FLORIBUNDA FARMS

SUSTAINABLY GROWN
MEDICAL CANNABIS

LAKE COUNTY CALIFORNIA

INDICA SATIVA

A JOINT VENTURE

FLORIBUNDA FARMS
PROPERTY MANAGEMENT PLAN

Project Location
11444 Bottle Rock Road
Cobb/Kelseyville, CA 95451

Project Parcel/Property
Lake County APN 011-068-23

TABLE OF CONTENTS

PROJECT DESCRIPTION

Floribunda Farms/Michael Blum proposes to develop a commercial cannabis cultivation operation at 11444 Bottle Rock Road, Cobb/Kelseyville, California on Lake County APN 011-068-23 (Project Property). Floribunda Farms/Michael Blum seeks to obtain a Minor Use Permit for a Commercial Cannabis Cultivation Operation composed of three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas, for a total combined cultivation area of 14,664 ft^2 with a total combined cannabis Canopy of 2120 ft^2. Floribunda Farms/Michael Blum proposes to locate the 75 mature cannabis plants that will form the Canopy of the three A – Type 1C "specialty cottage" outdoor cultivation areas, within an existing 12,000 ft^2 fenced garden area on the Project Property. Floribunda Farms/Michael Blum proposes to convert an existing 864 ft^2 metal building on the Project Property into a Processing Facility, and proposes to construct an 1,800 ft^2 greenhouse to use as an Immature Plants Cultivation Area.

The 18.8-acre Rural Residential zoned Project Property is located approximately seven miles south-southeast of Kelseyville, CA, near Harrington Flat, Boggs Lake, and Mount Hannah. The Project Property is within the Kelsey Creek – Clear Lake watershed (HUC10) and straddles the divide between the Kelsey Creek and Cole Creek sub-watersheds (HUC12). The Project Property sits atop a low ridge that separates the Boggs Lake drainage to the north and the Sweetwater Creek drainage to the south. Soils of the Project Property are volcanic in origin and support a mixed oak/conifer woodland and chaparral environment. Land uses in the vicinity of the Project Parcel are primarily rural residential, commercial vineyard and orchard, timber production, and chaparral wildlands. Recent land uses for the area of the proposed commercial cannabis cultivation operation are/were rural residential and medicinal cannabis cultivation.

Existing ancillary facilities include a groundwater well, a 2,500-gallon water storage tank, a 192 ft^2 wooden shed, and an 864 ft^2 metal building. Proposed ancillary facilities include an 1,800 ft^2 greenhouse / Immature Plants Cultivation Area, an 80 ft^2 composting area, and an 80 ft^2 designated refuse area. There is also an ~1,300 ft^2 residence on the Project Property, that is not directly associated with the proposed cultivation operation.

The proposed cannabis cultivation area(s) and associated facilities will be accessed via an existing private gravel access road/driveway off of Bottle Rock Road. The proposed outdoor cultivation method is via an above grade organic soil mixture in 300-gallon fabric pots ("smart pots") with drip irrigation systems in full sun. The proposed greenhouse structure / Immature Plants Cultivation Area will be composed of steel frames with a non-glare 6-mil polyethylene glaze. The proposed cultivation areas will be surrounded by a 6-foot tall wire fence with privacy mesh where necessary to screen the cultivation areas from public view.

The existing cultivation area/the Project Property has been enrolled for coverage under and maintained compliance with the Central Valley Regional Water Quality Control Board's General Order for Cannabis Cultivation Activities since September 13th, 2016 (WDID 5A17MJ00006).

