PROPERTY MANAGEMENT PLAN
FOR THE

Bottle Rock Road CANNABIS CULTIVATION PROJECT AT
13095 Bottle Rock Road, Cobb, California

Preparation Date:

April 6th, 2020

Applicant:

Bottle Rock Herbal Medicine, LLC

Table of Contents

1.0 INTRODUCTION

This Property Management Plan has been prepared to fulfill the requirements of Ordinance No. 3073 and No. 3084, of the Lake County Code pertaining to Cannabis cultivation.

This Property Management Plan, and all the sub-plans, have been prepared using the guidance that is listed in Subsection 5 of the proposed amendments to Chapter 21, Article 27 of the Lake County Code. Ordinance No. 3073 describes the Plan as follows:

"*All permittees shall prepare a Property Management Plan. The intent of said plan is to identify and locate all existing cannabis and non-cannabis related uses on the property, Identify and locate all proposed cannabis and non-cannabis related uses on the property, and describe how all cannabis and non-cannabis related uses will be managed in the future. The property management plan shall demonstrate how the operation of the commercial cannabis cultivation site will not harm the public health, safety, and welfare or the natural environment of Lake County.* "

Note that Ordinance No. 3084 modifies and reduces the contents of the Property Management Plan. However, in another part of Ordinance 3084, specifically Section 4, Subsection 2 i (d) (11), it states that the applicant must prepare a "Written Description":

"A statement of the applicant's proposal for solid waste disposal, vegetative waste disposal, storm water management, fish and wildlife protection, water resources protection, energy use, water use, pest management, fertilizer use, property management, grading, organic farming, and protection of cultural resources."

Since these written description requirements are the same contents of the Property Management Plan described in Ordinance No. 3073, the format used for this Plan is the guidance provided by Ordinance No. 3073. Thus, this Property Management Plan fulfills the requirements of both Ordinance No. 3073 and Ordinance No. 3084.

This Plan is intended to be a "working" document, updated as necessary, such that when operational activities or processes are modified or replaced, the applicable sub-plans are revised to reflect these changes. Relevant sub-plans should also be amended whenever the goals of the Plan are not met, whenever a significant pollution event or other non-compliance event occurs, or whenever a violation notice is issued.

2.0 PROJECT LOCATION AND DESCRIPTION

Cannabis cultivation operations are planned on a 61.8-acre parcel (APNs 011-039-37, 011-039-38) at 13095 Bottle Rock Road, Cobb Mountain, in Lake County, California. The Project Area is accessed by a private graveled driveway off Bottle Rock Road.

Cannabis is proposed to be cultivated in a 3.23-acre cultivation compound. 1,425 linear feet of fencing that will be 6 feet tall will surround 82,605 square feet of cultivation area in the eastern meadow and 1,373 linear feet of fencing that will be 6 feet tall will surround 58,299 square feet of cultivation area in the western meadow of the property.

The current plan is to acquire 11 outdoor cannabis cultivation licenses, totaling 3 acres of cannabis canopy. The cultivation area may be outfitted with the following. The operational area may total up to 3.23 acres, with a total of 3 acres (130,680 square feet) of cannabis canopy, plus a water supply system.

An existing home will house 1 caretaker. Electricity for the home is provided by solar. A propane tank (approximately 300 gallons) provides fuel for heating the home. The existing well and 10-acre feet of water in the pond will serve the cultivation operation. If necessary, a new agricultural well may be developed. Employees will use the existing parking near the cafeteria. Employees will have access to flush toilets that are ADA compliant and within 500 feet of the cultivation area. A septic system services the home and cafeteria. There will be five temporary 40' x 8' Conex shipping containers for curing and drying of the cannabis, cured cannabis storage and for chemical storage on the northern portion of the 4-court basketball court that will be placed 150 feet from Kelsey Creek.

The cultivation operational area was designed to be located on areas of least environmental impact, on level land, and with enough setbacks from watercourses, property lines, and other sensitive natural resources. No grading will be required for this project but and zero trees are planned for removal.

2.1. Maps

The Maps are enclosed with the MUP application.

3.0 GRADING

Lake County Grading Ordinance (Chapter 30 of the Lake County Code) indicates that a grading permit is needed if the grading volume is 50 cubic yards or more or if 1 acre of native vegetation is cleared. The cultivation operational area was designed to be located on areas of least environmental impact, on level land, and with enough setbacks from watercourses, property lines, and other sensitive natural resources. The cultivation areas are to be developed in areas that are flat and level and will require no grading activity to prepare them for planting. Erosion and sediment control in the form of straw wattles will be placed around the perimeter of both cultivation areas in order to catch and retain any loose soils that may migrate from the planting areas. The design is very stable and has a low potential for erosion problems.

4.0. AIR QUALITY MANAGEMENT PLAN

4.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Air Quality:

(a) Intent: All cannabis permittees shall not degrade the County's air quality as determined by the Lake County Air Quality Management District (LCAQMD).
(b) In this section permittees shall identify any equipment or activity that which may cause, potentially cause the issuance of air contaminants including odor, and shall identify measures to be taken to reduce, control or eliminate the issuance of air contaminants, including odors.
(c) All cannabis permittees shall obtain an Authority to Construct permit pursuant to LCAQMD Rules and Regulations, prior to the construction of the facility described in the Property Management Plan.
(d) All cannabis permittees shall obtain Authority to Construct Permit pursuant to LCAQMD Rules and Regulations, if applicable, to operate any article, machine, equipment or other contrivance which causes or may cause the issuance of an air contaminant.
(e) All permittees shall maintain an Authority to Construct or Permit to Operate for the life of the project, until the operation is closed, and equipment is removed.
(f) The applicant shall prepare an odor response program that includes (but is not limited to):

a. *Designating an individual(s) who is/are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays.*
b. *Providing property owners and residents of property within a 1,000-foot radius of the cannabis facility, with the contact information of the individual responsible for responding to odor complaints.*
c. *Policies and procedures describing the actions to be taken when an odor complaint is received, including the training provided to the responsible party on how to respond to an odor complaint.*
d. *The description of potential mitigation methods to be implemented for reducing odors, including add-on air pollution control equipment.*
e. *Contingency measures to mitigate/curtail odor and other emissions in the event the methods described above are inadequate to fully prevent offsite nuisance conditions.*

4.2. Air Quality Setting and Potential Pollutant Sources

The project is in the Lake County Air Basin. The Lake County Air Quality Management District (LCAQMD) regulates air quality in Lake County. The U.S. Environmental Protection Agency (EPA) sets acceptable levels for seven air pollutants, and then determines — with the help of states and local air districts — where those standards are or are not met. Lake County currently meets the EPA's health standards for five of those pollutants: carbon monoxide; nitrogen dioxide; sulfur dioxide; lead; and coarse particulates. For the other two — ground - level ozone and fine particulate pollution — Lake County is a part of a regional non-attainment area. There are no sensitive receptors nearby. Public facilities such as schools and churches are greater than 2 miles away.

Short-term grading or construction emissions could include fugitive dust and other particulate matter, as well as exhaust emissions generated by earthmoving activities from operation of tractors, tillers, etc., during site preparation. Construction emissions are caused by onsite or offsite activities. Onsite emissions principally consist of exhaust emissions (NOX, CO, ROG, PM10, and PM2.5) from heavy-duty construction equipment, motor vehicle operation, and fugitive dust from disturbed soil. Offsite emissions are caused by motor vehicle exhaust from delivery vehicles as well as worker commuter traffic, but they also include road dust (PM10).

Only a few persons working for a few days will be needed for site preparation, and such low numbers of man-hours would not generate significant vehicle emissions.

Operational emission sources consist of mobile emissions and area source emissions. Mobile source emissions estimates are derived from motor vehicle traffic from staff commuting. Area source emissions estimates are derived from the consumption of propane, electricity, and

consumer products, as well as emissions resulting from landscape maintenance. However, this cultivation operation does not require the use of significant amounts of propane, electricity, or other consumer products. Cultivation operations may generate fugitive dust emissions through ground-disturbing activities such as ground tilling, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. Up to four employees may be commuting daily and would not generate significant vehicle emissions.

Operation of the proposed cultivation operation would generate small amounts of carbon dioxide from operation of small engines, such as tillers, and from vehicular traffic associated with staff commuting. The generation of carbon dioxide would be partially offset by the cultivation of fast-growing plants, which remove carbon dioxide in the air for photosynthesis. The proposed cultivation operations would not consume excessive amounts of energy because plants will utilize natural sun for light. In addition, use of equipment such as tractors will be limited to a short period of time at the beginning of each growing cycle.

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

> "*Despite the potential air quality emission-generating sources described above that are associated with cannabis cultivation activities, it is not anticipated that the Proposed Program would conflict with or obstruct implementation of air quality plans for the numerous reasons outlined below. First, the cannabis cultivation activities under the Proposed Program would not be anticipated to generate a substantial number of vehicle trips. In addition, outdoor cultivation activities would generally occur on such small acreages that these activities would often not require intensive use of heavy equipment.*"

The CDFA CalCannabis Program concluded that small outdoor Cannabis cultivation operations would not contribute significantly to greenhouse gas emissions because of the limited use of combustion-powered equipment and vehicles and because County ordinances limit the use of generators to emergency use only (CDFA 2017).

4.3. Permits

According to the Ordinance:

"*All cannabis permittees shall obtain Authority to Construct Permit pursuant to LCAQMD Rules and Regulations, if applicable, to operate any article, machine, equipment or other contrivance which causes or may cause the issuance of an air contaminant, prior to the construction of the facility described in the Property Management Plan. All permittees shall maintain an Authority to Construct or Permit to Operate for the life of the project, until the operation is closed, and equipment is removed.*"

Air permits from the LCAQMD may be necessary to operate these proposed facilities if regulated machines or equipment are used. For Cannabis operations, this is typically limited to the use of electricity generators. No LCAQMD permits are necessary to construct or operate the project as currently designed. Any LCAQMD permits obtained should be listed in this Plan. According to LCAQMD their board has voted them out of being part of the cannabis cultivation activities in Lake County.

4.4. Dust Management

Cultivation operations may generate minimal amounts of fugitive dust emissions through ground-disturbing activities such as ground tilling, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. This property has gravelled roads. The following are mitigation measures that can be used to control dust. Staff should be informed of speed limits and dust pollution. A 5 MPH speed limit sign is posted. The roadways may be clearly marked for limited speed to control dust. Dusty road segments can be armored with gravel or asphalt. A road maintenance program is implemented. On tilled earth and stockpiles, fugitive dust can be controlled by wetting the soil with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy. Water applications may be concentrated during the late summer and early fall months, when soils have the lowest moisture content or when winds are severe. BMP Fact Sheets WE-1: Wind Erosion Control and NS-1: Water Conservation Practices will be implemented to provide dust control and prevent discharges from dust control activities and water supply equipment. Water application rates will be minimized as necessary to prevent runoff and ponding and water equipment leaks will be repaired immediately. During windy conditions (forecast or actual wind conditions of 25 miles per hour or greater), dust control may be applied to disturbed areas, including haul roads, to adequately control wind erosion. BMP Factsheet WM-3: Stockpile Management will be implemented using silt fences and plastic covers to prevent wind dispersal of sediment from stockpiles. The minimum amount of water should be used: refer to BMP Factsheet NS-1: Water Conservation Practices.

4.5. Odor Response Program

According to the Ordinance:

"a. *Designating an individual(s) who is/are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays.*
b. Providing property owners and residents of property within a 1,000-foot radius of the cannabis facility, with the contact information of the individual responsible for responding to odor complaints.
c. Policies and procedures describing the actions to be taken when an odor complaint is received, including the training provided to the responsible party on how to respond to an odor complaint.
d. The description of potential mitigation methods to be implemented for reducing odors, including add-on air pollution control equipment.
e. Contingency measures to mitigate/curtail odor and other emissions in the event the methods described above are inadequate to fully prevent offsite nuisance conditions."

The individual(s) that are responsible for responding to odor complaints are:

- Charles Ewing – (707) 333-3565
- Joleen Wignall – (707) 337-6584

The nearest property owners or residents within a 1,000-foot radius of these cannabis facilities are:

- 13200 Bottle Rock Road, Cobb Marius Ringer (TE), contact info t.b.d.
- 13080 Bottle Rock Road, Cobb. Oculux Inc., contact info t.b.d.
- 13040 Bottle Rock Road, Cobb, Oculux Inc. contact info t.b.d.
- 13025 Bottle Rock Road, Cobb Jessica Beck, contact info t.b.d.
- 12985 Bottle Rock Road, Kelseyville, James Pool, contact info t.b.d.
- 12869 Bottle Rock Road, Kelseyville, Mary Keesling (TE), contact info t.b.d.
- 7200 Glenbrook Road, Cobb, Mary Keesling (TE), contact info t.b.d.
- 7480 Glenbrook Road, Cobb, Elaine Robinson (TE), contact info t.b.d.
- 8200 Sulphur Creek Road, Loch Lomond, Gabriel Grimshaw, contact info t.b.d.
- 7625 Glenbrook Road, Cobb, Michael Salit, contact info t.b.d.
- 14117 Bottle Rock Road, Cobb, Cobb Valley, LLC, contact info t.b.d.
- 13355 Bottle Rock Road, Cobb, James Huff, contact info t.b.d.
- 13295 Bottle Rock Road, Cobb, Barbara Huff (TE), contact info t.b.d.
- 13195 Bottle Rock Road, Cobb, James Huff, contact info t.b.d.
- 13415 Bottle Rock Road, Cobb, Deborah Fennell, contact info t.b.d.
- 13405 Bottle Rock Road, Cobb, Deborah Fennell, contact info t.b.d.

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

4.5.1. Odor Mitigation

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

If odors become objectionable to neighbors, odor mitigation will be implemented. The cultivation operation will be analyzed to determine the source of odor emission and any concentrating effects. Mitigation can include some combination of the following:

- Windscreens could be erected that could partially contain odors within the cultivation compound.
- Powerful fans, such as used for vineyard frost control, could be installed to guide air flow in the opposite direction.
- Alterations to atmospheric controls (temperature, air exchange, humidity) using dehumidifier, HVAC system, and/or fans (inside curing containers).

5.0 CULTURAL RESOURCES

5.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Cultural Resources:

(a) Intent: All permittees shall protect the cultural, historical, archaeological, and paleontological resources on the lot of record where the permitted activity is located.
(b) The Department shall consult with appropriate Tribe regarding the potential of such resources being located on the lot of record.
(c) Based on that consultation, the Department may require a cultural resource study of the property to determine the extent such resources exist on the lot of record.
(d) Based on that study and in consultation with the appropriate Tribe(s), the Department may require the inclusion in this section.
(e) This section shall include:

a. Detailed procedures on actions to take if such resources are found.
b. Describe the procedures to be followed if cultural, historical, archaeological, and paleontological resources are found on the property.

5.2. Cultural Resources

The following Cultural Resources Assessment was performed for this property at 13095 Bottle Rock Road, Cobb Mountain by John Parker in March of 1982. Dr. Parker gave further recommendations on January 1, 2020 which states several sites on the property that need to be avoided. There will be no cannabis cultivation or cannabis related activity within 50 feet of LAK 905 and LAK-898. Dr. Parker reports "as long as the proposed development avoids these site areas, I don't think that a new archaeological field inspection of the parcel is warranted." If development is planned within 50 feet of the site areas plotted on the satellite image below, then it is recommended that an archaeologist be retained to flag the actual site boundaries so construction and earth moving activities can avoid the resources.
No existing artifacts were recorded within the cannabis project areas or within 50 feet of the cultivation areas.

Based on Dr. John Parker's findings of his assessment, there is no indication that the Project will impact any historical or archaeological resources as defined under CEQA Section 15064.5, tribal cultural resources as defined under Public Resources Code Section 21074, or human remains, including those interred outside of formal cemeteries. For these reasons, no further cultural resources work is needed at this time.

5.3. Protective measures

Protective measures consist primarily of minimizing ground disturbance, especially in sensitive areas. For this property, sensitive areas are areas that have not previously been tilled or graded, and primarily those areas that are near streams. Note that the riparian zones of streams are also protected under various federal, state, and county regulations. Another protective measure is worker awareness training. During training events, workers should be made aware of the regulations protecting cultural resources, the location of sensitive areas, and indicators of buried historic or archaeological resources or human remains, such as fragments of bone, shells, or pottery, unusual odors or staining of soil, building foundations, etc.

5.4. Inadvertent Discovery Work Plan

An Inadvertent Discovery Work Plan is only required by the County for properties known to have cultural resources. No cultural resources are known to occur within, or within 50 feet of the cultivation areas. Nevertheless, Inadvertent Discovery Measures are provided here and will be implemented, and are taken directly from the California Department of Food and Agriculture's Program Environmental Impact Report (2017) prepared for the CalCannabis Cultivation Licensing program:

> *"Existing cultivation activities themselves would generally have limited potential for adverse impacts on cultural resources. However, cultivation may involve excavation within soil that has not been disturbed previously. As such, while considered unlikely, excavation could encounter buried historic or archaeological resources or human remains. A mitigation measure—CR-1—was added that would ensure that any unexpected discoveries of cultural resources during cultivation do not result in significant impacts.*
>
> *It is also considered unlikely that cultivation itself would result in modification or demolition of historic structures that could affect the characteristics that make the building eligible for listing in the CRHR; such impacts would be more likely to occur as part of site development and, as a result, would be evaluated by the local agency during its approval. process for site development. In addition, the CalCannabis Licensing Program's environmental protection measures related to cultural resources, specifically the accidental discovery of human remains (Section 8313[c] of the proposed regulations), would require applicants to halt cultivation activities and implement Health and Safety Code Section 7050.5 if human remains were discovered…….*
>
> ***Mitigation Measure CR-1:*** *Suspend Cultivation Immediately if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for CRHR Eligibility, and Implement Appropriate Mitigation Measures for Eligible Resources.*
>
> *Not all cultural resources are visible on the ground surface. As a result, before initiation of ground-disturbing activities, the licensee shall arrange for cultivation employees to receive training about the kinds of archaeological materials that could be present at the cultivation site and the protocols to be followed should any such materials be uncovered during cultivation. Training shall be conducted by an archaeologist who meets the U.S. Secretary of the Interior's professional standards. Training shall be required during each phase of cultivation to educate new cultivation personnel.*
>
> *If any cultural resources, including structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during cultivation activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet and the appropriate jurisdiction will be contacted.*
>
> *All cultural resources uncovered during cultivation within the site shall be evaluated for eligibility for inclusion in CRHR. Resource evaluations shall be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology, history, or architectural history, as appropriate. If any of the resources meet the eligibility criteria identified in PRC Section 5024.1 or State CEQA Guidelines Section 21083.2(g),*

mitigation measures will be developed and implemented in accordance with State CEQA Guidelines Section 15126.4(b) before cultivation resumes.

For any resources eligible for listing in the CRHR that would be significantly adversely affected by cultivation, additional mitigation measures shall be implemented. Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, greenspace, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Implementation of the approved mitigation is required before resuming any cultivation activities with the potential to affect identified eligible resources at the site.

6.0 ENERGY USAGE

6.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Energy Usage:

(a) Intent: Permittees shall minimize energy usage.
(b) In this section permittees shall:

a. Provide energy calculation as required by the California Building Code
b. Identify energy conservation measures to be taken and maintained including providing proof of compliance with CCR Title 3, Division 8, Chapter 1, Section 8305 the Renewable Energy Requirements.
c. If alternative energy sources are to be used, describe those sources and the amount of electricity that will be provided.
d. For indoor cannabis cultivation licensees, ensure that electrical power used for commercial cannabis activity shall be provided by any combination of the following:

(1) On-grid power with 42 percent renewable source. (2) Onsite zero net energy renewable source providing 42 percent of power. (3) Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources. (4) Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.

e. Describe what parameters will be monitored and the methodology of the monitoring program.

The Ordinance also identifies these prohibited activities that are relevant to this sub-plan:

"The indoor or mixed-light cultivation of cannabis shall not rely on a personal gasoline, diesel, propane, or similar fuels, powered generator as a primary source of power and shall only allow properly permitted (when applicable) generators for temporary use in the event of a power outage or emergency that is beyond the permittee's control."

6.2. Energy Calculations

The CDFW CalCannabis Program states the following:

"Outdoor cultivation utilizes natural daylight for photosynthesis, although cultivators may have use artificial lighting to maintain immature plants as a source for propagation. Outdoor cultivation operations typically start the plants indoors or in greenhouses before moving them outside during the summer months. Under the Proposed Program, it is anticipated that this cultivation type would have the least lighting needs, compared to indoor, mixed-light, and nursery operations."
"Note that lighting may be used for propagation under any of the Proposed Program's license types, although for outdoor licenses, this is permissible only to maintain immature plants as a source for propagation."

"Outdoor cultivation is conducted without the use of artificial lighting for plant growth, with the exception that artificial lighting is permissible to maintain immature plants as a source or plant propagation (CDFA 2017)."

The Property has a service hookup to an electricity utility provider – PG&E. For the cultivation compound, electricity will be required to power small items such as security cameras, and water pumps for drawing ground and pond water and mixing liquid fertilizers into the irrigation systems.

This cultivation operation does not involve indoor cultivation; it is a full sun/outdoor cultivation operation. Aside from the house and outside ADA compliant restrooms on the south side of the cafeteria, no other structures are currently associated with this cannabis operation.

6.3. Energy Conservation Measures

A combination of the following energy conservation measures may be employed at this operation:

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

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

6.4. Alternative Energy Sources

Solar energy source is in the home and restrooms.

6.5. Monitoring Program

Energy monitoring is primarily for large energy demands, such as indoor cultivation, which is not currently used at this operation.

