddenly and unexpectedly lost.

Significance After Mitigation

Much of these emissions are part of the projects environmental baseline. Nevertheless, the applicant has agreed to voluntarily suspend Mixed-Light cultivation activities until the property is served by grid power or an on-site renewable energy system of sufficient capacity. This will dramatically reduce annual emissions from operations. When Mixed-Light cultivation is reintroduced in the future, it will be self-mitigating through the power supplier's compliance with renewable energy portfolio standard, or through use of on-site renewable energy production, or some combination thereof. Therefore, impacts would be less than significant with the incorporation of this mitigation measure.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

California has established GHG reduction targets for the year 2030 and released the proposed 2017 Scoping Plan Update, which provides a potential strategy for California to meet overall emissions targets. The update provides details regarding local actions that land use development projects and municipalities can implement to support the statewide GHG emissions goal of 40 percent below 1990 levels by 2030.

For project level CEQA analyses, the proposed 2017 Scoping Plan Update states that projects should implement feasible mitigation, preferably measures that can be implemented on site. Although the project is not a typical land use development project and not necessarily subject to these specific recommendations, the County Commercial Cannabis Land Use Ordinance requires new mixed-light cultivation to meet project needs with at least 80 percent of renewable energy. Renewable energy requirements may be met through on-site renewable energy systems, carbon offsets, or utility sponsored renewable programs. Incorporation of these design features would be consistent with goals and recommendations included in the proposed 2017 Scoping Plan Update.

The project has high potential to conflict with an applicable plan, policy, or regulation for reducing GHG, and therefore this impact would be considered potentially significant. As such, mitigation is required.

Mitigation Measures

Mitigation Measure GHG-1 (Energy Source for Cultivation):
Power used by Mixed-Light Cultivation activities shall exclusively be supplied by an on-site renewable energy system, or grid power from renewable energy sources, or grid power from non-renewable source with purchase of carbon offset credits. This includes all power used by fans, lights, dehumidifiers, heaters, pumps, or similar equipment or activities. Power from a generator may be used to supply energy for on-site propagation activities within a designated nursery area until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use shall be limited to providing emergency backup of the primary power source in the event that power from the electrical grid or on-site renewable system is suddenly and unexpectedly lost.

Significance After Mitigation

Much of these emissions are part of the projects environmental baseline. Nevertheless, the applicant has agreed to voluntarily suspend Mixed-Light cultivation activities until the property is served by grid power or an on-site renewable energy system of sufficient capacity. This will dramatically reduce annual emissions from operations. Because the proposed project would eventually be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. PG&E is subject to the requirements for utility providers, pursuant to SB 100 requires 100 percent clean electricity for California by 2045.

By committing to refrain from engaging in Mixed-Light cultivation until access to grid power or an adequate on-site renewable energy system is in place, the applicant will ensure that project-related energy demand will be self-mitigating through the power supplier's compliance with renewable energy portfolio standard, or through use of on-site renewable energy production, or some combination thereof. Therefore, impacts would be less than significant with the incorporation of this mitigation measure.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

9 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☐	■
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The proposed project would increase the existing cannabis cultivation and propagation uses on the project site. Commercial cannabis operations may require the use and storage of nominal amounts of potentially hazardous materials such as fuel for power equipment and backup generators, and pesticides. Additionally, mixed-light cultivation operations may use high-powered lights, which may contain hazardous components that could enter the environment through disposal.

The project applicant would be required to comply with existing federal, state, and local laws regulating the use and disposal of any hazardous materials used. Licensing with CalCannabis would require proof of compliance with all applicable regulations regarding hazardous materials. In accordance with California Department of Food and Agriculture regulation 8106(a)(3), a pest management plan shall include, but not be limited to, the following:

(a) product name and active ingredient(s) of all pesticides to be applied to cannabis during any stage of plant growth;

(b) integrated pest management protocols, including chemical, biological, and cultural methods the applicant anticipates using to control prevent the introduction of pests on the cultivation site;

(c) a signed attestation that states the applicant shall contact the appropriate County Agricultural Commissioner regarding requirements for legal use of pesticides on cannabis prior to using any of the active ingredients or products included in the pest management plan and shall comply with all pesticide laws.

In addition, California Department of Food and Agriculture regulations 8304(a) and 8307 outline pesticide use requirements, including:

(a) licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation;

(b) for all pesticides that are exempt from registration requirements, licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols.

Additionally, the transportation of hazardous materials is subject to the Hazardous Material Transportation Act of 1975, which provides procedures and policies, material designations, packaging requirements, and operational rules for transportation of hazardous materials. The Resource Conservation and Recovery Act also established hazardous waste disposal requirements; please refer to 40 Code of Federal Regulations parts 260 through 273.

With adherence to existing hazardous materials regulations and laws, the project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school to the project site is Redway Elementary School, located approximately 3.5 miles south of the site. Therefore, there would be no impact regarding hazardous emissions, materials, substances, or waste in proximity to a school.

NO IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

The State's Hazardous Waste and Substances Sites List (Cortese List, Government Code Section 65962.5) identifies sites with leaking underground fuel tanks, hazardous waste facilities subject to corrective actions, solid waste disposal facilities from which there is a known migration of hazardous waste, and other sites where environmental releases have occurred. The California Department of Toxic Substances Control EnviroStor database and the State of California Water Board GeoTracker database were reviewed for hazardous sites in the area. No hazardous sites were identified within a five-mile radius of the project site (Department of Toxic Substances Control 2021, SWRCB 2021). Because the proposed project is not listed as a hazardous materials site, implementation of the project would not create a significant hazard to the public or the environment. No impact would occur, and no mitigation would be necessary.

NO IMPACT

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?

The nearest airport to the project site is the Garberville Airport, approximately 6.0 miles southwest of the project site. The project site is not within an airport land use plan and would not result in a safety hazard for people residing or working in the project area. Therefore, there would be no impact.

NO IMPACT

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would develop cannabis cultivation and propagation greenhouses on a rural parcel in unincorporated Humboldt County. The project site is located in State Responsibility Area (SRA) for Fire Protection, and is accessed via gravel roads and driveways connecting to Wood Ranch Road, which is a private road that provides access to rural residential, agricultural and public facilities. The gravel roads on site range in width and slope. All internal roads on the project site are a minimum of 10 feet wide and with grades that do not exceed 15 percent.

Given its location with the SRA, the project is required to comply with the State Firesafe Regulations as well as updated Local Firesafe Regulations should in the future they be revised and recertified as functionally equivalent to the state regulations. The State Fire Safe Regulations include specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and setback distances for maintaining defensible space (CAL FIRE 2020). Project plans would be reviewed by CAL FIRE to verify compliance with the Fire Safe Regulations which would ensure that adequate access for emergency response and evacuation is provided. As such, this project

would not interfere with any emergency response or evacuation plan. Therefore, the proposed project would not impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan and there would be a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Fire protection in Humboldt County is provided by local districts, cities, and CAL FIRE. As described in Environmental Checklist Section 4, *Biological Resources*, the project site is located on a 361-acre parcel in unincorporated southern Humboldt County that includes approximately one acre of developed cultivation and propagation facilities that are surrounded by heavily wooded areas and steep slopes from west to east down to the South Fork Eel River. The project site is located within a "High" Fire Hazard Severity Zone in a State Responsibility Area (SRA) for fire protection (CAL FIRE 2022). As the project site is located in an SRA, the site is in an area of legal responsibility for fire protection by CAL FIRE.

