ALAMEDA COUNTY
PLANNING DEPARTMENT

OASIS FUND LIVERMORE GROW FACILITY
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

PLN: 2018-00258

December 2019

RANEY PLANNING & MANAGEMENT, INC.
20 years
1501 SPORTS DRIVE, SUITE A, SACRAMENTO, CA 95834

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INITIAL STUDY

December 2019

A. BACKGROUND

1.	Project Title:	Oasis Fund Livermore Grow Facility
2.	Lead Agency Name and Address:	Alameda County Planning Department 224 West Winton Avenue Suite 111 Hayward, CA 94544
3.	Contact Person and Phone Number:	Rodrigo Orduña Assistant Planning Director (510) 670-6503
4.	Project Location:	7033 Morgan Territory Road Livermore, CA 94551
5.	Project Sponsor's Name and Address:	Felix Kukushkin Oasis Fund Livermore Grow Facility 7033 Morgan Territory Road Livermore, CA 94551
6.	General Plan Designation:	Resource Management
7.	Zoning:	Agricultural
8.	Required Approvals from Other Public Agencies:	California Department of Food and Agriculture CalCannabis License

9. Project Description Summary:

The Oasis Fund Livermore Grow Facility (proposed project) would consist of growth and cultivation of cannabis on a 98.11-acre property identified by the Alameda County Assessor as Assessor's Parcel Number (APN) 903-0007-001-01. The proposed project would include development of a 32,000 square foot (sf) greenhouse building, a 5,040-sf processing building, and a 26-stall parking lot.

10. Surrounding Land Uses and Setting:

With the exception of single-family residences to the north, the project site and surrounding area is predominately undeveloped and vacant. A creek borders the project site to the west. Land uses in the vicinity consist of agricultural operations and sparse rural residences.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1.

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), notification letters were distributed to the Amah Mutsun Tribal Band, the Amah Mutsun Tribal Band of Mission San Juan Bautista, the Costanoan Rumsen Carmel Tribe, the Indian Canyon Mutsun Band of Costanoan, the Muwekma Ohlone Indian Tribe of the SF Bay Area, the North Valley Yokuts Tribe, and the Ohlone Indian Tribe.

B. SOURCES

All of the technical reports and modeling results used for the project analysis, including the Biological Evaluation and Traffic Impact Analysis are available upon request at the Alameda County Community Development Agency, located at 224 West Winton Avenue Suite 111, Hayward, CA 94544. Office hours are Monday through Friday, 8:30 AM to 5:00 PM. The following documents are referenced information sources used for the purposes of this Initial Study:

1. Alameda County Community Development Agency. *Alameda County General Ordinance Code*. October 9, 2018.
2. Alameda County Community Development Agency. *Safety Element of the Alameda County General Plan*. February 4, 2014.
3. Alameda County Planning Department. *Alameda County General Plan Annual Report for 2014*. 2014.
4. Alameda County Transportation Commission. *2017 Congestion Management Program* [pg. 85]. December 2017.
5. Alameda County. *Alameda County Emergency Operations Plan*. December 2012.
6. Alameda County. *Community Climate Action Plan*. Adopted February 4, 2014.
7. Alameda County. *East County Area Plan*. Revised by Initiative November 2000.
8. Alameda Countywide Clean Water Program. *State Construction Permit*. Available at: https://www.cleanwaterprogram.org/index.php/businesses/construction.html. Accessed December, 2018.
9. Association of Bay Area Governments. *Resilience Program*. Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed December 2018.
10. Balance Hydrologics, Inc. *Conceptual Water-Supply and Wastewater Plan, Oasis Fund Livermore Grow Facility, Alameda County, CA*. August 2019.
11. Bay Area Air Quality Management District. *Final 2017 Clean Air Plan*. April 19, 2017.
12. California Department of Conservation. *Alameda County Important Farmland Map 2014*. December 2016.
13. California Department of Conservation. *State of California, Special Studies Zones, Tassajara Quadrangle, Official Map*. Effective January 1, 1982.
14. California Department of Transportation. *Transportation and Construction Vibration, Guidance Manual*. September 2013.

D. DETERMINATION

On the basis of this initial study:

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

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

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

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

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

Signature

12/23/19
Date

Rodrigo Orduña
Printed Name

Alameda County Planning Department
For

15. California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. [pg. 37]. September 2013.
16. California Division of Mines and Geology. *Mineral Resource Zones and Resource Sectors, Alameda County*. 1983.
17. Department of Toxic Substances Control. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov/public/. Accessed December 2018.
18. Federal Emergency Management Agency. *FEMA Flood Map Service Center*. Available at: https://msc.fema.gov/portal/home. Accessed December 2018.
19. Federal Highway Administration. *Construction Noise Handbook*. August 2006.
20. Live Oak Associates, Inc. *Oasis Grow Facility Property Biological Evaluation Alameda County, California*. October 24, 2018.
21. Natural Resources Conservation Service. *Calculated Coefficients of Linear Extensibility*. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/office/ssr10/tr/?cid=nrcs144p2_074840. Accessed July 2018.
22. Northwest Information Center. *Record search Results for the proposed Oasis Fund Livermore Grow Facility*. November 16, 2018.
23. State Water Resources Control Board. *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities*. October 17, 2017.
24. TJKM. *Traffic Impact Analysis for the Proposed Cannabis Cultivation Facility at 7033 Morgan Territory Road, Alameda County*. December 2018.
25. United States Department of Agriculture Natural Resources Conservation Service. *Web Soil Survey*. Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed December 2018.
26. Waste Management. *Altamont Landfill and Resource Recovery Facility*. Available at: https://www.wmsolutions.com/pdf/factsheet/Altamont_Landfill.pdf. Accessed January 2019.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ **Aesthetics**	☐ **Agriculture and Forest 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**

E. INTRODUCTION AND BACKGROUND

This Initial Study/Mitigated Negative Declaration (IS/MND) identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document are organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that shall be applied to the project are prescribed.

The mitigation measures prescribed for environmental effects described in this IS/MND will be implemented in conjunction with the project, as required by CEQA. The mitigation measures will be incorporated into the project through project conditions of approval. The County of Alameda will adopt findings and a Mitigation Monitoring and Reporting Program for the project in conjunction with approval of the project.

The East County Area Plan (ECAP) was adopted by the Alameda County Board of Supervisors in 1994. In the year 2000, Alameda County Voters approved Measure D, which was an initiative that amended the County's General Plan to establish an Urban Growth Boundary.[1] The Urban Growth Boundary established by Measure D restricts the areas outside the boundary to agricultural, natural resource, and rural uses, and prevents the construction of infrastructure to support any urban development. The proposed project site is identified in the ECAP as an area outside of protected land under Measure D. The project would be consistent with the provisions of Measure D.

This IS/MND will rely, in part, on information contained within the ECAP, as well as site-specific technical studies.

Cannabis Cultivation

In 1996, the voters of the State of California approved Proposition 215, titled "Compassionate Use Act of 1996," and permitted the growth and cultivation of cannabis for medical purposes. On November 8, 2016, the voters of the State of California approved Proposition 65, which decriminalized the adult-use of cannabis for non-medical purposes and established a regulatory scheme at a state level. The Alameda County Ordinance Code was updated in 2018 to allow permitted cannabis cultivation operations in the unincorporated area of Alameda County to grow both medical and adult use cannabis. Cannabis cultivation, as defined by Chapter 6.106 of the Alameda County General Ordinance Code, means any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis.[2]

F. PROJECT DESCRIPTION

The proposed project location, existing site conditions, and proposed components are described below.

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1 Alameda County. *East County Area Plan.* Revised by Initiative November 2000.

2 Alameda County Community Development Agency. *Alameda County General Ordinance Code.* August 7, 2018.

Project Location and Existing Site Conditions

The project site is on a 98.11-acre property located at 7031 Morgan Territory Road in the City of Livermore in Alameda County, CA (APN: 903-0007-001-01) (see Figure 1). The project site is located approximately six miles from downtown Livermore, in a rural area. A private residence exists within the property containing the project site. With the exception of rural single-family residences to the north, west, and east, the project site and surrounding area is predominately undeveloped and vacant (see Figure 2). Cayetano Creek borders the project site to the west. Land uses in the vicinity consist of agricultural and sparse rural residences. The site is designated Resource Management under the ECAP and zoned Agricultural.

The project site, as defined throughout this IS/MND, consists of the development area shown in Figure 3. The project site is a portion of the larger 98.11-acre property identified as APN 903-0007-001-01. The remaining area within the subject property includes a private residence and undeveloped land. The proposed project would not include any work outside of the portion of the project site depicted in Figure 2 and Figure 3.

Project Components

The proposed project would include development of a 32,000-sf greenhouse building containing approximately 22,000-sf of a cannabis canopy, as well as a 5,040-sf processing building and 26 parking stalls (see Figure 3). As noted above, development activity related to the proposed project would be limited to the portion of the property identified as the project site.

Building Improvements

The 5,040-sf processing building would be located on the western side of the project area, closer to the main road. The 32,000-sf greenhouse would be constructed to the rear of the processing building and would include the cultivation of the cannabis.

The processing building would house product processing facilities such as dry rooms, trim room, storage room, office, maintenance and the employee areas. The greenhouse would be comprised of a gutter connectable greenhouse made of four-inch by four-inch square galvanized structural steel columns. Trusses are fabricated with two-inch by two-inch square galvanized structural steel. Gutters are 12-gauge steel at a 12-foot gutter height.

Landscaping

New landscaping would be installed around the project perimeter of the site to provide aesthetic enhancements to the project and to provide visual screening of the facilities. The landscape screening elements are meant to blend into the natural hillside using endemic oaks from the surrounding hillsides. Native blue oak clusters are mixed with native live oaks along with other California native and drought tolerant plants. The landscaping would be water conscious and are considered low water use. Additionally, the proposed landscaping conforms to the County's Water Efficiency Landscape Ordinance (WELO).