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

7.0 FERTILIZER USAGE

7.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Fertilizer Usage:

(a) Intent: To ensure consistency fertilizer storage and use with the other sections of the property management plan.
(b) This section shall describe how cultivation and nursery permittees will comply with the following fertilizer application and storage protocols:

a. Comply with all fertilizer label directions.
b. Store fertilizers in a secure building or shed.
c. Contain any fertilizer spills and immediately clean up any spills.
d. Apply the minimum amount of product necessary.
e. Prevent offsite drift.
f. Do not spray directly to surface water or allow fertilizer product to drift to surface water. Spray only when wind is blowing away from surface water bodies.
g. Do not apply fertilizer when they may reach surface water or groundwater; and
h. The use of fertilizer shall not be located within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level of 7.79 feet on the Rumsey Gauge.

(c) This section shall include a map of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record of land or within 100 feet of the lot of record and a 100-foot setback from any identified spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool.
(d) Describe what parameters will be monitored and the methodology of the monitoring program.

The following Nitrogen Management Plan was prepared for this project and is bound in the volume 2 binder:

- Nitrogen Management Plan for the Cultivation Operations at 13095 Bottle Rock Road, Cobb Mountain, California. Prepared for the State Water Resources Control Board.

7.2. Inventory of Fertilizers

Because the gardens have not yet been installed, it was assumed that for each 1-acre garden, approximately 19 cubic yards of worm castings would be required in each cultivation site.
Cover crop will be grown during the winter in the cultivation areas.

When the gardens are operational, this Plan will be updated with an inventory of dry fertilizers and their annual application rates.

For this cultivation operation, a typical growing season, the following amounts of fertilizers/soil amendments are used per acre: 314 pounds of Nitrogen/canopy acre/year.

7.3. Storage and Handling Protocols

Liquid or granular fertilizers can be mixed with water in mixing tanks; plastic tubing and hoses or driplines can then be used to gravity-feed the water / fertilizer mixture to the planting stations. Fertilizers and soil amendments can also be applied directly to the planting stations by shovel or by using a spray tank mounted to a backpack and or an all-terrain vehicle.

Fertilizers will be stored in a stormproof shed or Conex container so that stormwater is not contaminated. Fertilizers will be properly labeled, and open containers sealed when stored. Personal protective equipment will be used by staff when handling fertilizers and other chemicals, such as safety glasses, gloves, dust mask or respirator, boots, and pants and long-sleeved shirt. Fertilizers will be handled and applied according to their instructions. See Material Safety Data Sheets in the Appendix for specific information. The following fertilizer application and storage protocols will be implemented:

- Comply with all label directions.
- Store chemicals in a secure building or shed to prevent access by wildlife.
- Contain any chemical leaks and immediately clean up any spills.
- Apply the minimum amount of product necessary.
- Prevent offsite drift.
- Do not apply chemicals when pollinators are present.
- Do not spray directly to surface water or allow chemical product to drift to surface water.

7.4. Monitoring Program

The monitoring program for fertilizers is incorporated into the Stormwater Monitoring Program. In general, the monitoring program consists of regular inspections of chemical storage areas, the immediate cleanup of spilled products, recordkeeping of quantities and types of fertilizers used, and employee training and personal protection.

7.5. Maps

Applicable maps are attached to the application.

8.0 FISH AND WILDLIFE PROTECTION

8.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Fish and Wildlife Protection:

(a) Intent: To minimize adverse impacts on fish and wildlife.
(b) In this section permittees shall include:
a. A description of the fish and wildlife that are located on or utilize on a seasonal basis the lot of record where the permitted activity is located.
b. A description of the habitats found on the lot of record.
c. A description of the watershed in which the permitted activity is located.
d. Describe how the permittee will minimize adverse impacts on the fish and wildlife.
e. A map showing the location of any conservation easements or wildlife corridors proposed.

The Ordinance also identifies these prohibited activities that are relevant to this sub-plan:

"Tree Removal. The removal of any commercial tree species as defined by the California Code of Regulations section 895.1, Commercial Species for the Coast Forest District and Northern Forest District, and the removal of any true oak species (Quercus species) or Tan Oak (Notholithocarpus spices) for the purpose of developing a cannabis cultivation site should be avoided and minimized. This shall not include the pruning of any such tree species for the health of the tree or the removal of such trees if necessary, for safety or disease concerns."

Note also that the removal of commercial tree species requires either a Timberland Conversion Permit from California Department of Forestry and Fire Protection for the conversion of timberland greater than 3 acres, or an exemption for the conversion of timberland less than 3 acres.

The following Biological Site Assessment was performed for the proposed project and is bound in the volume 1 binder:

- Natural Investigations Co. 2020. Biological Site Assessment for the Cannabis Cultivation Operations at 13095 Bottle Rock Road, Cobb Mountain, California.

8.2. Description of Fish & Wildlife, Habitats, and Watersheds

8.2.1. Fish and Wildlife

A biological report was conducted on January 09, 2020 by biologist Tim Nosal, M.S. (Natural Investigations Co., Inc.). The operational areas will be located outside of oak woodland. No critical habitat for any federally listed species occurs within the Study Area.

The following animals were detected within the Property during the field survey:
(Natural Investigations Co. biological report page 9)

8.2.2. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES

(Natural Investigations Co. biological report page 9)

For the purposes of this assessment, "special status" is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act.
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970.
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901).
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700 or §5050)

Reported Occurrences of Listed Species and Other Special-status Species

(Natural Investigations Co. biological report page 10)

A list of special-status plant and animal species that have occurred within the Study Area and vicinity was compiled based upon the following:

- Any previous and readily available biological resource studies pertaining to the Study Area.
- Informal consultation with USFWS by generating an electronic Species List (Information for Planning and Conservation website at https://ecos.fws.gov/ipac/); and
- A spatial query of the CNDDB.

The CNDDB was queried and any reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (see exhibits). The CNDDB reported two special-status species occurrences within the vicinity of the Study Area:

- foothill yellow-legged frog (*Rana boylii*), "*vicinity of Binkley Ranch, about 3 mi NW of Cobb; MVZ fieldnotes for 1955 collections says collectors stayed at Binkley Ranch and collected in vicinity from Kelsey Creek and Mahnke Ranch.*"; and
- glandular western flax (*Hesperolinon adenophyllum*), "*Kelsey Creek, about 9 miles south southeast of town of Kelseyville, in Lake County; from headwaters in Cobb Valley downstream to waterfall barrier at about 2000 ft. elevation. Also includes lower reaches of tributaries in headwater area.*" A second record is reported as follows: "*North of Glenbrook, northeast of junction of Bottle Rock Road and Sulphur Creek Road. Mapped mostly within the west 1/2 of section 28, slightly extending into the east 1/2 of section 29.*"

These species were not observed during the field survey. However, suitable aquatic habitat for the yellow-legged frog is present in Kelsey Creek and in the unnamed Class II watercourses. The serpentine soil underlaying the chaparral vegetation in the eastern part of the Study Area may provide suitable habitat for Glandular Western Flax.

Within a 10-mile buffer of the Study Area boundary, the CNDDB reported numerous special-status species occurrences, summarized in Table 1. A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System (see Appendix 1). This list is generated using a regional and/or watershed approach and does not necessarily indicate that the Study Area provides suitable habitat. The following listed species should be considered in the impact assessment:

- Birds
  - Northern Spotted Owl (*Strix occidentalis caurina*) Threatened
- Reptiles
  - Green Sea Turtle (*Chelonia mydas*) Threatened

- Amphibians
  - California Red-legged Frog (*Rana draytonii*) Threatened
- Fishes
  - Delta Smelt (*Hypomesus transpacificus*) Threatened
- Crustaceans
  - California Freshwater Shrimp (*Syncaris pacifica*) Endangered
  - Conservancy Fairy Shrimp (*Branchinecta conservation*) Endangered
- Flowering Plants
  - Burke's Goldfields (*Lasthenia burkei*) Endangered
  - Few-flowered Navarretia (*Navarretia leucocephala ssp. pauciflora)* Endangered
  - Slender Orcutt Grass (*Orcuttia tenuis*) Threatened
- Migratory Birds

Critical Habitat and Special-status Habitat

No critical habitat for any federally listed species occurs within the Study Area. One special-status habitat was detected within the Study Area during the field survey: riparian. The CNDDB reported one special- status habitats within the Study Area: Clear Lake Drainage Resident Trout Stream. The CNDDB reported six additional special-status habitats within a 10-mile radius outside of the Study Area: Central Valley Drainage Rainbow Trout/Cyprinid Stream; Clear Lake Drainage Cyprinid/Catostomid Stream; Clear Lake Drainage Seasonal Lake fish Spawning Stream; Northern Basalt Flow Vernal Pool; Northern Volcanic Ash Vernal Pool; and Coastal and Valley Freshwater Marsh. **(Natural Investigations Co. biological report page 9)**

Habitat Plans and Wildlife Corridors

Wildlife movement corridors link remaining areas of functional wildlife habitat that are separated primarily by human disturbance, but natural barriers such as rugged terrain and abrupt changes in vegetation cover are also possible. Wilderness and open lands have been fragmented by urbanization, which can disrupt migratory species and separate interbreeding populations. Corridors allow migratory movements and act as links between these separated populations. No designated wildlife corridors exist within or near the Study Area. Kelsey Creek may function as a wildlife corridor and fishery within the Study Area; however, this project will not directly or indirectly impact Kelsey Creek. The Study Area is not located within any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

(Natural Investigations Co. biological report page 9)

Table 1. Special-status Species Reported by CNDDB in the Vicinity of the Study Area

(Natural Investigations Co. biological report page 12 – 17 in volume 1 binder)

Common Name *Scientific Name*	**Status***	**General Habitat**	**Microhabitat**
Red-bellied newt *Taricha rivularis*	CSSC	Found in coastal woodlands and redwood forests along the coast of Northern California	A stream or river dweller. Larvae retreat into vegetation and under stones during the day.
California giant salamander *Dicamptodon ensatus*	CSSC	Mendocino and Lake Counties south to Santa Cruz and Santa Clara Counties.	Wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages.
Foothill yellow-legged frog *Rana boylii*	CCT/ CSSC	Partly shaded, shallow streams & riffles with a rocky substrate in a variety of habitats.	Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
Osprey *Pandion haliaetus*	CWL	Ocean shore, bays, fresh-water lakes, and larger streams.	Large nests built in treetops within 15 miles of a good fish-producing body of water.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT/ CE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.
Purple martin *Progne subis*	CSSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, & Monterey pine.	Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.
Bell's sage sparrow *Artemisiospiza belli*	CWL	Nests in chaparral dominated by dense stands of chamise. Found in coastal sage scrub in south of range.	Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.
Tricolored blackbird *Agelaius tricolor*	CT/CSSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony.
Steelhead - central California coast DPS *Oncorhynchus mykiss irideus* **pop. 8**	FT	From Russian River, south to Soquel Cr & to, but not including, Pajaro River. Also San Francisco & San Pablo Bay basins.	
Clear Lake hitch *Lavinia exilicauda chi*	CT	Found only in Clear Lake, Lake Co, and associated ponds. Spawns in streams flowing into Clear Lake.	Adults found in the limnetic zone. Juveniles found in the nearshore shallow-water habitat hiding in the vegetation.
Sacramento perch *Archoplites interruptus*	CSSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley.	Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.
Long eared myotis *Myotis evotis*	CSSC	Found in all brush, woodland & forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands & forests.	Nursery colonies in buildings, crevices, spaces under bark, & snags. Caves used primarily as night roosts.
Fringed myotis *Myotis thysanodes*	CSSC	In a wide variety of habitats, optimal habitats are pinyon-	Uses caves, mines, buildings or crevices for maternity colonies and roosts.

Common Name *Scientific Name*	**Status***	**General Habitat**	**Microhabitat**
		juniper, valley foothill hardwood & hardwood-conifer.	
Hoary bat *Lasiurus cinereus*	CSSC	Prefers open habitats or habitat mosaics, with access to trees for cover & open areas or habitat edges for feeding.	Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.
Western red bat *Lasiurus blossevillii*	CSSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests.	Prefers habitat edges & mosaics with trees that are protected from above & open below with open areas for foraging.
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
Pallid bat *Antrozous pallidus*	CSSC	Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting.	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
North American porcupine *Erethizon dorsatum*	CSSC	Coast ranges, Klamath Mountains, southern Cascades, Modoc Plateau, Sierra Nevada and Transverse Ranges.	Montane conifer and wet meadow habitats.
Fisher - West Coast DPS *Pekania pennanti*	CT/CSSC	Intermediate to large-tree stages of coniferous forests & deciduous-riparian areas with high percent canopy closure.	Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.
Western pond turtle *Emys marmorata*	CSSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, be	Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying
An isopod *Calasellus californicus*	CSSC	Known from Lake, Napa, Marin, Santa Cruz and Santa Clara Counties.	
Brownish dubiraphian riffle beetle *Dubiraphia brunnescens*	CSSC	Aquatic; known only from the ne shore of Clear Lake, Lake County.	Inhabits exposed, wave-washed willow roots.
Ricksecker's water scavenger beetle *Hydrochara ricksecker*	CSSC	Aquatic.	
Western bumble bee *Bombus occidentalis*	CSSC	Once common & widespread, species has declined precipitously from Central Ca to southern B.C., perhaps from disease.	
Obscure bumble bee *Bombus caliginosus*	CSSC	Open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests.	Food plants include *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium,* and *Vaccinium*.

Common Name *Scientific Name*	**Status***	**General Habitat**	**Microhabitat**
Borax Lake cuckoo wasp *Hedychridium milleri*	CSSC	Endemic to Central California. Only collection is from the type locality.	External parasite of wasp and bee larva.
Clear Lake pyrg *Pyrgulopsis ventricosa*	CSSC	Restricted to Seigler Creek drainage in the south end of the Clear Lake Basin.	Freshwater.
Toren's grimmia *Grimmia torenii*	1B.3	Cismontane woodland, lower montane coniferous forest, chaparral.	Openings, rocky, boulder and rock walls, carbonate, volcanic. 325-1160 m.
Elongate copper moss *Mielichhoferia elongata*	4.3	Cismontane woodland. Commonly called "copper mosses".	Moss growing on very acidic, metamorphic rock or substrate; usually in higher portions in fens. Often on Substrates
Loch Lomond button-celery *Eryngium constancei*	FE/CE/1B.1	Vernal pools.	Volcanic ash flow vernal pools. 460-855 m.
Greene's narrow-leaved daisy *Erigeron greenei*	1B.2	Chaparral.	Serpentine and volcanic substrates, generally, in shrubby vegetation. 80-1005 m.
Burke's goldfields *Lasthenia burkei*	FE/CE/1B.1	Vernal pools, meadows and seeps.	Most often in vernal pools and swales. 15-600 m.
Colusa layia *Layia septentrionalis*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 145-1095m.
Hall's harmonia *Harmonia hallii*	1B.2	Chaparral.	Serpentine hills and ridges. Open, rocky areas within chaparral. 500-900 m.
Bent-flowered fiddleneck *Amsinckia lunaris*	1B.2	Cismontane woodland, valley and foothill grassland.	50-500m.
Serpentine cryptantha *dissita*	1B.2	Chaparral.	Serpentine outcrops. 330-730m.
Freed's jewelflower *Streptanthus brachiatus ssp. hoffmanii*	1B.2	Chaparral, cismontane woodland.	Serpentine rock outcrops, primarily in geothermal development areas. 490-1220 m.
Socrates Mine jewelflower *Streptanthus brachiatus ssp. brachiatus*	1B.2	Chaparral, closed-cone coniferous forest.	Serpentine areas and serpentine chaparral. 545-1000 m.
Hoffman's bristly jewelflower *Streptanthus glandulosus ssp. hoffmanii*	1B.3	Chaparral, cismontane woodland, valley and foothill grassland.	Moist, steep rocky banks, in serpentine and non-serpentine soil. 120-475m.
Green jewelflower *Streptanthus hesperidis*	1B.2	Chaparral, cismontane woodland.	Openings in chaparral or woodland; serpentine, rocky sites. 130-760m.
Watershield *Brasenia schreberi*	2B.3	Freshwater marshes and swamps.	Aquatic from water bodies both natural and artificial in California.
Cascade downingia	2B.2	Cismontane woodland, valley and foothill grasslands.	Lake margins and vernal pools.

Common Name *Scientific Name*	**Status***	**General Habitat**	**Microhabitat**
Downingia willamettensis			
Legenere *Legenere limosa*	1B.1	Vernal pools.	In beds of vernal pools. 1-880 m.
Mt. Saint Helena morning-glory *Calystegia collina ssp. oxyphylla*	4.2	Chaparral, lower montane coniferous forest, valley and foothill grassland.	On serpentine barrens, slopes, and hillsides. 280-1010 m.
Three-fingered morning-glory *Calystegia collina ssp. tridactylosa*	1B.2	Chaparral, cismontane woodland.	Rocky, gravelly openings in serpentine. 0-600 m.
Oval-leaved viburnum *ellipticum*	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest.	215-1400 m.
Lake County stonecrop *Sedella leiocarpa*	FE/CE/1B.1	Valley and foothill grassland, vernal pools, cismontane woodland.	Level areas that are seasonally wet and dry out in late spring, substrate usually of volcanic origin. 365-790 m.
Raiche's manzanita *Arctostaphylos stanfordiana ssp. raichei*	1B.1	Chaparral, lower montane coniferous forest.	Rocky, serpentine sites. Slopes and ridges. 450-1000 m.
Konocti manzanita *Arctostaphylos manzanita ssp. elegans*	1B.3	Chaparral, cismontane woodland, lower montane coniferous forest.	Volcanic soils. 395-1615 m.
Jepson's milk-vetch *Astragalus rattanii var. jepsonianus*	1B.2	Cismontane woodland, valley and foothill grassland, chaparral.	Commonly on serpentine in grassland or openings in chaparral. 180-1000 m.
Cobb Mountain lupine *Lupinus sericatus*	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, broadleafed upland forest.	In stands of knobcone pine-oak woodland, on open wooded slopes in gravelly soils; sometimes on serpentine. 275-1525 m.
Napa bluecurls *Trichostema ruygtii*	1B.2	Cismontane woodland, chaparral, valley and foothill grassland, vernal pools, lower montane coniferous forest.	Often in open, sunny areas. Also has been found in vernal pools. 30-590m.
Woolly meadowfoam *Limnanthes floccosa ssp. floccosa*	4.2	Chaparral, cismontane woodland, valley and foothill grassland, vernal pools.	Vernally wet areas, ditches, and ponds. 60-1335 m.
Glandular western flax *Hesperolinon adenophyllum*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Serpentine soils; generally found in serpentine chaparral. 150-1315 m.
Two-carpellate western flax *Hesperolinon bicarpellatum*	1B.2	Serpentine chaparral.	Serpentine barrens at edge of chaparral. 60-1005 m.
Lake County western flax *Hesperolinon didymocarpum*	1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Serpentine soil in open grassland and near chaparral. 330-365m.

Common Name *Scientific Name*	**Status***	**General Habitat**	**Microhabitat**
Dimorphic snapdragon *Antirrhinum subcordatum*	4.3	Chaparral, lower montane coniferous forest.	Generally, on serpentine or shale in foothill woodland or chaparral on s- and w-facing slopes. 185-800 m.
Northern meadow sedge *Carex praticola*	2B.2	Meadows and seeps.	Moist to wet meadows. 0-3200 m.
Dwarf soaproot *Chlorogalum pomeridianum var. Minus*	1B.2	Chaparral, valley and foothill grassland.	Serpentine. 240-970 m.
Geysers panicum *acuminatum var. thermale*	CE/1B.2	Closed-cone coniferous forest, riparian forest, valley and foothill grassland.	Usually around moist, warm soil in the vicinity of hot springs. 305-2470 m.
California satintail *Imperata brevifolia*	2B.1	Coastal scrub, chaparral, riparian scrub, Mojavean scrub, meadows and seeps (alkali), riparian scrub.	Mesic sites, alkali seeps, riparian areas. 0-1215 m.
Slender Orcutt grass *Orcuttia tenuis*	FT/ CE/1B.1	Vernal pools.	Often in gravelly pools. 35-1760 m.
Eel-grass pondweed *Potamogeton zosteriformis*	2B.2	Marshes and swamps.	Ponds, lakes, streams. 0-1860 m.

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; FPE = Federally proposed for listing as endangered; FPT = Federally proposed for listing as threatened; FC = Candidate for Federal listing; MB = Migratory Bird Act; CE = California State listed as endangered; CT = California State listed as threatened; CR = California rare species; CCE= California candidate for listing as Endangered; CCT= California candidate for listing as Threatened; CSSC = California species of special concern; CWL= California Watch List; CFP = California fully protected species; CBR = Considered but Rejected; CNPS (California Native Plant Society) List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere; and CNPS List 4 = CNPS Watch List: Plants of limited distribution. **(Natural Investigations Co. biological report pages 12- 17)**

8.2.3. POTENTIALLY JURISDICTIONAL WATER RESOURCES

An informal assessment for the presence of potentially jurisdictional water resources within the Study Area was also conducted during the field survey. **(Natural Investigations Co. biological report page 18)**

For purposes of this biological site assessment, non-wetland waters were classified using the California Forest Practice Rules. The California Forest Practice Rules define a Class I watercourse as 1) a watercourse providing habitat for fish always or seasonally, and/or 2) providing a domestic water source; a Class II watercourse is 1) a watercourse capable of supporting non-fish aquatic species, or 2) a watercourse within 1000 feet of a watercourse that seasonally or always has fish present; a Class III watercourse is a watercourse with no aquatic life present and that shows evidence of being capable of transporting sediment to Class I and Class II waters during high water flow conditions.