Historically, the primary on-site fire hazards came from the generators used to power lighting and drying fans for mixed-light cultivation operations. The generators are completely enclosed in sheds, greatly reducing their risk of starting a wildfire. Moving forward, the applicant has agreed forgo Mixed-Light cultivation until such time that grid power or an on-site renewable energy system is in place. This commitment will dramatically reduce the projects reliance on generator use and associated fire risk. The project includes use of existing on-site water sources and ponds for water storage which are more than sufficient to supply water for on-site firefighting. Given these measures, the project would comply with fire safe regulations and would not expose people or structures to a significant wildfire risk. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	■	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?	☐	☐	☐	■
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	■
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project site's eastern boundary follows the South Fork Eel River and the project parcel contains four ponds and approximately 13 streams. The South Fork Eel River is listed as a 303(d) impaired waterbody in the vicinity of the project site under the federal Clean Water Act (SWRCB 2021b). Two of the streams crossing through or near the site are also listed as 303(d) impaired for sediment, including Hooker Creek approximately 900 feet to the north of the project site. Water quality in the Eel River is managed under the Water Quality Control Plan for the North Coast Region (the 'Basin Plan').

The project would result in the construction of approximately forty-four (44) new greenhouses for cannabis cultivation and propagation. The greenhouses would not include improved flooring and would not be constructed outside of applicable buffers from nearby watercourses and wetlands, prescribed under the County Streamside Management Area and Wetlands Ordinance (SMAWO) and State Water Resources Control Board Cannabis Policy.

Furthermore, the applicant's Cultivation Operations Plan indicates that the applicant currently implements erosion control measures associated with the current operations and intends to implement further erosion control measures over the entirety of the parcel, including implementing recommendations from Timberland Resource Consultants and Omsberg & Preston. Implementation of these erosion control measures would ensure that impacts during project operation are less than significant.

Remediation of pre-existing sites would require grading, earth moving, and other activities that have potential to discharge sediment from that site. Impacts of pre-existing development include discharge, sediment, and other waste into watercourses and associated wetlands that are tributary to the South Fork Eel River, discharges of sediment and other inert material thereby altering hydrologic and sediment transport regimes of surface water, suspended sediment in surface waters, and impaired wildlife and wetland habitat, and aquatic species. Compensatory mitigation to compensate for any temporal and/or permanent impacts to wetlands and other waters of the state that resulted from unauthorized activities on the property is being developed and refined in cooperation with guidance from the Regional Water Quality Control Board's enforcement staff. Satisfying remaining compensatory mitigation requirements of the Cleanup and Abatement Order and Notice of Violation may involve development or enhancement of wetlands on the property or at off-site locations, which may be subject to future/further environmental review.

Proposed mitigation measures outlined below will restore beneficial uses of waters of the state on the Property that were adversely impacted by unauthorized and legacy activities.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Mitigation Measures

WQ-1& 2 - Restore Pre-Existing Wetlands

Pull back fill and fill slopes placed into wetlands and contour the fill into source cut hillslopes to recreate pre-development, historic, topography. Begin grading and contouring wetland areas and implement erosion control measures in conjunction with replanting of native wetland vegetation. Remove existing drainage structures impeding stream channel function and upgrade modify existing water course crossings and install new drainage structures. Remove placed crossing fill and layback fill slopes/streambanks. Upgrade/modify existing watercourse crossings and install new drainage

structures and implement erosion control measures. Remove all cultivation related materials from setbacks and rip road surface and graded areas within setbacks, while implementing erosion control measures in conjunction with replanting.

WQ-3 - Remediate Cultivation Area

Shorten existing culvert by 40-feet to reduce overall permanent impacts to site. Remove existing greenhouse and all cultivation material and adjacent buildings. Rip road and cultivation pad, hydroseed and plant native wetland vegetation in order to create approximately 45,550 square feet of wetland to mitigate for onsite impacts.

WQ-4 - Restore Diverted Watercourses to Original Channel

Install a rock ford across legacy road impoundment to realign two watercourses with their native channel.

WQ-5 - Improve Functioning of On-Stream Pond

Drain pond, if necessary, and excavate impoundment fill prism. Place and key-in ¼ ton RSP along the excavated impoundments downhill fill slope. Install impoundment toe drainage ditch at base of downhill armored slope and install rock armored spillway over both impoundment fill prisms while implementing erosion control measures.

WQ-6 - Decommission Road Crossing

Remove existing culvert to restore stream channel to pre-construction conditions.

WQ-7 - Upgrade Road Crossing to Improve Water Quality

An existing culvert will be upgraded to be properly sized for a 100-year storm event, and to restore the natural grade of the watercourse.

WQ-8 - Site D – Restore Pre-Existing Wetland

Pull back fill and fill slopes placed into wetland to recreate pre-development, historic, topography. Begin grading and contouring wetland area and implement erosion control measures in conjunction with replanting of native wetland vegetation.

WQ-9 - Site E – Restore Streambed

Pull back fill from streambed and restore to pre-development conditions, approximately 140 feet of filled streambed, and hydroseed to another 80 feet of impacted streambed with native upland seed mix.

WQ-10 - Site G – Restore Pre-Existing Wetland and Streambed

Pull back fill from wetland and streambed to restore to pre-development conditions. A small basin will be contoured at the head of the streambed to capture seasonal surface waters and feed into the restored streambed. The site will then be replanted with native wetland vegetation.

WQ-11 - Compensatory/Temporal Impact Mitigation – On-Site Wetland Creation or Off-Site Wetland Creation/Restoration/Enhancement or Mitigation Credits

The applicant shall satisfy the compensatory mitigation requirements of the Notice of Violation and Cleanup and Abatement Order issued by the North Coast Regional Water Quality Control Board in 2021 (R1-2021-0003). The point of this effort is to mitigate temporal impacts of illegal development in wetland and stream channels which has occurred at the project site. This may include wetland creation and enhancement activities and similar measures on the property or at appropriate off-site locations approved by Water Board staff and in consultation with other responsible agencies. Alternatively, off-site mitigation bank credits may be obtained as they become available. Off-site mitigation areas may be in-watershed or out of watershed.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project site is not located within a groundwater basin. Groundwater basins are defined by the California Department of Water Resources (CDWR) in the publication known as Bulletin 118. The latest version of Bulletin 118 (titled "California's Groundwater") was published in 2020. It shows the nearest groundwater basin is Basin 1-032, the Garberville Town Area Basin, approximately 1.5 miles to the southwest. This basin has been designated a Very Low Priority Basin by SWRCB, is not subjected to critical overdraft and is not required to form a Groundwater Sustainability Agency or generate a Groundwater Sustainability Plan (SWRCB 2021c).

Three (3) ponds and a permitted well are located on the parcel and available to satisfy project-related water use. The well was permitted by the Humboldt County Department of Health & Human Services Permit No. 15-16-648. Diversions for irrigation from three on-site ponds were previously permitted under a Lake and Streambed Alteration Agreement (LSAA) (Notification No. 1600-2015-0139-R1) with the California Department of Fish and Wildlife (CDFW), which expired in 2021. A new LSAA was submitted to CDFW (Notification No. 1600-2020-0303-R1), and an Amendment has been submitted to CDFW that includes two of these ponds for diversion, totaling 2,280,600 gallons of storage. All irrigation will be gravity-fed. These sources provide adequate and permitted irrigation capacity for the existing and proposed cannabis cultivation uses.

In the report titled "Hydrologic Isolation of Existing Well from Surface Waters.." prepared by Lindberg Geologic Consulting, water in the well has been determined to be hydraulically isolated from nearby wells, surface waters, springs or wetlands on the parcel and its vicinity. The aquifer tapped by the subject well is recharged by water infiltrating from source areas upslope and west of the well site. A pump test completed on May 31, 2016 showed yield of 25 gallons per minute (36,000 gallons a day), although this may not be representative of the well's long-term yield.