Figure 1
Regional Project Location

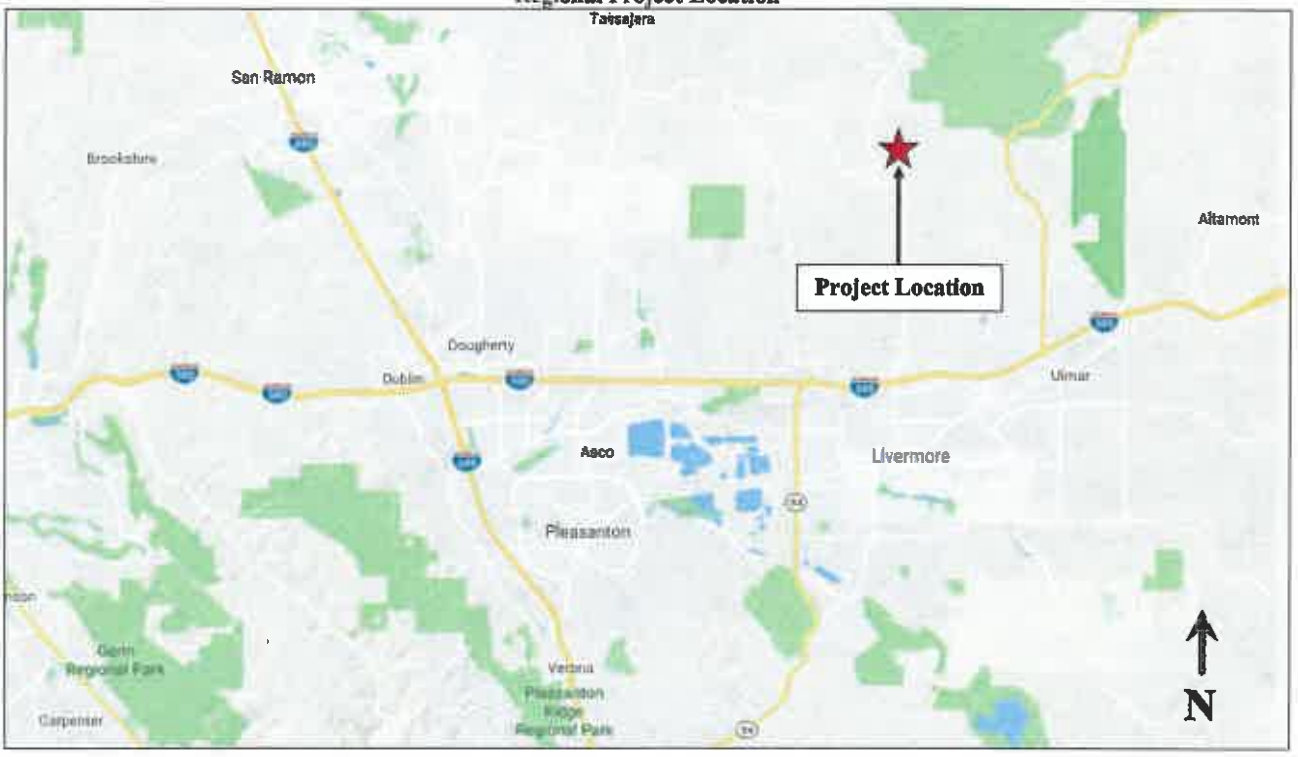


Figure 2
Project Vicinity Map

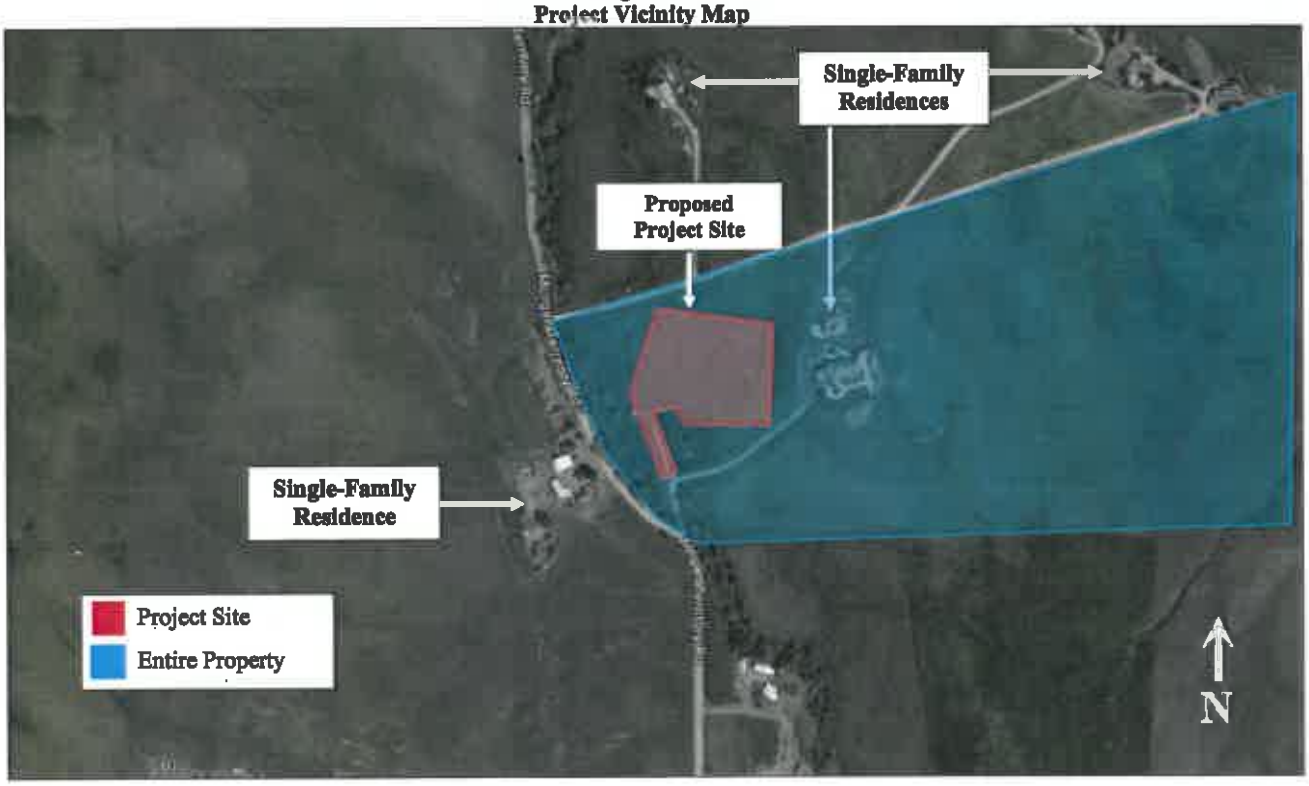
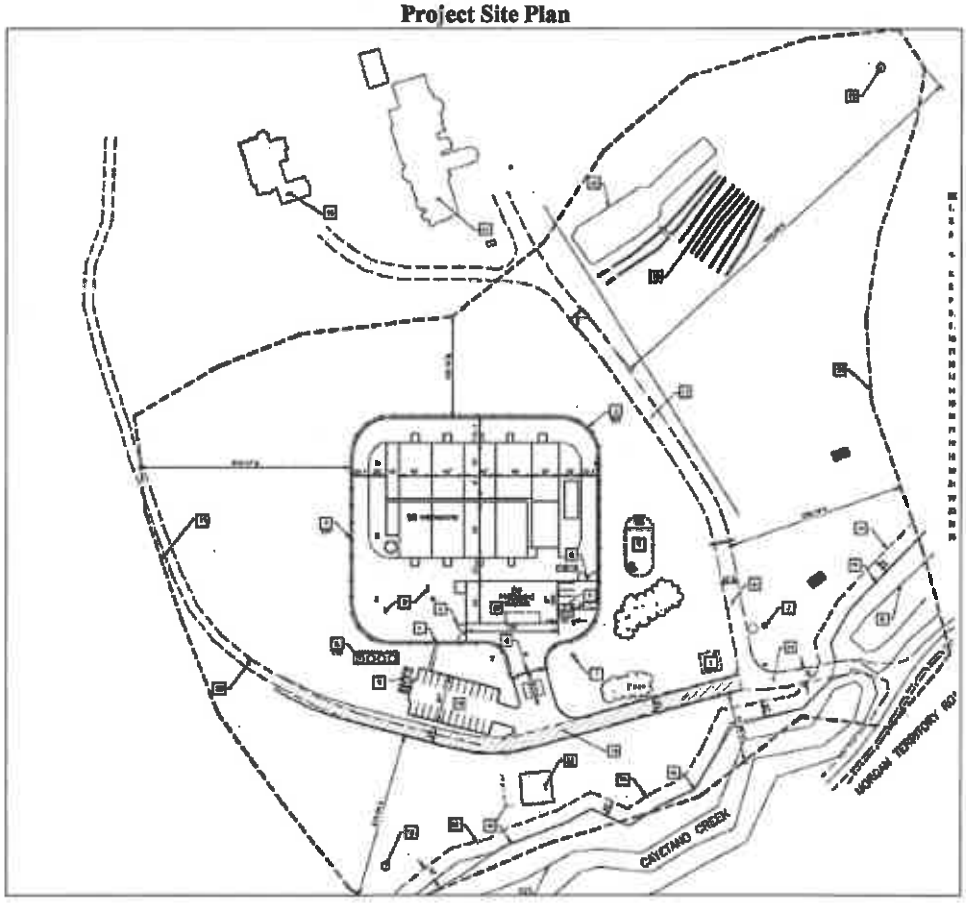


Figure 3
Project Site Plan



Safety Plan

The project applicant has created a detailed security plan in accordance with Alameda County Ordinance Code 6.106.080. After the initial build out, the facility would implement controlled access to the property, an eight-foot security fence surrounding the cultivation facility, and at least one security guard during all operating hours. Entrance into the cannabis storage areas would be strictly controlled. Members of the public would not be provided access to the facility.
All employees would undergo background checks, be trained in safety procedures on-site, and use the rear entrance to access the facility with keycards. Additionally, video surveillance would be installed on the exterior of the building in all areas of possible ingress and egress.

All cannabis would be stored in high-security, fire-proof safes. Inventory would be removed from the storage safes only for immediate transport or sale. The storage area would have a volumetric intrusion detection device installed and connected to the facility intrusion detection system.

Staffing

The proposed project's cannabis cultivation facility is anticipated to employ 20 to 30 employees; however, not all of the employees would be on-site concurrently. Employees would only be present during the proposed hours of operation which would be from 8:00 AM to 6:00 PM, daily.

Site Access and Parking

Access to the project site would be provided from Morgan Territory Road by an existing paved private road. The project area is set back approximately 400 feet (ft) from Morgan Territory Road. Entrance to the facility would be secured and limited to essential persons only. The facility would include 26 paved parking spaces, including ADA compliant spaces, in a designated, protected parking area. The parking area would be surrounded by a secure fence and monitored by a security guard during hours of operation.

Lighting

The proposed project would include installation of security lighting, consistent with Section 6.106.070 of the County Ordinance Code, in order to reduce the potential for criminal activity. The main objectives of the security lighting system would be to illuminate dark areas and detect movement in the protected area. The lighting system would be supplemented with instant-on lighting triggered by motion detectors. The facility and all walkways would be well-illuminated.

Odor Mitigation and Cooling System

The project would utilize highly efficient electronic air purification systems to mitigate odors. Specifically, the project would utilize the "urban-gro" air treatment systems for the greenhouse. The technology in the equipment reduces bacterial and microbial contaminants by approximately 99 percent.

Climate control in the greenhouse and processing building would provide optimal growing conditions for the plants. The project would utilize an indirect evaporative cooling system, operating on a recirculation mode. The system design is similar to a water-cooled chiller, but uses

water as a cooling medium instead of a refrigerant. However, being non-essential for general cultivation, water for climate control would be provided on a residual basis after meeting irrigation, processing and cleaning needs. Water, circulating in a closed loop system, is cooled in a cooling tower by a liquid-to-air heat exchanger during a process of auxiliary water evaporation. Cold water is supplied to air handling units where it sensibly cools the processed air in another liquid-to-air heat exchanger.

The proposed project would install and utilize a wet-wall system. A wet-wall system creates an air inlet into the greenhouse which draws air in such volumes that due to the air speed through the wet-wall, the water is picked up and evaporated in the greenhouse to provide cooling. Systems are installed with fans at one end of the building, and the wet-wall at the other. Water usage for the cooling system would be up to 10,000 gallons per day (gpd) or 1,000,000 gallons per year (gpy).

Utilities

The following is a discussion of the proposed utility sources associated with the proposed project.

Water Supply

Water for the proposed project would be supplied by four existing on-site wells. Cumulatively, the four wells would produce seven gallons of water per minute. The new wells would be situated to the east of the driveway and south of the proposed leach field. Each well would provide water connections to the overall water system. Additionally, the proposed project would include rain harvesting facilities which would be expected to harvest 400,000 gpy. The proposed project is anticipated to use 2,800 gpd of water for cannabis irrigation, as well as up to 10,000 gpd for a cooling system and approximately 1,000 gpd for sanitary and processing uses. The proposed project would include a 500,000-gallon storage tank reservoir.

Wastewater

The project would include construction of a new septic tank system on the project site. The septic system would include a pump vault connecting to a two-inch force main which would lead to a leach field located approximately 300-ft from the project site. A 5,000-gallon capacity sludge tank would be constructed and sludge would be hauled off-site once a week.

Stormwater

Overland flow and runoff from the project site currently flow into a small drainage ditch, located on the north side of the project site, and drains into Cayetano Creek. Generally, the direction of water flow within the project site is north to south.

The proposed project would include construction of a berm that would wrap around the northern, western, and eastern boundaries of the greenhouse. The berm would serve to route runoff that originates upslope around the outside of the project site, into the existing ditch and eventually into Cayetano Creek.

Most of the stormwater that falls on roof areas within the project site would be captured using a rainwater harvesting system consisting of an underground vault and connections to the overall

water system. Stormwater that falls outside of the area served by the rainwater harvesting system would be directed to a proposed bioretention basin. The bioretention basin would be properly sized to treat and mitigate the flow volumes for water quality, hydromodification, and flood control requirements. The bioretention area would be located on the southern edge of the project site, between the proposed greenhouse and the driveway (see Figure 3). Outflow from the area would be routed into the drainage ditch along the driveway through a flow spreader in order to join the off-site flows and discharge into Cayetano Creek.

Discretionary Actions

The proposed project would require the following discretionary actions by Alameda County:

- Adoption of the IS/MND;
- Approval of a Mitigation Monitoring and Reporting Program;
- Approval of a CalCannabis Permit; and
- Approval of a Conditional Use Permit.

G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended as appropriate as part of the Proposed Project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which mitigation has not been identified. If any potentially significant impacts are identified, an EIR must be prepared.

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

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

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☒	☐
c. In 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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

a-b. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other areas designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. Scenic vistas do not exist in the proximity of the project site, as the project site is located in a flat, rural area of the County. The site is not located near any major highway or body of water.

According to the California Scenic Highway Mapping System, the proposed project site is not located near an officially designated State scenic highway.[3] Route 680 in Alameda County is designated as a Scenic Highway, but the project site is out of view of Route 680.

c. The project site is surrounded by predominately agricultural and vacant land, removed at least 0.6-mile from Morgan Territory Road. Most of the site is hidden by trees lining Morgan Territory Road. Figure 4 through Figure 6 show the current views of the project site from the most exposed portion of Morgan Territory Road, and the current, vacant portion of the project site. The proposed structure would not alter the existing visual character or quality of the site, as the building would not be developed to a size visible from surrounding roads. As seen in Figure 7 and Figure 8, the proposed project would develop a relatively small area of land and would be kept to a height which would not obstruct any current views. Additionally, the structures would remain sheltered by vegetation along Morgan Territory Road. Consequently, the proposed project would not result in a substantial degradation of the existing visual character or quality of the site as the proposed structures would be partially screened by vegetation and would be limited in size.

[3] California Department of Transportation. *California Scenic Highway Mapping System, Alameda County.* Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed November 2018.

Figure 4
View of Project Site Entrance from Morgan Territory Road

Figure 5
View of Project Site from Morgan Territory Road looking East

Figure 6
Current View of Project Site from Northern Vantage Looking South

Figure 7
Simulation Photo of the Proposed Project Buildout

Figure 8
Simulated View of Project Site from Morgan Territory Road After Buildout

Because the proposed project would not have an adverse effect on a scenic vista and would not damage scenic resources or existing visual character, a ***less-than-significant*** impact would occur.

d. Pursuant to Section 6.106.080 of the Alameda County Ordinance Code, the proposed project would install safety lighting around the outside perimeter of the building, creating a new source of light glare where none currently exists. The objective of the lighting system is to illuminate dark areas within the project site. The lighting system would only be triggered by motion detectors, which would limit the amount of time when such systems are activated. Due to the setback from the nearest public roadway and residences, as well as existing vegetation sheltering the structure from view of the public roadway, the proposed project would not create a substantial light source that would affect the day or nighttime views, and a ***less-than-significant*** impact would occur.

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

Discussion

a,e. According to the California Department of Conservation Important Farmland Map, the project site is classified as Grazing Land and does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[4] Because the project site is not considered Prime or Unique Farmland, or Farmland of Statewide Importance, the proposed project would not convert such land to a non-agricultural use.