The USFWS National Wetland Inventory reported 4 water features within the Study Area: one Class I watercourse, two Class II watercourses and one freshwater pond. (see Appendix 1 of the biological report prepared by Natural investigation on 1/23/2020)

The Project Area does not contain any channels or wetlands. The following water features were detected within the Study Area during the field survey (see Exhibits):and **(Natural Investigations Co. biological report page 19)**

- one Class I watercourse,
- two Class II watercourses,
- three Class III watercourses,
- one spring-fed, man-made freshwater pond
- and riverine wetlands.
- There are no vernal pools or other isolated wetlands in the Study Area.

8.2.4. Potential Direct / Indirect Adverse Effects Upon Special-status Species

> *Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?* **(Natural Investigations Co. biological report page 19)**

No special-status species were detected within the Study Area. The CNDDB reported two special-status species occurrences within the vicinity of the Study Area: foothill yellow-legged frog and glandular western flax. These species were not observed during the field survey in the Study Area. However, suitable habitat for both species is present within the Study Area (in the area marked, see Exhibits), but not within the Project Area itself. The pasture/game fields within the Study Area have a low potential for harboring special-status plant species due to the dominance of non-native grasses and forbs. The

watercourses and riparian habitats within the Study Area can sustain aquatic special-status species. The chaparral and woodland habitats within the Study Area can sustain special-status plant and animal species.

The installation of the cultivation area will occur on areas that were previously maintained as recreational game fields. The cannabis cultivation / operation area is 100 feet away from the nearest watercourse. Chaparral and woodland habitats will not be impacted by project construction. Because the operational areas are situated on areas that are disturbed or lack sensitive habitats and set back well away from channels and other aquatic habitats, no impacts to special-status species should occur from project implementation. Therefore, no mitigation is required.

If land clearing is performed in the future, a pre-construction special-status species survey is recommended.

The Study Area contains suitable nesting habitat for various bird species because of the presence of trees and poles. However, no nests or nesting activity was observed in the project area during the field survey. Trees must be inspected for the presence of active bird nests before tree felling or ground clearing. If active nests are present in the project area during construction of the project, CDFW should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site.
(biological report by natural investigations pages 19-20)

8.2.5. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors

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

The Study Area is not within any designated listed species' critical habitat.

The Study Area contains one terrestrial special-status habitat: riparian corridors along the watercourses. Undisturbed woodland and chaparral habitat may support a variety of special-status species. However, there is no evidence that project implementation will impact riparian, woodland, or chaparral habitats. Therefore, no mitigation is required.

Recommended Mitigation Measures

No mitigation is necessary.
(biological report by natural investigations page 21)

8.2.6. Potential Direct/Indirect Adverse Effects on Jurisdictional Water Resources

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

There are several water resources within the Study Area: one Class I watercourse, two Class II watercourses, three Class III watercourses, one freshwater pond and riverine wetlands. Potential direct impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation or the filling of wetlands. However, the operational areas are situated on areas that are set back well away from channels and other aquatic habitats, no impacts to Jurisdictional Water Resources should occur from project implementation.

Cultivators who enroll in the State Water Board's Waste Discharge Requirements for Cannabis Cultivation Order WQ 2019-0001-DWQ must comply with the Minimum Riparian Setbacks, as summarized in the following table. The Project would be considered to have a significant adverse impact on jurisdictional water resources if it would be non-compliant with these requirements. The minimum riparian setbacks apply to all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement).
(biological report by natural investigations page 21)

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

The proposed project is compliant with the setback requirements of Cannabis Cultivation Order WQ 2019-0001-DWQ. Potential indirect impacts to water resources could occur during construction by increased erosion and sedimentation in receiving water bodies due to soil disturbance.

The total area of ground disturbance from installation of the cultivation operation is more than 1 acre; therefore, the Cultivator will need to enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

The Study Area does not have a significant erosion potential, because slopes are not steep, areas of ground disturbance are small, and vegetated buffers are present. Therefore, no mitigation is required.

Ongoing compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, inspections and reporting, and regulatory oversight. Therefore, no mitigation is required. (biological report by natural investigations pages 21-22))

Potential adverse impacts to water resources could occur during operation of cultivation activities resources by discharge of sediment or other pollutants (fertilizers, pesticides, human waste, etc.) into receiving waterbodies. However, the project proponent must file a Notice of Intent and enroll in Cannabis Cultivation Order WQ 2019-0001-DWQ. Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight. Therefore, no mitigation is required.

It is recommended that a formal delineation of jurisdictional waters be performed before construction work, or ground disturbance, is performed near any wetland or drainage.

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed.
(biological report by natural investigations pages 21-22)

8.2.7. Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in CNDDB) exist within or near the Study Area, the open space and the stream corridors in the Study Area, including Kelsey Creek, facilitate animal movement and migrations. While the Study Area may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the Study Area would still be available.

Implementation of the proposed project would necessitate erection of security fences around the cultivation compounds. These fences do not allow animal movement and may act as a local barrier to wildlife movement. However, the fenced cultivation areas are surrounded by open space, allowing wildlife to move around these fenced areas. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

Recommended Mitigation Measures

No mitigation is necessary **(biological report by natural investigations page 22)**

8.2.8 Environmental Settings

The Study Area is located within the Inner North Coast Ranges geographic subregion, which is contained within the Northwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately cold winters. The Study Area and vicinity is in Sunset Climate Zone 7 - California's Gray Pine Belt, defined by hot summers and mild but pronounced winters without severe winter cold or high humidity (Sunset, 2020). The topography of the Study Area consists of low hills surrounding a wide, flat valley. The elevation ranges from approximately 2275 feet to 2490 feet above mean sea level. Drainage runs south, and eventually flows into Kelsey Creek in the southern portion of the parcel. Kelsey Creek is tributary to Clear Lake.

Prior to the establishment of this cultivation operation, the property was used as a group camp facility. The surrounding land uses are private estates with gardens or corrals, open space, campgrounds and grazing land.

The Natural Resources Conservation Service (NRCS) has identified several soil types within the Study Area. The geology that underlays the site includes soils derived from alluvium, sandstone and shale. The portion of the Study Area mapped east of Bottle Rock Road has mapped soils which are derived from serpentine parent material. No soils derived from volcanic materials are mapped within or adjacent to this parcel. (NRCS 2020).
(Page 6 of the Natural Investigations Co. Biological report)

8.2.9. Terrestrial Vegetation Communities

The Study Area contains the following terrestrial vegetation communities: Ruderal/Disturbed, Irrigated Pasture/Game Field, Oak-Pine Woodland, Chaparral, Riparian. These vegetation communities are discussed here and are delineated in the Exhibits.

> **Ruderal/Disturbed**: These areas consist of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads, or structure and utility placement. Vegetation within this habitat type consists primarily of nonnative annual grasses, weedy or invasive species or ornamental plants lacking a consistent community structure. This habitat is classified as Holland vegetation type – "Non-

native Grassland," and "Urban" wildlife habitat types by CDFW's Wildlife Habitat Relationship System (WHR).

Irrigated Pasture/Game Fields: The irrigated pasture/game fields have been planted and maintained for recreational use. The fields are comprised largely of non-native grasses and herbs include tall fescue (*Festuca arundinacea*), English plantain (*Plantago lanceolata*) and filaree (*Erodium cicutarium*). This habitat is classified as the "Pasture" wildlife habitat type by CDFW's WHR (CDFW 2020c).

Chaparral (Chamise/Scrub Oak): The hills of the northern portion of the Study Area are typically vegetated with a dense cover of evergreen shrubs. The warm west and south-facing slopes are vegetated with chamise (*Adenostoma fasciculatum*) as the dominant shrub with leather oak (*Quercus durata*), California scrub oak (*Quercus berberidifolia*), interior live oak (*Quercus wislizeni*), common manzanita (*Arctostaphylos manzanita* ssp. *manzanita*), mountain mahogany (*Cercocarpus betuloides*) and wedgeleaf ceanothus (*Ceanothus cuneatus*). This type of chaparral can be classified as "*Adenostoma fasciculatum* shrubland alliance" or as the Holland Type "Chamise Chaparral".

Oak/Pine Woodland. Tree dominated habitats are found throughout the Study Area. The oak/pine woodland consists of an open-to-dense canopy of valley oak (*Quercus lobata*) and ponderosa pine (*Pinus ponderosa*) with occasional blue oak (*Quercus douglasii*), gray pine (*Pinus sabiniana*) and California black oak (*Quercus kelloggii*) with an understory of annual grasses (*Bromus* spp., *Avena*, et al) and herbs and occasional common manzanita. "*Quercus* (*agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni*) Forest Alliance (Sawyer et al, 2009)" or as the Holland Type "Oak Woodland".

Riparian: Riparian habitat is limited to watercourses in the central and southern portions of the Study Area. Typical plants along the intermittent watercourse (Class II) that bisects the Study Area include willows (*Salix* spp.), sedges (*Carex* spp.), rushes (*Juncus* spp.), California rose (*Rosa californica*) and California mugwort (*Artemisia douglasiana*). This vegetation type can be classified as the Holland Type "Great Valley Willow Scrub" or as "Salix laevigata (Red willow thickets) Alliance (Sawyer et al. 2009)". Riparian habitat is also found along the channel of Kelsey Creek, which is located along the southern edge of the Study Area. The riparian vegetation consists of a well-developed canopy of white alder (*Alnus rhombifolia*) with valley oak, willows and ponderosa pine with an understory of brown dogwood (*Cornus glabrata*) blue elderberry (*Sambucus nigra* ssp. *caerulea*), Himalayan blackberry (*Rubus armeniacus*), orchard grass (*Dactylis glomerata*), sedges, grasses and herbs. This riparian forest can be classified as the Holland Type "White Alder Riparian Forest" or as "*Alnus rhombifolia* Forest Alliance" (Sawyer 2009). **(Natural Investigations Co. biological report page 8- 9)**

8.2.10. Wildlife Habitat Types

Wildlife habitat types were classified using CDFW's Wildlife Habitat Relationship System. The Study Area contains the following wildlife habitat types: "Urban", "Irrigated Pasture", "Montane Hardwood- Conifer", "Mixed Chaparral" and "Valley Foothill Riparian".

(Natural Investigations Co. biological report page 8)

No special-status species were detected within the Study Area. The CNDDB reported two special-status species occurrences within the vicinity of the Study Area: foothill yellow-legged frog and glandular western flax. These species were not observed during the field survey in the Study Area. However, suitable habitat for both species is present within the Study Area (in the area marked, see Exhibits), but not within the Project Area itself. The pasture/game fields within the Study Area have a low potential for harboring special-status plant species due to

the dominance of non-native grasses and forbs. The watercourses and riparian habitats within the Study Area can sustain aquatic special-status species. The chaparral and woodland habitats within the Study Area can sustain special-status plant and animal species.

The cultivation operations are at least 100 feet away from the nearest intermittent watercourse (Class II) and 150 feet from the nearest perennial watercourses and waterbodies (Class I). The installation of the cultivation area will occur on areas that were previously maintained as recreational game fields. The cannabis cultivation / operation area is 100 feet away from the nearest watercourse. Chaparral and woodland habitats will not be impacted by project construction. Because the operational areas are situated on areas that are disturbed or lack sensitive habitats and set back well away from channels and other aquatic habitats, no impacts to special-status species should occur from project implementation. Therefore, no mitigation is required. **(Natural Investigations Co. biological report page 20)**

8.3. Fish & Wildlife Impact Avoidance and Minimization Measures

8.3.1 Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in CNDDB) exist within or near the Study Area, the open space and the stream corridors in the Study Area, including Kelsey Creek, facilitate animal movement and migrations. While the Study Area may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the Study Area would still be available.

Implementation of the proposed project would necessitate erection of security fences around the cultivation compounds. These fences do not allow animal movement and may act as a local barrier to wildlife movement. However, the fenced cultivation areas are surrounded by open space, allowing wildlife to move around these fenced areas. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
(Natural Investigations Co. biological report page 22)

Recommended Mitigation Measures

Potential Conflicts with Ordinances, Habitat Conservation Plans, etc.

- *Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved governmental habitat conservation plan. The Stud Area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Recommended Mitigation Measures

No mitigation is necessary.

(page 21-22 of Natural investigations biological report)

8.3.2. Protection of Waterbodies and Sensitive Habitats

Potential adverse impacts to water resources could occur during cultivation activities by modification or destruction of stream banks or riparian vegetation, the filling of wetlands, or by increased erosion and sedimentation in receiving water bodies due to soil disturbance. The cultivation operations are at least 100 feet away from the nearest intermittent watercourse (Class II) and 150 feet from the nearest perennial watercourses and waterbodies (Class I) There is no evidence that project implementation will impact any water resources. Water resource protection will be achieved by compliance with this Plan and compliance with the State Water Board's Cannabis Cultivation General Order.

Note that if the total area of ground disturbance required for construction activities of the cultivation operation is greater than 1 acre, the landowner or cultivator will need to enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ) and implement a storm water pollution prevention plan.

8.3.3. Operational Best Management Practices

The implementation of best management practices during construction and operations will ensure that biological resources are protected. The following are suggested practices and rules to be implemented:

- Restrict vehicular traffic to existing access roads whenever possible.
- Reduce vehicle speeds, especially on roadways.
- Minimize water usage
- Do not litter: litter attracts animals.
- Do not feed wildlife. Pets are not allowed within operational areas.
- No hunting or collecting of any animals or plants.
- Use tobacco products only in approved areas.
- Check under tires and equipment for resting animals.
- Use only designated toilet facilities.
- Implement an effective pollution prevention plan. By ensuring that potential pollutants, such as sediment and petroleum products, do not contaminate waterways or natural habitats, biological resources will be better protected.

8.4. Maps

The required maps are enclosed with MUP application.

9.0 OPERATIONS MANUAL

9.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section that is an Operations Manual:

(a) Intent: To describe the operating procedures of the commercial cannabis cultivation site to ensure compliance with the use permit, protect the public health, safety and welfare, as well as the natural environment of Lake County.
(b) This section shall include the following:
1. Authorization for the County, its agents, and employees, to seek verification of the information contained within the development permit or use permit applications, the Operations Manual, and the Operating Standards at any time before or after development or use permits are issued.
2. A description of the staff screening processes.
3. The hours and days of the week when the facility will be open.
4. [blank]
5. Description of measures taken to minimize or offset the carbon footprint from operational activities.
6. Description of chemicals stored, used and any effluent discharged as a result of operational activities.
(c) Grounds.
(1) The permittee shall establish and implement written procedures to ensure that the grounds of the premises controlled by the permittee are kept in a condition that prevents the contamination of components and cannabis products. The methods for adequate maintenance of the grounds shall include at minimum:
i. The proper storage of equipment, removal of litter and waste, and cutting of weeds or grass so that the premises shall not constitute an attractant, breeding place, or harborage for pests.
ii. The proper maintenance of roads, yards, and parking lots so that these areas shall not constitute a source of contamination in areas where cannabis products are handled or transported.
iii. The provision of adequate draining areas in order to prevent contamination by seepage, foot-borne filth, or the breeding of pests due to unsanitary conditions.
iv. The provision and maintenance of waste treatment systems to prevent contamination in areas where cannabis products may be exposed to such a system's waste or waste by-products.
(2) If the lot of record is bordered by grounds outside the applicant's control that are not maintained in the manner described in subsections (a) through (d) of this section, inspection, extermination, and other reasonable care shall be exercised within the lot of record in order to eliminate any pests, dirt, and/or filth that pose a source of cannabis product contamination.
(d) Any other information as may be requested by the Director and/or by the Planning Commission.

The Ordinance also identifies these prohibited activities that are relevant to this sub-plan:

"All lights used for cannabis related permits including indoor or mixed light cultivation of cannabis shall be fully contained within structures or otherwise shielded to fully contain any light or glare involved in the cultivation process. Artificial light shall be completely shielded between sunset and sunrise."

9.2. Operational Information

9.2.1. Authorization of County Visits

One of the conditions of County licensing is that the cultivator give authorization for the County, its agents, and employees, to verify the information contained within the development permit or use permit applications, the Operations Manual, and the Operating Standards, at any time before or after development or use permits are issued.

9.2.2. Staff Screening Process

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

9.2.3. Hours of Operation

This cultivation operation is closed to the public. Visitation is only allowed when specific permission is granted.

The cultivation operation hours of operation are:
Monday, from 7 a.m. to 5 p.m.
Tuesday, from 7 a.m. to 5 p.m.
Wednesday, from 7 a.m. to 5 p.m.
Thursday, from 7 a.m. to 5 p.m.
Friday, from 7 a.m. to 5 p.m.
Saturday, from 7 a.m. to 5 p.m.
Sunday, from 7 a.m. to 5 p.m.

Holidays, Closed.

9.2.4. Other Information

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

- energy-and water saving measures.
- cultivation of fast-growing plants, which remove carbon dioxide from the air and fix it in plant biomass

9.3. Groundskeeping

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

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

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

9.4. Maps

The required maps are attached to the MUP application.

10.0 PEST MANAGEMENT

10.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Pest Management:

(a) Intent: To ensure consistency pest management with the other sections of the property management plan.
(b) This section shall describe how cultivation and nursery permittees will comply with the following pesticide application and storage protocols:

a. All pesticide applications must fully comply with the California Food and Agriculture Code, Division 6 Pest Control Operations and Division 7 Agriculture Chemical: Chapter 1 – 3.6 and California Code of Regulations, Division 6 Pest Control Operations.
b. These pesticide laws and regulations include but are not limited to:
i. Comply with all pesticide label directions.
ii. Store chemicals in a secure building or shed to prevent access by wildlife.
iii. Contain any chemical leaks and immediately clean up any spills.
iv. Prevent offsite drift.
v. Do not apply pesticides when pollinators are present.
vi. Do not allow drift to flowering plants attractive to pollinators.
vii. Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies.
viii. Do not apply pesticides when they may reach surface water or groundwater; and
ix. Only use properly labeled pesticides.
x. The use of pesticides shall not be located within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level of 7.79 feet on the Rumsey Gauge.
c. This section shall include a map of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record of land or within 100 feet of the lot of record and a 100 foot setback from any identified spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool.

The Ordinance also identifies these prohibited activities that are relevant to this sub-plan:

"The use of any pesticide that has been banned for use in the state is prohibited."

10.2. Inventory of Pesticides

Under state and federal law, a pesticide is any substance intended to control, destroy, repel, or otherwise mitigate a pest. Any organism that causes damage or economic loss, or transmits or produces disease, may be the target pest. Pests can be insects or animals (e.g. mice), unwanted plants (weeds) or organisms that cause plant diseases. "Pesticide" is an umbrella term that includes many kinds of chemicals—natural and synthetic. A pesticide is any substance intended to control, destroy, repel or attract a pest. Any living organism that causes damage, economic loss, and/or transmits or produces disease may be the target pest. Some common pesticides include insecticides, herbicides, rodenticides, molluscicides, fungicides, repellents, disinfectants and sanitizers. (California Department of Pesticide Regulation fact sheet, available at http://www.cdpr.ca.gov/). At this cultivation operation, pests will be controlled by employing only approved, organic-certified pesticides. Weeds will be controlled using a line trimmer or mulch; herbicides will not be used. Live traps will be used for rodents.

It is the policy of this cultivation operation to use only organic-certified pesticides or herbicides. The following pesticides are used at this facility, as needed:

- -gallon bottles of alcohol
- -Soap *neem oil and garlic* (2 gallons/year)

Note that the Department of Pesticide Regulation has developed a brief synopsis of appropriate pesticide usage called Legal Pest Management Practices for Marijuana Growers in California which can be found as Attachment D in Order R5-2015-0113. Currently, no regulated pesticides are registered for use on Cannabis. Therefore, commercial cultivators are limited to only using pesticides that are exempt from residue-tolerance requirements and are either: (1) registered and labeled for a use that is broad enough to include use on cannabis (e.g., unspecified green plants), or (2) exempt from registration requirements as a minimum-risk pesticide under FIFRA Section 25(b). The CA Department of Pesticide Regulation lists allowable pesticides in their publication "Legal Pest Management Practices for Marijuana Growers in California." This publication is presented in the Appendix.

10.3. Pesticide Application and Storage Protocols

Note that the Department of Pesticide Regulation has developed a brief synopsis of appropriate pesticide usage called *Legal Pest Management Practices for Marijuana Growers in California* which can be found as Attachment D in Order R5-2015-0113. Currently, no pesticides are registered for use on Cannabis. Therefore, commercial cultivators are limited to only using pesticides that are exempt from residue-tolerance requirements and are either: (1) registered and labeled for a use that is broad enough to include use on cannabis (e.g., unspecified green plants), or (2) exempt from registration requirements as a minimum-risk pesticide under FIFRA Section 25(b).