The project would not include substantial paving or new structures that would decrease percolation. New greenhouses would not include flooring. Therefore, substantial interference of groundwater recharge would not occur.

Because the applicant's groundwater withdrawals are permitted and the project would not substantially alter groundwater recharge, impacts related to groundwater supplies and management would be less than significant. Furthermore, it is unlikely that use of well water will be very necessary given the capacity and convenience of using water from the three existing ponds.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project 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 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?

The proposed project would construct new cannabis cultivation and propagation greenhouses, which would not include improved flooring. This would allow water to continue to percolate into the soil. Proposed structures would not alter the overall drainage pattern of the site or surrounding areas and impacts would be less than significant.

Stream and wetland remediation and restoration work is detailed above under criteria a.

The project site is not connected to existing stormwater drainage infrastructure and no planned infrastructure is anticipated in the area. Stormwater is currently conveyed via ditch relief culverts, stream crossings, and rolling dips that drain roads within and accessing the project site. The project would not exceed the capacity of the existing roadside stormwater drainage ditches and would serve to improve the overall stormwater capacity of the site. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located in FEMA Flood Zone X, Area of Minimal Flood Hazard (FEMA 2016). The project site is not located in a flood zone or Special Flood Hazard Area. Nothing in the proposed project would alter, impede, or redirect flows generated by the flooding of the South Fork Eel River, which could occur along the eastern parcel boundary, outside of the project site. The proposed structures would be located well outside the Flood Hazard Area and no proposed road improvement or infrastructure would affect floodwater flow from the river. The increased commercial cannabis operations at the project site would not substantially increase the potential risk of pollutants due to flood inundation. There would be no impact on flood flows from the proposed project.

NO IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	■	☐

a. Would the project physically divide an established community?

The project site is located in a rural area of Humboldt County, adjacent to the South Fork Eel River and accessed via Highway 101 and local, private roads. The project parcel contains existing structures for cannabis cultivation, processing, distribution, and manufacturing. As there are no established communities within the immediate project vicinity, the project and proposed structures would not result in the physical division of an established community. Therefore, no impact would occur as a result of the proposed project.

NO IMPACT

b. Would the project 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?

The proposed project would not conflict with any goals, policies or objectives in the County's General Plan intended to mitigate potential environmental impacts. Land uses and zoning under the proposed project would remain consistent with the existing land uses and zoning. The agricultural use associated with cannabis cultivation and drying would be consistent with the allowable land uses under the General Plan and Zoning Ordinance.

The site is designated Timberland by the Humboldt County General Plan. As defined in the General Plan, the Timberland designation is "primarily suitable for growing, harvesting and production of timber. Prairie and grazing lands may be intermixed" (County of Humboldt 2017b). In addition, the Humboldt County General Plan finds that general agricultural activities are allowable in Timberland-designated areas (County of Humboldt 2017a). Therefore, the project as proposed is consistent with the Timberland designation. The project would not prevent the growing and harvesting of timber. Ecosystem services provided by existing forest land would remain intact, and the potential for timber harvest would not be affected in the short-term or the long-term by any of the proposed project's activities.

The Commercial Cannabis Land Use Ordinance provisions found in the zoning regulations serve as the principal land use controls governing commercial cultivation of cannabis and related uses. The

proposed new cultivation site meets the eligibility and siting criteria of the regulations, including restrictions governing maximum slope and prohibiting the conversion of timberland. Though the entirety of the property is planned Timberland (T), over 30% (116 acres) of the property is unforested and characterized by grassland. No conversion of timberland is necessary or will result from the proposal to develop 2 acres of new cultivation facilities.

Therefore, the proposed project would not conflict with any goals, policies, or objectives in the County's General Plan or Zoning Ordinance adopted, which serve to mitigate potential environmental effects. Impacts from the project would therefore be less than significant.

LESS THAN SIGNIFICANT IMPACT

12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	■

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project 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?

The County contains a wealth of mineral resources and over 90 extraction sites producing sand and gravel, hard rock, and metals (County of Humboldt 2017b). The project site is not within the County's Mineral Resources Combining Zone and there are no known mineral deposits of significance on or near the project site. The proposed project would not involve mineral extraction. The County permits commercial cannabis activities within areas that do not support mineral resource production, and therefore said permitting would have no impact on mineral resources (County of Humboldt 2017c). Implementation of the proposed project would not result in the loss of a mineral resource that would be of value to the region or residents or result in the loss of availability of a locally important mineral resource recovery site. Therefore, no impact would occur.

NO IMPACT

13 Noise

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

Noise Fundamentals

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called "A-weighting" is used to filter noise frequencies that are not audible to the human ear. A-weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. In this analysis, all noise levels are A-weighted, and the abbreviation "dBA" is understood to identify the A weighted decibel. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA (increase or decrease); that a change of 5 dBA is readily perceptible; and that an increase or decrease of 10 dBA sounds twice (half) as loud (Caltrans 2013a).

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB increase is a 100-fold intensity increase, a 30 dB increase is a 1,000-fold intensity increase, etc. Similarly, a doubling of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the noise source would result in a 3 dB decrease.

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs, and the duration of the noise are also important. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors

used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL). The L_{eq} is the level of a steady sound that, in a specific period and at a specific location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period and $L_{eq(8h)}$ is the equivalent noise level over an 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise, whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise. The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dBA penalty to noise occurring during evening hours (between 7:00 p.m. and 10:00 p.m.) and an additional 10 dBA penalty to noise occurring during the night (between 10:00 p.m. and 7:00 a.m.). These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Propagation

Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dBA for each doubling of distance. Traffic noise is not a single, stationary point source of sound. Over some determined interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dBA for each doubling of distance.

Vibration

Ground borne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of hertz (Hz). The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most ground borne vibration that can be felt by the human body is from a low of less than 1 Hz up to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as ground borne noise. Ground borne noise may result in adverse effects, such as building damage, when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz). Vibration may also damage infrastructure when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transportation Administration [FTA] 2018). Although ground borne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses. Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source (Caltrans 2013b).

Vibration amplitudes are usually expressed in peak particle velocity (ppv) or Root-Mean-Square vibration velocity. The ppv and Root-Mean-Square velocity are normally described in inches per second (in/sec). The ppv is defined as the maximum instantaneous positive or negative peak of a vibration signal (Caltrans 2013b). Caltrans developed a guidance manual for specifically assessing vibration impacts associated with construction and also compiled vibration research and recommended limits for vibration based on the source. Table 10 summarizes the vibration limits

recommended by the American Association of State Highway and Transportation Officials for structural damage to buildings.

Table 10 Maximum Vibration Levels for Preventing Damage

Type of Situation	In./sec. ppv
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5

Source: Caltrans 2013b

Regulatory Setting

The CCR Title 24, Section 1207.4 requires interior noise levels attributable to exterior sources to be at or below 45 dBA in any habitable room of a development based on the noise metric used in the noise element of the local general plan. All residential windows, exterior doors, and exterior wall assemblies would be required to have sound transmission class ratings that would ensure adequate attenuation of noise at a range of frequencies. The Noise Element in the Humboldt County General Plan uses a noise metric of CNEL, consistent with the reference level for State noise law. Therefore, interior noise levels of the project would need to be at or below 45 dBA CNEL to be compliant with CCR requirements. A standard construction wood frame house reduces noise transmission by 15 dBA. Since interior noise levels for residences are not to exceed 45 dBA CNEL, the maximum exterior noise level for residences is 60 dBA without requiring additional insulation.