The proposed project would involve cultivation of cannabis in an on-site greenhouse. Section 17.06.040 of the County Ordinance Code permits cannabis cultivation as a conditional use in Agricultural districts upon approval of a Conditional Use Permit. The proposed project would not result in the loss of Farmland, nor the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use; therefore, a ***less-than-significant*** impact would occur.

b. The proposed project is zoned Agricultural, which allows cannabis cultivation as a conditional use upon approval of a Conditional Use Permit by the Board of Zoning Adjustments. The project site is located on land not enrolled in a Williamson Act contract. Thus, the project would result in ***no impact*** related to a conflict with existing zoning for agricultural use or a Williamson Act contract.

c-d. The proposed project is zoned Agricultural and classified as Grazing Land by the California Department of Conservation. The project site is not classified as forest land, timberland, or

[4] California Department of Conservation. *Alameda County Important Farmland Map 2014*. December 2016.

Timberland Production. Alameda County permits cannabis cultivation in Agricultural zones of unincorporated parts of the County. Thus, the project would not conflict with existing zoning for forest land, timberland, or timberland zoned Timberland Production. Because the proposed project would not result in rezoning or loss of forest land for non-forest use, the project would result in ***no impact*** related to such.

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

Discussion

a,b. Alameda County is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017.[5] The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, particulate matter (PM), toxic air contaminants (TACs), and GHG. The control strategies included in the 2017 CAP serve as the backbone of the 2017 CAP, and build upon existing regional, state, and national programs for emissions reductions. The 2017 CAP includes 85 control measures, which provide an integrative approach to reducing ozone, PM, TACs, and GHG emissions.

[5] Bay Area Air Quality Management District. *Final 2017 Clean Air Plan*. April 19, 2017.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. To ensure continued attainment of AAQS, and to work towards attainment of AAQS for which the area is currently designated as nonattainment, the BAAQMD has adopted rules and regulations as well as thresholds of significance for project emissions, which are consistent with applicable air quality plans. The BAAQMD's significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

	Construction	Operational	
Pollutant	**Average Daily Emissions (lbs/day)**	**Average Daily Emissions (lbs/day)**	**Maximum Annual Emissions (tons/year)**
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

The proposed project's construction emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. As such, project-specific trip generation information provided by TJKM Traffic Consultants was applied to the modeling. Furthermore, based on project site plans, the proposed project was assumed to include the export of 165 cubic yards of material during project construction and site grading. Operation of the proposed project would include installation of two emergency generators within the project site. The project applicant has not yet determined whether the emergency generators would be propane or diesel powered; however, in order to provide a conservative assumption for operational emissions, both generators were applied as diesel-powered in the modeling.

The proposed project's estimated emissions associated with construction and operation are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well. All modeling results are included as the Appendix to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	4.83	54	NO
NO_X	54.80	54	YES
PM_{10} (exhaust)	2.39	82	NO
PM_{10} (fugitive)	18.21	None	N/A
$PM_{2.5}$ (exhaust)	2.20	54	NO
$PM_{2.5}$ (fugitive)	9.97	None	N/A

Source: CalEEMod December2018 (see Appendix).

As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance for ROG, PM_{10}, and $PM_{2.5}$. However, NO_X emissions related to construction of the proposed project would slightly exceed the applicable BAAQMD threshold of significance.

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by the County or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above would reduce the construction-related emissions from the levels estimated and presented in Table 2. However, the proposed project could still result in emissions above the applicable threshold of significance for construction NO_X. Therefore, the project would be considered to result in a potentially significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 3
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	1.22	0.22	54	10	NO
NO_X	1.58	0.28	54	10	NO
PM_{10} (exhaust)	0.04	0.01	82	15	NO
PM_{10} (fugitive)	0.90	0.16	None	None	N/A
$PM_{2.5}$ (exhaust)	0.24	0.01	54	10	NO
$PM_{2.5}$ (fugitive)	0.04	0.04	None	None	N/A

Source: CalEEMod, December 2018 (see Appendix).

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions above the applicable threshold of significance for construction-related emissions of NO_X, the project could result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in short-term construction emissions of NO_X, an ozone precursor, above the applicable threshold of significance, the project could conflict with or obstruct implementation of regional air quality plans. Therefore, the proposed project could contribute to the region's nonattainment status of ozone, thus, contributing to the violation of an air quality standard. However, with mitigation incorporated, a ***less-than-significant*** impact associated with construction-related emissions of NO_X would result.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the construction-related emissions of NO_X from 54.80 lbs/day to 51.52 lbs/day, which would be below the BAAQMD's threshold of significance of 54 lbs/day. Thus, implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

III-1. *Prior to approval of any grading plans, the project applicant shall show on the plans via notation that the contractor shall ensure that all heavy-duty diesel-powered equipment (e.g., rubber-tired dozers, scrapers, cranes, etc.) to be used in the construction of the project (including owned, leased, and subcontractor vehicles) shall, at a minimum, meet U.S. Environmental Protection Agency emissions standards for Tier 2 engines or equivalent. The plans shall be submitted to the Planning Department for review and approval.*

c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. Given that the proposed project would not include the placement of housing or other habitable structures, the project would not be considered a sensitive receptor. The nearest existing sensitive receptor would be the existing residence within the project site and the residence located to the west of the project site, across Morgan Territory Road.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminants (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if the following screening criteria is met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As discussed in Section XVI, Transportation and Circulation, of this IS/MND, the proposed project would generate approximately 110 total daily vehicle trips, with 11 trips occurring during the AM peak hour and 11 trips occurring during the PM peak hour. Given that the project would generate fewer than 100 peak hour trips and would be consistent with the site's current land use designation, the project would not conflict with the Alameda County Transportation Commission Congestion Management Program (CMP). Additionally, traffic counts completed for the proposed project as part of a Traffic Impact Analysis[6] showed that the nearest major intersection, Morgan Territory Road/Manning Road, experiences traffic volumes of 2,229 vehicles per day, which is far below BAAQMD's threshold of 44,000 vehicle per hour. Thus, the proposed project would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. As such, the proposed project would not be expected to result in substantial levels of localized CO that would expose sensitive receptors to substantial levels of pollutants.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not

[6] TJKM. *Traffic Impact Analysis for the Proposed Cannabis Cultivation Facility at 7033 Morgan Territory Road, Alameda County*. December 2018.

limited to, freeways and high traffic roads, distribution centers, rail yards, and stationary diesel engines. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The CARB's Handbook includes facilities (distribution centers) associated with 100 or more heavy-duty diesel trucks per day as a source of substantial DPM emissions. Operation of the proposed development would involve approximately 20 to 30 employees driving personal vehicles to and from the site during operational days, but is not expected to involve frequent heavy-duty diesel truck trips. Furthermore, the movement of goods to and from the project site may include some diesel-fueled vehicles; however, such movement of goods is anticipated to constitute a small fraction of the 110 anticipated daily trips related to project operations. Because operation of the proposed project would not include diesel truck trips in excess of 100 trips per day, the proposed project would not expose existing sensitive receptors to substantial amounts of DPM emissions or concentrations associated with such during project operations.

Project operations would include installation of two emergency back-up generators within the project site. Although the project applicant has not finalized the fuel type to be used for the two emergency back-up generators, for the purposes of this environmental analysis, both generators have been assumed to be diesel-fueled, as diesel-fueled generators would emit DPM. The two generators would only be used to provide back-up power to the proposed facilities and during required testing. Thus, the generators would only operate intermittently or in emergency situations. Although finalized locations for the generators have not been determined, the generators would likely be placed in close proximity to the proposed structures that would be provided power by the generators. Consequently, both proposed generators would likely be over 200 ft away from the nearest existing residences. DPM is a highly dispersive gas; thus, during the limited occasions when the generators are used, any DPM emitted by the generators would disperse prior to reaching the existing residences. Installation, maintenance, and operation of the generator would be regulated by BAAQMD through Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants. Rule 5 would require that the generator meets health risk limits and requirements for Toxics Best Available Control Technology. Considering the distance of the proposed generators to the nearest sensitive receptors, the limited use of the generator, and the existing BAAQMD regulations for such generators, the potential future generators would not be anticipated to generate substantial amounts of TACs that could affect existing sensitive receptors near the project site.

In addition to the limited amount of DPM emissions resulting from potential operation of diesel-fueled vehicles and stationary generators on-site during operations, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, construction would occur over an approximately 23-month

period. Mass grading of the project site, when emissions would be most intensive, would occur over the period of approximately nine days. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would be limited in duration.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, construction equipment would operate intermittently throughout the day and only on portions of the site at a time, and construction activity would likely only occur during normal working hours, in compliance with Section 6.60.070 of the County Ordinance Code. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a permanent or substantially extended period of time would be low. Therefore, construction of the proposed project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs during construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

d. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, a quantitative analysis is difficult. Certain land uses such as wastewater treatment facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The proposed project does not include operation of any of the foregoing sources of odors; however, the cultivation and processing of cannabis would have the potential to create objectionable odors.

Although the cultivation and processing of cannabis could be considered to create objectionable odors, Section 6.106 of the County Ordinance Code requires that cannabis cultivation sites be designed to include odor control devices sufficient to ensure that odors are not detected outside of the lot on which the operation is located. Provision of such odor control devices would be ensured during County review of the cannabis cultivation permit required for operation of the proposed project. Considering the requirements of Section 6.106 of the County Ordinance Code, operation of the proposed project would not be permitted to result in the emission of objectionable odors detectable outside of the lot within which the project is operating.

Furthermore, Section 6.106 of the County Ordinance Code specifies that any condition resulting in violation of the cultivation permit conditions, which would include the emission of odors detectable outside of the subject lot, would be deemed a public nuisance, subject to enforcement by the County. County enforcement activity would ensure that the condition causing the emission of odors detectable outside of the lot within which the project is operating would be rectified.

It should be noted that BAAQMD also regulates objectionable odors through BAAQMD Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have not been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects are reduced.

For the aforementioned reasons, operation of the proposed project would not create objectionable odors affecting a substantial number of people, and a ***less-than-significant*** impact related to objectionable odors would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and 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, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	✖	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✖	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✖	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✖	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	✖	☐

Discussion

a. The following discussion is based on a Biological Evaluation performed by the ecological consulting firm Live Oak Associates, Inc. for the proposed project.[7]

Several species of plants and animals within the State of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation. State and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the State. A sizable number of native plants and animals have been formally designated as threatened, or endangered under State and federal endangered species legislation and/or have been

[7] Live Oak Associates, Inc. *Oasis Grow Facility Property Biological Evaluation Alameda County, California.* October 24, 2018.

designated as "species of special concern" or "Fully Protected species" by the CDFW. The California Native Plant Society (CNPS) has developed lists of native plants considered rare, threatened, or endangered. Collectively, such plants and animals are referred to as "special-status species."

A site specific survey was performed by Live Oak Associates in October 2018. During the survey, all habitat types in and adjacent to the project site were surveyed and classified, and plant and animal species observed were recorded. In addition, the California Natural Diversity Database (CNDDB) was queried for special-status species known to occur within the Tassajara U.S. Geological Survey 7.5-minute quadrangle and the eight surrounding quadrangles (Clayton, Antioch South, Brentwood, Diablo, Byron Hot Springs, Dublin, Livermore, and Altamont). Thus, because the study includes the entire project area, a conservative analysis is provided. Because the proposed project would only disturb approximately three acres of the 98.11-acre property, the likelihood of special-status species occurring on the project site is lower than the estimates provided.

Habitat located on the project site includes primarily California annual grassland, which is mowed and vegetated to generally less than four inches in height. Mixed riparian woodland exists along Cayetano Creek on the western boundary of the area. The dominant trees present in the project area include valley oak, coast live oak, black walnut, blue gum, blue elderberry, and Monterey cypress. In addition, sparse herbaceous understory is present.

Based on information from CDFW, USFWS, CNDDB, and CNPS, as well as observations during the site survey, 43 special-status plant species and 29 special-status wildlife species have the potential to occur within the vicinity of the site. A number of plant and animal species were dismissed from further analysis by Live Oak Associates because the species in question occurs in either serpentine or alkaline soils, which are absent from the site. Further details regarding the special-status species that were deemed to have the potential to occur within the vicinity of the site are provided below.

Special-Status Plants

Most special status plant species that occur, or once occurred, within the project region are considered absent from the project site or unlikely to occur because their essential habitat is absent or marginal on the site, the species is not known to occur in the immediate project vicinity, the species was ruled out as occurring on the site during the October 2018 survey, and/or the species has not been observed in the region in many decades. However, according to Live Oak Associates, two special-status plant species have the potential to occur within the annual grasslands of the site: the large-flowered fiddleneck and the bent-flowered fiddleneck. Although the species were not identified on the project site during the October survey, a focused survey conducted during the March to June blooming period would be required to rule out the occurrence of either species on the project site.

Special-Status Wildlife Species

According to the Biological Evaluations performed for the proposed project, 29 special-status animal species occur, or once occurred, regionally. Of the 29 species, 10 would be absent from or unlikely to occur on the project site due to unsuitable conditions.

The remaining 19 species may occur more frequently as regular foragers or may be resident on the site. Project buildout would have a minimal effect on the breeding success of the species and would, at most, result in a relatively small reduction of foraging and/or nesting habitat that is abundantly available regionally. Impacts related to each special-status species with potential to occur on the project site are discussed below.

Amphibians and Reptiles

The Biological Evaluation identified the following amphibians and reptiles as having potential to occur on the project site:

- Foothill yellow-legged frog (*Rana boylii*);
- California red-legged frog (*Rana draytonii*);
- Western pond turtle (*Actinemys marmorata*); and
- Alameda whipsnake (*Masticophis lateralis euryxanthus*).