SITE PLANS AND MAPS

Sheet 1 – Location Map

Sheet 2 – Surrounding Area Aerial

Sheet 3 – Existing Conditions Site Plan

Sheet 4 – Proposed Conditions Site Plan

Sheet 5 – Cannabis Cultivation Site Plan

Sheet 6 – Security Site Plan

Sheet 7 – Erosion and Sediment Control Plan

Sheet 8 – Processing Building Layout

Lake County, CA

Floribunda Farms

built with Web AppBuilder for ArcGIS

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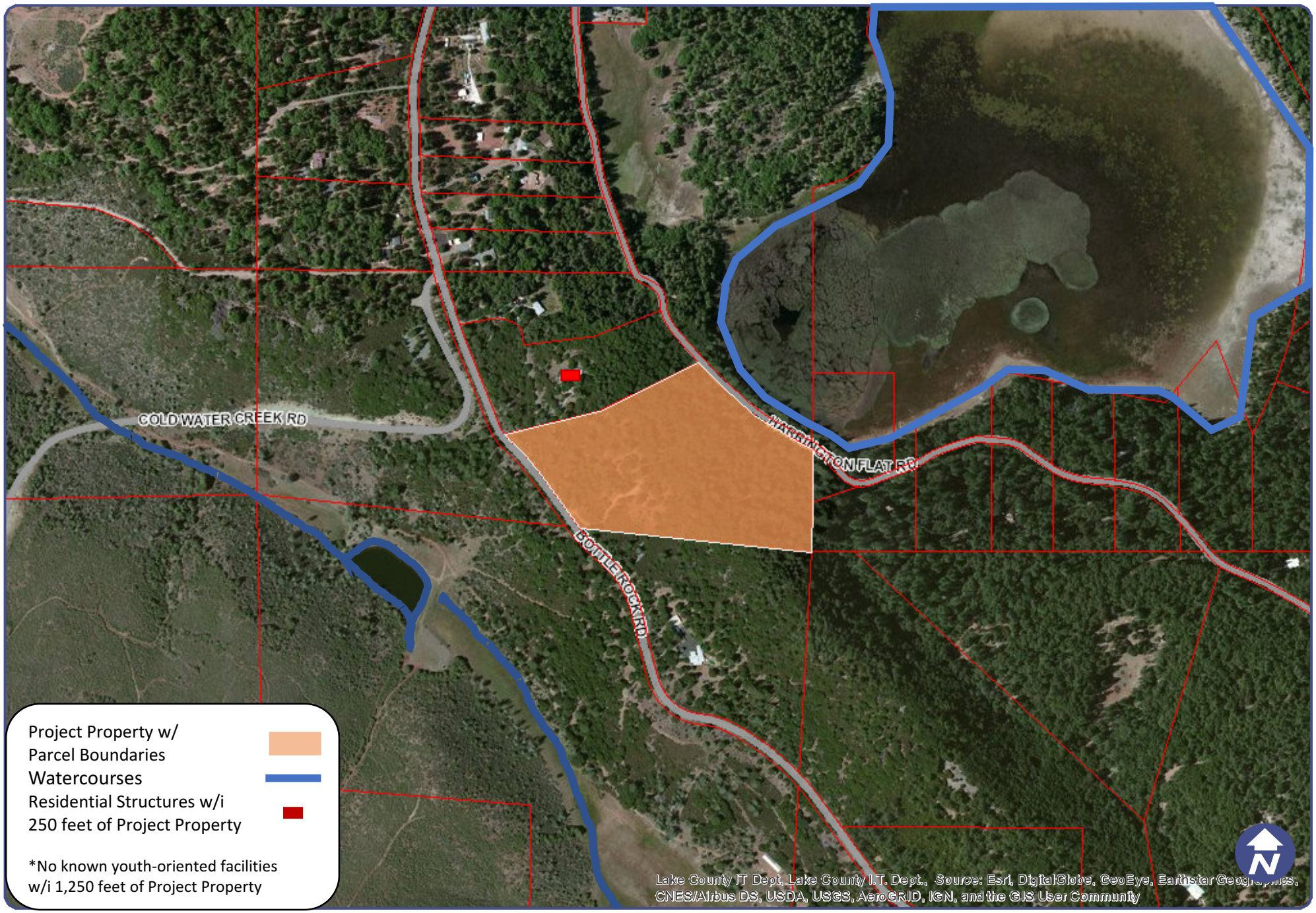
0 2 4

All parcel boundaries are *approximate*. Discrepancies in acerage, shape and location are common.
This map is not the legal survey document to be used in single site determinations. Consult your deed for a legal parcel description.