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

Existing Setting

The noise environment on the project site is dominated by traffic noise from Highway 101. To determine existing ambient noise levels on the project site, one 15-minute noise measurement (L_{eq} [15] dBA)[5] was taken on the project site during the site visit on February 12, 2021, using an American National Standards Institute Type II integrating sound level meter. The existing ambient noise levels on the site range from approximately 32 to 50 dBA L_{eq}. Full noise measurement results are provided in Appendix NOI.

Sensitive Receivers

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. For example, residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor

[5] The equivalent noise level (L_{eq}) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). For this measurement, the L_{eq} was over a 15-minute period (Leq [15]).

recreation areas are more sensitive to noise than commercial and industrial land uses. The nearest sensitive receivers to the project site are rural residences approximately 500 feet northwest of the project site.

Impact Analysis

a. Would the project result in 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?

The project would construct new propagation cultivation greenhouses on a parcel containing existing cannabis cultivation in unincorporated Humboldt County. As noted above, the existing County noise standard uses an averaging mechanism (CNEL) applicable to activities that generate sound sources averaged over a 24-hour period of time. This type of measurement is commonly used for measuring highway noise or industrial operations. A 10-dB weighting (addition) is added to noise levels occurring at nighttime – between 10:00 p.m. and 7:00 a.m. Utilizing a typical standard of 45 dBA CNEL interior noise level allows for a maximum of 60 dBA CNEL for 'normally acceptable' exterior levels.

Activities associated with cultivation in the greenhouses (watering, transplanting, and harvesting) generally occur during daylight hours. All other activities such as processing typically occur no earlier than 6 a.m. and extend no later than 8 p.m. Noise that would be generated by this project would result from temporary construction, employee vehicle traffic, delivery truck traffic, equipment use, and generators.

Construction Noise

Construction activities would result in short-term increases in ambient noise levels due to the use of heavy equipment. During the construction phase of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. This noise increase would be of short duration and would occur during daytime hours. It is anticipated that construction would take approximately 3-4 months.

Construction noise was estimated using the Federal Highway Administration Roadway Construction Noise Model (RCNM). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Because a specific construction equipment list is not yet available for the project, the construction equipment list used in RCNM is consistent with CalEEMod defaults (see Appendix AQ). CalEEMod uses project characteristics, such as land use, building sizes, and lot acreage, to estimate a project's emissions and uses default equipment lists in its modeling based on empirical data. Noise was modeled based on the project's construction equipment list for each phase and distance to nearby receptors. Table 11 identifies the maximum expected noise levels at the nearest sensitive receptors based on the combined use of construction equipment anticipated to be used concurrently during each phase of construction.

Table 11 Maximum Estimated Noise Levels by Construction Phase

Construction Phase	Equipment	Estimated Noise (dBA Leq) at 500 Feet
Site Preparation	Grader, backhoe, scraper	64
Grading	Grader, backhoe, dozer	63
Building Construction	Generator, tractor, lift, crane, welders	61
Architectural Coating	Air compressors	54

Source: Roadway Construction Noise Model. See Appendix NOI for equipment noise impact data sheets.

The estimated construction noise levels shown in Table 11 do not take into account the fact that equipment is typically dispersed in various areas of the site. Due to site and equipment limitations, only a limited amount of equipment can operate near a given location at a particular time. Additionally, the surrounding topography and distance to neighboring residences would further reduce temporary construction noise would be reduced beyond the boundaries of the site. Therefore, this analysis of construction noise impacts is conservative.

As shown in Table 11, activities involved in construction would generate maximum noise levels ranging from approximately 64 dB at a distance of 500 feet. Construction activities would result in short-term increases in ambient noise levels due to the use of heavy equipment. Although construction noise may be perceptible at nearby sensitive receivers, the additional noise would not be louder than typical agricultural operations as no demolition, major excavation, or non-standard construction methods such as pile driving are proposed. Therefore, project construction would be within the range of typical construction noise for a rural area. Impacts would be less than significant.

Operational Noise

Long-term operation of the cannabis cultivation greenhouses is not expected to generate significant noise levels that would exceed the Humboldt County General Plan Noise Element standards. The project would involve the use of light-duty equipment for cultivation activities that would not result in excessive noise levels. The mixed-light cultivation activities would be similar to noise levels currently occurring from existing and surrounding agricultural operations and traffic on local roadways.

The project would include continued use of on-site generators to power the existing and proposed greenhouse lighting and drying fans. The proposed 400-kVA generator would run when additional lighting is required and the proposed 70-kVA generator would run when power for drying is required. As described under Environmental Checklist Section 3, *Air Quality*, due to the nature of mixed-light cultivation, electric lighting is only used in the winter months on days when there is not enough sun to support effective crop growth. It is estimated that the lights are currently used approximately 20 to 30 percent of the year for operations. Generators are located away from the parcel boundary and are housed within buildings to muffle ambient noise levels outdoors. A calibrated meter reading was taken at 100 feet from each generator area on October 3, 2018. Maximum decibel levels recorded were 45 dB at 100 feet. Each location of meter reading was within the parcel boundaries, and all readings were below decibel limits found in HCC Section 314-55.4.12.6. Since the proposed project would be located near existing agricultural uses and in a rural environment, and existing noise levels generated by cultivation operations are below the County's noise regulations, operational noise levels are anticipated to be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Neither the short-term construction activities nor the proposed cannabis cultivation operations would be expected to generate significant ground borne noise or vibration. Some short-term minor vibrations from excavation and grading may occur during construction but would be limited to daytime hours. Additionally, the nearest sensitive receivers are located at least 500 feet from the project site, and therefore vibration generated by project construction would not reach levels that could cause building damage to fragile buildings (100 Vibration decibels, FTA 2018). Therefore, the project would not expose persons to or generate excessive ground borne vibration or ground borne noise levels. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no private airstrips in the immediate vicinity of the project parcel. Therefore, the project would not be within the vicinity of a private airstrip, nor result in a safety hazard for people residing or working in the project area. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels. The project site is not located within two miles of a public airport or public use airport. The closest airport is the Garberville Airport which is approximately 6.0 miles southwest of the project site. Therefore, the proposed project would not expose people residing or working in the project are to excessive noise levels. There would be no impact.

NO IMPACT

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a. Would the project 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)?

The proposed project does not include new housing units. Operation of the project is expected to employ up to 10 individuals regularly and up to 20 individuals seasonally during the harvests in July and October. Considering a worst-case scenario, if all employees relocated to Humboldt County, this would represent an increase of 45 persons, based on an average number of persons per household of 2.22 in the county (California Department of Finance 2021). This change would represent an incremental increase in Humboldt County population and would not be considered substantial unplanned population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project does not involve removal of housing units or other changes that could result in the displacement of people or housing. The project is conveniently situated close to the two largest population centers in the south county (Garberville and Redway). There would be no impact.

NO IMPACT

15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site is within the area identified as Humboldt County Second District for County fire protection services. The nearest fire station to the project site is the Garberville Fire Protection District station, located approximately 3.5 miles south of the site (Humboldt County Fire Chiefs' Association 2018). As described in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not result in a substantial population increase, and therefore would not affect service ratios for fire protection. Post-project conditions at the site would be similar to existing conditions in regard to fire hazards. There would be no need for new or increased fire protection facilities. For further discussion regarding wildfire, refer to Environmental Checklist Section 20, *Wildfire*. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Cannabis-related operations are commonly associated with greater security-related demands, which may result in an increase in law enforcement services provided by the Humboldt County Sheriff's Department. The existing cannabis operations on the project parcel are overseen by an on-site manager who is present and monitors the parcel daily. The proposed project would be overseen by the on-site manager and is not expected to require additional services from the Humboldt County Sheriff's Department as a result of the proposed additional operations. There are two access roads that lead to the site that each have a locked security gate. Potential impacts would be less than significant, and no mitigation would be necessary.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The proposed project, during peak operations, would provide employment for approximately 20 persons. The project is not anticipated to significantly increase the population in unincorporated Humboldt County, as the majority of employees are likely to come from the more populated areas of the County and travel by vehicle daily to the project site. The proposed project would not include any residential housing development and would not directly or indirectly induce population growth in the area. Therefore, the project would not result in the need for new or expanded school facilities, and there would be no impact to local schools from the proposed project.