The project site consists of habitats that may be suitable to the foothill yellow-legged frog and California red-legged frog, both of which are listed as species of special concern by the CDFW. Cayetano Creek is expected to be the highest quality habitat for both species and is expected to act only as a movement corridor. The proposed project would not disturb the riparian corridor, and thus, the likelihood of migrating frogs occurring on the project site is low. However, if a migrating frog were to occur on the project site, construction could disturb the frog. The project area is located within critical habitat designated by the USFWS for the California red-legged frog.

The western pond turtle is found in ponds, lakes, streams, and quiet waters. Suitable habitat exists in Cayetano Creek when water is present; however, the suitable habitat is of very low quality for turtles. The proposed project would not disturb the creek, but development of the project would result in the loss of a small amount of potential suitable habitat. Additionally, while unlikely, the possibility exists that a turtle could move into the construction zone during feeding or movement, which may result in injury.

Alameda whipsnake is a State and federally listed threatened species. Alameda whipsnakes are typically found in chaparral and coastal sage scrub communities (i.e., communities dominated by chamise or coastal sage plants). Telemetry data indicate that, although home ranges of Alameda whipsnakes are centered on shrub communities, they venture up to 500 ft into adjacent habitats, including grassland, oak savanna, and occasionally oak-bay woodland. Riparian woodland adjacent to the development area provides suitable habitat for the whipsnake, and the adjacent grasslands may be used for feeding and dispersal habitat. Therefore, while unlikely, Alameda whipsnakes could move into the construction zone, which would result in a potentially significant impact.

Migratory Birds and Nesting Raptors

The Biological Evaluation identified the following migratory birds and nesting raptors as having the potential to occur in the project area:

- Grasshopper sparrow (*Ammodramus svannarum*);

- Loggerhead shrike (*Lanius ludoviciamus*);
- Swainson's hawk (*Buteo swainsonii*);
- White-tailed kite (*Elamus leurcurus*);
- Northern harrier (*Circus cyaneus*);
- American peregrine falcon (*Falco peregrines anatum*); and
- Golden eagle (*Aquila chyrsaetos*).

Both grasshopper sparrow and loggerhead shrike are listed as California species of special concern. The area supports suitable breeding and foraging habitat for both special-status species, and thus, ground disturbance could have an impact on individual grasshopper sparrows or loggerhead shrikes.

Raptors include species of birds that primarily hunt and feed on vertebrates, including mice, shrews, and gophers. Raptors typically nest in trees and breed during spring or summer. The project area provides potentially suitable breeding or foraging habitat for the raptors listed above. The nearest recorded raptor is the Golden eagle, which is known to occur nearly two miles northwest of the site.

The Federal Migratory Bird Treaty Act (MBTA) prohibits killing, possessing, or trading of migratory birds, including grasshopper sparrow, loggerhead shrike, and raptors, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA encompasses whole birds, parts of birds, and bird nests and eggs. In addition, birds of prey, or raptors, are protected in California under provisions of the State Fish and Wildlife Code, Section 3503.5, which prohibits the unlawful take, possession, or destruction of any birds of prey or nests of birds of prey. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

While trees would not be removed as part of the proposed project, foraging habitat could be disturbed by construction of the project area. If a migratory bird or raptor should nest on or adjacent to the site prior to or during proposed construction activities, such activities could result in the abandonment of active nests or direct mortality to special-status birds.

Burrowing Owls

The Biological Evaluation identified the burrowing owl as having the potential to occur in the project area.

- Burrowing owl (*Athene cunicularia*)

While the ground-dwelling burrowing owl was not observed on the site during the 2018 site visit, suitable habitat for burrowing owls is present on-site in the form of small mammal burrows. Listed as a California species of special concern, if a burrowing owl were to nest or occupy a burrow in the proposed project area, construction activities could result in the abandonment of active nests or direct mortality of the birds. Given the small size of the project site, occurrence of the burrowing owl is unlikely, but construction activities that adversely affect the nesting success of the burrowing owl constitute a violation of State

and federal laws. Additionally, should burrowing owls occur in the development area during the breeding season, project buildout would result in the permanent loss of burrowing owl habitat.

Special-Status Bats

The Biological Evaluation identified the following special-status bats as having the potential to occur in the project area:

- Pallid bat (*Antrozous pallidus*);
- Townsend's big-eared bat (*Plecotus townsendii*); and
- Western red bat (*Lasirurus blossevillii*).

All bats listed above are classified as California Species of Special Concern. All three special-special-status bats roost in rocky outcrops, caves, and grasslands. The riparian habitat and tree foliage in the project area provide potential foraging and roosting habitat. The nearest documented occurrence of all three species is more than three miles from the site.

Mammals

The Biological Evaluation identified the following mammals as having the potential to occur in the project area:

- Ringtail (*Bassariscus astutus*);
- American badger (*Taxidea taxus*);
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*); and
- San Joaquin kit fox (*Vulpes macrotis mutica*).

Many special-status mammal species have the potential to occur on the project site. Ringtail is a California protected species that resides in rocky or tails slopes in riparian habitats. Suitable habitat is restricted to the riparian woodlands in the project area. Ringtails have not been documented within three miles of the site, but could be impacted if an individual ringtail appears on the project site. American badger, a California species of special concern, is found in drier open stages of most shrub, forest, and herbaceous habitats. The project site provides suitable habitat for badgers, although the nearest documented occurrence is just over two miles to the east. The San Francisco dusky-footed woodrat and the San Joaquin kit fox frequent oak riparian, shrub habitats, and annual grasslands. While loss of habitat would not impact either species, harm could occur if an individual enters the project site.

Conclusion

As discussed above, the proposed project site contains special-status plants which could be impacted as a result of the project site. The project site also contains suitable habitat or foraging environment for 19 special-status species with the potential to appear on the property.

Following project implementation, the special-status plant and animals with potential to occur on site would continue to be able to use the site, as the riparian habitat would not be disturbed during operation of the proposed project, and most of the grassland would not be developed at all. While special-status plants and animals could be disturbed during construction activities, with implementation of mitigation, the project would have a ***less-than-significant*** impact on special-status plants and animals.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Large-flowered and bent-flowered fiddleneck

IV-1 *Prior to commencement of ground-disturbing activities, the project applicant shall have a botanical survey conducted during the appropriate blooming season for the large-flowered and bent-flowered fiddleneck to determine whether the species are present on the project site. The results of the survey shall be submitted to the Planning Department. If populations of the species are found to occur on the project site and in the event the project cannot avoid significant impacts to the special-status plants, the on-site open area shall be surveyed to determine if the area adequately compensates for lost populations on the project site. If the open area is not adequate for compensation, then a Site Restoration Plan shall be designed by a qualified botanist. The Restoration Plan shall include identification of appropriate locations to restore lost populations on-site, a description of the planning techniques and restoration effort, a timetable for restoration, a monitoring plan for performance criteria, and a description of site maintenance activities to follow restoration activities. If special-status plants are not found on the project site, additional mitigation would not be necessary.*

Special-Status Amphibians: Foothill yellow-legged frog, California red-legged frog, western pond turtle, and Alameda whipsnake

IV-2 *Prior to the start of construction, a pre-construction survey shall be performed by a qualified biologist to determine presence of special-status amphibians, including foothill yellow-legged frog, California red-legged frog, western pond turtle, and Alameda whipsnake, and submitted to the Planning Department. If any special-status amphibians are present, they shall be relocated by a qualified biologist.*

All construction personnel shall be trained on identification of special-status amphibians and required practices. The construction zone shall be cleared and silt fencing shall be erected and maintained around the construction zone. A qualified biologist possessing a valid permit or approved under an active biological opinion shall be contracted to trap and move amphibians to nearby suitable habitat if amphibians are found inside fenced area.

A qualified biologist shall be on-site during initial ground disturbance in portions of the project area that contain suitable habitat for special-status amphibians.

If special-status amphibians are not found on site during the survey or construction, additional mitigation would not be necessary.

Nesting Raptors and Migratory Birds and Special-Status Bats

IV-3(a) *To the maximum extent practicable, trees planned for removal shall be removed during the non-breeding season (September 1 through January 31). If avoidance is not possible, a qualified biologist shall conduct a pre-construction survey for tree-nesting raptors and special-status bats. The survey shall be conducted no more than 14 days prior to the initiation of demolition and submitted to the Planning Department. If nesting raptors or migratory birds are detected on-site, a suitable construction buffer of 250 feet shall remain in place for the duration of the breeding season or until a biologist gives confirmation that all chicks have fledged.*

Should any active nests be discovered in or near the construction zone, the qualified biologist shall establish a suitable construction-free buffer around the nest. The buffer shall be identified on the ground with flagging or fencing and shall remain in place until the biologist has determined the young have fledged.

If tree removal is not required or special-status bats and migratory birds are not present based on the survey, additional mitigation is not required.

IV-3(b) *Should work be required within the riparian corridor, a bat assessment shall be conducted outside of maternity season and outside of overwintering season when human conviction can occur (March 1-April 15 or August 15-October 15). The assessment shall be submitted to the Planning Department. If avoidance of trees, including hollow or dead trees, is not feasible, any roosting pallid bats, Townsend's big-eared bats, and Western red bat identified in the pre-construction survey shall be passively relocated by a biologist or professional pest control specialist during the non-breeding season (September 1 to April 14).*

If work does not take place within the riparian corridor or special-status bats are not present based on the survey, additional mitigation is not required.

Burrowing Owl

IV-4 *A qualified biologist shall conduct a pre-construction survey for burrowing owls within the construction zone and within 250 feet of the zone no more than 14 days prior to the onset of ground disturbance, and submit the results to the Planning Department. If burrowing owls are present in the work zone,*

a no-activity zone shall be established by a qualified biologist to be large enough to avoid nest abandonment and be a minimum of 250 feet from the nest. If an effective no-activity zone cannot be established in either case, an experienced burrowing owl biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the owls, and the dissimilarity of the proposed activity with background activities) to minimize the potential to affect the reproductive success of the owls.

If burrowing owl is not found as part of the survey conducted, additional mitigation is not required.

American badger and San Joaquin kit fox

IV-5 *Prior to ground-disturbing activity, a pre-construction survey shall be conducted to determine the presence or absence of badgers and San Joaquin kit foxes and the results submitted to the Planning Department.*

If an active badger or San Joaquin kit fox den is identified during a pre-construction survey, a construction buffer of up to 300 feet shall be established around the den. If potential dens cannot be avoided during construction, a qualified biologist shall determine if the dens are occupied. If unoccupied, the qualified biologist shall collapse the dens by hand in accordance with USFWS procedures. If occupied, a qualified biologist shall create an exclusion zone with a radius of 50-100 feet.

If active dens are not found during the pre-construction survey, additional mitigation is not required.

San Francisco dusky-footed woodrats and Ringtails

IV-6 *Prior to ground-disturbing activities, a qualified biologist shall conduct a preconstruction survey for San Francisco dusky-footed woodrats and ringtail. The survey shall be submitted to the Planning Department. If ringtails are located in the project area, construction shall halt until they leave the area on their own. Should a woodrat nest be located, and found in a development area, a qualified biologist shall dismantle the woodrat nest, while providing temporary shelter in the meantime. If ringtails or San Francisco dusky-footed woodrats are not present, additional mitigation is not required.*

b,c. According to the Biological Evaluation, wetlands were not observed on the project site during the October 2018 survey. Potentially jurisdictional waters are present in the project area in the form of Cayetano Creek. The Creek is regulated by the U.S. Army Corp of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the CDFW. However, the proposed project would be constructed on the project site, which is dominated by California annual grassland and would not disturb or alter the creek. Should

the project require the placement of fill within the bed and bank of Cayetano Creek or result in the removal of woody riparian vegetation, then the project would be subject to the regulatory authority of the USACE, RWQCB, and CDFW.

Because the project would not disturb the Creek, mitigation at this time is not necessary. However, if any work were to occur within the Creek, including improvements to the culvert bridge, then the project would comply with all State and federal regulations related to construction work that would impact riparian habitats. The applicant may be required to obtain a Section 404 Clean Water Act permit, a Section 401 Water Quality Certification from the RWQCB, or a Section 1600 Streambed Alteration Agreement from the CDFW. Thus, because the proposed project would not have a substantial adverse effect on a riparian habitat or other sensitive natural community or on federally protected wetlands through direct removal or filling, a ***less-than-significant*** impact would occur.

d. Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers, and creeks supporting riparian vegetation, and ridgelines. The project site is located near an existing residence with the remainder of the surrounding area being open space interspersed with sparse residential development. Within the site, wildlife uses the upland non-native grassland as part of their home and dispersal movements; the creek is likely used as a movement corridor and for dispersal. The proposed development would be set back from the creek. Following project buildout, wildlife species presently using the site are expected to continue moving through the open areas of the property and within the riparian corridor associated with the creek after buildout. Therefore, impacts to wildlife movement would be considered ***less-than-significant.***

e. The proposed project would encourage preservation of riparian and seasonal wetlands, consistent with Policy 126 of the ECAP, as well as encourage preservation of areas known to support special-status species, as stated in Policy 125. Thus, the proposed project would be consistent with the goals of the ECAP. The project site is located on a cleared area, and tree removal would not be necessary. Thus, the proposed project would have a ***less-than-significant*** impact related to conflict with any local policies or ordinances protecting biological resources.

f. The project site is located within the Livermore Watershed of Conservation Zone 4 of the East Alameda County Conservation Strategy (EACCS). The EACCS identifies the Foothill yellow-legged frog, California red-legged frog, western pond turtle, Alameda whipsnake, golden eagle, western burrowing owl, American badger, and San Joaquin kit fox as focal species that are protected under federal and state laws. Mitigation Measures IV-1 through IV-6 follow the guidelines of the EACCS in order to adequately mitigate impacts related to the foregoing species, as well as any other special-status species with potential to occur on-site. The mitigation measures identified in this IS/MND help achieve the goals and objectives defined in Section 3.5 and Tables 3-2 and 3-3 of the EACCS. Therefore, upon implementation of mitigation, the proposed project would not conflict with the provisions of the adopted EACCS, or other approved local, regional, or State habitat conservation plan, and a ***less-than-significant*** impact would occur.