The CDFA CalCannabis Program describes pesticide use as follows:

> *"Although California Department of Pesticide Regulation (CDPR) is responsible for managing California's statewide pesticide regulatory program, the local enforcement of pesticide use regulations are delegated to County Agricultural Commissioners (CACs). With oversight by CDPR, CACs plan and develop county programs and regulate pesticide use to ensure that applicators comply with label directions and pesticide laws and regulations (CDPR 2011). CACs oversee pesticide use reporting, promote best management practices, and monitor field applications, and they may assist in cleanup of accidental pesticide spills.*
>
> *CACs inspect operations and records of growers, nonagricultural (including industrial and institutional) applicators, pest control dealers, agricultural pest control advisers (PCAs) farm labor contractors, and government agencies for compliance with worker protection standards and other pesticide safety requirements. CACs, assisted by CDPR, investigate incidents in which pesticides harm agricultural workers, people nearby, and the environment, including environmental damage (such as fish or wildlife kills) and water quality contamination. When an enforcement action is needed, CACs have the option to revoke or suspend the right of a company to do business in their county or to issue civil or criminal penalties (CDPR 2011)…. License and certificate types issued by CDPR under the pesticide regulatory program includes, but are not limited to, the following (CDPR 2017)…*
>
> *Because there are no restricted-use pesticides registered for use on cannabis, application of pesticides for cannabis cultivation would not require any type of license or certificate. Cultivators, however, may obtain a QAC or QAL, or private applicator certificate, or hire individuals with these credentials, in order to avail themselves of information such as proper mixing, loading, and application techniques and selection and use of personal protective equipment. Cannabis cultivators would not necessarily be required to obtain*

the services of a PCA but, nonetheless, may choose to do so in order to get professional advice on pest control." (CDFA 2017)

Cultivators must comply with pesticide laws and regulations as enforced by the Department of Pesticide Regulation. The CDFA CalCannabis Licensing Program has the following pesticide application and storage protocols, which will be implemented:

(1) Comply with all pesticide label directions.
(2) Store chemicals in a secure building or shed to prevent access by wildlife.
(3) Contain any chemical leaks and immediately clean up any spills.
(4) Apply the minimum amount of product necessary to control the target pest.
(5) Prevent offsite drift.
(6) Do not apply pesticides when pollinators are present.
(7) Do not allow drift to flowering plants attractive to pollinators.
(8) Do not spray directly to surface water or allow pesticide product to drift to surface water.
(9) Spray only when wind is blowing away from surface water bodies.
(10) Do not apply pesticides when they may reach surface water or groundwater; and
(11) Only use properly labeled pesticides. If no label is available consult the Department of Pesticide Regulation.

Pesticides will be used according to the instructions on the label or the material safety data sheets (MSDS). County regulations also apply to listed pesticides. Pesticides will be stored in a temporary cargo container that will be on the north side of the blacktop, 150 feet from Kelsey creek so that stormwater is not contaminated. Chemicals will be properly labeled, and open containers sealed when stored. When handling chemicals, staff will use personal protective equipment such as safety glasses, gloves, dust mask or respirator, boots, pants and long-sleeved shirt. Pesticides will not be applied on windy days or within 24 hours of a forecasted rain event.

10.4. Maps

The required maps are attached to the MUP application.

11.0 SECURITY

11.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Security:

(a) Intent: To minimize criminal activity, provide for safe and secure working environments, protect private property, and to prevent damage to the environment. The Applicant shall provide adequate security on the premises, as approved by the Sheriff and pursuant to this section, including lighting and alarms, to ensure the safety of persons and to protect the premises from theft.

(b) Security Plan. This section shall include at a minimum:

a. A description of the security measures to be taken to:

(1) Prevent access to the cultivation site by unauthorized personnel and protect the physical safety of employees. This includes, but is not limited to:

i. Establishing physical barriers to secure perimeter access and all points of entry (such as locking primary entrances with commercial-grade, non-residential door locks, or providing fencing around the grounds, driveway, and any secondary entrances including windows, roofs, or ventilation systems).

ii. Installing a security alarm system to notify and record incident(s) where physical barriers have been breached.

iii. Establishing an identification and sign-in/sign-out procedure for authorized personnel, suppliers, and/or visitors.

iv. Maintaining the premises such that visibility and security monitoring of the premises is possible; and

v. Establishing procedures for the investigation of suspicious activities.

(2) Prevent theft or loss of cannabis and cannabis products. This includes but is not limited to:

i. Establishing an inventory system to track cannabis material and the personnel responsible for processing it throughout the cultivation process.

ii. Limiting access of personnel within the premises to those areas necessary to complete job duties, and to those timeframes specifically scheduled for completion of job duties.

iii. Supervising tasks or processes with high potential for diversion (including the loading and unloading of cannabis transportation vehicles); and

iv. Providing designated areas in which personnel may store and access personal items.

(3) Identification of emergency contact(s) that is/are available 24 hours/seven (7) days a week including holidays. The plan shall include the name, phone number and facsimile number or email address of an individual working on the commercial cultivation premises, to whom notice of problems associated with the operation of the commercial cultivation establishment can be provided. The commercial cultivation establishment shall always keep this information current. The applicant shall make every good faith effort to encourage neighborhood residents to call this designated person to resolve operating problems, if any, before any calls or complaints are made to the County.

(4) The permitee shall maintain a record of all complaints and resolution of complaints and provide a tally and summary of issues the annual Performance Review Report.

(5) A description of fences, location of access points, and how access is controlled.

(6) Video Surveillance.

i. At a minimum, permitted premises shall have a complete digital video surveillance system with a minimum camera resolution of 1280 X 1080 pixel. The video surveillance system shall be capable of recording all pre-determined surveillance areas in any lighting conditions.

ii. The video surveillance system shall be capable of supporting remote access by the permittee.

iii. To the extent reasonably possible, all video surveillance cameras shall be installed in a manner that prevents intentional obstruction, tampering with, and/or disabling.

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

a. The perimeter of the cannabis cultivation site and cannabis nursery,

b. Areas where cannabis or cannabis products are weighed, packed, stored, quarantined, loaded and/or unloaded for transportation, prepared, or moved within the premises.
c. Areas where cannabis is destroyed.
d. Limited access areas.
e. Security rooms.
f. Areas containing surveillance-system storage devices, in which case, at least one camera shall record the access points to such an area: and
g. The interior and exterior of all entrances and exits to the cannabis cultivation sites and cannabis nursery including all buildings where cannabis or cannabis products are weighed, packed, stored, quarantined, loaded and/or unloaded for transportation, prepared, or moved within the premises.

v. The surveillance system shall record continuously 24 hours per day and at a minimum of 30 frames per second.
vi. All exterior cameras shall be waterproof, I-66 minimum.
vii. All interior cameras shall be moisture proof.
viii. Cameras shall be color capable.
ix. Video management software shall be capable of integrating cameras with door alarms.
x. Video recordings shall be digital.
xi. Thermal technology shall be use for perimeter fencing.
xii. All cameras shall include motion sensors that activates the camera when motion is detected.
xiii. In areas with inadequate lighting for the cameras being used, enough lighting shall be provided to illuminate the camera's field of vision.
xiv. All recording shall be in secure rooms or areas of the premises in an access and environment-controlled environment which is separate from the room where the computer and monitoring equipment is located.
xv. All surveillance recordings shall be kept on the applicant's recording device or other approved location for a minimum of 30 days.
xvi. All video surveillance recordings are subject to inspection by the Department and shall be copied and sent, or otherwise provided, to the Department upon request.
xvii. The video recordings shall display the current date and time of recorded events. Time is to be measured in accordance with the U.S. National Institute Standards and Technology standards. The displayed date and time shall not significantly obstruct the view of recorded images.

(7) Fences

i. All commercial cannabis cultivation sites shall be enclosed by a fence. The fence shall include, at a minimum, the following: Posts set into the ground. The posts may be steel tubing, timber or concrete and may be driven into the ground or set in concrete. End, corner or gate posts, commonly referred to as "terminal posts", must be set in concrete footing or otherwise anchored to prevent leaning under the tension of a stretched fence. Posts set between the terminal posts shall be set at intervals not to exceed 10 feet. A top horizontal rail is required between all posts. The fence shall be attached to the posts and top horizontal rail.
ii. No barbed wire, razor wire or similar design shall be used.
iii. The cultivation area shall be screened from public view. Methods of screen may include, but is not limited to, topographic barriers, vegetation, or solid (opaque) fences.

The Ordinance also identifies these prohibited activities that are relevant to this sub-plan:

"All lights used for cannabis related permits including indoor or mixed light cultivation of cannabis shall be fully contained within structures or otherwise shielded to fully contain any light or glare involved in the cultivation process. Artificial light shall be completely shielded between sunset and sunrise.

Security lighting shall be motion activated and all outdoor lighting shall be shielded and downcast or otherwise positioned in a manner that will not shine light or allow light glare to exceed the boundaries of the lot of record upon which they are placed."

11.2. Security Measures

General security measures will consist of the following:

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

The Security Officer(s) for the cultivation site are:

- Charles Ewing 707 333-3564
- future staff member, to be determined

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

Personnel rules and responsibilities are as follows:

- Obey the rules of the Security Plan
- Sign in when entering the facility and sign out when exiting the facility
- Do not carry any weapons
- Do not engage in lengthy conversation with the public or respond directly to complaints: direct all such concerns to the Security Officer.
- Only authorized vehicles are allowed in operational areas.
- Do not bring backpacks or other unnecessary storage devices that might complicate the theft control program. Lockers will be provided for personal items.
- Do not enter restricted areas unless authorized to do so.

The cultivation operation is accessed by a private gravel road off Bottle Rock Road in Cobb Mountain. This private road is not shared by others. There are several locked gates established on the driveway leading to the home and cultivation compounds.

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

11.3. Theft and Loss Control

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

> *"The Department shall establish a track-and-trace system for unique identifiers of cannabis and nonmanufactured cannabis products, which all licensees shall use. Each licensee shall report in the track-and-trace system the disposition of immature and mature plants, as required by Section 8402 of this Chapter, and nonmanufactured cannabis products on the licensed premises and any transfers associated with commercial cannabis activity between licensees.*
> *(a) The licensee is responsible for the accuracy and completeness of all data and information entered the track-and- trace system. Data entered the track-and-trace system is assumed to be accurate and can be used to take enforcement action against the licensee if not corrected.*
> *(b) Attempts to falsify or misrepresent data or information entered the track-and-trace system is a violation and subject to enforcement.*
> *(c) Each licensee shall use the track-and-trace system for recording all applicable commercial cannabis activities. Each licensee shall do all the following activities:*
> *(1) Establish an account in the track-and-trace system prior to engaging in any commercial cannabis activities associated with their license and maintain an active account while licensed.*
> *(2) Designate at least one of the owners or the responsible party named in the application to be the track-and-trace system administrator…."*

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

- Joleen Wignall (707) 337-6583
- The Security Consultant is to be determined.

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

11.4. Video surveillance

Each cultivation site and the temporary processing cargo containers will have a comprehensive digital video surveillance system. Each camera will have the following specifications:

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

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

Areas that shall be recorded on the video surveillance system include, but are not limited to, the following:
a. The perimeter of the cannabis cultivation sites.
b. Areas where cannabis or cannabis products are weighed, packed, stored, loaded and/or unloaded for transportation, prepared, or moved within the premises.
c. Areas where cannabis is destroyed.
d. Limited access areas.
e. Security rooms.
f. Areas containing surveillance-system storage devices, in which case, at least one camera shall record the access points to such an area: and
g. The interior and exterior of all entrances and exits to the cannabis cultivation sites including all buildings/temporary cargo containers where cannabis or cannabis products are weighed, packed, stored, loaded and/or unloaded for transportation, prepared, or moved within the premises.

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

There will also be a security company retained from 9:00 pm to 6:00 am, seven days a week, to watch the place at night during harvest time.

11.5. Fencing

The cultivation compound will be enclosed with a sturdy fence. The fence posts will be set in the ground at least two feet deep. Terminal posts will be set in concrete or otherwise anchored to prevent leaning under the tension of stretched fence wire. Post interval will not exceed 10 feet. A top horizontal rail should be installed between each post interval. Fence panels should consist of metal mesh "cyclone" fabric or welded wire mesh. Barbed wire or razor wire is prohibited from use on the top rails. If required by the County, opaque screening will be added: this will be plastic woven fabric (e.g. wind screens). However, the cultivation site is not viewable to the public because the Property is isolated and set back over 1000 feet from Bottle Rock road. The two fenced cultivation sites will each have 2 gates for each cultivation area, one at the north side and one at the south side. The gate will consist of metal tube frame. The gate will be large enough for a service vehicle to ingress/egress. The gate will be secured with a metal padlock. Keys or lock combinations will be controlled by the Security Officer.

11.6. Maps

The required maps are provided in the Maps section at the end of this Property Management Plan.

12.0 STORM WATER MANAGEMENT

12.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Storm Water Management:

(a) Intent: To protect the water quality of the surface water and the stormwater management systems managed by Lake County and to evaluate the impact on downstream property owners.
(b) All permittees shall manage storm water runoff to protect downstream receiving water bodies from water quality degradation.
(c) All cultivation activities shall comply with the California State Water Board, the Central Valley Regional Water Quality Control Board, and the North Coast Region Water Quality Control Board orders, regulations, and procedures as appropriate.
(d) Outdoor cultivation, including any topsoil, pest management, or fertilizer used for the cultivation cannabis shall not be located within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level of 7.79 feet on the Rumsey Gauge.
(e) The illicit discharge of irrigation or storm water from the premises, as defined in Title 40 of the Code of Federal Regulations, section 122.26, which could result in degradation of water quality of any water body is prohibited.
(f) All permittees shall prepare a Storm Water Management Plan based on the requirements of the California Regional Water Quality Control Board Central Valley Region or the California Regional Water Quality Control Board North Coast Region to be approved by the Lake County Water Resources Department. In addition to those requirements, the plan shall include:

a. Identification of any Lake County maintained drainage or conveyance system that the stormwater is discharged into and documentation that the stormwater discharge follows the design parameters of those structures.
b. Identification of any public roads and bridges that are downstream of the discharge point and documentation that the stormwater discharge follows the design parameters of any such bridges.
c. Documentation that the discharge of stormwater from the site will not increase the volume of water that historically has flow onto adjacent properties.
d. Documentation that the discharge of stormwater will not increase flood elevations downstream of the discharge point.
e. Documentation that the discharge of stormwater will not degrade water quality of any water body.
f. Documentation of compliance with the requirements of Chapter 29, Storm Water Management Ordinance of the Lake County Ordinance Code.
g. Describe the proposed grading of the property.
h. Describe the storm water management system.
i. Describe the best management practices (BMPs) that will be used during construction and those that will be used post-construction. Post-construction BMPs shall be maintained through the life of the permit.
j. Describe what parameters will be monitored and the methodology of the monitoring program.

12.2. List of Responsible Parties and Contact Information

The Stormwater Manager(s) currently assigned to the cultivation operations are:

- Joleen Wignall (707) 337-6583

The stormwater manager shall have primary responsibility and significant authority for the implementation, maintenance, inspection, and amendments to the Stormwater Management Plan. Duties of the stormwater manager include but are not limited to:

- Ensuring full compliance with the Plan and the Chapter 29, Storm Water Management Ordinance of the Lake County Ordinance Code.
- Implementing all elements of the Plan, including but not limited to implementation of prompt and effective erosion and sediment control measures, and implementing all non-storm water management, and materials and waste management activities (such as monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment

cleaning, fueling and maintenance; spill control; ensuring that no materials other than storm water are discharged in quantities which will have an adverse effect on receiving waters or storm drain systems; etc.);
- Inspections (pre-storm, during storm, and post-storm) or designating qualified personnel to do so.
- Preparing any annual compliance certification.
- Ensuring elimination of all unauthorized discharges.
- The storm water manager shall be assigned authority to mobilize crews to make immediate repairs to the control measures.
- Coordinate with the landowner or cultivator to assure all the necessary corrections/repairs are made immediately, and that the project complies with the Plan and relevant permits.

12.3. Compliance

12.3.1. Setbacks and Buffers

The Ordinance requires that all cultivation operations be located at least 100 feet away from all waterbodies (i.e. spring, top of bank of any creek or seasonal stream, edge of lake, wetland or vernal pool). The operational area is 100 feet from the nearest waterbody, an intermittent watercourse (Class II) and over 150 feet from the perennial watercourse, waterbodies (Class I). The Water Board requires a 150-foot setback from Class I watercourses. No wetlands, or vernal pools are found on this Property **(See Biological report dated 1/23/2020).** This operation complies with the Cannabis General Order setback requirements.

12.3.2. Water Board Permitting

This cultivation operation is enrolled as a Tier II / Low Risk cultivation operation in the State Water Resources Control Board's *Order WQ 2017-0023-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities* (General Order). Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices, buffer zones, sediment and erosion controls, inspections and reporting, and regulatory oversight.

12.3.3. Grading, Discharge Flows, and Downstream Effects

The cultivation operations will not alter the hydrology of the Property significantly. No grading permits are needed. The cultivation areas are flat. No paved roads or other permanent and impermeable surfaces will be constructed. The home which will provide residence for one employee and is an existing structure. Existing vegetated buffers and generous setbacks from watercourses serve to moderate stormflows and regulate stream volumes such that flooding can be completely avoided. These large vegetated buffers and swales allow stormwater that is discharged from operation areas to be slowed, filtered, and percolate into soils. In general, stormwater on the Property infiltrates the soil.

Should a new facility be planned and constructed, the Ordinance requires documentation that downstream hydrology and public roads and bridges will not be negatively impacted.

12.4. Storm Water Management

12.4.1. Water Pollution Control Schedule

BMPs should be deployed in a sequence to follow the progress of site preparation / tilling / cultivation. As the locations of soil disturbance change, erosion and sedimentation controls will

be adjusted accordingly to control storm water runoff at the downgrade perimeter and drain inlets. BMPs should be mobilized as follows:

- Year-round:
  - the site manager or stormwater manager should monitor weather using National Weather Service reports (https://www.weather.gov/) to track conditions and alert crews to the onset of rainfall events.
    - Disturbed soil areas will be stabilized with temporary erosion control or with permanent erosion control as soon as possible after grading or construction is complete.
- During the rainy season:
  - Disturbed areas will be stabilized with temporary or permanent erosion control before rain events. We will use straw wattles and silt fences.
  - Disturbed areas that are substantially complete will be stabilized with permanent erosion control (soil stabilization) and vegetation (if within seeding window for seed establishment).
  - Prior to forecast storm events, temporary erosion control BMPs will be deployed and inspected.
- During the non-rainy season:
  - the project schedule will sequence earth-moving activities with the installation of both erosion control and sediment control measures. The schedule will be arranged as much as practicable to leave existing vegetation undisturbed until immediately prior to grading.

There will be enough quantities of temporary sediment control materials on-site throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies. This includes implementation requirements for active areas and non-active areas before the onset of rain. The following table summarizes the general schedule of implementation of site BMPs.

Water Pollution Control Schedule

Phase, Activity, or Milestone	Date
File any needed permit registration documents	immediately
Implementation of rainy season BMPs	October 1st of every year
Rainy season beings	October 15
Implementation of dry season BMPs	April 1st of every year
Dry season begins	April 15
Repair / replacement of erosion control devices	see BMP section of this Plan
Site inspections	see Inspection section of this Plan
Submit Annual Report	annually, as required
Expansion / modification of cultivation operational area	modify this Plan within 30 days

12.4.2. Pollutant Source Identification

Inventory of Materials and Activities that May Pollute Storm Water

Construction or cultivation activities that have the potential to contribute sediment to storm water discharges include:

- Tilling, grading and excavation operations.
- Soil import/export operations.
- Structure installation process; and
- Paving operations.

The following table provides a list of materials that may be used and activities that may be performed that will have the potential to contribute pollutants, other than sediment, to storm water runoff.

Summary of Potential Project Pollutant Other Than Sediment

Activity/Material Type	Potential Pollutant
Vehicle lubricants and fuels, including oil, grease, diesel and gasoline, and coolants	Petroleum hydrocarbons, volatile organic compounds (VOCs)
Asphaltic emulsions associated with asphalt-concrete paving operations	Petroleum hydrocarbons, VOCs
Portland cement, masonry, and concrete products, muriatic acid, etc.	Materials with a low or high pH, materials with high alkalinity, metals
Road base and subbase material	Materials with high alkalinity or high pH, metals
Gardening materials and wastes	Pesticides, nutrient pollution (nitrates, phosphates, biological oxygen demand, etc.), metals
Treated lumber (materials and waste)	Arsenic, copper, other metals, creosote
Material packaging and site personnel	General litter (municipal solid waste, universal waste)
Portable toilets	Septic waste (fecal coliform, biological oxygen demand)

12.4.3. Existing (pre-construction) Control Measures

The following are existing (pre-construction) control measures within the project site:

- vegetated drainage swales
- enough buffer distances between cultivation areas and drainages
- proper set-backs from water courses to protect our water.
- proper set-backs from neighbors homes and property lines.
- gravel armoring on driveways and roads
- preservation of existing vegetation

12.4.4. Best Management Practices

Resources consulted for BMP selection included:

- Central Valley Region's Best Management Practices Manual for Cannabis Cultivation. Appendix A in: Waste Discharge Requirements for Cannabis Cultivation Order R5-2015-0113.
- California Stormwater Quality Association. 2011. California Stormwater Best Management Practice Handbook – Construction. California Stormwater Quality Association, Menlo Park, California 886 pp.
- California Stormwater Quality Association. 2014. Stormwater Best Management Practice Handbook Portal: Industrial and Commercial. California Stormwater Quality Association, Menlo Park, California. 474 pp.
- The California Department of Transportation's Construction Site BMPs Handbook, available electronically at http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm
- The California Department of Transportation's Construction Site BMP Fact Sheets, available electronically at http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm
- USEPA NPDES Storm Water Program's National Menu of BMPs website at http://www.epa.gov/npdes/stormwater/menuofbmps

The following subsections discuss BMPs that have been selected for implementation in this project. Implementation and location of BMPs are shown on the Water Pollution Control Drawings (WPCDs) in the map sections. The Appendix includes a list of the fact sheets of all the BMPs selected for this project.

Erosion Control

Erosion control consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This project will implement the following practices for effective temporary and final erosion control during construction:

- Preserve existing vegetation where required and when feasible.
- Apply temporary erosion control to exposed areas. Reapply as necessary to maintain effectiveness.
- Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain stability. Implement erosion control prior to the defined rainy season.
- Control erosion in concentrated flow paths by applying erosion control devices.
- Divert run-on and stormwater generated from within the facility away from all erodible materials; and
- If sediment traps or basins are installed, ensure that they are working properly and emptied of accumulated sediment and litter.