NO IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The proposed project is located 10 miles from the nearest public land or park (Humboldt Redwoods State Park), is not visible from that public land site, and does not provide access to that public land site. As previously mentioned, the proposed project would not directly or indirectly induce local population growth and would not result in the need for new or expanded park facilities. No impact to park facilities would occur.

NO IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Since the project does not propose residential development and would not significantly increase the population in unincorporated Humboldt County, the project would not significantly increase the

demand for other public facilities, including but not limited to public health services and library services. Therefore, no impacts to other public facilities would occur as a result of the proposed project.

NO IMPACT

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project site is in a rural area surrounded by agriculture and timberland, open space, and rural residences. The nearest park is Tooby Memorial Park & Southern Humboldt Community Park, approximately five miles south of the site. As discussed in Environmental Checklist Section 14, *Population and Housing*, the project would not directly or indirectly generate a substantial increase in population. As such, the project would not increase the use of existing nearby recreational facilities such that substantial deterioration of the facilities would occur. The project does not include a recreational facility and would not result in the need for new or expanded facilities. Therefore, there would be no impact.

NO IMPACT

17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	■	☐
b. Conflict or be inconsistent with *CEQA Guidelines section 15064.3, subdivision (b)?				
* *Criteria for Analyzing Transportation Impacts, effective July 1, 2020*	☐	☐	■	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?	☐	☐	■	☐

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project site is located in rural, unincorporated Humboldt County. The site is accessed by Wood Ranch Road, which is a local road with very low levels of traffic. The Humboldt County General Plan Circulation Element Policy C-P5 states that the County shall strive to maintain Level of Service (LOS) C on all roadway segments and intersections, except for Highway 101, where LOS D is acceptable (County of Humboldt 2017). There are no existing bicycle or pedestrian facilities within one mile of the project site. Humboldt Transit Authority has one bus stop roughly 2.2 miles from the project site but does not service Wood Ranch Road directly (Humboldt Transit 2021).

The project would require minimal staffing, employing 10 staff for regular operations, which would double seasonally, to 20 staff for two 3-month annual harvests. Employees would carpool to and from the project site, resulting in a maximum of 16 daily trips (8 worker trips during harvests plus 8 truck trips). The project proponent would continue to pay road maintenance fees related to upkeep of the unpaved roadways that lead to the project site.

Regarding transit users, bicyclists, and pedestrians, there are no notable gaps in the multimodal circulation network and the project would not conflict with the existing or planned facilities, as no off-site improvements are proposed. The project is therefore consistent with adopted policies and plans regarding public transit, bicycle, and pedestrian facilities and supports the Humboldt County General Plan Circulation Element. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Section 15064.3 of the CEQA Guidelines replace congestion-based metrics, such as auto delay and LOS, with VMT as the basis for determining significant impacts, unless the CEQA Guidelines provide specific exceptions. The Humboldt County Planning Commission has yet to adopt VMT analysis guidance; therefore, guidance from the Office of Planning and Research is relied upon for this analysis. The Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) recommends the following screening threshold for land use projects: "projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact."

The proposed project would result in a total of 16 maximum daily vehicle trips (8 worker trips during harvests plus 8 truck trips), which is far below the screening threshold of 110 daily trips. As such, impacts related to VMT associated with the project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The segment of Wood Ranch Road that provides access to the project site is developed to Category 4 standards (20 feet wide) or better. Therefore, the road is considered by the County to be adequate for the proposed use without further review. The project does not propose any features that would delay or disrupt circulation, alterations of roadways or other geometric design features, or incompatible uses that would result in unsafe conditions. The project is consistent with existing operations on the parcel; therefore, no new uses to the area that could be incompatible with existing uses are proposed. Other than a small increase in vehicle trips to the project site, as described above, the project would not result in changes to the circulation system. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

Project construction would not require the closure of any road segments and would not involve alterations to roads or other changes that would result in inadequate emergency access. As described above, the project would result in less than significant impacts related to traffic congestion and other transportation-related issues. Furthermore, the project site is accessible by a road that meets County standards for the proposed use. Therefore, impacts to emergency access would be less than significant.

LESS THAN SIGNIFICANT IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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), or	☐	■	☐	☐
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. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

AB 52 was enacted in 2015 and expanded CEQA by defining a new resource category: "tribal cultural resources." AB 52 states that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." It further states the lead agency shall establish measures to avoid impacts altering the significant characteristics of a tribal cultural resource, when feasible.

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

- Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC section 5020.1(k), or
- 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 PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted.

Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those having requested notice of projects proposed in the jurisdiction of the lead Agency.

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?*

Tribal engagement began early during the development of technical studies for the project, including surveys for cultural resources initiated in 2019. The Native American Heritage Commission (NAHC) was contacted on September 26, 2019, to request a sacred lands file (SLF) search of the project site. The NAHC emailed a response on June 11, 2020, stating that the SLF search returned negative results. Letters to the Native American contacts provided by the NAHC were mailed on June 15, 2020. A Rincon archaeologist conducted a pedestrian survey of the project site on February 25, 2021. A copy of the cultural resources report was provided to the Tribal Historic Preservation Officer (THPO) of the Bear River Band of Rohnerville Rancheria prior to submittal to the applicant and county. On August 26, 2021, Vice-Chairman Edwin Smith recommended full time monitoring for all project ground disturbance.

In February 2022, a separate Cultural Resources Investigation of the property was performed by the Archaeological Research and Supply Company, including the area targeted for on-site relocation. The investigation included a crew of three people who performed 10-meter transects within the survey area, including the Area of Potential Effect (APE) plus a 600-foot buffer zone. There is no record of previous encounters with cultural resources and no cultural resources were discovered during this additional survey. Conclusions of the investigation are documented in a Final Report. The Tribal Historical Preservation Officer (THPO) for the Bear River Band of the Rohnerville Rancheria and Director of the Intertribal Sinkyone Wilderness Council were both contacted by the archaeological consultant during the report preparation process. Both were also contacted by Humboldt County planning staff (via email and phone) in August 2023. To date, no feedback has been received from the Intertribal Sinkyone Wilderness Council Director. On August 16, 2023 the Planning & Building Department received email confirmation from the Bear River THPO declining formal consultation and noting that their concerns had been satisfied through incorporation of the Mitigation Measures that have been included, which require use of a cultural monitor during project-related ground disturbance and protocol for handling inadvertent discovery (Mitigation Measures CR-1 and CR-2).

While to date no tribal cultural resources have been identified within the project site, because the project involves a good deal of ground disturbance, there remains a distinct possibility of encountering undisturbed subsurface tribal cultural resources during construction and remediation/restoration activities. Therefore, the project could result in potentially significant impacts to tribal cultural resources and mitigation measures would be required. Mitigation Measures CR-1 and CR-2 would reduce impacts to a less than significant level.