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

Discussion

a. Historical resources are typically items that are associated with the lives of historically important persons and/or historically significant events, or that embody the distinctive characteristics of a type, period, region or method of construction. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. The proposed project site does not contain any existing permanent structures or any other resources that could be considered historic. Additionally, the project site does not contain any historic resources listed on the California Historical Resources Information System, which includes resources listed on the California Register of Historical Resources.[8] Therefore, the project would not cause a substantial adverse change in the significance of a historical resource, and a ***less-than-significant*** impact would occur.

b,c. Cultural resources have not been discovered in or adjacent to the proposed project area. An evaluation of the environmental setting and features associated with known sites was performed by the Northwest Information Center (NWIC).[9] The results determined that Native American resources, including archaeological resources, in the project vicinity have been found in Holocene alluvial deposits, at the foothill to valley floor interface, and near intermittent or perennial watercourses. The project area contains Holocene alluvial fan deposits and is situated adjacent to Cayetano Creek. Given the similarity of the environmental factors, a possibility exists for unrecorded archaeological resources, including human remains, to appear in the project area. Therefore, the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of formal cemeteries. However, with implementation of mitigation, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

[8] Northwest Information Center. *Record search Results for the proposed Oasis Fund Livermore Grow Facility.* November 16, 2018.

[9] *Ibid.*

V-1 *Prior to the initiation of ground-disturbing activities, the developer or contractor shall inform all supervisory personnel and all contractors whose activities may have subsurface soil impacts of the potential for discovering archaeological resources, paleontological resources, or tribal cultural resources.*

In the event that paleontological or archaeological resources are encountered during grading or other site work, all such work shall be halted immediately within 100 feet of the find(s) and the project applicant shall immediately notify the Planning Department of the discovery. The notation shall also reflect that, in the case that paleontological or archaeological resources are encountered, the project applicant shall be required, at their own expense, to retain the services of a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. Further site work within the area of discovery would not be allowed until the preceding work has occurred. Review and approval of the grading plan shall be the responsibility of the Alameda County Public Works Agency.

V-2 *If human remains, or remains that are potentially human, are found during construction, all work shall be halted immediately within 100 feet of the discovery, and a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Alameda County Coroner (per §7050.5 of the State Health and Safety Code). If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner shall notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD shall have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the applicant must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This shall also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work shall not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.*

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

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory periodic inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy-efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a five percent reduction in energy consumption from the 2013 standards for commercial structures. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

It should be noted that the 2019 Building Energy Efficiency Standards will go into effect for building permit applications submitted on or after January 1, 2020. The 2019 standards will provide for additional efficiency improvements beyond the current 2016 standards. Non-residential buildings built in compliance with the 2019 standards are anticipated to use approximately 30 percent less energy compared to the 2016 standards, primarily due to lighting upgrades.[10]

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated by the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),[11] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels.

10 California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ.* November 2018.
11 California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of grow facility uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, appliances, security systems, and more. It should be noted that the cannabis would be grown in a greenhouse, which would reduce the required amount of interior lighting, as compared to a typical indoor grow operation. Supplemental lighting would be included and distributed throughout the grow area; however, the required lighting would be typical of commercial uses. Additionally, project operations would include installation of two emergency back-up generators within the project site. The two generators would only be used to provide back-up power to the proposed facilities and during required testing. Thus, the generators would only operate intermittently or in emergency situations. The use of the generators was included in evaluation of the air quality impacts and energy use on-site. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employee commutes.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structure would consume energy efficiently through the incorporation of such features as door and window interlocks, direct digital controls for HVAC systems, and high efficiency outdoor lighting. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewable Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy.

Conclusion

Based on the context above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1B 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?	☐	☒	☐	☐

Discussion

ai-aiv. The project site is located in an area of moderate seismicity. Active faults do not cross the site and the site is not mapped within an Alquist-Priolo Earthquake Fault Zone;[12] however, the San Francisco Bay Area is an area of high seismic risk. The nearest active faults are the Greenville Fault, located approximately 2.5 miles from the project site, and the Calaveras Fault, located approximately 9 miles from the project site.

Ground Rupture

The proposed project is not underlain by any known faults and as a result, the proposed project would not be subject to risks related to fault rupture.

[12] California Department of Conservation. *State of California, Special Studies Zones, Tassajara Quadrangle, Official Map*. Effective January 1, 1982.

Ground Shaking

Due to the proximity of the site area to nearby active faults, including but not limited to the Greenville and Calaveras fault zones, strong ground shaking could occur at the site as a result of an earthquake on any one of the faults. However, the proposed development would be subject to all applicable regulations within the California Building Standards Code (CBSC) and Chapter 15.08 of the County's General Ordinance Code, which provide standards to protect property and public safety by regulating the design and construction of foundations, building frames, and other building elements. Compliance with such would ensure that a well-designed and well-constructed structure can be reasonably expected to resist collapse, thus reducing loss of life in a major earthquake.

Landslides

The project site is located on relatively flat land, and according to the ABAG, is not at high risk of landslides.[13]

Liquefaction

According to the ABAG Resilience Program's interactive Hazards Map, the project site is located in an area of relatively low liquefaction susceptibility.[14]

Conclusion

The project site is not within an Alquist-Priolo Earthquake Fault Zone. While the San Francisco Bay Area is an area of relatively high seismic risk, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. Therefore, a ***less-than-significant*** impact would occur.

b. Ground disturbance on the project site would be limited to the project area. Because the area is relatively uniform in elevation, grading would be minimal and soil disturbance would mostly be related to paving and construction. During construction, activities would be subject to the grading, erosion, and sediment control regulations included in Chapter 15.36 of the County Code of Ordinances.[15]

Per the Alameda County Code of Ordinances, new development within the County that disturbs one or more acres of land is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and prepare a Stormwater Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Including the paving of the parking area, the proposed project would disturb approximately 3.5 acres and, thus, would be subject to such requirements. In

13 Association of Bay Area Governments. *Resilience Program.* Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed December 2018.

14 *Ibid.*

15 Alameda County. *Alameda County Code of Ordinances.* October 9, 2018.

addition, per Chapter 15.36.240 of the County Code of Ordinances, the project applicant would be required to submit a grading plan to Alameda County Public Works Department prior to the approval of improvement plans and issuance of building permits, which includes a conceptual plan for erosion and sediment control. The plan shall conform to County standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the California Stormwater Quality Association, Stormwater Best Management Practice Handbook. Compliance with such would ensure that the proposed project would not in substantial soil erosion or the loss of topsoil, and a ***less-than-significant*** impact would occur.

c. The project site is not located within an Alquist-Priolo Earthquake Faulting Zone, and as noted previously, the ABAG does not deem the site high risk for landslides or liquefaction. In addition, as noted earlier, the CBSC and Chapter 15.08 of the County Code of Ordinances provide standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, and other building elements. Compliance with applicable ordinances, coupled with the low risk for landslides and liquefaction in the project area, would ensure that the soil would not become unstable as a result of the project and cause a landslide, lateral spreading, subsidence, liquefaction, or collapse. Thus, a ***less-than-significant*** impact would occur.

d. Per the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey program,[16] two mapped soils exist in the project area. The composition of each soil is listed in Table 4 below.

Table 4
Soils Present on Project Site

Soil Type	Percent Slope	Percent Linear Extensibility	Percent Clay	Shrink-Swell Rating
Clear Lake clay	0-2	8.7	45	1.00
Diablo clay	9-15	7.5	50	1.00

The NRCS classifies soils as having a high expansive potential if the soil has a linear extensibility rating of greater than three percent and a clay content of greater than 25 percent.[17] Based on the above, the project site would be classified as having a high expansion potential by the NRCS. Therefore, the project would be located on expansive soil as defined by Table 18-1b of the Uniform Building Code; however, with implementation of mitigation, the impact would be ***less-than-significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

16 United States Department of Agriculture Natural Resources Conservation Service. *Web Soil Survey*. Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed December 2018.

17 Natural Resources Conservation Service. *Calculated Coefficients of Linear Extensibility*. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/office/ssr10/tr/?cid=nrcs144p2_074840. Accessed July 2018.

VI-1 *Per the Alameda County Code of Ordinances, Chapter 15.36.320, a geotechnical or geologic investigation report shall be required when the shrink-swell rating of the soil in the area is greater than 0.5 or the County has reason to suspect that highly expansive soils are present.*

All grading and foundation plans for the development shall be approved by the County Public Works Agency. The plans shall ensure that all geotechnical recommendations specified in the geotechnical or geologic investigation report for the proposed project are properly incorporated and utilized in the project design, including recommendations related to expansive soils.

e. The proposed project would include construction of a septic system, septic tank, and leach field. The septic system would connect to a two-inch force main, which would drain to the leach field for purification. The project would be required to submit a Service Request Application for an Onsite Wastewater Treatment Systems (OWTS) permit through the Alameda County Environmental Health Department (ACEHD). The geotechnical report performed for the project site would also be submitted to the ACEHD for review.

Additionally, the project would be subject to Section 15.18.040 of the County Code of Ordinances, which requires that any proposed OWTS follow the standards and guidelines contained in the Alameda County OWTS Manual. Every OWTS must also adhere to all federal, state, and local building, mechanical, electrical, and plumbing codes. Thus, the proposed project would have a ***less-than-significant*** impact related to soils being incapable of adequately supporting the use of a septic system.

f. Paleontological resources or fossils are the remains of prehistoric plant and animal life. Fossil remains such as bones, teeth, shells, and wood are found in the geologic deposits in which they are originally buried. The project site is underlain by Holocene or Pleistocene age Quaternary alluvium and marine deposits. Based on the CHRIS search performed for the proposed project, cultural resources have been found in Holocene alluvial deposits in Alameda County. Given the similar conditions at the project site, ground-disturbing activities could result in the discovery of a paleontological resource. Disturbance of such could result in a *potentially significant* impact; however, the impact would be ***less-than-significant*** with mitigation incorporated.

Mitigation Measure(s)

VI-2 *Implement Mitigation Measures V-1 and V-2.*

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

Discussion

a, b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

The portion of the project site proposed for development is predominantly vacant; as such, substantial existing sources of GHG emissions do not exist on-site. Accordingly, implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O), associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG emissions is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The project site is located within Alameda County and is within the jurisdictional boundaries of the BAAQMD. Both Alameda County and BAAQMD have recommended approaches for analyzing a project's potential impacts related to GHG emissions. The following sections present an analysis of potential impacts related to GHG emissions under Alameda County and BAAQMD approaches separately.

Alameda County

The County has adopted a Community Climate Action Plan (CCAP), which includes measures directed at reducing GHG emissions from existing and future development throughout unincorporated portions of the County.[18] Upon adoption, the CCAP was integrated into the County's General Plan. Successful implementation of the CCAP is

[18] Alameda County. *Community Climate Action Plan*. Adopted February 4, 2014.

intended to reduce GHG emissions to 15 percent below 2005 levels by 2020 and set the County on a path toward reducing emissions to 80 percent below 1990 levels by 2050, as required by statewide GHG emission reduction goals.[19] In order to determine the consistency of a proposed project with the CCAP, the CCAP directs staff to consider the following: the extent to which the project supports or includes applicable strategies and measures, or advances the actions identified in the CCAP; the consistency of the project with population projections adopted by the ABAG; and the extent to which the project would interfere with implementation of CCAP strategies, measures, or actions.

The proposed project would not include development of any new residences, but would involve the employment of between 20 and 30 employees. Given the lack of on-site development of new residential units, the proposed project would not result in direct population growth in excess of ABAG's growth projections. Furthermore, 20 to 30 employees is a relatively small number of employees compared to the existing population of the area. Therefore, the proposed project would not be anticipated to result in a direct on-site or indirect increase in population beyond ABAG's growth assumptions for the region.

The majority of the CCAP's measures concern County actions and provide direction for County staff to develop regulations for future development within the County. To the extent that such CCAP measures have been implemented by the County, the majority of such measures would be incorporated into the County's Green Building Program, which is included as Section 460 of the County Ordinance Code. The proposed project would be required to comply with the applicable regulations included in Section 460 of the County Ordinance Code, and through compliance with Section 460, the proposed project would be constructed in a manner consistent with the CCAP strategies applicable to new development. Furthermore, the proposed project would be required to comply with applicable statewide building codes such as the California Green Building Code (CalGreen) and the California Building Energy Efficiency Standards Code. The foregoing statewide building codes include requirements for construction waste diversion, water use efficiency, energy efficiency, and building system efficiencies. Compliance with such requirements would ensure that the proposed project would not conflict or inhibit implementation of the CCAP, including Waste Strategy 2, which encourages construction waste diversion, Energy Strategy 2, which encourages energy efficiency, and Water Conservation Strategy 3, which encourages water reuse and recycling.

Considering that the proposed project would not conflict with ABAG's population projections for the area, and the project would be designed in compliance with Section 460 of the County Ordinance Code, as well as the State building codes discussed above, the proposed project would be considered to comply with the applicable CCAP strategies. Thus, the proposed project would not be considered to conflict with the CCAP.

[19] Alameda County Planning Department. *Alameda County General Plan Annual Report for 2014*. 2014.

BAAQMD

BAAQMD maintains thresholds of significance for project-level evaluations of GHG emissions. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations.

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. The CO_2 intensity factor within the model was adjusted to reflect the Pacific Gas & Electric Company's anticipated progress towards statewide renewable portfolio standard goals. All CalEEMod results are included in the Appendix of this IS/MND.