Specific erosion control BMPs that can be implemented are listed here and the Construction and Industrial BMP fact sheets are included in the Appendix:

- EC-2: Preservation of Existing Vegetation
- EC-3: Hydraulic Mulch
- EC-4: Hydroseeding
- EC-5: Soil Binders
- EC-6: Straw Mulch
- EC-7: Geotextiles & Mats
- EC-8: Wood Mulching

- EC-9: Earth Dikes & Drainage Swales
- SC-33: Outdoor Storage of Raw Materials
- SC-40: Contaminated or Erodible Surfaces
- TC-30: Vegetated Swale
- TC-31: Vegetated Buffer Strip

Erosion and sediment control diagrams are provided in the Maps section that indicate the recommended type and placement of erosion control devices.

Sediment Control

Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate sediment control measures as needed.

Specific sediment control BMPs that can be implemented are listed here and the Construction BMP Fact Sheets are included in the Appendix:

- SE-1: Silt Fence
- SE-3: Sediment Trap
- SE-5: Fiber Rolls-watters
- SE-6: Gravel Bag Berm
- SE-8: Sandbag Barrier
- SE-9: Straw Bale Barrier
- TC-32: Bioretenti
- Also, we will maintain grasses in setback areas.

Erosion and sediment control diagrams are provided in the Maps section that indicate the recommended type and placement of sediment control devices.

Road Maintenance

The property contains a wide well-maintained graveled road. Driveways and roads will be maintained so that significant erosion does not occur. This may include wetting dusty roads, armoring with gravel, patching holes, and maintaining drainage features such as water bars, culverts, and side ditches.

The following guidebook are referenced for road maintenance:

- Handbook for Forest, Ranch, & Rural Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads. [available at: http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKapril2015b.pdf]

Monitoring / BMP Inspection and Maintenance

A visual monitoring (inspection) program will be implemented, and an inspection will be performed prior to each qualifying rain event and contain the following focal areas:

- All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources
- All BMPs to identify whether they have been properly implemented.
- Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

Training

A copy of the Plan will be made available to the site personnel or contractor representatives engaged in the maintenance or installation of BMPs. Site inspectors observing pollution caused by ineffective construction or cultivation practices will inform site personnel of appropriate and proper erosion and sedimentation control practices, along with special follow-up inspection for further training. The Stormwater Manager or general contractor will organize orientation sessions with all installation, inspection, and maintenance personnel upon initiation of a specific project activity or change in key personnel. These sessions will be setup to ensure that all contractor and sub-contractor operations are implemented in accordance with this Plan.

Training sessions should be included as part of regular safety meetings to familiarize works with the requirements of the Plan.

12.5. Maps

The required maps are provided in the Maps section at the end of this Property Management Plan.

13.0 WASTE MANAGEMENT

13.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Waste Management:

(a) Intent: To minimize the generation of waste and dispose of such waste properly, to prevent the release of hazardous waste into the environment, minimize the generation of cannabis vegetative waste and dispose of cannabis vegetative waste properly, and manage growing medium and dispose of growing medium properly.
(b) This section shall include the following components:

a. Solid Waste Management

1. Provide an estimate of the amount of solid waste that will be generated on an annual basis and daily during peak operational seasons, broken down into the following categories: paper; glass; metal; electronics; plastic; organics; inerts; household hazardous waste; special waste, and mixed residue
2. Describe how the permittee will minimize solid waste generation, including working with vendors to minimize packaging.
3. Describe the waste collection frequency and method.
4. Describe how solid waste will be temporarily stored prior to transport to a compost, recycling, or final disposal location.
5. Describe the composting, recycling, or final disposal location for each of the above categories of solid waste.

b. Hazardous Waste Management
The hazardous waste section shall include:

1. Hazard Analysis.
The applicant shall conduct a hazard analysis to identify or evaluate known or reasonably foreseeable hazards for each type of cannabis product produced at their facility in order to determine whether there exist any hazards requiring a preventive control. The hazard analysis shall include:
The identification of potential hazards, including:
i. Biological hazards, including microbiological hazards.
ii. Chemical hazards, including radiological hazards, pesticide(s) contamination, solvent or other residue, natural toxins, decomposition, unapproved additives, or food allergens; and/or
iii. Physical hazards, such as stone, glass, metal fragments, hair or insects.
The evaluation of the hazards identified in order to assess the severity of any illness or injury that may occur as a result of a given hazard, and the probability that the hazard will occur in the absence of preventive controls.
The hazard evaluation shall consider the effect of the following on the safety of the finished cannabis product for the intended consumer:
i) The sanitation conditions of the manufacturing premises.
ii) The product formulation process.
iii) The design, function and condition of the manufacturing facility and its equipment.
iv) The ingredients and components used in each cannabis product.
v) The operation's transportation and transfer practices.
vi) The facility's manufacturing and processing procedures.
vii) The facility's packaging and labeling activities.
viii) The storage of components and/or the finished cannabis product.
ix) The intended or reasonably foreseeable use of the finished cannabis product.
x) Any other relevant factors.
(2) Management Plan
The Management Plan shall:
i. Identify all Resource Conservation and Recovery Act (RCRA), Non-RCRA hazardous waste and Universal wastes and the volume of each.

ii. Identify all containers and container management.
iii. Describe storage locations and chemical segregation procedures.
iv. Describe hazardous waste manifest and recordkeeping protocol.
v. Outline inspection procedures.
vi. Identify emergency spill response procedures.
vii. Describe staff responsibilities.
viii. Describe the staff training program.
ix. Describe the methodology on how the amount of hazardous materials and waste that is generated on the site, the amount that is recycled, and the amount and where hazardous materials and waste is disposed of, is measured, and
x. Include a map of any private drinking water well, spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record or within 100 feet of the lot of record and a 100 foot setback from any identified private drinking water well, spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. The map shall also include any public water supply well on the lot of record or within 200 feet of the lot of record and a 200-foot setback from any public water supply well.

Pursuant to the California Health and Safety Code, the use of hazardous materials shall be prohibited except for limited quantities of hazardous materials that are below State threshold levels of 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas. The production of any Hazardous Waste as part of the cultivation process is prohibited.

(c) Cannabis Vegetative Material Waste Management
The cannabis vegetative material waste management section shall include:
(1) Provide an estimate of the type and amount of cannabis vegetative waste that will be generated on an annual basis.
(2) Describe how the permittee will minimize cannabis vegetative waste generation.
(3) Describe how solid waste will be disposed.
(4) Describe the methodology on how the amount of cannabis vegetative waste that is generated on the site, the amount that is recycled, and the amount and where cannabis vegetative waste is disposed of is measured.

(d) Growing Medium Management
The growing medium management section shall include:
(1) Provide an estimate of the type and amount of new growing medium that will be used, and amount of growing medium will be disposed of on an annual basis.
(2) Describe how the permittee will minimize growing medium waste generation.
(3) Describe any non-organic content in the growing medium used (such as vermiculite, silica gel, or other non-organic additives.
(4) Describe how growing medium waste will be disposed.
(5) Describe the methodology on how the amount of growing medium waste that is generated on the site, the amount that is recycled, and the amount and where growing medium waste is disposed of, is measured.

13.2. Solid Waste Management

13.2.1. Solid Waste Sources and Volumes

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

Estimated Solid Waste Generation Per Cultivation Site

	Annual Basis (pounds per year)	Peak daily (pounds per day)
Paper	5	<1
Glass	10	<1
Metal	10	<1
Electronics	1	n/a
Plastic	100	10
Organics	1,000	100
Inerts*	10	<1
Household hazardous waste	1	n/a
Special waste	1	n/a
Mixed residue	10	<1
* Inert waste is waste which is neither chemically nor biologically reactive and will not decompose. Examples are sand and concrete.		

13.2.2. Waste Collection, Storage, and Disposal

At least one waste bin will be located within the fenced area of the cultivation site and one adjacent to the processing temporary cargo containers. Waste bins will consist of trash cans (20 or 35 gallon) with lids or roll-off dumpsters with lids. The locations of waste bins / containers are shown in the Maps section.

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

Yard waste, green waste, and other compostable materials will be segregated from the solid waste and shredded and composted onsite for reuse as much or as a soil amendment or deposited at an appropriate transfer facility. Compost and recyclable wood can be dropped off at any compost facility where it is processed as new compost. Household toxic materials will be segregated from the solid waste and disposed of at a Lake County Integrated Waste Management facility.

Waste will be hauled to the curbside pickup location or to an appropriate licensed facility by a private waste-hauling contractor, such as Waste Management, Inc., or C & S Waste Solutions, or by cultivation operation staff. The Lake County Integrated Waste Management facilities are:

- Lake County Waste Solutions Transfer Station and Recycling Center, 230 Soda Bay Road, Lakeport

- Quackenbush Mountain Resource Recovery and Compost Facility, 16520 Davis Street, Clearlake

The following material handling and waste management measures will be implemented:

- Prevent or minimize handling of wastes that can be readily mobilized by contact with stormwater during a storm event.
- Contain all stored wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with stormwater during handling.
- Cover waste disposal containers and material storage containers when not in use.
- Divert run-on and stormwater generated from within the facility away from all stockpiled materials.
- Clean all spills of wastes that occur during handling in accordance with the spill response procedures); and
- Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with chemical/industrial materials or wastes.

A sandbag barrier (Construction BMP Factsheet SE-8) can be placed around waste storage areas to prevent stormwater run-on from adjacent upstream areas. Materials can be elevated with palettes or cement blocks to minimize contact with stormwater. Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers should be maintained and stored in the residence or shipping container.

To reduce or eliminate pollution of storm water from stockpiles of soil and cultivation materials, stockpiles should be surrounded with sediment controls (Construction Factsheets BMP SE-5: Fiber Rolls, SE-8: Sandbag Barrier, and WM-3 Stockpile Management) as needed. Plastic covers can be used, as needed, before rain events or before strong winds begin.

BMPs will be implemented to minimize storm water contact with waste materials and prevent waste discharges (Construction Factsheet BMP WM-5 Solid Waste Management). Solid waste should be removed and disposed off-site at least weekly at a proper receiving facility. Any chemicals will be stored in the shipping containers or sheds. Chemical wastes will be appropriately and clearly marked in containers and segregated from other non-waste materials.

Storage of soil amendments and chemicals should employ the following CASQA Industrial BMP fact sheets:

- SC-31: Outdoor Liquid Container Storage
- SC-32: Outdoor Equipment Operations
- SC-33: Outdoor Storage of Raw Materials
- SC-34: Waste Handling and Disposal
- SC-40: Contaminated or Erodible Surfaces
- TC-30: Vegetated Swale
- TC-31: Vegetated Buffer Strip.

13.2.3. Solid Waste Reduction

The CDFA CalCannabis Program states, "*Cultivators must comply with the California Integrated Waste Management Act of 1989, which requires that all California cities and counties reduce, recycle, and compost at least 50 percent of wastes by 2000.*" (CDFA 2017)
Solid waste should be reduced using some combination of the following strategies and activities:

- Provide filtered water and dedicated cups instead of bottled water for staff.
- Use biodegradable containers.
- Use durable materials to reduce the use of disposable materials.
- Preferably select vendors that use reusable packaging and shipping containers; encourage vendors to do so.
- Minimize the volume of packaging material required by selecting products packaged efficiently or by buying in bulk.
- Grow cannabis plants in the ground instead of in bags, where possible.
- Employ soil fertility practices, such as nitrogen fixation cover crops and mulching, to reduce the importation of fertilizers and soil amendments.
- Use electricity-powered vehicles and equipment and install a solar array and battery storage.

13.3. Hazards and Hazardous Waste

13.3.1. Hazard Analysis

The CalCannabis Licensing Program regulations (Section 8102[b][19]) would require that applicants have conducted a hazardous materials record search of the EnviroStor database for the proposed premises. If hazardous sites were encountered, the regulations require that applicants provide documentation of protocols implemented to protect employee health and safety.
The following hazardous materials databases were queried on October 14, 2019:

- EnviroStor is an online search and Geographic Information System tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priority List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.
- GeoTracker is a geographic information system maintained by the California State Water Resources Control Board (SWRCB) that provides online access to environmental data at the Internet address (URL) = http://geotracker.waterboards.ca.gov/.

The GeoTracker database and EnviroStor database did not report contamination cases or hazardous material usage on the Property or adjacent properties. The nearest contamination case is 1.7 miles away. The site survey revealed no evidence of buried storage tanks or soil contamination. There was no indication that the Property has previously been used for an industrial purpose.

This Hazard Analysis analyzes only the cultivation, harvest, trimming, and curing of Cannabis. The processing building proposed for this site will be used for trimming and curing of Cannabis only. Cannabis will not be processed or manufactured at this operation. If Cannabis is processed or manufactured at this facility, this Hazard Analysis will be expanded and revised.

Potential Biological Hazards

For unprocessed Cannabis, the primary biological hazard is microbiological, and specifically, fungal growth. In rare instances, some Cannabis crops can be contaminated with fecal coliforms that derive from soils or improper hygiene. Insects and arachnids, such as mites, could also be present on Cannabis product. For cultivation staff, the biological hazards are snake bites, insect stings, and weather exposure.

Potential Chemical Hazards

For unprocessed Cannabis, the primary chemical hazards are chemical residues: fertilizers; insecticides; and fungicides. Petroleum product usage could also lead to contamination of Cannabis product or soil. For cultivation staff, the chemical hazards are exposure to hazardous chemicals.

Potential Physical Hazards

For unprocessed Cannabis product, physical hazards include the introduction of material fragments such as stone, glass, metal fragments, or hair. Such contamination could occur from a variety of sources, such as fugitive dust, dirty containers during transport, etc. For cultivation staff, the physical hazards are cuts by sharp objects, crushing by falling objects, and weather exposure.

13.3.2. Hazard Evaluation

Evaluation of Biological Hazards

Arthropod infestations and fungal growths are common hazards. Arthropod infestations and fungal vectors and fungal growth will be controlled in various ways. Regular testing for fungal spores on raw product should be conducted. If a biological contaminant is found, the incident should be investigated to determine the source. Areas inside cultivation compounds can be graveled or paved to suppress dust and mud. Live traps may be deployed to remove rodents from operational areas. Disposable coveralls (e.g. Tyvek) can be used to increase sanitation levels and reduce vectoring of mites and other pests. A clothing changing station / mudroom can be provided for employees so that street clothing is separated from cultivation clothing. The number of workers and visitors should be minimized, as mites can travel on clothes. Increasing ventilation, such as the addition of fans, can lower humidity levels and discourage fungal growth.

To reduce the risk of snake bites, insect stings, and weather exposure, staff should be required to wear personal protective equipment and stay hydrated. These hazards are easily mitigated by taking care in the field.

Evaluation of Potential Chemical Hazards

Chemical contamination of raw product is possible, but unlikely. Regular testing for chemical residues on raw product should be performed. Chemical contamination can be reduced by implementation of Best Management Practices, which are identified in other subsections of this Plan. The use of organic-certified chemicals will also reduce this hazard significantly.

For cultivation staff, the risk of chemical exposure can be reduced using personal protective equipment and the implementation of Best Management Practices, which are identified in other subsections of this Plan.

Evaluation of Potential Physical Hazards

For unprocessed Cannabis product, contamination of raw product by physical residues is relatively common, but easy to avoid. Facilities will be kept as clean as possible. Disposable coveralls (e.g. Tyvek) can be used to increase sanitation levels. Plastic sheeting can be used when raw product must be handled or stored. Equipment, such as scissors and saws, will be sanitized with ethanol.

For cultivation staff, the risk of physical hazards can be reduced using personal protective equipment.

13.4. Hazardous Waste Management Plan

Cannabis cultivation operations may involve the use of hazardous materials, such as fuel for power equipment and pesticides. Transport, storage, and use of these materials could endanger human health and the environment if upset, or accident conditions cause a release of the materials. Numerous existing laws and regulations are designed to prevent spills of hazardous materials and limit damage if such materials are released. The CalCannabis Licensing Program would only authorize lawful cultivation activities that comply with existing laws regarding storage and use of hazardous materials. California Health and Safety Code provisions and the CalARP program would require any cannabis cultivation facility storing more than a threshold quantity of regulated substances to prepare a Hazardous Materials Business Plan. These plans would include emergency response procedures to coordinate response in the event of a release and chemical accident prevention measures. With adherence to existing hazardous materials laws, the risk of accidental releases of hazardous materials from cultivation activities that could cause substantial hazards is considered low.

In addition, the CalCannabis Licensing Program's environmental protection measures (Sections 8301[a][4], 8302[a][5], and 8313 of the proposed regulations, as provided in Appendix A) would minimize potential accidental releases of hazardous materials by requiring licensees to store chemicals in a secure building or shed, and to contain any chemical leaks and immediately clean up any spills. Therefore, the risk of accidental releases of hazardous materials from lawful cannabis cultivation operations would be lower than many other ongoing activities in the State, including existing unpermitted cannabis cultivation activities.

The Lake County Division of Environmental Health is the Certified Unified Program Agency (CUPA) for all of Lake County, dealing with hazardous waste and hazardous materials. The CUPA typically requires a Hazardous Materials Business Plan for the following volumes of hazardous materials: greater than 55 gallons of liquid; 200 standard cubic feet of compressed gas; or 500 pounds of a solid. All permittees shall manage all waste that is hazardous waste, as defined in Section 40141 of Public Resources Code, in compliance with all applicable hazardous-waste statutes and regulations.

However, the Cannabis Ordinance 3084 limits use of hazardous materials to volumes less than the State threshold: 55 gallons of a liquid; 500 pounds of a solid; or 200 cubic feet of a gas. Ordinance 3084 also prohibits the generation of hazardous waste as part of the Cannabis cultivation process.

Chemicals will be stored in a stormproof shed or Conex container so that stormwater is not contaminated. Chemicals will be properly labeled, properly segregated, and open containers sealed when not in use. Staff, when handling chemicals, will use personal protective equipment such as safety glasses, gloves, dust mask, boots, and pants and long-sleeved shirt.

Chemicals pertaining to cultivation will be stored in a stormproof shed or Cargo container. Chemicals pertaining to curing will be stored in a temporary Cargo container. Chemicals will be properly labeled, and open containers sealed when stored. Personal protective equipment such as safety glasses, gloves, dust mask, boots, and pants and long-sleeved shirt, will be used by staff when handling chemicals.

Gasoline and diesel in 1 or 5 -gallon containers are used to fuel small engines such as tillers and weed-eaters. No significant quantities of petroleum products are currently used. Tractors will be rented for: rototilling the cultivation area, mowing for fire prevention and trenching for setting up the security system. Should vehicle and equipment fueling, or maintenance be performed in the Project Area, the following a. CASQA Industrial BMP fact sheets will be followed:

- SC-20: Vehicle and Equipment Fueling
- SC-21: Vehicle and Equipment Cleaning
- SC-22: Vehicle and Equipment Maintenance and Repair

Material Safety Data Sheets (MSDS) will be kept on file for each chemical used at this facility. MSDS sheets will be made available to all staff for viewing. When a new chemical is brought on to this facility, there should be a brief "tailgate" meeting to discuss proper storage, handling, and disposal of the chemical. MSDS for the facility are provided in the Appendix.

The CDFA CalCannabis Program concluded:

> "*With adherence to existing hazardous materials laws, the risk of accidental releases of hazardous materials from cultivation activities that could cause substantial hazards is considered low. In general, cannabis cultivation would not make intensive use of hazardous materials. In addition, the Proposed Program's environmental protection measures (Sections 8301[a][4], 8302[a][5], and 8313 of the proposed regulations, as provided in Appendix A) would minimize potential accidental releases of hazardous materials by requiring licensees to store chemicals in a secure building or shed, and to contain any chemical leaks and immediately clean up any spills. Therefore, the risk of accidental releases of hazardous materials from lawful cannabis cultivation operations would be lower than many other ongoing activities in the state, including existing unpermitted cannabis cultivation activities.*" (CDFA 2017)
>
> "*Cannabis cultivation sites may be located in areas of high risk for wildfire.*" (CDFA 2017)

A sandbag barrier (Construction BMP Factsheet SE-8) can be placed around waste storage areas to prevent stormwater run-on from adjacent upstream areas. Sheds or shipping containers should be used to store hand tools, small parts, and most cultivation materials that can be carried by hand. Very large items can be stored in the open in the general storage areas. Such materials should be elevated with palettes or cement blocks to minimize contact with stormwater. Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers should be maintained and stored in the residence or shipping container.

To reduce or eliminate pollution of storm water from stockpiles of soil and cultivation materials, stockpiles will be surrounded with sediment controls (Construction BMP Factsheets SE-5: Fiber Rolls, SE -8: Sandbag Barrier, and WM-3 Stockpile Management) as needed. Plastic covers can be used, as needed, before rain events or before strong winds begin.

BMPs will be implemented to minimize storm water contact with waste materials and prevent waste discharges (Construction BMP Factsheet WM-5 Solid Waste Management). Solid waste should be removed and disposed off-site at least weekly at a proper receiving facility. Any chemicals will be stored in the shipping containers or sheds. Chemical wastes will be appropriately and clearly marked in containers and segregated from other non-waste materials.

Storage of soil amendments and chemicals should employ the following CASQA Industrial BMP Fact Sheets:

- SC-31: Outdoor Liquid Container Storage
- SC-32: Outdoor Equipment Operations
- SC-33: Outdoor Storage of Raw Materials
- SC-34: Waste Handling and Disposal
- SC-40: Contaminated or Erodible Surfaces
- TC-30: Vegetated Swale
- TC-31: Vegetated Buffer Strip.

13.5. Pollution Prevention and Spill Response

This pollution prevention plan prescribes the following practices: good housekeeping; preventative maintenance; other BMPs; spill and leak prevention and response measures, and a monitoring program.

The spill prevention and control plan include the following components:

- Maintenance of spill kit for petroleum hydrocarbons on site and in fuel supply trucks to include:
    - o Containment drum.
    - o Oleophilic absorbent pads; and
    - o Granular spill absorbent suitable for petroleum, brake fluid, and antifreeze.
- Daily inspection of equipment for oil and fuel leaks.
- Fueling only in the designated area; and
- Training of personnel on handling of leaks (training at tailgate safety meetings).