Mitigation Measure(s)

CR-1 Archaeological and Native American Monitoring

Native American monitoring should be provided by the Bear River Band of the Rohnerville Rancheria (BRB) or their designee. The monitor(s) shall have the authority to halt and redirect work should any archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and the find shall be evaluated for listing in the CRHR and National Register of Historical Places. The Tribe may request that archaeological monitoring be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983).

The monitoring schedule shall be established by the Bear River Band of the Rohnerville Rancheria and may be adjusted based on the scale of disturbance and sensitivity of the location where ground disturbance will occur. Monitoring may be decreased to spot-checking at the discretion of the monitors, as warranted by conditions such as encountering bedrock. If monitoring is decreased to spot-checking, spot-checking should occur when ground-disturbance moves to a new location in the project site and when ground disturbance extends to depths not previously reached (unless those depths are within bedrock).

CR-2 Inadvertent Discovery of Cultural Resources

If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

The Native American Heritage Commission (NAHC) can provide information regarding the appropriate Tribal point(s) of contact for a specific area; the NAHC can be reached at 916-653-4082. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the NAHC will then be contacted by the Coroner to detegallonrmine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple Dry years?	☐	☐	■	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

a. Would the project 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?

c. Would the project 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?

Water

The project would be served by an existing on-site water well near the western site boundary and by an existing on-site septic system. Existing water tanks (two existing tanks with a total capacity of 10,000 gallons) and new water tanks (four proposed 5,000-gallon tanks with a total capacity of 20,000 gallons) would store water on site for existing and proposed uses. These tanks are located in several locations on the project site, including near the existing and proposed cultivation greenhouses. This water source complies with HCC Section 314-55.4.6.3.2.[6] The well produces water at 25 gallons per minute, which is sufficient to provide irrigation and drinking water for the existing site uses and proposed project uses. The project would result in a water demand of approximately 866,240 gallons of water per year.[7] Because the project would not rely on public or off-site water to serve the proposed project, there would be no impact from the relocation or construction of new water facilities.

Wastewater

Wastewater is constituted of both domestic sewage produced at bathroom facilities as well as process wastewater produced through project operation and maintenance activities, including but not limited to wash water. Wash water produced from project operation would be minimal and would percolate into the soil. All domestic sewage would be contained in on-site septic systems. The septic system would continue to be pumped on an as-needed basis, with no expansion of the existing septic tank required. Domestic sewage would be pumped and hauled to an approved wastewater treatment facility by a registered liquid waste hauler. The project would result in approximately 721,867 gallons of wastewater per year (calculated based on the estimated water demand, assuming that water demand is 120 percent of wastewater generation due to system losses). Because the project would not rely on public or off-site wastewater conveyance or treatment systems to serve the proposed project, there would be no impact from the relocation or construction of new wastewater facilities.

Stormwater

Stormwater is currently conveyed via ditch relief culverts, stream crossings, and rolling dips that drain roads within and accessing the project site. The project would not exceed the capacity of the existing roadside stormwater drainage ditches and would serve to improve the overall stormwater capacity

[6] "Irrigation shall exclusively utilize stored water from nondiversionary sources or water from a public or private water supplier. Water from on-site greywater systems is also authorized for year-round use. Dry farmed outdoor or mixed-light cultivation sites may utilize irrigation from diversionary sources for propagation areas and transplantation. Irrigation water sourced from diversionary sources may be permitted with a special permit pursuant to the streamside management area ordinance, Section 314-61.1, and subject to the performance standards for diversionary water use."

7 Total annual project water demand is based on the applicant's Combined Cultivation Operations Plan. The estimated monthly water demand is as follows: January – 0 gallons, February – 0 gallons, March – 14,500 gallons, April – 29,000 gallons, May – 85,680 gallons, June – 154,300 gallons, July – 171,360 gallons, August – 171,360 gallons, September – 154,360 gallons, October – 85,680 gallons, November – 0 gallons, and December – 0 gallons.

of the site. The project would not require a new connection to off-site stormwater drainage facilities. Therefore, there would be no impact from the relocation or construction of new stormwater facilities.

Electricity, Natural Gas, and Telecommunications

Historically, generators have been used to supply electricity for cultivation-related electrical demand (powering supplemental lighting and drying fans) for mixed-light cultivation operations, especially during the winter months when additional light and heat are needed for plant cultivation. Moving forward, the applicant has agreed forgo Mixed-Light cultivation until such time that grid power or an on-site renewable energy system is in place. This commitment will dramatically reduce the projects dependence on generator use.

Conclusion

Therefore, the proposed project would not result in significant environmental effects due to the relocation or construction of new water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The parcel contains the following water sources, which would be used to provide water supply for the proposed project: three ponds, a spring diversion, and a permitted well located on the parcel. The surface water diversions are permitted under an approved LSAA with CDFW. The total water storage provided by the three ponds is approximately 2.5 million gallons. Water supply from these existing on-site water sources exceeds the current demands from existing on-site operations on the parcel. The proposed project would result in a water demand of approximately 866,240 gallons of water per year. The on-site well is adequate to provide the water demand for the proposed project. Additionally, on-site water storage provided via existing and proposed water tanks and the existing ponds would ensure adequate water supply is available during normal, dry, and multiple dry years. Therefore, the project would have a less than significant impact with regard to sufficient water supply.

LESS THAN SIGNIFICANT IMPACT

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid waste generated by the project would include the following: 1) plant material, nutrient supplement and soil containers generated from cultivation and 2) typical municipal solid waste generated by employees. Any municipal solid waste generated at the project site would be disposed of by transportation to the Redway Transfer Station run by Recology. The Redway Transfer Station offers garbage and recyclables drop-off services for residential and commercial customers which are hauled and processed at nearby compost or recycling facilities. The Redway Transfer Station has a permitted maximum daily throughput of 75 tons and no anticipated closure date (CalRecycle 2021). Plant trimming waste would be minimized by composting, which currently occurs in a 1,500-square foot area on the site. The project is expected to generate approximately 0.2 tons per year, or 400

pounds of waste per year. This small amount of generated solid waste does not constitute an appreciable increase that would be beyond what can reasonably be handled by Recology's local solid waste services.

The proposed project would comply with all federal, state, and local statutes related to solid waste, including AB 939. This would include compliance with the Humboldt Waste Management Authority's recycling, hazardous waste, and composting programs in the county to comply with AB 939. Therefore, the proposed project would not generate solid waste in excess of State or local standards and would comply with waste management and reduction statutes. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	■	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

The project parcel is located in unincorporated southern Humboldt County, and the project site is surrounded by heavily wooded areas and steep slopes from west to east down to the South Fork Eel River. The project site is located within a High Fire Hazard Severity Zone and within the State Responsibility Area (SRA) for fire protection. The nearest Very High Fire Hazard Severity Zone is located adjacent to the project parcel's eastern boundary across Highway 101 (CAL FIRE 2007). As the project site is located in an SRA, the site is in an area of legal responsibility for fire protection by CAL FIRE.

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project would develop cannabis cultivation and propagation greenhouses on a rural parcel in unincorporated Humboldt County, continuing and expanding on an established land use of the property. The project site is located in State Responsibility Area (SRA) for Fire Protection, and is accessed via gravel roads and driveways connecting to Wood Ranch Road, which is a private road that

provides access to rural residential, agricultural and public facilities. The project site is accessed via gravel roads and driveways connecting to Wood Ranch Road. The gravel roads on site range in width and slope. All internal roads leading to the project parcel are a minimum of 10 feet wide and with grades that do not exceed 15 percent. The segment of Wood Ranch Road providing access to the project site is developed to a minimum of 20 feet or better. This meets the minimum road standards specified in the State Firesafe Regulations. Therefore, the road systems can be considered adequate for the proposed use and of adequate width to allow simultaneous ingress and egress during emergency situations.