According to the CalEEMod results, the proposed project would result in unmitigated operational GHG emissions of 298.65 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. BAAQMD has not adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 569.97 $MTCO_2e$/yr were to be included with the annual operational GHG emissions, the resultant total GHG emissions of 868.63 $MTCO_2e$/yr would still be below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions, based on BAAQMD's approach to analysis.

Conclusion

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

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

Discussion

a. The proposed project consists of construction of a greenhouse for cannabis cultivation. Cultivation activities would not involve routine transport, use, or disposal of hazardous waste. Cannabis plants and byproducts are organic waste and not hazardous, as defined in Section 42649.8(c) of the Public Resources Code. The proposed project would handle cannabis waste according to California Code of Regulations §8308, Cannabis Waste Management. In accordance with State disposal requirements, the proposed project would compost some organic waste on-site, and any remaining waste would be hauled to a facility that recycles organic material. In transport of any cannabis product, the track and trace system would be used, so as to account for all cannabis product leaving the site.

The proposed project would not employ the use of pesticides and would minimize the use of fertilizer to the extent possible. Additionally, the proposed project would adhere to the County Ordinance Code Chapter 6.106 regulations on handling of pesticides and fertilizers. Because cannabis waste and associated fertilizer products are not considered hazardous,

the project would not create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials and a ***less-than-significant*** impact would occur.

b. Chapter 6.95 of the Alameda County Health and Safety Code requires a Hazardous Materials Business Plan (HMBP) if the project plans to keep hazardous waste above the set thresholds. The thresholds are 55 gallons of a liquid, 500 pounds of a solid, and 200 cubic feet of any compressed gas. Because the project does not plan to use hazardous waste in excess of the set amounts, an HMBP is not required.

Construction activities associated with the proposed project would involve the use of products such as concrete, paints, and adhesives, as well as heavy equipment, which would contain fuels, oils, and hydraulic fluid. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the California Environmental Protection Agency (CalEPA) and the Department of Toxic Substances Control (DTSC). As such, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and thus, a ***less-than-significant*** impact would occur.

c. The proposed project site is not located within 0.25-mile of an existing school. The nearest school, Andrew N. Christensen Middle School, is located approximately 3.5 miles south of the site. As noted above, the project would not emit hazardous emissions or involve the routine use, handling, or transport of hazardous materials. Therefore, the proposed project would have ***no impact*** related to the emission of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.

d. According to the list of hazardous materials sites compiled by the California Environmental Protection Agency, pursuant to Government Code Section 65962.5, the proposed project site is not considered a hazardous material site.[20] Therefore, the project would not create a significant hazard to the public or the environment related to such, and ***no impact*** would occur.

e. The project site is not located within an airport land use plan or within two miles of a public or private airport. The Livermore Municipal Airport is the closest airport to the project site and is located approximately seven miles southwest. Therefore, ***no impact*** would occur with respect to airport-related safety hazards

f. The proposed project is consistent with the planned and permitted uses per the zoning designation and would not alter the layout of the existing on-site circulation system. Development of the project would not result in any modifications to roadways currently providing emergency vehicle access along Morgan Territory Road. Consequently, implementation of the proposed project would not impair or physically interfere with the adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

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[20] Department of Toxic Substances Control. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov/public/. Accessed December 2018.

g. The proposed project is located in a rural area of the County, and is not adjacent to an urbanized area. According to the Safety Element of the Alameda County General Plan, Figure S-5, the project site is located in a moderate fire hazard severity zone.[21] The Uniform Fire Code, Section 6.04 of the County Ordinance Code, and the CBSC call for the installation, maintenance, and ongoing inspection of fire prevention systems under direction of the local fire chief. Under the Fire Code, Section 903.2.18.1, installation of an automatic sprinkler system would be required for the proposed structures. Policy P2 of the Safety Element would also ensure the project implement careful site design, landscaping, and vegetation management in order to minimize wildland fire hazards. In addition, the project would not involve the placement of housing or other inhabitable buildings on the site. The proposed buildings would be used only during hours of operation, and during times that the proposed buildings are not in use, employees would not be exposed to fire risk at the project site.

Compliance with the Uniform Fire Code and all applicable State and local ordinances would ensure that the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Thus, a ***less-than-significant*** impact would occur.

[21] Alameda County Community Development Agency. *Safety Element of the Alameda County General Plan.* February 4, 2014.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or 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 offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
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?	☐	☐	☒	☐

Discussion

a. The proposed project is under the jurisdiction of the San Francisco Bay Regional Water Quality Board (SFBRWQB), which operates under the State Water Resources Control Board (SWRCB) to regulate stormwater discharges associated with construction activities and cannabis regulation. Where clearing, grading, or excavation results in a land disturbance of one or more acres, Performance Standard NDCC-13 of the County's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. Thus, because the project would disturb more than one acre, the project would be required to comply with the County's NPDES permit. The Countywide Clean Water Program requires that all construction projects within the County incorporate construction controls using specific BMPs outlined by the Program.[22]

[22] Alameda Countywide Clean Water Program. *Construction.* Available at: https://www.cleanwaterprogram.org/index.php/businesses/construction.html. Accessed December, 2018.

As stated by the Cannabis Cultivation Policy[23], the State Water Board certifies that cannabis cultivation activities must comply with the conditions of the Policy and General Order.

During operation, the proposed project would adhere to all State and local requirements regarding waste discharge requirements. All commercial cannabis cultivators must enroll and obtain coverage under the Cannabis General Order Waste Discharge Requirements (WDR) program, as well as obtain verification of the project water source by the SWRCB.

Stormwater that falls directly on the project site would be managed through stormwater facilities constructed for the project, including a rip rap dissipator and a ten by ten-foot bioretention area which would include a cobble dissipator to properly treat and mitigate the flow volumes for water quality, hydromodification, and flood control requirements. After being properly treated and dispersed, outflow would then flow into Cayetano Creek. Implementation of BMPs under the NPDES permit and enrollment in the WDR program, would ensure that the project would have a ***less-than-significant*** impact related to water quality standards and waste discharge requirements.

b,e. Water supplies to the project site are serviced by Zone 7 of the Alameda County Flood Control and Water Conservation District, known as the Zone 7 Water Agency (Zone 7). Water resources for Zone 7 include surface water and groundwater. Groundwater is supplied primarily by the Livermore Valley Groundwater Basin. Per the Agency's 2015 Urban Water Management Plan (UWMP), groundwater levels are routinely monitored within the Basin. Zone 7 groundwater recharge supplies 3,900 acre-feet of raw water to customers and retailers. The UWMP expects groundwater recharge and artificial recharge to meet the projected demands through 2035.

The proposed project would obtain water for cannabis cultivation through four wells on the project site that cumulatively produce four gallons per minute (gpm) or 5,800 gallons per day (gpd). Additionally, the proposed project would harvest rain water through underground vaults which would connect to the water system. Rain harvesting would be anticipated to harvest 314,000 gallons per year (gpy). Water storage within the project site would be provided by a 500,000-gallon storage reservoir. Irrigation for cannabis is estimated to require 3,600 gpd year-round, with some expected seasonal variation. Seasonal fluctuations, however, are moderated by the use of grow lights and climate control in the greenhouse. Water for cannabis irrigation would undergo reverse osmosis treatment and be blended with reclaimed water. The water demand for pre-irrigation reverse osmosis treatment is 3,000 gpd. The reclamation system would be a separate treatment that would collect climate-control flush water used for processing and cleaning, concentrate from pre-irrigation reverse osmosis treatment, and irrigation runoff and return water. The project sanitary uses include bathroom and sink use by project employees and visitors. The domestic-grade wastewater from sanitary uses would be discharged to a new commercial OWTS located on the project site. Water demand for sanitary uses would be approximately 550 gpd. Other water demand would include supply to the existing residences on the project site and landscape irrigation. Total yearly water demand for the project is anticipated to be 2.3 million gpy, which is equal to seven acre-feet per year.

[23] State Water Resources Control Board. *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities.* October 17, 2017.

In order to evaluate groundwater supply for the proposed project and potential drawdown effects from pumping the wells on the project site, a Conceptual Water-Supply and Wastewater Plan was created for the proposed project.[24]The study took in to account the geologic framework at the project site and in the vicinity, estimated areal recharge to groundwater at the property, conducted a 24-hour pumping and recovery test at each of the four wells on the project site, calculated the area of influence estimates of pumping from the wells, and characterized the ionic composition of groundwater collected at each well. Based on the results of the study, groundwater recharge from rainfall on the project site is estimated to result in eight acre-feet of recharge on average per year, which is approximately equivalent to continuous pumping of five gpm or 7,200 gpd.

With continued pumping from an aquifer, the hydraulic pressures and water levels in the vicinity of the wells are lowered and the effect propagates outward from the well, which can be conceptually represented as a "cone of depression." A recharge boundary results in reduced drawdown after the cone of depression encounters a stream, lake, or other recharge source, while a no-flow or low-permeability boundary results in increased drawdown after the cone of depressions encounters a zone of low permeability due to change in lithology or a fault. Neither a recharge boundary from Cayetano Creek, nor a bedrock boundary was apparent from the 24-hour pumping data. Additionally, the Conceptual Water-Supply and Wastewater Plan estimated the radius of influence of the proposed wells based on a maximum daily demand of four gpm sustained for 24 hours and an average dry-season demand of four gpm for 184 days. The analysis for both cases did not indicate drawdown effects at the nearest neighbor's well.

The proposed project would be required to adhere to the "Water Wells Ordinance" in the County Code of Ordinances, as well as to standards for construction of water wells as set forth in Chapter II of the Department of Water Resources Bulletin No. 74-81, "Water Well Standards: State of California." Any new well must be permitted by Zone 7 before commencement of work.

Overall, the four wells on the project site would supply sufficient water for operations and maintenance of the project without decreasing groundwater supplies or interfering with groundwater recharge. The rain water harvesting and reclamation system would reduce water use directly from the wells. Additionally, based on the Conceptual Water-Supply and Wastewater Plan, the groundwater recharge on the project site would be sufficient to replenish the use on the site. The Plan also determined that the wells would not impact the groundwater table or nearby wells in the vicinity of the project site. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that a net deficit in aquifer volume or lowering of the local groundwater table level would occur. Because the proposed project would include development of a new well, the proper permitting would be required by the Zone 7 Water Agency. Thus, with mitigation requiring permitting, the project would result in a ***less-than-significant*** impact.

[24] Balance Hydrologics, Inc. *Conceptual Water-Supply and Wastewater Plan, Oasis Fund Livermore Grow Facility, Alameda County, CA.* August 2019.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

IX-1 *Prior to commencement of construction of a new well, the applicant shall apply for and receive a permit as provided in Section 6.88.045 of the County Code of Ordinances, giving permission to proceed. The applicant shall complete a written application and provide all applicable fees at the time of submittal, to be reviewed by the Board of Supervisors of Zone 7 Water Agency.*

The permittee shall begin the work authorized by a permit issued pursuant to Chapter 6.88 of the County Code of Ordinances within 90 days from the date of issuance unless stated otherwise in the permit. The permittee shall notify the administering agency five working days in advance of beginning the permitted work of the date of said beginning work. A permit shall be valid for a term of one year from date of issuance. All construction, reconstruction, or destruction work on wells shall be performed by a person who possesses an active C-57 Water Well Drilling Contractor's License.

ci-ciii. The proposed project would include construction of rainwater harvesting system which would be used to capture rainwater falling directly on the project site through construction of underground vaults and connection to the water system. Additionally, stormwater and runoff from impervious surfaces and adjacent landscaping would be directed to a bioretention area that would properly treat and mitigate the flow volumes for water quality, hydromodification, and flood control requirements. The bioretention area would be located at the southern edge of the project site, between the greenhouse and the driveway. Outflow from the bioretention area would be routed into the drainage ditch along the driveway through a flow spreader in order to join the off-site flows and discharge into Cayetano Creek. Although the project site is not subject to flooding under existing conditions, the drainage improvements would ensure that flooding would not occur on the project site.

All municipalities within Alameda County (and the County itself) are required to develop more restrictive surface water control standards for new development projects as part of the renewal of the Countywide National Pollutant Discharge Elimination System (NPDES) permit. Known as the "C.3 Standards", new development and redevelopment projects that create or replace 10,000 or more square feet of impervious surface area must contain and treat stormwater runoff from the site. The proposed project would adhere to applicable standards through routing runoff to the proposed bioretention area and properly treating the runoff prior to discharge into Cayetano Creek.

The proposed project would not alter the existing drainage pattern such that would alter the course of a stream or river. Consequently, the proposed project would not substantially alter the drainage pattern of the site, including through the alteration of the course of a stream or river, or result in substantial erosion or siltation, increase the rate of surface runoff, or create runoff water which would exceed the capacity of existing or planned stormwater drainage systems, and a ***less-than-significant*** impact would occur.

civ. According to the Federal Emergency Management Agency (FEMA), the proposed project is located within an Area of Minimal Flood Hazard (Zone X).[25] Dams built in the Bay Area over the last 150 years were constructed using then-current construction techniques and seismic knowledge of the time. In the 1970s, State law required dam owners to develop maps depicting areas that might be inundated by dam failure. The Alameda County Emergency Operations Plan does not map the project site in an area which would be impacted by dam failure.[26] Additionally, the project would not involve construction or placement of housing. For the reasons listed above, the project would have ***no impact*** related to exposure of people or structures to risk of loss, injury or death involving flooding, including dam failure.

d. A tsunami is a series of waves generated in a body of water by an impulsive disturbance along the seafloor that vertically displaces the water. A seiche can be considered very similar to a tsunami, with the difference being that the water waves are generated in a closed or restricted body of water such as a lake or within a harbor. The project site is located over 20 miles from the coastline and over 3.5 miles from closest reservoir. The project site is not considered at risk of inundation by the Alameda County Emergency Operations Plan. Additionally, mudflows typically affect areas where wildfires or human modification of the land have destroyed vegetation and on steep slopes that have been altered for construction of buildings. Because the area has not experienced a wildfire and is considered at moderate risk, and the area is not located on a steep slope or in areas where slopes have been modified, the mudflow risk would not be high. Therefore, a ***less-than-significant*** associated with inundation by seiche or tsunami would occur.