13.6. Cannabis Vegetative Material Waste Management

13.6.1. Types and Volumes of Green Waste

The CDFA CalCannabis Program describes green waste as follows:

> *"Green waste is generated throughout the cannabis cultivation process. Some plants fail to reach maturity, pruning generates waste, nuisance weeds must be removed, and other plant material remains unused following harvesting, processing, and preparation for a new crop to be planted. Processing, including trimming, is described in Section 3.8 below.*
>
> *Some cultivators may use sugar leaves, branch stalks, or stems for various cannabis or hemp products; typically, however, after the flowers are harvested, the remainder of the cannabis plant becomes green waste. Removal of some large plants, particularly in outdoor cultivation operations, may require a chainsaw due to the strength and thickness of the plant's stem. Green waste is generally not piled and stored near active cannabis crops to avoid botrytis or other*

fungal pest issues that may occur on the waste and spread to the living cannabis plants. Disposal of green waste would follow procedures established by the Proposed Program. On-site composting is an option. If off-site disposal is used, the cultivator would make all cannabis waste unusable and unrecognizable before it leaves the licensed premises by grinding and mixing the green waste with non- consumable solid wastes such that the resulting mixture is at least 50 percent non-cannabis waste. Under Section 8305, Cannabis Waste Management, of the Proposed Program regulations, acceptable types of non-cannabis waste are any nonhazardous compostable materials, as defined in Title 14 of the California Code of Regulations at Section 17852(a)(11). After the waste is ground and mixed, licensees may dispose of it at a manned and permitted solid waste landfill, compostable materials handling facility, or in-vessel digestion facility as described in the regulations." (CDFA 2017)

Sources of green waste on this cultivation operation consist of the following:

- mulch, humus, etc.
- landscape maintenance: lawn and weed trimmings, treated lumber, wood fencing, etc.
- Cannabis processing waste: leaves, stems, and root balls that remain after flower harvest, trimming, and grooming; whole dead plants; etc.

Volume of green waste generated by this cultivation operation is estimated at:

- two cubic yards per month per acre, or 24 cubic yards per year per acre of canopy.

Cannabis green waste will be be weighed daily, weekly, or as needed, and data will be recorded for reporting requirements.

13.6.2. Handling and Disposal of Green Waste

There will be a dedicated area in the cultivation compound where Cannabis waste is handled. This area will be surveilled by video camera, and Cannabis waste will be weighed at regular intervals as part of the Track and Trace Program. Cannabis waste will be handled with appropriate personal protective equipment, including long-sleeved shirts, pants, boots, dust mask, eye protection, and gloves. Cannabis waste will either be composted onsite or disposed at a licensed landfill offsite after rendering it unconsumable.

Non-cannabis green waste can be shredded in a woodchipper, as necessary. Green waste can be mixed with soil and inoculated with humus. Compost heaps should be at least one cubic yard in size to generate and sustain necessary heat for composting (to sustain aerobic digestion). Compost heaps should be segregated into batches as they age, with humus being the resulting product after several weeks of composting. Compost heaps should be turned often to encourage aeration and aerobic digestion and supplemental water added to keep the heaps moist, but not wet (to discourage anaerobic digestion). Cannabis waste should be shredded and mixed with at least an equal amount of compostable materials such as food waste, yard waste, or growing medium (to render the cannabis unconsumable). Cannabis waste must always be kept inside the locked fence or other locked compound.

If cannabis waste is to be disposed offsite, it should first be shredded and blended with an equal part of non-consumable material, such as cardboard. Cannabis waste must be kept inside the locked garden area or other locked compound until ready for transport. It would then be transported as solid waste to the proper disposal facility (see Solid Waste Management Plan).

California Department of Food and Agriculture's CalCannabis Cultivation Licensing Program dictates specific Cannabis waste management practices that will be adopted, as applicable, by this cultivation operation. The following draft regulations from the CalCannabis Cultivation Licensing Program are quoted as follows, and incorporated by reference:

§ 8305. Cannabis Waste Management

(a) For the purposes of this Chapter, "cannabis waste" is waste that is not hazardous waste as defined in Section 40141 of Public Resources Code, and is solid waste, as defined in Section 40191 of Public Resources Code, that contains cannabis and that has been made unusable and unrecognizable in the manner prescribed in subsection (e). A licensee may not sell cannabis waste.

(b) A licensee shall manage all waste that is hazardous waste, as defined in Section 40141 of Public Resources Code, in compliance with all applicable hazardous-waste statutes and regulations.

(c) A licensee shall dispose of cannabis waste as identified in the licensee's Cultivation Plan approved by the Department. A licensee shall not dispose of cannabis waste in an unsecured waste receptacle, whether in the control of the licensee or not.

(d) Cannabis that a licensee intends to render into cannabis waste shall be held in the designated holding area for a minimum of 72 hours. A licensee shall affix to each batch one or more documents with batch information and weight. At no time during the 72-hour hold period may the cannabis be handled, moved, or rendered into cannabis waste. The cannabis the licensee intends to render into cannabis waste is subject to inspection by the Department.

(e) A licensee shall make cannabis into cannabis waste by rendering the cannabis unusable and unrecognizable. The licensee shall render the cannabis into cannabis waste before removing the cannabis waste from the licensed premises. A licensee shall render the cannabis into cannabis waste by grinding and incorporating the cannabis with other ground material so that the resulting mixture is at least 50 percent noncannabis material by volume. A licensee shall render cannabis into cannabis waste and track that waste by batch.

(f) Cannabis that a licensee wishes to deposit at a compostable materials handling facility or at an in-vessel digestion facility may be rendered cannabis waste by incorporating any nonhazardous compostable material, as defined in Title 14 of the California Code of Regulations at Section 17852 (a)(11), that a compostable materials handling facility or in-vessel digestion facility may lawfully accept.

(g) Unless a licensee will compost onsite, after a licensee renders the cannabis into cannabis waste, a licensee shall do one of the following with the cannabis waste:

(1) Dispose of the cannabis waste at a manned and fully permitted solid waste landfill.

(2) Deposit the cannabis waste at a manned solid waste operation or a manned fully permitted compostable materials handling facility; or

(3) Deposit the cannabis waste at a manned solid waste operation or a manned fully permitted in-vessel digestion facility.

In addition to all other tracking requirements set forth in Sections 8404 and 8405 of this Chapter, a licensee shall use the track-and-trace system and onsite documents to ensure the cannabis waste materials are identified, weighed, and tracked while on the licensed premises and when disposed of or deposited in accordance with subsection (g).

(i) A licensee shall enter the date and time that the cannabis was rendered cannabis waste and the weight of the resulting cannabis waste into the track-and-trace database.

(j) A licensee shall maintain accurate and comprehensive records regarding cannabis waste material that account for, reconcile, and evidence all activity related to the generation and disposal or disposition of cannabis waste. A licensee shall obtain a record from the solid waste facility evidencing the acceptance of the cannabis waste material at the facility. The record shall contain the name and address of the facility, the date, and the volume or weight of the cannabis waste accepted. These documents are records subject to inspection by the Department and shall be kept in compliance with Section 8400 of this Chapter.

(k) A licensee shall enter the date and time of the disposal or deposit of the cannabis waste at a solid waste facility, compostable materials handling facility, or an in-vessel digestion facility into the track-and-trace system.

13.7. Growing Medium Management

The CDFA CalCannabis Program describes soils handling as follows:

> "*Soils used in cannabis cultivation may be treated, reused, stockpiled, and/or discarded. For reuse, soils are piled and covered with tarps for an extended period (months to a year) to allow heat from sunlight to destroy any potential soil pathogens or pests. Another practice for soil reuse is to run a compost tea through the soils between harvests to restore soil nutrients. Although it is not a direct component of the Proposed Program, another aspect of soil reuse can include laboratory testing of soil samples to identify nutrient deficiencies or other issues. Identifying such deficiencies allows the soil to be properly treated or amended with fertilizers or other soil amendments, thereby correcting these deficiencies, prior to being reused with a new cannabis crop.*" (CDFA 2017)

> "*Outdoor cultivation typically involves planting rooted cannabis cuttings or seeds in the early spring and harvesting the plants in the fall (mid-September through November), after the plants flower. Soils used in the pots or grow bags are typically amended to ensure that nutrients are available to the plants throughout the growing season. Compost teas, which are created by steeping compost material in water, may also be used to fulfill nutrient needs (Ingham 2014). Water and nutrient supplement need for outdoor cultivation may vary depending on the type of growing container selected. For example, raised beds typically require more watering and additional liquid nutrient application compared to other growing container options.*" (CDFA 2017)

For the purposes of this Plan, growing medium consists of soil and non-organic amendments (vermiculite, perlite, silica gel, etc.). It does not include fertilizers or organic amendments such as mulch, humus, worm castings. etc. See the Fertilizer subsection of this Plan for a discussion of organic amendments.

13.7.1. Types and Volumes of Growing Medium

Planting may be tilled rows or may occur in cloth bags. The growing medium, if planted in bags rather than the ground. for each 1-acre cultivation area will be approximately 1,800 yards of amended potting soil, which is imported and put into bags

13.7.2. Growing Medium Handling, Disposal, and Waste Reduction

Growing media waste will be eliminated by amending old soils with new soils and fertilizers. No significant amounts of growing media are expected to be disposed. Instead, media is reduced in volume yearly because it is absorbed by the plants and metabolized by soil organisms (bacteria, fungi, invertebrates). Soil staging areas and compost piles will be located inside or near the fenced compound. BMPs will be employed to ensure that these piles do not contaminate stormwater or cause nuisance dust or odor issues.

13.8. Maps

The required maps are provided in the Maps section at the end of this Property Management Plan.

14.0 WATER RESOURCES

14.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must discuss Water Resources.

14.2. Description of Water Resources

The Lake County Groundwater Management Plan, together with the Lake County Water Inventory and Analysis (CDM 2006) and the Lake County Water Demand Forecast (CDM 2006), serve to manage the water resources in Lake County and provide a framework for the County and other water users to implement effective water resource management programs.

An informal assessment for the presence of potentially jurisdictional water resources within the operational areas and surrounding Project Area was also conducted during the field survey on or about 1/23/2020, by biologist Tim Nosal, M.S. The following water features were detected within the Property during the field survey (see Exhibits): The Project Area does not contain any channels or wetlands. The following water features were detected within the Study Area during the field survey (see Exhibits):

- one Class I watercourse,
- two Class II watercourses,
- three Class III watercourses,
- one spring-fed, man-made freshwater pond
- and riverine wetlands.

There are no vernal pools or other isolated wetlands in the Study Area.
(Natural investigations co. biological report dated 1/23/20 pages 18-19)

The Cannabis cultivation operations will use water from a permitted well and storage pond. The well is approximately 360 feet deep, and the capacity is 5.5 gallons per minute. And the pond holds 10-acre feet of water.

The cultivation site will not divert surface water from Kelsey creek during forbearance time.

14.3. Water Resource Protection

This Property has no vehicle stream crossings (see Exhibits). Proper road maintenance procedures are detailed in other sections of this Plan.

This cultivation operation is enrolled as a Tier II / Low Risk cultivation operation in the State Water Resources Control Board's *Order WQ 2017-0023-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities* (General Order). Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices, buffer zones, sediment and erosion controls, inspections and reporting, and regulatory oversight.

Potential adverse impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation, the filling of wetlands, or by increased erosion and sedimentation in receiving water bodies due to soil disturbance. Project implementation will not directly impact any channels or wetlands. Soil disturbance from project implementation could increase erosion and sedimentation. Regulations at both the County and State levels require creation and implementation of an erosion control plan / stormwater management plan.

Furthermore, if the total area of ground disturbance from project implementation is greater than 1 acre, the project proponent will enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

This cultivation operation is located as far away as possible from waterbodies and in a relatively flat area of the Property to reduce the potential for water pollution. The cultivation operation is more than 100 feet away from the nearest watercourse Class II and 150 feet away from the nearest watercourse Class 1.

Vegetative Buffers

Generous vegetative buffers exist between this cultivation operation and the nearest water resource. These vegetated areas will be preserved as much as possible. Areas that are covered in grasses will be regularly mowed or trimmed. Areas that are covered in natural habitats will not be trimmed.

14.3.2. Best Management Practices

Water resource protection BMP's were identified and discussed in the Stormwater Management subsection.

14.4. Water Quality Monitoring Program

14.4.1. Objectives

The Project Site Monitoring Program will be developed and implemented to address the following objectives:

- To demonstrate that the site follows all permits and ordinances.
- To determine whether non-visible pollutants are present at the project site and are causing or contributing to exceedances of water quality objectives.
- To determine whether immediate corrective actions, additional BMP implementation, or Plan revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges; and
- To determine whether BMPs indicated in the Plan are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

Note that water quality monitoring and sampling is also required under the State Water Board's Cannabis General Order.

14.4.2. Types of Inspections and Frequency

Based on the project site's location, construction / cultivation periods, and rainfall erosivity factor, this project should perform inspections at the following times: beginning of the rain season; before and after any storm that produces over 1 inch of rain; and during any storm that produces a significant stormwater discharge. Each inspection event should be logged in the Inspection Log in this Plan or in a separate binder.

The inspectors should be prepared to collect samples and conduct visual inspections. Inspectors are not required to physically collect samples or conduct visual inspections under the following conditions:

- During dangerous weather conditions such as flooding and electrical storms; and
- Outside of scheduled site business hours.

14.4.3. Inspection and Sampling Personnel

All inspection and sampling activities will be performed by the manager until site personnel are properly trained to take over these tasks. The name(s) and contact number(s) of the assigned inspection and sampling personnel are:

- Joleen P. Wignall 707 337-6583

14.4.4. Record Keeping and Reports

The site manager will retain records of all storm water monitoring information and copies of all reports for a period of at least three years. Each inspection event can be logged in the Inspection Log in a binder. These records include:

- The date, place, time of facility inspections, sampling, visual inspections, and/or measurements, including precipitation.
- The individual(s) who performed the facility inspections, sampling, visual inspections, and or measurements.
- The date and approximate time of analyses.
- The individual(s) who performed the analyses.
- Rain gauge readings from site inspections.
- Non-storm water discharge inspections and visual inspections and storm water discharge visual observation records.
- Visual observation and sample collection exception records; and
- The records of any corrective actions and follow-up activities that resulted from analytical results, visual inspections, or inspections.

14.4.5. Visual Inspection Plan

The inspector is only required to conduct visual observations (inspections) during business hours only. Within 2 business days (48 hours) prior to significant rain events, the inspector should visually observe (inspect):

- All storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources (if needed, the site manager should implement appropriate corrective actions).
- All BMPs to identify whether they have been properly implemented in accordance with the Plan (if needed, the site manager shall implement appropriate corrective actions); and
- Any storm water storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

The inspector should conduct during-rain event visual observations (inspections) at regular intervals during extended storm events. The inspector should visually observe (inspect) storm water discharges at all discharge locations. Within two business days (48 hours) after major rain events, the inspector should conduct post rain event visual observations (inspections) to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify additional BMPs and revise the Plan accordingly.

For the visual inspections described above, the inspector should observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants. The inspector should maintain on -site records of all visual observations (inspections), personnel performing the observations, observation dates, weather conditions, locations observed, and corrective actions taken in response to the observations.

14.4.6. Sampling Plan for Pollutants

Water sampling is only required if a significant water pollution event occurs. The inspector should analyze one or more effluent samples for any parameters indicating the presence of pollutants during any breach, malfunction, leakage, or spill observed during a visual inspection

which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water. Samples of discharge should be collected at the designated sampling locations shown on the WPCDs for observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

The inspector should analyze samples for all applicable pollutant parameters. The inspector should collect a sample of storm water that has not meet the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample. The inspector should compare the uncontaminated sample to the samples of discharge using field analysis or through laboratory analysis. The inspector should keep all field /or analytical data. Samples should be analyzed for the applicable constituents using the USEPA analytical methods.

14.4.7. General Sampling Methodology

The storm water manager should designate and train personnel to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program's 2008 Quality Assurance Program Plan. The storm water manager should ensure that testing laboratories will receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory) and should use only the sample containers provided by the laboratory to collect and store samples.

The storm water manager should ensure that all sampling and sample preservation are in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) should be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. The storm water manager should ensure that all laboratory analyses are conducted according to test procedures under 40 Code of Federal Regulations Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. Except for field analysis conducted by the inspectors for turbidity and pH, all analyses should be sent to and conducted at a laboratory certified for such analyses by the State Department of Health Services.

Immediately following collection, samples for field analysis will be tested in accordance with the field instrument manufacturer's instructions and results recorded on the Sampling Activity Log. Immediately following collection, sample bottles for laboratory analytical testing should be capped, labeled, documented on a COC form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to a California state-certified laboratory.

14.5. Maps

The required maps are provided in the Maps section at the end of this Property Management Plan.

15.0 WATER USE

15.1. Requirements / Goals

According to the Ordinance, the Property Management Plan must have a section on Water Use:

(a) Intent: To conserve the County's water resources by minimizing the use of water.
(b) All permitted activities shall have a legal water source on the premises, and have all local, state, and federal permits required to utilize the water source. If the permitted activity utilizes a shared source of water from another site, such source shall be a legal source, have all local, state, and federal permit required to utilize the water source, and have a written agreement between the owner of the site where the source is located and the permitted activity agreeing to the use of the water source and all terms and conditions of that use.
(c) Permittee shall not engage in unlawful or unpermitted drawing of surface water.
(d) The use of water provided by a public water supply, unlawful water diversions, transported by a water hauler, bottled water, a water-vending machine, or a retail water facility is prohibited.
(e) Where a well is used, the well must be located on the premises or an adjacent parcel. The production well shall have a meter to measure the amount of water pumped. The production wells shall have continuous water level monitors. The methodology of the monitoring program shall be described. A monitoring well of equal depth within the cone of influence of the production well may be substituted for the water level monitoring of the production well. The monitoring wells shall be constructed, and monitoring begun at least three months prior to the use of the supply well. An applicant shall maintain a record of all data collected and shall provide a report of the data collected to the County annually.
(f) Water may be supplied by a licensed retail water supplier, as defined in Section 13575 of the Water Code, on an emergency basis. The application shall notify the Department within 7 days of the emergency and provide the following information:

a. A description of the emergency.
b. Identification of the retail water supplier including license number.
c. The volume of water supplied.
d. Actions taken to prevent the emergency in the future.

(g) All permittees shall prepare a Water Use Management Plan to be approved by the Lake County Water Resources Department. Said plan shall:

a. Identify the source of water, including location, capacity, and documentation that it is a legal source.
b. Described the proposed irrigation system and methodology.
c. Describe the amount of water projected to be used on a monthly basis for irrigation and separately for all other uses of water and the amount of water to be withdrawn from each source of water on a monthly basis.

15.2. Water Use Management Plan

15.2.1. Water Sources and Metering

The Property does not have municipal water service. The Cannabis cultivation operations will use water from an existing groundwater well and 10-acre feet of water pond (see Maps). This well is permitted with the County and will use a solar pump. The capacity of this well is 5.5 gallons per minute.

The cultivation site will not take water directly from Kelsey Creek during the forbearance time. Bottle Rock Herbal Medicine, LLC has state permits that are needed to divert surface water during non-forbearance time and is allowed to divert 6.4 acre-feet per year. A water meter will be installed for the cultivation site; water consumption will be logged daily. A water budget will be created every year and water use efficiency will be analyzed for the previous year.

15.2.2. Estimated Water Use

Water use requirements for outdoor cannabis production are like water use requirements for other agricultural crops such as corn (CDFA 2017). CDFA (2017) reports the following regarding the water use for cannabis:

> *"According to Hammon et al. (2015), water use requirements for outdoor cannabis production (25-35 inches per year) are generally in line with water use for other*

agricultural crops, such as corn (20 -25 inches per year), alfalfa (30-40 inches per year), tomatoes (15-25 inches per year), peaches (30 -40 inches per year), and hops (20-30 inches per year). Lindsey (2012) similarly cites a University of California researcher who suggested that cannabis does well under irrigation management and, as a small-acreage crop, will use far less water than crops such as cotton. Estimates of daily water usage per cannabis plant range from 5 gallons (Live Science 2014) to 6-8 gallons (CDFW 2016)."

CDFA (2017) concludes the following regarding groundwater impacts from small cultivation operations:

"*Based on the relatively low quantities of water use (from 0.002 to 1.8 acre-feet per year), the likelihood that an individual cultivator or group of cultivators using groundwater from a defined alluvial aquifer would, by themselves, cause substantial groundwater overdraft is considered unlikely, for several reasons. First, groundwater overdraft is typically caused by the combination of various uses in a basin and is not typically attributable to a particular user or set of users; in other words, it is typically a cumulative issue (which is discussed in more detail in Chapter 6, Cumulative Considerations). In addition, the size limitations for cultivation sites under the Proposed Program would limit the maximum extent of water use. For instance, the highest estimate, provided by Hammon et al. (2015), would result in less than 3 acre-feet of annual usage at the largest allowable cultivation site of 1 acre.*
Finally, no information is available to suggest that there would be high concentrations of cultivators using groundwater from an alluvial basin in a particular location in a manner that could substantially affect neighboring wells." (pages 4.8-34 to 4.8-35)

Daily Water Consumption

The following estimates were used from the CalCannabis Environmental Impact Report (CDFA 2017):

- 500 Cannabis plants per acre, each requiring 6 gallons per day = 3,000 gallons per day for an acre of Cannabis canopy

This is equivalent to 2.1 gallons per minute for an acre of Cannabis canopy. The County will currently allow up to 3 acres of Cannabis canopy for this Property. Thus, the daily requirement is 6.3 gallons per minute for 3 acres of Cannabis canopy. The capacity of the well is 5 gallons per minute. There is also a 3- acre feet of water in the pond. Thus, there is more than enough water supply on this Property to support 3 acres of Cannabis cultivation.