Project plans would be reviewed by CAL FIRE to verify compliance with the Fire Safe Regulations which would ensure that adequate access for emergency response and evacuation is provided. The project may also be subject to compliance with the updated local Firesafe Regulations should in the future they be revised and recertified as functionally equivalent to the state regulations. The State Fire Safe Regulations include specific standards for roads providing ingress and egress, signing of streets and buildings, minimum water supply requirements, and setback distances for maintaining defensible space (CAL FIRE 2020). Project plans would be reviewed by CAL FIRE to verify compliance with the Fire Safe Regulations which would ensure that adequate access for emergency response and evacuation is provided. Therefore, the proposed project would not impair the implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan and there would be a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, 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?

The project is located on a rural agricultural parcel. The project parcel is characterized by cultivation uses and heavily forested areas with steep slopes from the proposed greenhouse locations west to east down to the South Fork Eel River. Project activities include decommissioning and environmental remediation and restoration of seven (7) existing cultivation sites, as well as development of 2 acres of greenhouses to accommodate relocation and expansion of cultivation activities on the property. The area targeted for development of the new cultivation site is characterized by grassland and slopes of 15 percent or less.

The prevailing wind direction in the vicinity of the project site is from northeast to southwest (National Oceanic and Atmospheric Association 2022). Potential future wildfires in the Very High Fire Hazard Severity Zone located across Highway 101 from the project parcel could travel onto the project parcel as a result of these prevailing winds.

The primary on-site fire hazards are the existing generators used to power lighting and drying fans for the existing mixed-light cultivation operations. The existing generator is completely enclosed in a shed, greatly reducing their risk of starting a wildfire. Moving forward, the applicant has agreed not to resume Mixed-Light Cultivation until grid power or an on-site renewable energy system is developed with sufficient production (and storage) capacity to furnish all power required by the cultivation activities and equipment (fans, lights, dehumidifiers, heaters, pumps, etc.). Generator Power will continue to be used to supply energy to on-site propagation facilities until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use will be limited to providing emergency backup of the primary power source.

There is little surrounding the parcel that can be considered sources of pollutants in the event of a wildfire beyond the typical pollutants (carbon dioxide, carbon, and ozone precursors) resulting from wildfire. Similarly, the proposed project would not introduce substantially different sources of potential pollutants in the case of wildfire on site. Given the project site features and the surrounding area, the proposed project is unlikely to expose project occupants to substantial pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors, or otherwise exacerbate wildfire risks. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

The project would not require the installation of infrastructure related to on-site utilities and emergency response. As described above under *criterion a*, the project site has adequate emergency access including roads that meet County standards. The project would use existing water sources on site and would not require the installation of a new emergency water source. The project proposes to transition away from generators to energy from the electrical grid or an on-site renewable system. This transition will significantly reduce the potential for wildfire ignition from on-site sources. Therefore, the project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. A lack of vegetative cover after wildfire can exacerbate landslide and flooding risks due to increased runoff and less infiltration of water into the ground.

Surrounding topography generally consists of gently and steeply sloping hills. Slopes within the project parcel range from 15 to 50 percent. The project parcel contains heavily wooded areas and steep slopes from west to east down to the South Fork Eel River; however, the proposed new cultivation site is situated within a relatively flat portion of the parcel. The site is surrounded by a mix of forest and open grass areas which act as natural fuel breaks on and around the site. These decrease the potential of a wildfire leaving all slopes bare or void of vegetation which could expose people or structure to significant post-fire risks. In addition, the proposed greenhouses are not situated in a natural drainage and the site is buffered from mapped natural drainages which would further reduce the risk of runoff or post-fire instability. Therefore, the potential for landslides or flooding following a wildfire is minimal and impacts would be less than significant

LESS THAN SIGNIFICANT IMPACT

21 Mandatory Findings of Significance

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

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?

The project site does not contain suitable habitat for fish species, and while wildlife species may be supported by the project site's existing condition, the project would introduce a similar use as the existing cultivation on the project parcel and would not alter surrounding natural areas in a way that would preclude wildlife presence. Therefore, the project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Environmental Checklist Section 4, *Biological*

Resources, Mitigation Measures BIO-1 through BIO-3 are recommended to address potential direct and indirect impacts to special-status species that may be present on the project site.

The project site is undeveloped and does not contain important examples of the major periods of California history or prehistory. Therefore, the project would not eliminate these resources. In addition, as discussed in Environmental Checklist Section 5, *Cultural Resources*, Mitigation Measure CR-1 requires monitoring during ground disturbing activities of native soils. Should unanticipated archaeological or tribal cultural resources be discovered, Mitigation Measures CR-2 requires that work stop, and the find be evaluated. Furthermore, Environmental Checklist Section 5, *Cultural Resources*, identified no historic resources on or adjacent to the project site, and impacts to historic resources would not occur.

Therefore, as mitigated, the project would 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. Impacts would be less than significant with implementation of identified mitigation measures.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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)?

As described in the discussion of Environmental Checklist Sections 1 through 20, with respect to all environmental issues, the proposed project would not result in significant and unmitigable impacts to the environment; all anticipated impacts associated with project construction and operation would be either less than significant or less than significant with mitigation incorporated. This is largely due to the fact that project construction activities would be temporary, and project operational activities would not significantly alter the environmental baseline condition.

Cumulatively considerable impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same vicinity, such that the effects of similar impacts of multiple projects combine to expose adjacent sensitive receptors to greater levels of impact than would occur under the proposed project. For example, if the construction of other projects in the area occurs at the same time as construction of the proposed project, potential impacts associated with noise and traffic to residents in the project area may be more substantial. Activities associated with remediation required by the County and Water Board on the project parcel has the potential to overlap with project construction. Therefore, temporary construction impacts, such as use of the private Wood Ranch Road to access the site, would occur simultaneously. Given the small scale of construction activities for the project, this impact would not be cumulatively significant. There are no other major construction projects currently planned in the vicinity of the project site, and sensitive receptors in the project area are located at substantial distances from both the project site itself and from other receptors. Therefore, construction-related impacts to sensitive receptors are not anticipated.

In addition, cumulative impacts could occur due to indirect growth-inducing impacts, which includes consideration of whether the project would remove an obstacle to additional growth and development. The project would not result in an expansion of utilities or other public service

infrastructure to the project site and surrounding area; therefore, the project would not result in indirect growth inducement.

The majority of project impacts are temporary, localized effects that would occur during the approximately six-month construction period. Once operational, the project would not have significant adverse environmental impacts or induce new development in the area that could combine with other projects' effects to create cumulatively significant impacts. Therefore, the proposed project is not anticipated to result in a cumulatively considerable contribution to a significant cumulative impact.

LESS THAN SIGNIFICANT IMPACT

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in Environmental Checklist Section 3, *Air Quality*, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality through construction or operation. As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, project operation would not involve the routine use of extremely hazardous materials. Compliance with applicable regulations during project construction would reduce potential impacts on human beings related to hazards and hazardous materials to a less than significant level. As discussed in Environmental Checklist Section 13, *Noise*, operational noise levels would be minimal and would not significantly impact nearby sensitive receivers. During project construction, noise impacts would be temporary and less than significant. Therefore, the project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Mitigation Measures, Monitoring, and Reporting Program (MMRP)

All of the following mitigation measures are required to mitigate impacts from the proposed project:

BIO-1 Worker Environmental Awareness Program

Prior to initiation of construction activities (including staging and mobilization) all personnel associated with project construction should attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the construction area. The specifics of this program should include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information should also be prepared for distribution to all contractors, their employees, and other personnel involved with construction. All employees should sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form should be submitted to the County by the contractor to document compliance.