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[25] Federal Emergency Management Agency. *FEMA Flood Map Service Center*. Accessed December 2018. Available at: https://msc.fema.gov/portal/home.

[26] Alameda County. *Alameda County Emergency Operations Plan*. December 2012.

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

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community or isolate an existing land use. The proposed project would develop a greenhouse and a processing building for the purpose of cultivating cannabis, which is a permitted use under the Agricultural zoning designation. The project site is located on privately owned agricultural land and would be consistent with the land use and zoning designations of the County. Thus, the proposed project would not physically divide an established community, and ***no impact*** would occur.

b. The proposed project site is zoned Agricultural and designated Resource Management in the ECAP. The site is also located in an area outside of the urban growth boundary as established by Measure D. Measure D restricts areas outside of the urban growth boundary to agricultural, natural resource, and rural uses, and prevents the construction of infrastructure to support any urban development. The Alameda County Zoning Ordinance states that cultivation of cannabis may be an appropriate conditionally permitted use in the agricultural districts and outside of the urban growth boundary established by Measure D. Additionally, the project would adhere to Policy 79 of the ECAP, which requires areas designated Resource Management do not require the extension of public sewer or water, detract from agricultural production in the area, or create a concentration of commercial uses in the area. Finally, the proposed project would comply with Chapters 17.52.585 and 6.106 of the Ordinance Code which regulates the cultivation of cannabis in the unincorporated areas of Alameda County. Because the proposed project would be consistent with all applicable land use plans, policies, and regulations with jurisdiction over the project, a ***less-than-significant*** impact would occur related to significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of mitigating an environmental effect.

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

Discussion

a,b. The California Division of Mines and Geology (CDMG) has produced Mineral Land Classification (MLC) Studies as specified by the Surface Mining and Reclamation Act of 1974. According to CDMG mapping, the proposed project site is not located within a specified Mineral Resource Zone (MRZ).[27] In addition, the ECAP does not specify mineral resource recovery sites within the vicinity of the proposed project site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or 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. Thus, ***no impact*** regarding mineral resources would result.

[27] California Division of Mines and Geology. *Mineral Resource Zones and Resource Sectors, Alameda County.* 1983.

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

Discussion

a. The existing noise environment in the project vicinity is defined primarily by vehicle noise from Morgan Territory Road and Manning Road. However, Morgan Territory Road is not a frequented road, and, thus, the current noise environment is not substantial. The nearest sensitive receptors to the project site would be the existing single-family residence located on the property and a single-family residence located approximately 600 feet west of the site.

Construction Noise

Potential future construction within the project site would result in temporarily increased noise levels from grading, and other construction activities on the project site. Construction noise from potential future site development would include mechanical equipment such as earthmovers, dump trucks, and similar equipment during grading, the delivery of construction materials, construction of foundations, framing, roofing, and similar operations. Because noise levels dissipate with distance from the source, noise levels received by the surrounding sensitive receptors would fluctuate depending on the distance of the noise source on the project site from the fixed location of the receptor.

Construction activities would temporarily increase the level of noise produced on the project site. Based on the Federal Highway Administration's Construction Noise Handbook, activities related to construction would generate maximum noise levels ranging from 76 to 80 dB at a distance of 50 feet.[28] The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the noise source. Therefore, construction noise levels at the nearest off-site sensitive receptor would be approximately 60 dB at most. According to the Noise Element of the Alameda County General Plan, residences surrounded by agricultural land should not be exposed to noise levels above 65 dB. Considering that construction-related noise is not anticipated to exceed

[28] Federal Highway Administration. *Construction Noise Handbook*. August 2006.

60 dB at the nearest residence, the construction activity would not exceed the Alameda County General Plan Noise Standard.

In addition, construction noise would only occur during the approximately three-month construction period. Chapter 6.60 of the Alameda County Code of Ordinances includes various regulations and standards for noise levels and vibration within the County. Section 6.60.070 of the Code exempts all noise sources associated with construction, provided construction activities are restricted to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:00 AM to 5:00 PM on Saturday and Sunday. The proposed construction activities would be limited to such hours in compliance with the County Code.

Project Operational Noise

The proposed project includes development of a greenhouse and processing building for cannabis cultivation, as well as an associated parking area. Typical noise-generating equipment associated with cannabis cultivation would include ventilation fans, truck loading/unloading, and water pumps. The proposed project would implement a wet-wall evaporative cooling system, which uses the natural cooling process of water evaporation in conjunction with exhaust fans to provide cooling for large volume buildings. The use of the wet-wall system would reduce noise typically associated with HVAC systems. The proposed project would use state-of the-art technology in order to increase the efficiency of a ventilation fan, and reduce operational noise levels.

Project operations would include two backup generators on-site. Use of the generators would be limited to occasional testing and emergency situations. While the location of the generators has not yet been determined, they would likely be close to the proposed greenhouse structure, and more than 200 feet from the nearest sensitive receptor. Considering the distance between the proposed generators and nearest sensitive receptors, the noise produced by the generators would not be anticipated to disturb any nearby residents.

Traffic to the project site would be limited to employees and authorized personnel, as operation is not open to the public. The project is expected to produce at most 110 trips per day, which is well below the current 576 trips along Morgan Territory Road and 2,229 trips along Manning Road. Given the small addition of trips, the proposed project would not result in substantial amounts of additional traffic noise.

Conclusion

Overall, the temporary nature of construction activities on the project site, as well as adherence to the City's General Plan noise standards, would ensure that the project would not generate any substantial temporary increase in ambient noise levels. Additionally, the distance of the project site to any nearby sensitive receptors, as well as the limited trip generation resulting from project operations, would ensure that the proposed project would not generate a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. Thus, the proposed project would have a ***less-than-significant*** impact related to such.

b. Heavy-duty construction equipment would be used during construction of the proposed project (e.g., tractors, pavers, excavators). Such equipment has the potential to generate groundborne vibration. Levels of vibration include imperceptible vibrations at low levels, low rumbling and minor vibration at moderate levels, and structural or architectural damage at high levels. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards and 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Although all surrounding structures are assumed to be structurally sound, the 0.2 in/sec PPV threshold offers a conservative value with regards to structural damage and is used as the threshold of significance for the analysis. Table 5 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Table 5
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual, September 2013.

The most substantial source of vibration during construction activities would be operation of vibratory rollers, which, as shown above, would generate vibrations of approximately 0.21 inches per second peak particle velocity (PPV) at a distance of 25 feet.[29]

The nearest sensitive receptor is the single-family residence on the property of the project site, located approximately 200 feet away. Because the closest residence is at least 200 feet away, the PPV experienced at the nearest residence would be reduced from the PPV's reported in Table 5. The Caltrans *Transportation and Construction Vibration Guidance Manual* provides a formula for estimating maximum vibration dissipation with distance.[30] Calculations were completed to determine the maximum vibration caused by the construction activities using the Caltrans formula. Because the vibratory roller would be the most intense possible source of vibrations, the reference PPV of 0.210 in/sec was used for the calculations. At a distance of 200 from the project site any sensitive receptors would receive 0.021 in/sec PPV from the use of a vibratory roller, which is well below the 0.2 in/sec PPV significance threshold used for this analysis. Furthermore, construction is temporary and would be restricted to daytime hours per the County Ordinance Code

29 California Department of Transportation. *Transportation and Construction Vibration, Guidance Manual.* September 2013.

30 $PPV_{Equipment}=PPV_{Reference}(25/D)^{1.1}$
Where: D = distance from equipment to the receiver in feet (assumed to be 200 feet)
PPV_{Ref} = reference PPV at 25 feet (from Table 5)
Source: Caltrans. *Transportation and Construction Vibration Guidance Manual.* [pg. 37]. September 2013.

Section 6.60.070. Consequently, the project would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, resulting in a ***less-than-significant*** impact.

c. As noted previously, the proposed project site is not located within the vicinity of a public airport or a private airstrip, nor is the site addressed by an airport land use plan. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports, and ***no impact*** would occur.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	✖
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a,b. The nature of the improvements included in the proposed project is such that the project would not induce population growth in the project area either directly or indirectly. In addition, the proposed project does not involve the demolition of existing housing, the creation of new housing, or the extension of major infrastructure. As such, the project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere. Thus, the proposed project would result in ***no impact*** with regard to population and housing.

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☐	☒
d. Parks?	☐	☐	☐	☒
e. Other Public Facilities?	☐	☐	☐	☒

Discussion

a,b. Fire protection is currently provided to the project site by the Alameda County Fire Department. The Fire Department currently serves a population of approximately 394,000 people over 508 square miles. The Department has 30 fire stations, 26 engine companies, and sufficient equipment and firefighters to provide a wide variety of services to the unincorporated areas, as well as many cities, of Alameda County. The proposed project is consistent with land use and zoning designations and thus, has been accounted for in the County's necessary supply of fire protection. Additionally, the proposed project would adhere to Chapter 6.04 of Title 6 of the Ordinance Code relating to the prevention of fires. The Code requires the proposed project pay fire fees required by the County and install an automatic sprinkler system where a possible fire area exceeds 5,000 square feet. Thus, because the project would be in compliance with the County Fire Department regulations, consistent with the land use designation for the project site, and would not directly induce any population growth, fire services currently provided by the County would be adequate to serve the proposed project without the need for new or expanded facilities.

The Alameda County Sheriff's Office provides policing to the project site and other unincorporated areas of the County. The Sheriff's Office has over 1,500 authorized positions and a sufficient budget to provide policing services to the County. Each employee of the proposed project would be required to submit fingerprints and photo identification for background checks and verification by the Sheriff's Office. Additionally, the security plan created for the proposed project would undergo review and approval by the Sheriff's Office. During operations of the proposed project, security video would be maintained for 30 days and made available to the Sheriff's Office upon request. In accordance with Section 6.106.020 of Ordinance Code, the project would adhere to all requirements by the Sheriff's Office.

The proposed project would be consistent with land use and zoning designations and would not involve construction of housing which would induce population growth in the area. Additionally, because the project would adhere to all applicable regulations regarding fire and police services, the proposed project would not create additional demand for fire and police protection services. Therefore, the proposed project would result in a ***less-than-***

significant impact related to the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

c-e. The proposed project would not directly result in the development of housing or increase the population of the area. Thus, the proposed project would not create an increased need for schools or parks in the vicinity. Thus, the proposed project would not directly or indirectly result in an increase in demand for schools, parks, or other public facilities. Therefore, ***no impact*** would occur.

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

Discussion

a,b. The proposed project would not involve the placement of housing or other development that would create a demand for recreational services or facilities. Consequently, the proposed project would not result in the physical deterioration of existing neighborhood or regional parks or other recreational facilities, nor would the project require construction or expansion of recreation facilities, and ***no impact*** would occur.

XVII. TRANSPORTATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with 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)?	☐	☐	✖	☐
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e. Result in inadequate emergency access?	☐	☐	✖	☐

Discussion

a. A Traffic Impact Analysis (TIA) was conducted for the proposed project by TJKM in December 2018.[31] The purpose of the TIA was to study existing and future conditions of traffic at the project site.

The TIA evaluated the following study intersections, also shown in Figure 9 below, during the peak periods of 7:00-9:00 AM and 4:00-6:00 PM:

1. Morgan Territory Road/Manning Road; and
2. Proposed project driveway/Morgan Territory Road

The operations of roadway facilities are described with the term Level of Service (LOS). LOS is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow and F the worst (severely congested flow with high delays).

According to the 2012 Alameda Countywide Transportation Plan, the LOS standard for highway systems is LOS D. The ECAP Policy 193 requires traffic volumes on intercity arterials in the project vicinity do not exceed LOS D within unincorporated areas. Table 6 below summarizes the relationship between LOS and delay for unsignalized intersections.

Study Scenarios

The study addressed the following traffic scenarios:

- Existing Conditions – Evaluates the study intersections based on existing traffic volumes, lane geometry, and traffic controls; and
- Existing Plus Project Condition – Identical to Existing Conditions, but includes the addition of traffic from the proposed project.

[31] TJKM. *Traffic Impact Analysis for the Proposed Cannabis Cultivation Facility at 7033 Morgan Territory Road, Alameda County.* December 2018.

Figure 9
Regional Location of Study Intersections

Table 6 Unsignalized Intersection LOS Criteria		
LOS	**Description**	**Average Delay (seconds per vehicle)**
A	No delay for stop-controlled approaches.	0 to 10
B	Operations with minor delays.	> 10 to 15
C	Operations with moderate delays.	> 15 to 25
D	Operations with some delays.	> 25 to 35
E	Operations with high delays and long queues.	> 35 to 50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50
Source: TJKM. December 2018.		

Proposed Project

The proposed project would operate on a continuous spanning of three shifts, seven days per week, with five to six cars per shift. Table 7 shows the expected trip generation for the proposed project. Trip distribution assumptions were developed based on existing travel patterns and are expected to be as follows: 70 percent to/from Livermore Avenue and 30 percent to/from Manning Avenue.

Table 7 Project Trip Generation Estimates							
		AM Peak Hour			**PM Peak Hour**		
Land Use Type	**Size**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Cannabis Cultivation Center	92.53 Acres	11	0	11	0	11	11
Source: TJKM. December 2018.							

As shown in the table above, the proposed project would produce 11 peak hour trips and 110 total daily trips.