Annual Water Consumption

Using the assumptions of 3,000 gallons per day for 1 acre of Cannabis canopy, and 120 growing days, the estimated annual water demand is estimated at 360,000 gallons per acre per year (= 1-acre foot per year). This is consistent with the range of values reported in the CalCannabis Environmental Impact Report = from 0.002 to 1.8 acre-feet per year.

15.2.3. Water Conservation

Water conservation practices will be implemented, including some combination of the following strategies and actions:

- selection of plant varieties that are suitable for the climate of the region
- the use of driplines and drip emitters (instead of spray irrigation)
- mulching to reduce evaporation
- water application rates modified from data from soil moisture meters and weather monitoring
- rooftop water collection (where feasible and permitted)
- shutoff valves on hoses and water pipes

- daily visual inspections of irrigation systems
- immediate repair of leaking or malfunctioning equipment
- water metering and budgeting

CASQA Construction BMP Fact Sheet NS-1: Water Conservation Practices should be implemented to prevent discharges from water supply equipment. Water application rates should be minimized as necessary to prevent runoff and ponding and water equipment leaks should be repaired immediately. Implement Construction BMP Fact Sheet NS-7: Potable Water / Irrigation to manage the potential pollutants generate during discharges from irrigation lines and unplanned discharges from water sources.

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15.2.4. Irrigation System

At each of the cultivation areas, the water supply will fill a storage tank (probably 2500 gallons); a water meter will meter the water use. Water filtration systems may also be installed. This tank will supply gravitational head to the irrigation system. PVC pipes will deliver the water to the planting stations. Mixing tanks (3,000 gallons) will be used for making compost tea (liquid soil amendments or fertilizers) and spliced into these supply lines. At each planting station, black polyvinyl flexible tubes and drip emitters will be used to irrigate the plants.

16.0 MONITORING AND REPORTING FOR COUNTY LICENSING

According to the Ordinance, the licensee must perform annual compliance monitoring and prepare annual reports as follows:

6. Compliance Monitoring

i. A compliance monitoring inspection of the cultivation site shall be conducted annually during growing season.

ii. The permittee shall pay a compliance monitoring fee established by resolution of the Board of Supervisors prior to the inspection.

iii. If there are no violations of the permit or state license during the first five years, the inspection frequency may be reduced by the Director to not less than once every five years.

7. Annual Reports

i. Performance Review

(a) All cannabis permittees shall submit a "Performance Review Report" on an annual basis from their initial date of operation for review and approval by the Planning Commission. The Planning Commission may delegate review of the annual Performance Review Report to the Director at the time of the initial hearing or at any time thereafter. This annual "Performance Review Report" is intended to identify the effectiveness of the approved development permit, use permit, Operations Manual, Operating Standards, and conditions of approval, as well as the identification and implementation of additional procedures as deemed necessary. In the event the Planning Commission identifies problems with specific Performance Review Report that could potentially lead to revocation of the associated development or use permit, the Planning Commission may require the submittal of more frequent "Performance Review Reports."

(b) Pursuant to sub-section 6.i. above, the premises shall be inspected by the Department on an annual basis, or less frequently if approved by the Director. A copy of the results from this inspection shall be given to the permittee for inclusion in their "Performance Review Report" to the Department.

(c) Compliance monitoring fees pursuant to the County's adopted master fee schedule shall be paid by permittee and accompany the "Performance Review Report" for costs associated with the inspection and the review of the report by County staff.

(d) Non-compliance by permittee in allowing the inspection by the Department, or refusal to pay the required fees, or noncompliance in submitting the annual "Performance Review Report" for review by the Planning Commission shall be deemed grounds for a revocation of the development permit or use permit and subject the holder of the permit(s) to the penalties outlined in this Code.

17.0 LITERATURE CITED AND FURTHER READING

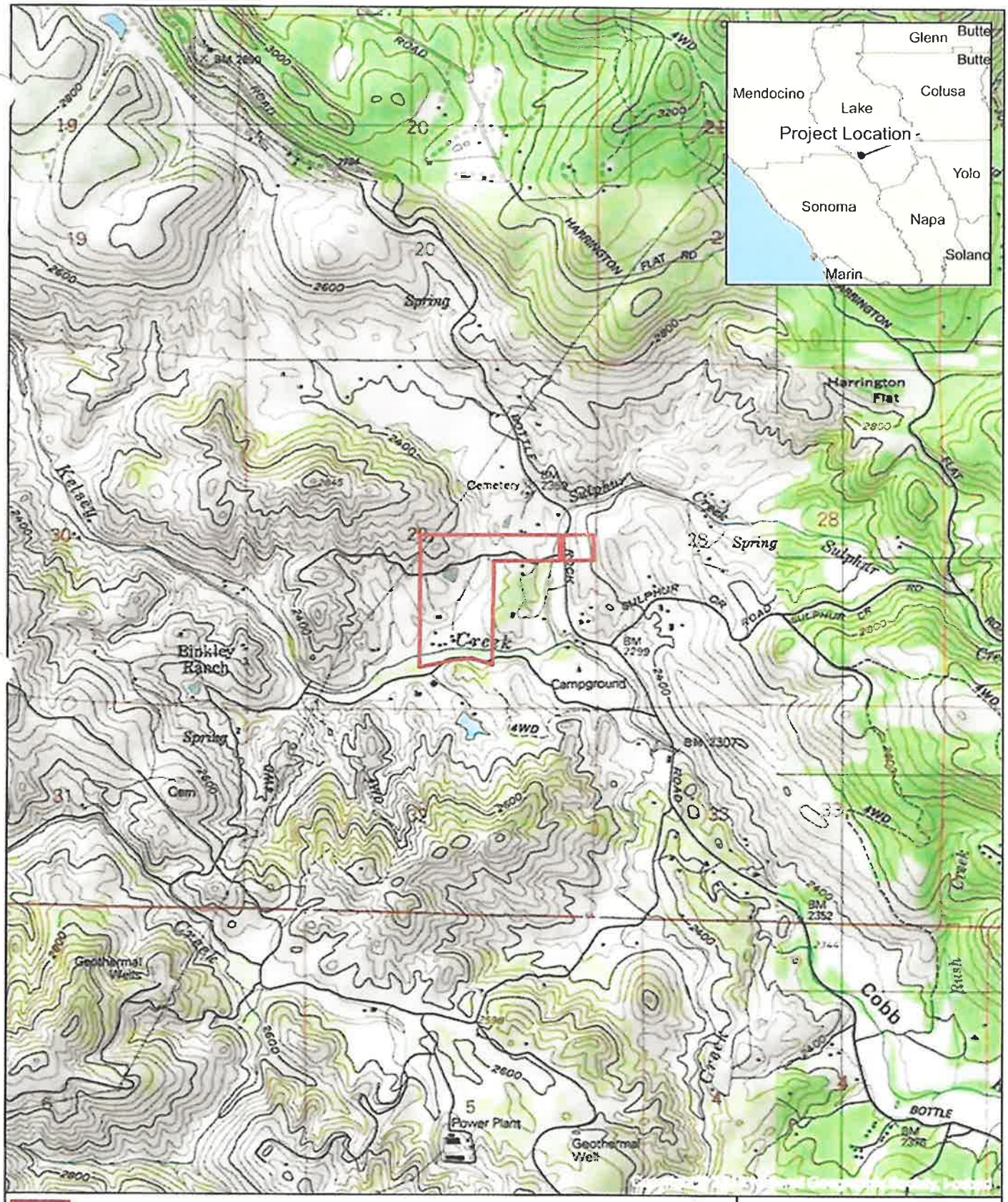
Central Valley Region's **Best Management Practices Manual for Cannabis** Cultivation. Appendix A in: Waste Discharge Requirements for Cannabis Cultivation Order R5-2015-0113.

Natural Investigations Co., Inc. 2019. **Biological Site Assessment** for the Cultivation Project at 13095 Bottle Rock Road, Cobb Mountain, California. Prepared January 23, 2020. Prepared for Central Valley Regional Water Quality Control Board.

John Parker **Cultural Resources Assessment** for the Cannabis Cultivation Operation at 13095 Bottle Rock Road, Cobb Mountain, California.

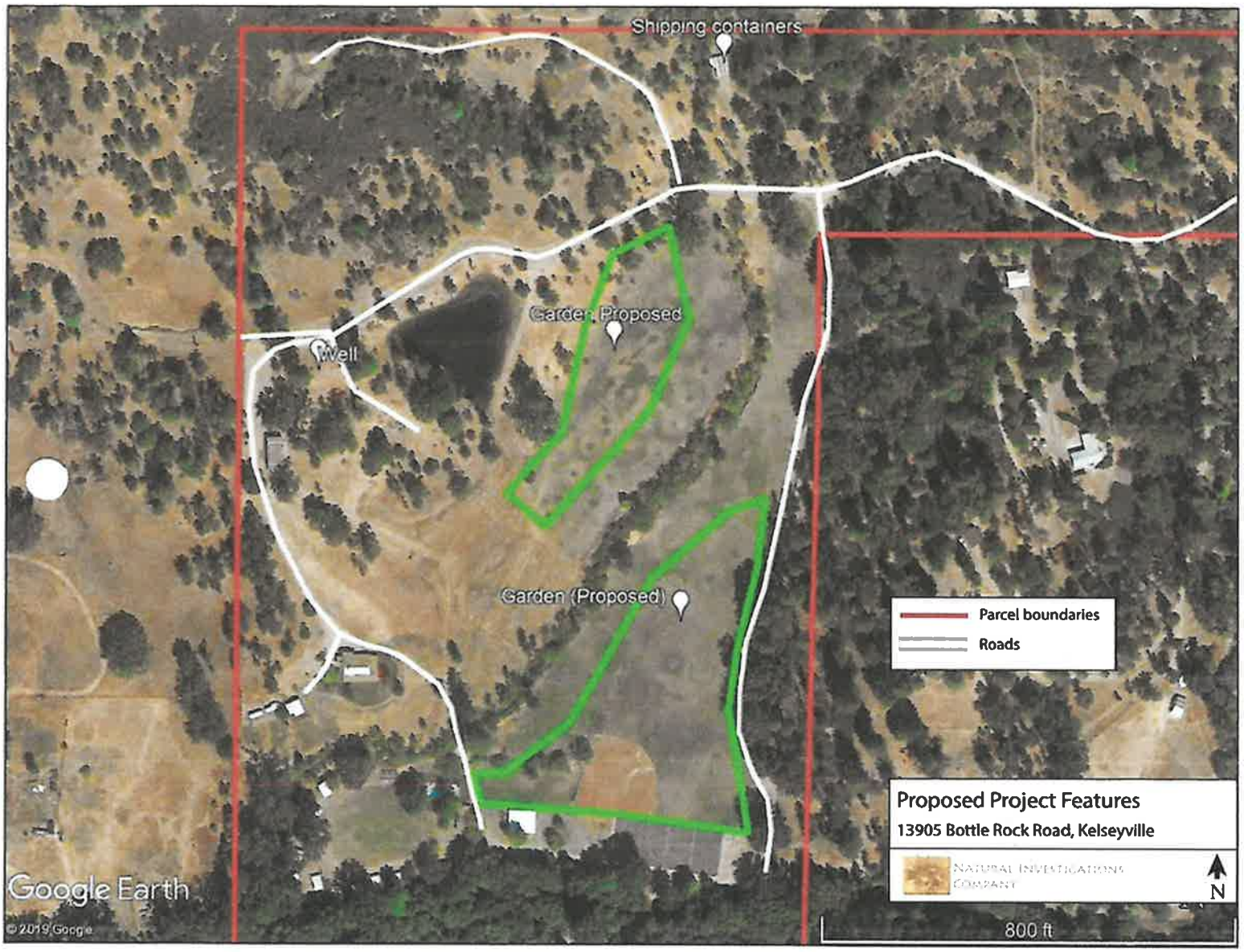
Nitrogen Management Plan for the Bottle Rock Road Cultivation Project at 13095 Bottle Rock Road, Cobb Mountain, California. Prepared for Central Valley Regional Water Quality Control Board.

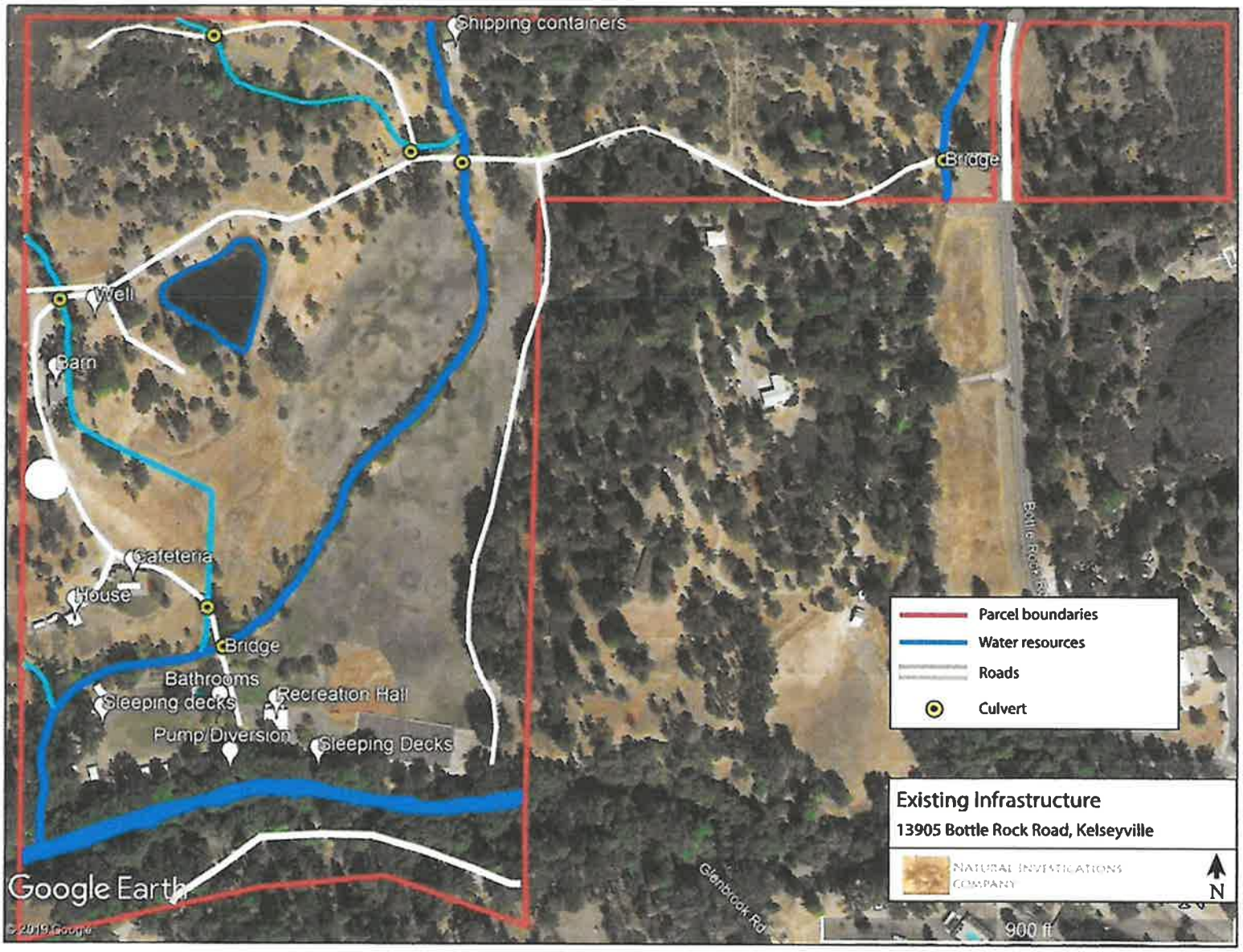
18.0 MAPS AND EXHIBITS

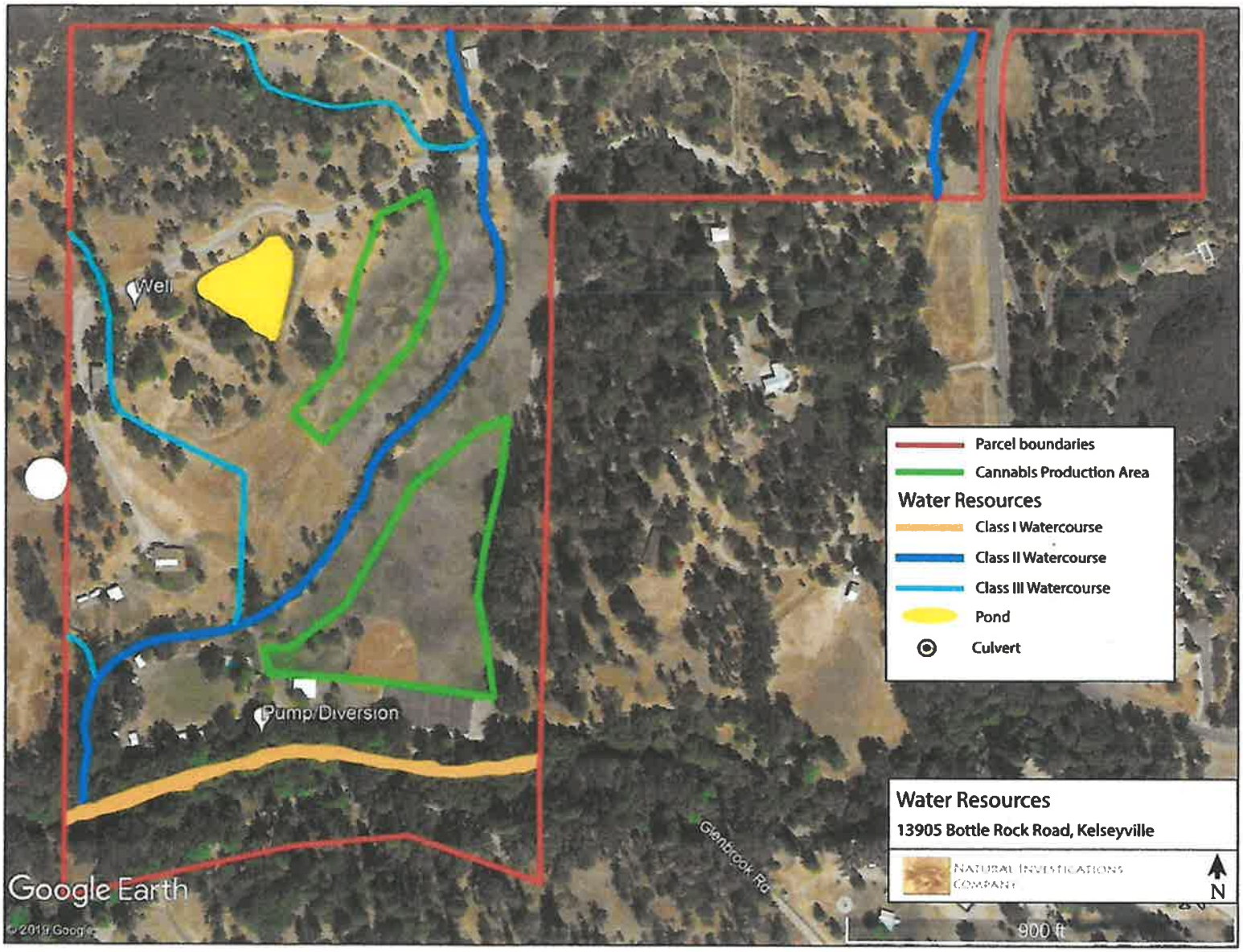


Map Date 1/7/2020

The Geysers 1991 Quadrangle:Township 12N, Range 8W, Section 29

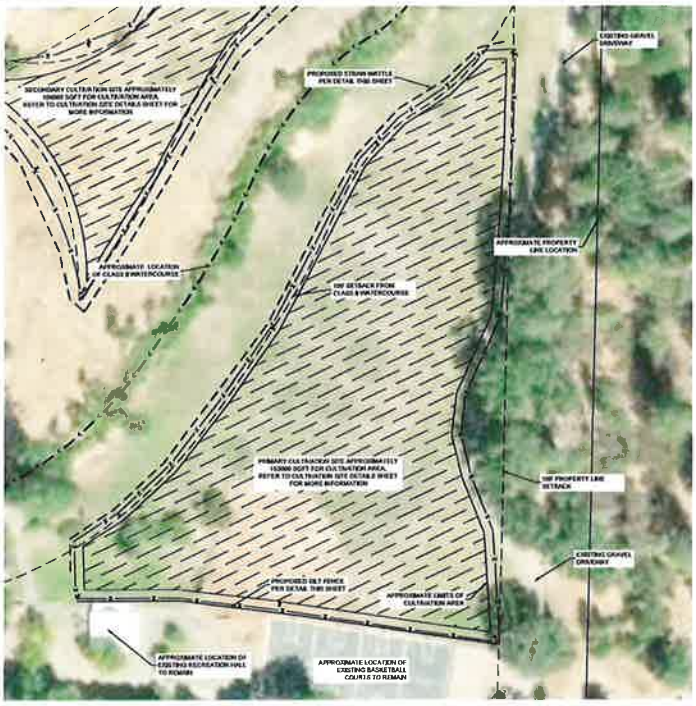

Shipping containers
Garden (Proposed)
Well
Garden (Proposed)
Parcel boundaries
Roads
Proposed Project Features
13905 Bottle Rock Road, Kelseyville
Natural Investigations Company
N
800 ft
Google Earth
© 2019 Google