Print Date: 4/19/2019



Lake County, CA

Surrounding Area Aerial

built with Web AppBuilder for ArcGIS

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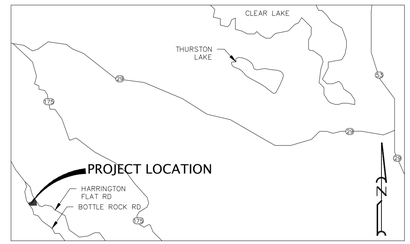
Print Date: 4/19/2019



FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	LIMITS OF DISTURBED AREA
	ASPHALT
	GRAVEL
	EARTH
	FLOOD ZONE
	CREEK / SWALE
	(E) POWER POLE
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
(P)	PROPOSED
RD	ROAD
SF	SQUARE FEET

NOTES:

1. CONTOUR INTERVAL IS 10'

(A) (E) RESIDENCE

(B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)

(C) (E) GROUNDWATER WELL

(D) (E) SEPTIC TANK

(E) (E) 12'x16' WOODEN SHED

(F) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA

(G) (E) 2,500-GALLON WATER STORAGE TANK

(H) (E) 12,000 SF OUTDOOR CULTIVATION AREA

EXISTING CONDITIONS SITE PLAN

GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 ft.

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON R. VAN
No. 67800
EXP 06/30/19
CIVIL

EXISTING CONDITIONS SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY:
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DATE PLOTTED:
4/19/19

SCALE OF DRAWING:
SEE PLAN

JOB NUMBER:

CADD FILE:

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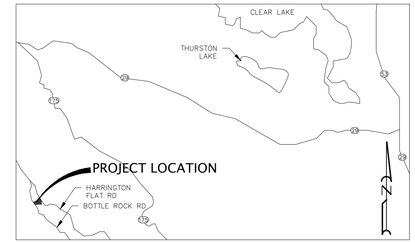
CULTIVATION SITE PLAN WITH CANOPY

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.



VICINITY MAP
NO SCALE

FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

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CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.

(H) (P) 30'x60' GREENHOUSE

(I) (P) ADA / EMPLOYEE PARKING

(J) (P) COMPOSTING AREA

(K) (P) DESIGNATED REFUSE AREA

Revisions:

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CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON B. WADE
No. 67800
EXP. 06/30/19
CIVIL

CULTIVATION SITE PLAN WITH CANOPY

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN:011-068-23-00

PLOTTED BY:
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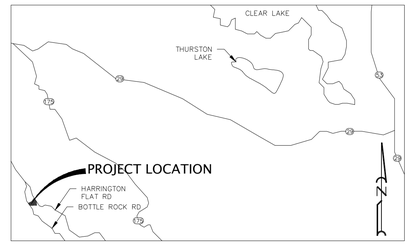

FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

- 1530 — CONTOUR ELEVATION
- FENCE
- LIMITS OF DISTURBED AREA
- ASPHALT
- GRAVEL
- EARTH
- FLOOD ZONE
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- APN — ASSESSOR'S PARCEL NUMBER
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PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 ft.

Revisions:

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530-526-7493

JASON R. VAN
No. 67800
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CIVIL
STATE OF CALIFORNIA