Existing Plus Project Conditions

The existing operations of the study intersections were evaluated for the highest on-hour volumes during weekday morning and evening peak periods (7:00-9:00 AM and 4:00-6:00 PM, respectively). In addition, seven day average daily traffic (ADT) counts were conducted at both Morgan Territory Road north of Manning Road and Manning Road west of North Livermore Avenue. For Existing Plus Project conditions, project traffic was added to the existing volumes at the study intersections. The Existing versus Existing Plus Project conditions are shown in Table 8 below.

As shown in the table, the study intersections would operate at an acceptable LOS under both Existing and Existing Plus Project conditions. The proposed project would not increase delays at major intersections in the vicinity by more than 0.2 seconds.

Table 8
Intersection LOS – Existing Plus Project Conditions

Intersection	Control	Peak Hour	Existing		Existing Plus Project	
			Delay	LOS	Delay	LOS
1. Morgan Territory Road/Manning Road	Two-Way Stop	AM	10.5	B	10.6	B
		PM	11.7	B	11.8	B
2. Morgan Territory Road/Project Driveway	One-Way Stop	AM	9.0	A	9.0	A
		PM	9.0	A	9.2	A

Source: TJKM. December 2018.

The proposed project would increase vehicle traffic from 576 vehicles to 686 vehicles per day on Morgan Territory Road north of Manning Road. Traffic on Manning Road west of North Livermore Avenue would increase from 2,229 vehicles to 2,339 vehicles per day.

Alternative Transportation

The expected trips to the proposed project would primarily include single passenger vehicles. Based on the TIA counts conducted, pedestrian and bicycle activity along Morgan Territory Road does not exist. The nearest transit stop is approximately seven miles from the project site. While alternative transportation would not likely be used, the proposed project would not create a hazard or otherwise decrease the performance of any forms of alternative transportation. Additionally, because the proposed project is consistent with the site's current land use designation, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Conclusion

Per the Alameda County Transportation Commission CMP, projects that are consistent with an applicable General Plan and would result in fewer than 100 peak hour trips are not subject to review by the Commission.[32] Given that the project would generate a maximum of 11 peak hour trips and would be consistent with the site's current General Plan land use and zoning designations, the project would not conflict with the CMP.

In addition, the TIA analyzed the potential impacts on the LOS of nearby intersections and determined that operation of the proposed project would not result in any impacts related to degradation of the LOS of nearby intersections. Therefore, the project would not result in any conflicts with adopted County LOS standards, or plans to maintain such standards.

Because the project is consistent with the site's current land use designation, traffic associated with development of the project site has been accounted for in the County's planning efforts. Furthermore, as discussed above, the TIA showed that implementation of the proposed project would not result in impacts related to the degradation of the LOS at any studied intersections, and thus, the proposed project would not conflict with any

[32] Alameda County Transportation Commission. *2017 Congestion Management Program* [pg. 85]. December 2017.

program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and pedestrian facilities. Therefore, a ***less-than-significant*** impact would occur related to traffic management.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. It should be noted that currently, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VMT is not required Statewide until July 1, 2020. Thus, evaluation of VMT has not been included.

Nonetheless, the proposed project is consistent with the General Plan land use and would not generate more than 100 peak-hour trips. Thus, the project is consistent with the Alameda County Transportation Commission CMP, which evaluates VMT and has incorporated programs to reduce VMT within the County.

While the incorporation of alternative transportation would not be feasible at the project site, the project is consistent with the County's CMP. Furthermore, VMT analysis is not yet required. Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a ***less-than-significant*** impact would occur.

c,d. Primary access to the project site would be provided by the existing driveway on Morgan Territory Road. The driveway currently provides access to the existing residence on the site. The internal circulation would include a parking area and two-way driveway. The TIA evaluated any hazards associated with access to the project site.

Site Distance Analysis

The TIA for the proposed project determined that the line of sight between vehicles exiting the driveway and vehicles travelling northbound along Morgan Territory Road is clear and visible. The line of sight of vehicles exiting the driveway and traveling southbound is affected by existing vegetation and a horizontal curve just north of the driveway. Because the foregoing conditions are existing, the TIA recommends to the County that trees in the public right of way be kept trimmed to a minimum of eight feet from the ground and ground cover be kept trimmed to a maximum height of three feet. Additionally, the TIA recommends that the County install a stop sign at the project driveway, as well as blind driveway signs for southbound travelling vehicles. Given that the proposed project would not modify the existing driveway at Morgan Territory Road and would not substantially increase the volume of traffic travelling to and from the project site through the driveway, the proposed project would not substantially increase hazards due to a geometric feature.

Emergency Access

Emergency access to the proposed project would continue to be provided by the full access driveway on Morgan Territory Road. The internal circulation for the proposed project was reviewed as part of the TIA for issues related to safety and parking. Based on the TIA, the access roadway is expected to be adequate for passenger vehicles, as well as emergency vehicles.

Conclusion

Based on the above, the proposed project driveway at Morgan Territory Road would provide adequate site distance for vehicles exiting the project driveway. In addition, adequate emergency vehicle access would be provided to the project site. Therefore, a ***less-than-significant*** impact could occur related to substantially increasing hazards due to design features or introduction of incompatible uses.

XVIII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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)?	☐	✖	☐	☐
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.	☐	✖	☐	☐

Discussion

a,b. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.

As discussed in Section V, Cultural Resources, of this IS/MND, the proposed project site does not contain any existing permanent structures or any other resources that could be considered historic, and Native American resources have not been identified within the vicinity of the site. Furthermore, a search of the Sacred Lands File maintained by the Native American Heritage Commission (NAHC) returned negative results for the presence of known tribal resources in the project area. Thus, the proposed project would not be expected to cause a substantial adverse change in the significance of a listed tribal cultural resource.

As discussed in Section V of this IS/MND, Native American resources in the project vicinity have been found in Holocene alluvial deposits, at the foothill to the valley floor interface, and near intermittent or perennial watersheds. Similar circumstances exist in the project area. As such, while the discovery of underlying resources considered significant to a California Native American Tribe is not expected, the possibility exists that construction of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during grading or other ground-disturbing activities. However, with implementation of mitigation, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XVII. *Implement Mitigation Measures V-1 and V-2.*

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	✖	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
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?	☐	☐	✖	☐

Discussion

a-c. Brief discussions of the wastewater, stormwater drainage, water, electrical, natural gas, and telecommunications facilities that would serve the proposed project are included below.

Wastewater

Wastewater treatment for the proposed project would be provided by construction of an on-site septic tank and leach field. The septic system would serve the processing building for use by employees only. According to Chapter 15.18 of the County Code of Ordinances, if the amount of wastewater received by an OWTS exceeds 10,000 gpd, the method of treatment must be submitted for review and approval by the San Francisco RWQCB. Wastewater produced by the project would not exceed 700 gpd, and thus, would not require review by the San Francisco RWQCB.

The proposed project includes construction of a leach field, which would remove contaminants and impurities from the liquid that emerges after anaerobic digestion in a septic tank. The septic system would be subject to the Alameda County Septic System Ordinance per the ACEHD, and would require review by the department prior to approval of the permit. Wastewater would be directed to a leach field, which would filter and purify water. Any additional sludge would be kept in a 5,000-gallon sludge tank which would be hauled off-site every 10 days.

Given the relatively small production of wastewater by the proposed project, implementation of a new septic system would not be anticipated to cause significant environmental effects. Furthermore, the proposed septic system would be subject to review and approval by the ACEHD, which would ensure that the system would be adequately designed to avoid any potential impacts. It should be noted that other potential impacts related to the construction of the proposed septic systems, such as impacts to cultural resources related to ground disturbing activity, are analyzed throughout this IS/MND.

Stormwater

The proposed project includes stormwater improvements to the existing project area, including construction of an underground vault for rain harvesting, as well as construction of a new bioretention. The bioretention area would be properly sized to treat and mitigate the flow volumes for water quality, hydromodification, and flood control requirements. Outflow from the bioretention are would be routed into the drainage ditch along the driveway through a flow spreader in order to join the off-site flows and discharge in to Cayetano Creek, and, thus, would not involve expansion of the County's existing stormwater drainage facilities.

Water

The proposed project includes use of four wells, which would provide water to the project site. Construction of the wells would adhere to Chapter 6.88 of the County Code of Ordinances. Based on the latest flow tests performed on the project site, the wells would produce water at seven gpm. Additionally, the project site would harvest rain water through underground vaults which would connect to the water system. Water storage would be provided by a 500,000-gallon storage reservoir. As such, the project site would be expected to generate and store enough water to supply the 2,800 gallons per day necessary for cannabis irrigation, as well as other associated uses, including cooling systems, sanitary use, fire emergencies, and processing and cleaning operations.

Based on the UWMP, Zone 7 is expected to supply 9,200 acre-feet of groundwater extraction from 2020 to 2035, which is a 46 percent increase from 2015 production. The expected increase in groundwater supply through both groundwater extraction and artificial recharge would sufficiently meet the groundwater needs of the proposed project.

Electricity, Natural Gas, and Telecommunications

Electricity and natural gas service for the proposed project would be provided by PG&E by way of new electrical and gas infrastructure in the project vicinity. Any upgrades to, or extension of, existing infrastructure would be performed by PG&E. Because the analysis throughout this IS/MND has conservatively included the entire property, any improvements associated with the project have been taken into consideration.

Because the proposed project would grow cannabis using a greenhouse, electricity would not be used on the same scale that indoor operations would. While lighting would be installed in the greenhouse as supplemental, the use would be consistent with what would

be expected from an agricultural operation. Thus, impacts to electricity, natural gas, and telecommunications infrastructure would be less than significant.

Conclusion

Based on the above, the proposed project would include the necessary installation or improvements to infrastructure in order to supply water, wastewater treatment, stormwater treatment, and electrical power to the project site. The construction of such would ensure that the site is adequately served by water, as well has sufficient wastewater treatment facilities. Sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Thus, a ***less-than-significant*** impact would occur.

d,e. As discussed in Section VIII, Hazards and Hazardous Materials, of this IS/MND, the proposed project would dispose of solid waste in accordance with California Code of Regulations Section 8308, Cannabis Waste Management. The proposed project would compost some organic solid waste on-site, and any remaining waste would be hauled to a facility that recycles organic material, in compliance with all applicable local and State regulations. The Altamont Landfill serves Alameda County and accepts solid waste, in accordance with the Cannabis Waste Management regulations. The Altamont Landfill had a remaining capacity of 42.4 million tons in 2014 and processes 1.5 million tons of waste, annually.[33] The proposed project would produce waste associated with cannabis production and some incidental waste associated with employee presence.

During construction of the proposed project, solid waste is not anticipated to be generated as demolition would not occur. Should any construction waste be generated, the waste would be temporary, and would be disposed of appropriately in compliance with all applicable regulations related to solid waste, including Section 5.408 of the 2016 CalGreen, which requires that at least 65 percent of nonhazardous construction waste (not including soil and land-clearing debris) is recycled or salvaged for reuse.

Considering the remaining capacity at the Altamont Landfill, the project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would comply with federal, State, and local statutes and regulations related to solid waste result. Thus, a ***less-than-significant*** impact would occur.

[33] Waste Management. *Altamont Landfill and Resource Recovery Facility*. Available at: https://www.wmsolutions.com/pdf/factsheet/Altamont_Landfill.pdf. Accessed January 2019.

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

Discussion

a-d. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is not located within or near a Very High Fire Hazard Severity Zone or State Responsibility Area.[34] While the site is located in a moderate fire hazard severity zone, the Uniform Fire Code, Section 6.04 of the County Ordinance Code, and the CBSC call for the installation, maintenance, and ongoing inspection of fire prevention systems under direction of the local fire chief. Under the Fire Code, Section 903.2.18.1, installation of an automatic sprinkler system would be required for the proposed structures. Policy P2 of the Safety Element would also ensure the project implement careful site design, landscaping, and vegetation management in order to minimize wildland fire hazards. In addition, the project would not involve the placement of housing or other inhabitable buildings on the site.

Alameda County developed a Community Wildfire Protection Plan in 2012, and based on the plan, the project would adhere to all applicable recommendations and requirements. Additionally, as noted in Section IX, implementation of the proposed project would not interfere with any emergency operations plan or evacuation route.

Compliance with the Uniform Fire Code and all applicable State and local ordinances would ensure that the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Thus, a ***less-than-significant*** impact would occur.

[34] CAL FIRE. *Fire Hazard Severity Zones in SRA*. Adopted November 7, 2007.

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

Discussion

a. As discussed in Section IV, Biological Resources, of this IS/MND, a small number of special-status wildlife species could potentially occupy the project site. Such species, if present, could be negatively affected by project construction. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels. Additionally, the proposed project would not require demolition of or alteration of structures or resources in a way that would eliminate important examples of major periods of California history. Therefore, with implementation of the mitigation measures set forth in this IS/MND, the proposed project would have ***less-than-significant*** impacts related to degradation of the quality of the environment, effects on plant or wildlife species, and elimination of a plant or animal community.

b,c. The proposed project involves the development of a greenhouse and processing building for the purposes of cannabis cultivation. The proposed project would develop the site in a manner consistent with existing land use and zoning designations. As discussed throughout this IS/MND, substantial adverse effects on human beings are not anticipated with implementation of the proposed project. As discussed in Section III, Air Quality, of this IS/MND, impacts related to air quality would be mitigated to a level which would not create any adverse effects on the surrounding area. The proposed project would not include the placement of housing and would not result in any adverse effects to nearby sensitive receptors. Because all potential impacts would be mitigated to less-than-significant levels with implementation of the mitigation measures required within this IS/MND, the proposed project is not expected to have individually or cumulatively significant impacts. Therefore, impacts related to environmental effects that could cause adverse effects on human beings

or that would be individually limited, but cumulatively significant would be ***less than significant***.