Shipping containers
Bridge
Well
Barn
Cafeteria
House
Bridge
Bathrooms
Sleeping decks
Recreation Hall
Pump/Diversion
Sleeping Decks
Bottle Rock Rd
Glenbrook Rd
Google Earth
© 2019 Google
Parcel boundaries
Water resources
Roads
Culvert
Existing Infrastructure
13905 Bottle Rock Road, Kelseyville
Natural Investigations Company
N
900 ft

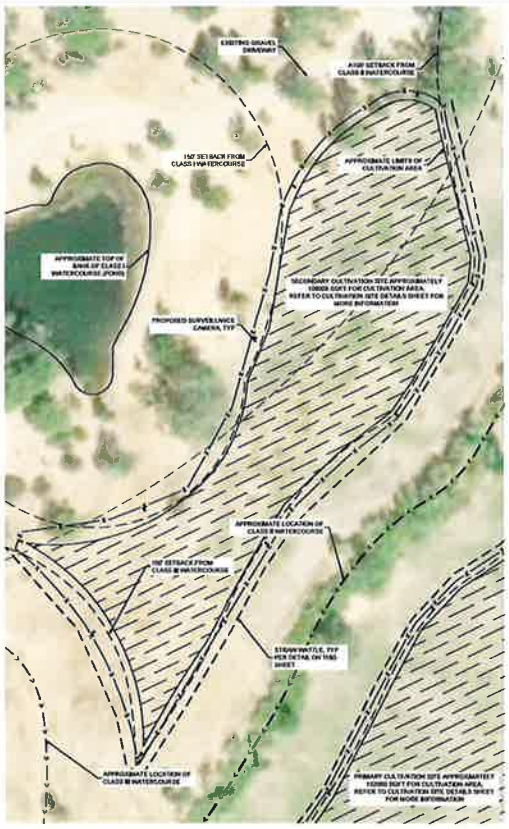

Well
Pump/Diversion
Glenbrook Rd
Google Earth
© 2019 Google
Parcel boundaries
Cannabis Production Area
Water Resources
Class I Watercourse
Class II Watercourse
Class III Watercourse
Pond
Culvert
Water Resources
13905 Bottle Rock Road, Kelseyville
Natural Investigations Company
N
900 ft

Map Date 1/7/2020

The Geysers 1991 Quadrangle:Township 12N, Range 8W, Section 29



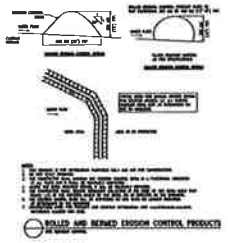
PRIMARY CULTIVATION SITE
SCALE: 1"=50'



SECONDARY CULTIVATION SITE
SCALE: 1"=50'

0 25 50 100
SCALE 1" = 50'

HATCH LEGEND
SEED AND STRAW



ROLLED AND BERMED EROSION CONTROL PRODUCTS

SILT FENCE

NORTH BAY CANNA CONSULTING

NOTES:

PROJECT ADDRESS:
13501 BOTTLE ROCK ROAD, KELSEYVILLE, CA 95451

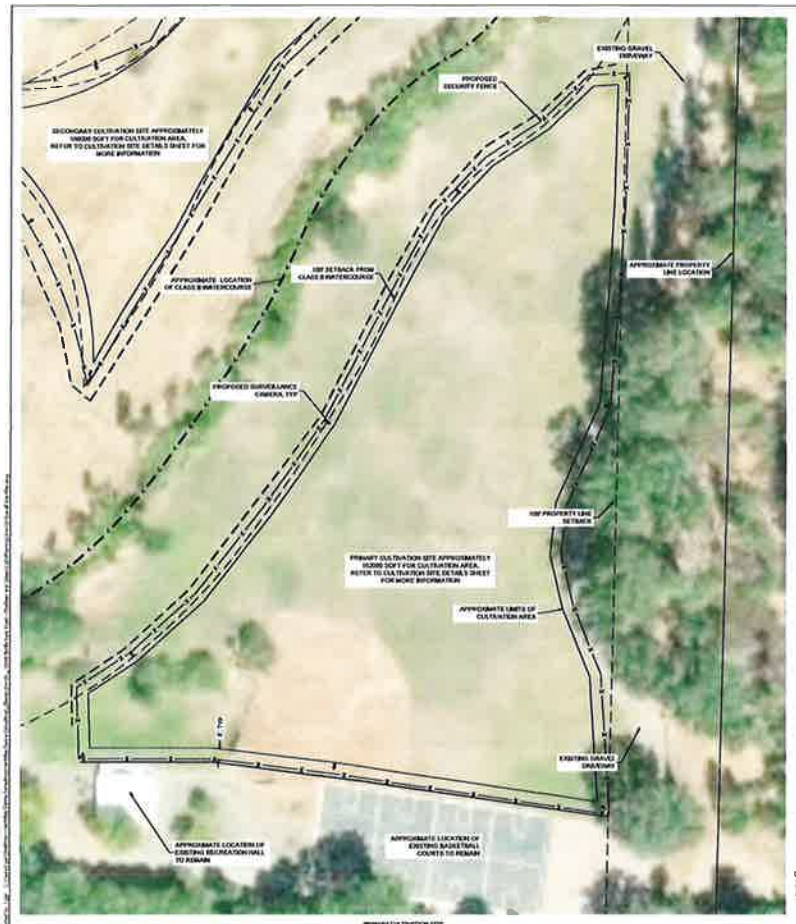
CLIENT:
CHARLEEN MACNALL

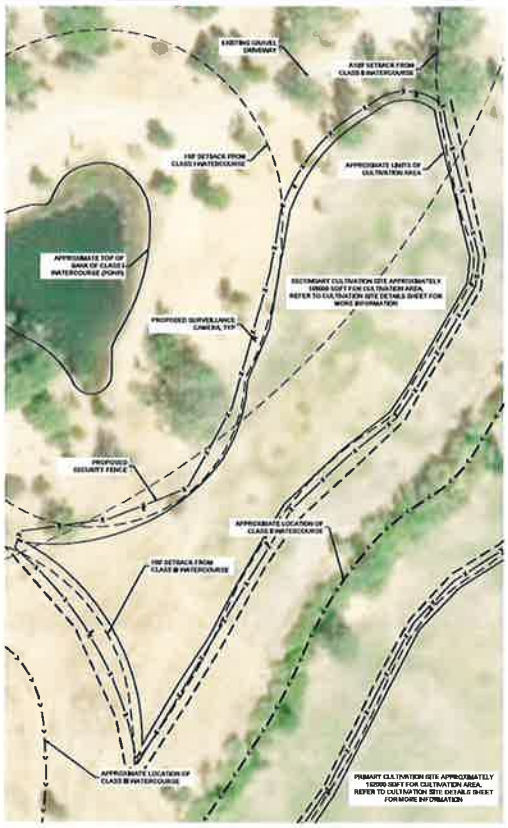
CONSULTANT:
KYLE GEITNER, PRINCIPAL CONSULTANT

DATE:	DRAWN:
4/28/2020	KG
JOB #:	SCALE:
20-033	AS SHOWN
REVISION:	CHECKED:

SHEET TITLE:
EROSION CONTROL PLAN

SHEET: 1.0
1 OF 1





NORTH BAY CANNA CONSULTING

NOTES:

PROJECT ADDRESS:
13395 SOYLE ROCK ROAD,
KELSEYVILLE, CA 95451

CLIENT:
CHARLEEN WAGNALL

CONSULTANT:
KYLE GEITNER,
PRINCIPAL CONSULTANT

DATE:	DRAWN:
4/29/2020	KG
JOB #:	SCALE:
20-023	AS SHOWN
REVISION:	CHECKED:

SHEET TITLE:
SECURITY PLAN

SHEET:
1
1 OF 1

AERIAL SOURCE: GOOGLE EARTH, OCTOBER 2018.

LEGEND

- PARCEL BOUNDARY
- 1250 FT SURROUNDING PARCEL BOUNDARY
- SPRING FED POND
- CLASS I WATERCOURSE
  - *-KELSEY CREEK*
- CLASS II WATERCOURSE
  - *-SULPHUR CREEK*
  - *-CARTER CREEK*
- CLASS III WATERCOURSE

NOTES

NONE OF THE FOLLOWING WITHIN 1250 FEET OF PARCEL BOUNDARIES:

- PUBLIC OR PRIVATE SCHOOLS GRADE 1 THROUGH 12.
- DEVELOPED PARKS CONTAINING PLAYGROUND EQUIPMENT.
- DRUG OR ALCOHOL REHABILITATION FACILITIES.
- LICENSED CHILD CARE FACILITIES OR NURSING SCHOOLS.
- CHURCH OR YOUTH ORIENTED FACILITIES CATERING TO OR PROVIDING SERVICES PRIMARILY INTENDED FOR MINORS

PARCEL DIMENSIONS FROM SURVEY PROVIDED BY APPLICANT.

Aerial Map

April 6, 2020

N

0 200 400 800

1 inch = 200 feet

Bottle Rock Herbal Medicine, LLC

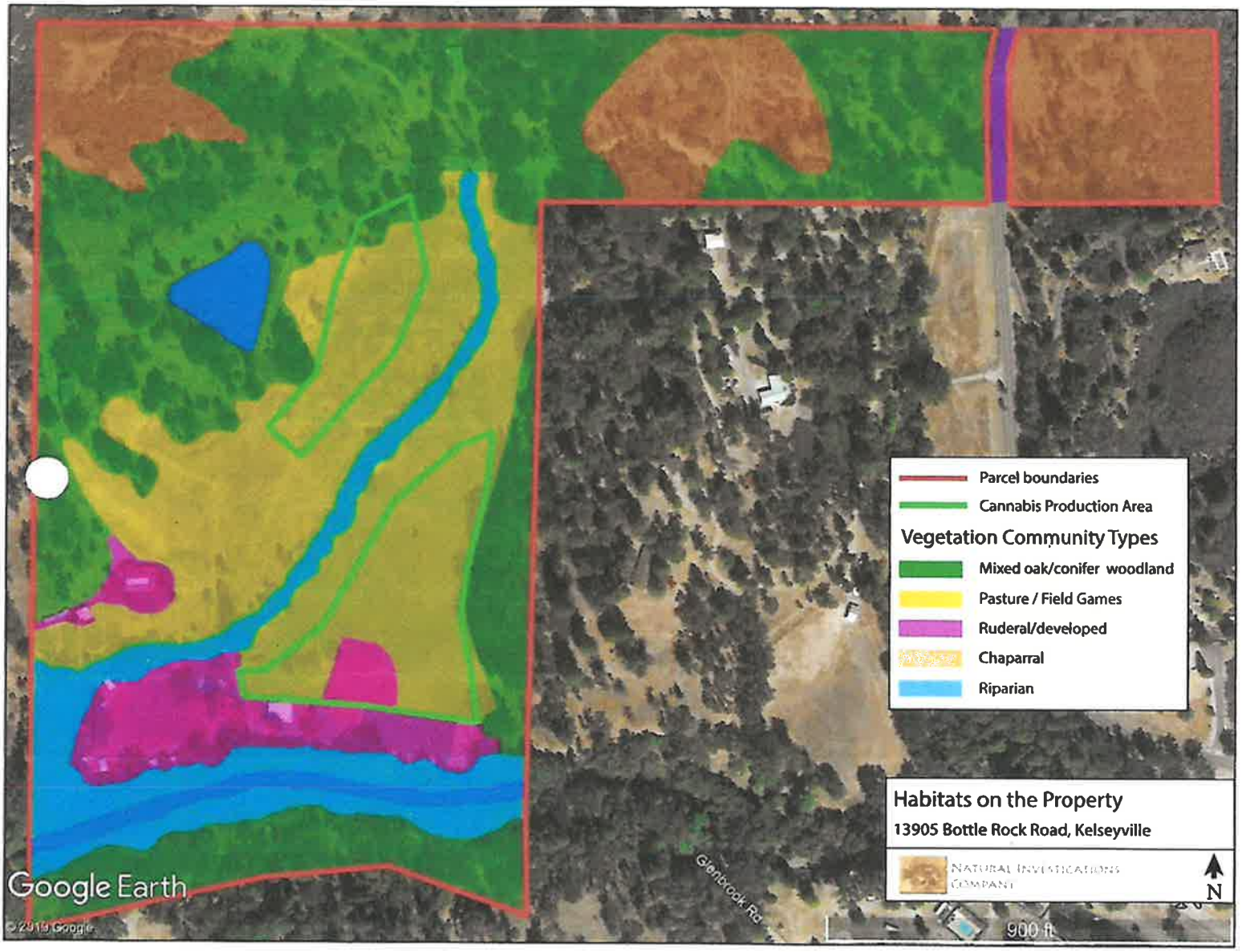
13095 Bottle Rock Road
Kelseyville, CA

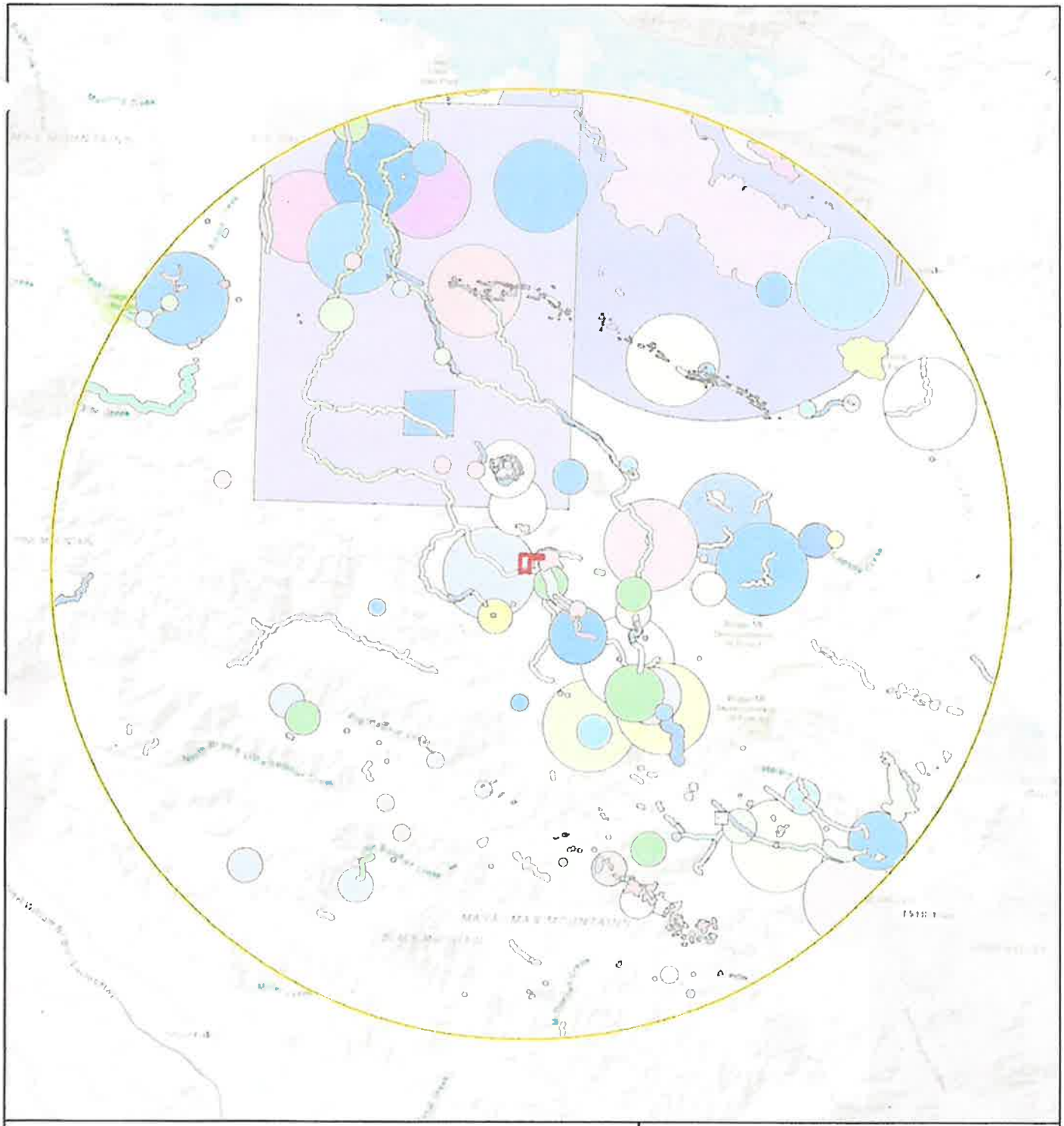
APN: 011-039-37: 57.84 acres
011-039-36: 3.96 acres
Total: 61.8 acres

5 OF 8

Environmental POLLUTION SOLUTIONS

Rohnert Park, California
707-585-0914


Parcel boundaries
Cannabis Production Area
Vegetation Community Types
Mixed oak/conifer woodland
Pasture / Field Games
Ruderal/developed
Chaparral
Riparian
Habitats on the Property
13905 Bottle Rock Road, Kelseyville
Natural Investigations Company
N
Glenbrook Rd
900 ft
Google Earth
© 2019 Google



Parcel Location 10 Mile Buffer

1:190,000 1 inch = 3 miles

0 3 6 Miles

N

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist inshowing features discussed in an attached document. Natural Investigations Company can not guarantee the accuracy and content of electronic files.The master file is stored by Natural Investigations Company and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.Data Sources: California Department of Fish and Wildlife. 2020. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)

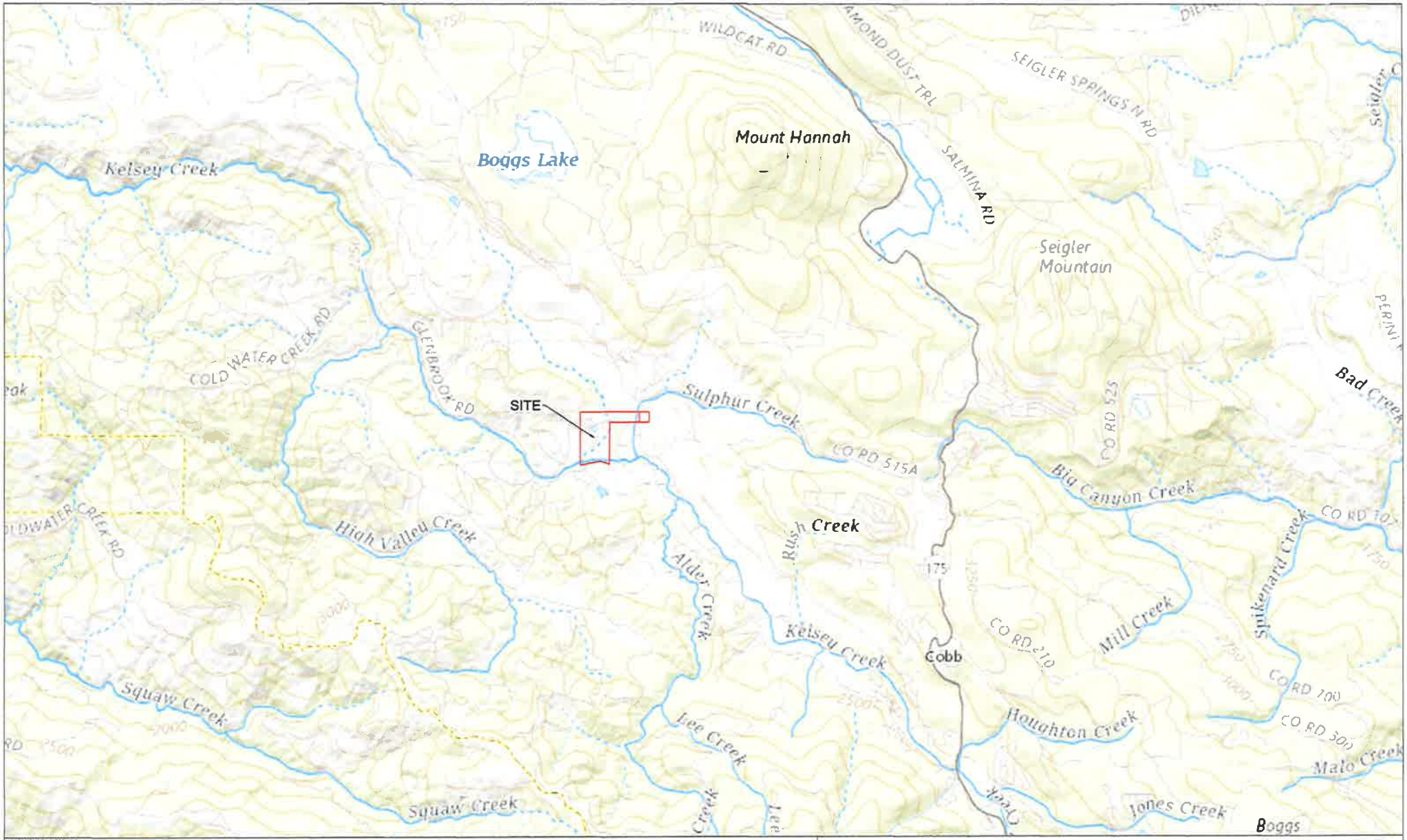
Special-Status Species Occurrences Map

13095 Bottle Rock Road

The Geysers 1991 Quadrangle:Township 12N, Range 8W, Section 29

NATURAL INVESTIGATIONS CO.

www.naturalinvestigations.com



MAP SOURCE: USGS 2019.

Vicinity Map

N

0 1500 3000 4500

1 inch = 1500 feet

April 8, 2020

Bottle Rock Herbal Medicine, LLC
13095 Bottle Rock Road
Kelseyville, CA

APN: 011-039-37: 57.24 acres
011-039-38: 3.96 acres
Total: 61.5 acres

1 of 8

Environmental POLLUTION SOLUTIONS
EPS
Rohnert Park, California
707-823-2018