PROPOSED CONDITIONS SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY:
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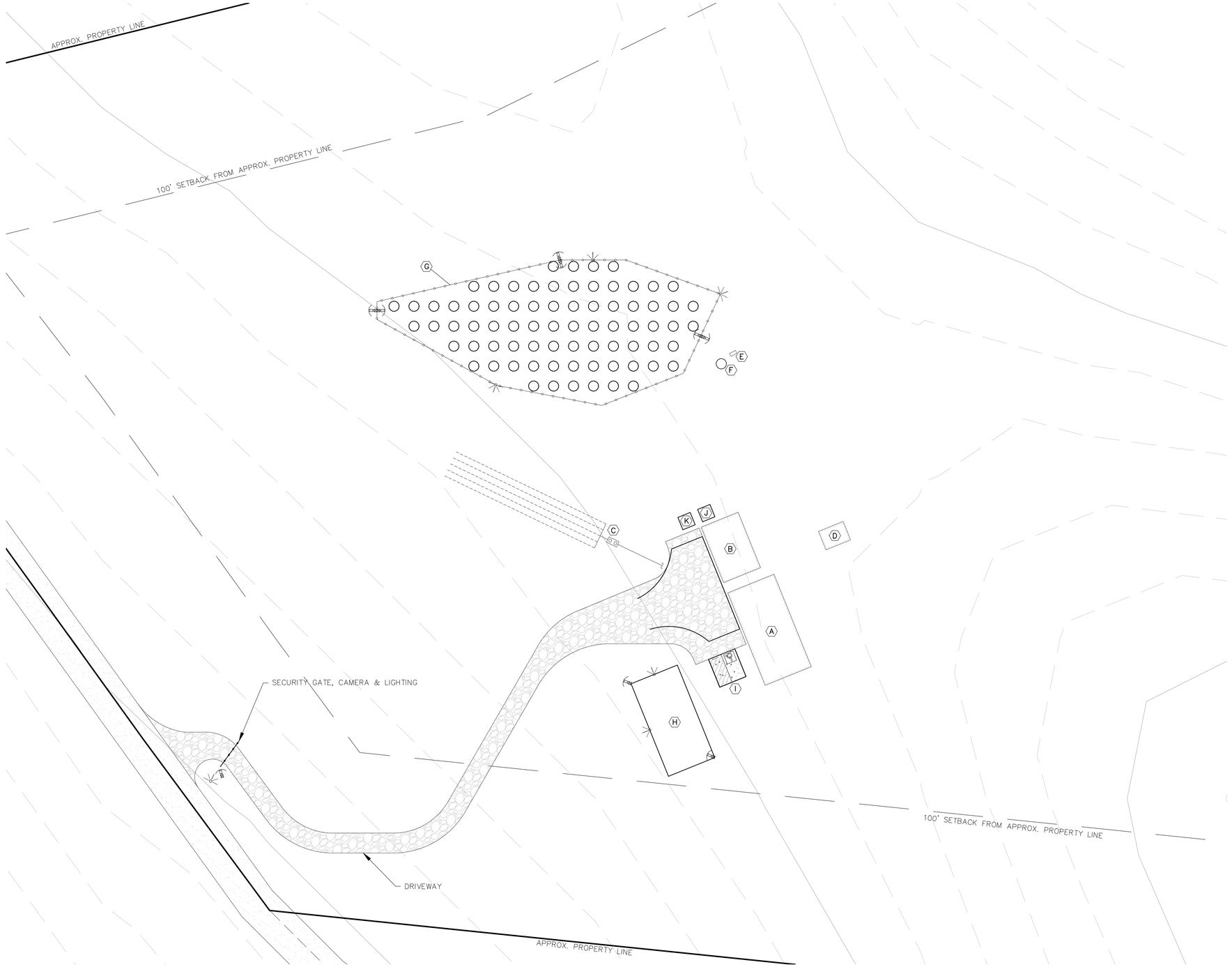
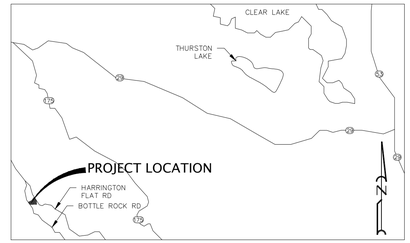


SECURITY SITE PLAN

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.



VICINITY MAP
NO SCALE

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	WATERCOURSE / SWALE
	EXISTING POWER POLE
	TREES
	(P) SECURITY LIGHTS
	(P) SECURITY CAMERAS
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
(P)	PROPOSED
RD	ROAD
SF	SQUARE FEET
OH	OVER HEAD POWER LINES