BIO-2 Nesting Bird Pre-construction Surveys

For construction activities occurring during the nesting season (generally February 1 to August 31), surveys for nesting birds covered by the MBTA and CFGC should be conducted by a qualified biologist no more than 14 days prior to initiation of construction activities, including construction staging and vegetation removal. The surveys should include the entire disturbance areas plus a 200-foot buffer around any disturbance areas. If active nests are located, all construction work should be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer should be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The biologist should have full discretion for establishing a suitable buffer. The buffer area(s) should be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist should confirm that breeding/nesting has completed and young have fledged the nest prior to removal of the buffer.

BIO-3 Accidental Spill Prevention

All refueling and maintenance of equipment and vehicles shall occur a minimum of 250 feet from ephemeral drainages and ponds, and in a location from which a spill would not drain directly toward these habitats (e.g., on a slope that drains away from the water), or in a containment structure. Prior to the onset of work, a plan shall be developed for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take in the event of a spill. Should any debris or equipment from the work area fall into the wetland, riparian habitat, and the concrete drainage, it shall be removed immediately.

BIO-4 Revegetation and Planting

Prior to revegetation efforts, all existing structures will be removed from the delineated wetland areas and will be graded back to their natural contours as shown in the grading plan. A series of shallow berms will be installed across graded wetland areas to retain and pool water. The roads adjacent to the restored wetlands will be decommissioned by ripping and grading back to their natural contours. The adjacent cut/fill areas will be graded to their natural grade as shown in the grading plan. All graded areas will be seeded according to Hydroseed Specifications in the Revegetation and Planting Plan. Planting strategy will focus on planting a range of native species and to allow for natural competition and evolution of native plant species distribution. The plants will be selected based on the surrounding intact wetland populations surrounding the sites. Planting will occur post hydroseeding with tight spacing to reduce the potential for colonization of non-native species. Plants will be installed in clustered groups of each species to create patches that will naturalize the site. Plants shall be obtained from stock within Humboldt County, unless approved by a governing agency.

BIO-5 Off-Site Mitigation Credits

In consultation with responsible agencies, off-site mitigation bank credits will be obtained as they become available to mitigate temporal impacts of legacy development in wetland and stream channels which have occurred at the project. Off-site mitigation areas may be in-watershed or out of watershed in consultation with responsible agencies.

CR-1 Archaeological and Native American Monitoring

Native American monitoring should be provided by the Bear River Band of the Rohnerville Rancheria (BRB) or their designee. The monitor(s) shall have the authority to halt and redirect work should any archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall halt and the find shall be evaluated for listing in the CRHR and National Register of Historical Places. The Tribe may request that archaeological monitoring be performed under the direction of an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983).

The monitoring schedule shall be established by the Bear River Band of the Rohnerville Rancheria and may be adjusted based on the scale of disturbance and sensitivity of the location where ground disturbance will occur. Monitoring may be decreased to spot-checking at the discretion of the monitors, as warranted by conditions such as encountering bedrock. If monitoring is decreased to spot-checking, spot-checking should occur when ground-disturbance moves to a new location in the project site and when ground disturbance extends to depths not previously reached (unless those depths are within bedrock).

CR-2 Inadvertent Discovery of Cultural Resources

If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

The Native American Heritage Commission (NAHC) can provide information regarding the appropriate Tribal point(s) of contact for a specific area; the NAHC can be reached at 916-653-4082. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be

Native American, the NAHC will then be contacted by the Coroner to determine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99 "

Mitigation Measure GHG-1 (Energy Source for Cultivation):

Power used by Mixed-Light Cultivation activities shall exclusively be supplied by an on-site renewable energy system, or grid power from renewable energy sources, or grid power from non-renewable source with purchase of carbon offset credits. This includes all power used by fans, lights, dehumidifiers, heaters, pumps, or similar equipment or activities. Power from a generator may be used to supply energy for on-site propagation activities within a designated nursery area until grid power or an adequate on-site renewable energy system is developed or January 1, 2026 (whichever is earlier). After January 1, 2026, any cultivation-related generator use shall be limited to providing emergency backup of the primary power source in the event that power from the electrical grid or on-site renewable system is suddenly and unexpectedly lost.

WQ-1& 2 - Restore Pre-Existing Wetlands

Pull back fill and fill slopes placed into wetlands and contour the fill into source cut hillslopes to recreate pre-development, historic, topography. Begin grading and contouring wetland areas and implement erosion control measures in conjunction with replanting of native wetland vegetation. Remove existing drainage structures impeding stream channel function and upgrade modify existing water course crossings and install new drainage structures. Remove placed crossing fill and layback fill slopes/streambanks. Upgrade/modify existing watercourse crossings and install new drainage structures and implement erosion control measures. Remove all cultivation related materials from setbacks and rip road surface and graded areas within setbacks, while implementing erosion control measures in conjunction with replanting.

WQ-3 - Remediate Cultivation Area

Shorten existing culvert by 40-feet to reduce overall permanent impacts to site. Remove existing greenhouse and all cultivation material and adjacent buildings. Rip road and cultivation pad, hydroseed and plant native wetland vegetation in order to create approximately 45,550 square feet of wetland to mitigate for onsite impacts.

WQ-4 - Restore Diverted Watercourses to Original Channel

Install a rock ford across legacy road impoundment to realign two watercourses with their native channel.

WQ-5 - Improve Functioning of On-Stream Pond

Drain pond, if necessary, and excavate impoundment fill prism. Place and key-in ¼ ton RSP along the excavated impoundments downhill fill slope. Install impoundment toe drainage ditch at base of downhill armored slope and install rock armored spillway over both impoundment fill prisms while implementing erosion control measures.

WQ-6 - Decommission Road Crossing

Remove existing culvert to restore stream channel to pre-construction conditions.

WQ-7 - Upgrade Road Crossing to Improve Water Quality

An existing culvert will be upgraded to be properly sized for a 100-year storm event, and to restore the natural grade of the watercourse.

WQ-8 - Site D – Restore Pre-Existing Wetland

Pull back fill and fill slopes placed into wetland to recreate pre-development, historic, topography. Begin grading and contouring wetland area and implement erosion control measures in conjunction with replanting of native wetland vegetation.

WQ-9 - Site E – Restore Streambed

Pull back fill from streambed and restore to pre-development conditions, approximately 140 feet of filled streambed, and hydroseed to another 80 feet of impacted streambed with native upland seed mix.

WQ-10 - Site G – Restore Pre-Existing Wetland and Streambed

Pull back fill from wetland and streambed to restore to pre-development conditions. A small basin will be contoured at the head of the streambed to capture seasonal surface waters and feed into the restored streambed. The site will then be replanted with native wetland vegetation.

WQ-11 - Compensatory/Temporal Impact Mitigation – On-Site Wetland Creation or Off-Site Wetland Creation/Restoration/Enhancement or Mitigation Credits

The applicant shall satisfy the compensatory mitigation requirements of the Notice of Violation and Cleanup and Abatement Order issued by the North Coast Regional Water Quality Control Board in 2021 (R1-2021-0003). The point of this effort is to mitigate temporal impacts of illegal development in wetland and stream channels which has occurred at the project site. This may include wetland creation and enhancement activities and similar measures on the property or at appropriate off-site locations approved by Water Board staff and in consultation with other responsible agencies. Alternatively, off-site mitigation bank credits may be obtained as they become available. Off-site mitigation areas may be in-watershed or out of watershed.

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