NOTES:
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SECURITY SITE PLAN

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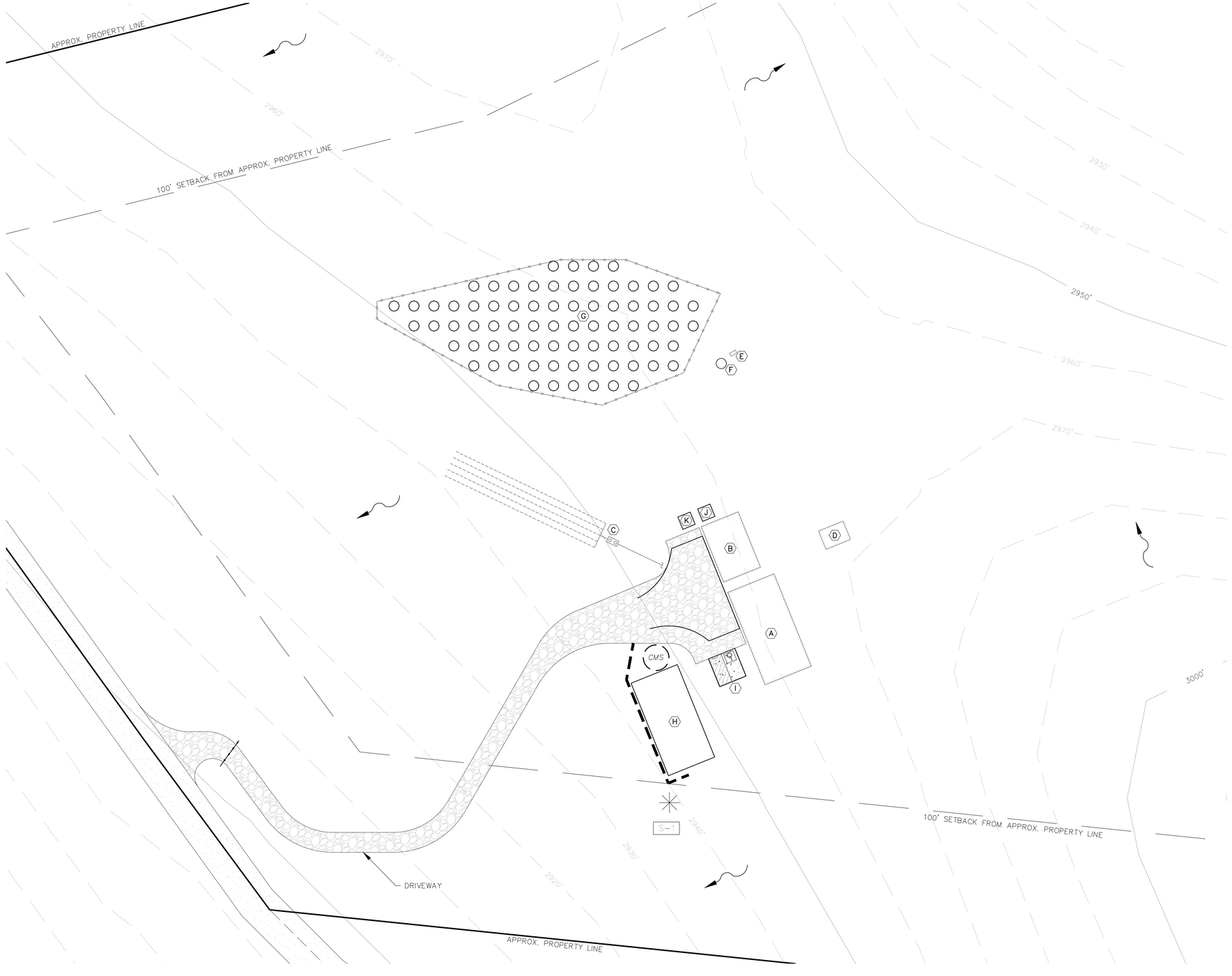

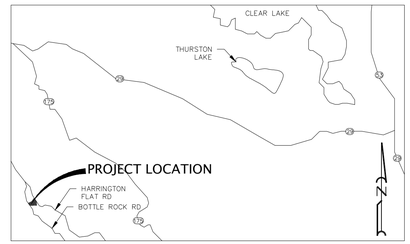

VICINITY MAP
NO SCALE

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND

- DRAINAGE PATTERNS
- STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)
- DISCHARGE POINT
- S-1 SAMPLING LOCATION
- CMS CONSTRUCTION MATERIALS STORAGE AREA

(A) (E) RESIDENCE

(B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)

(C) (E) SEPTIC TANK

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EROSION AND SEDIMENT CONTROL PLAN

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

Revisions:

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530-526-7493

JASON B. VIM
No. 67800
EXP. 06/30/19
CIVIL

EROSION AND SEDIMENT CONTROL PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY: ---
DATE PLOTTED: 4/19/19
SCALE OF DRAWING: SEE PLAN
JOB NUMBER:
CADD FILE:
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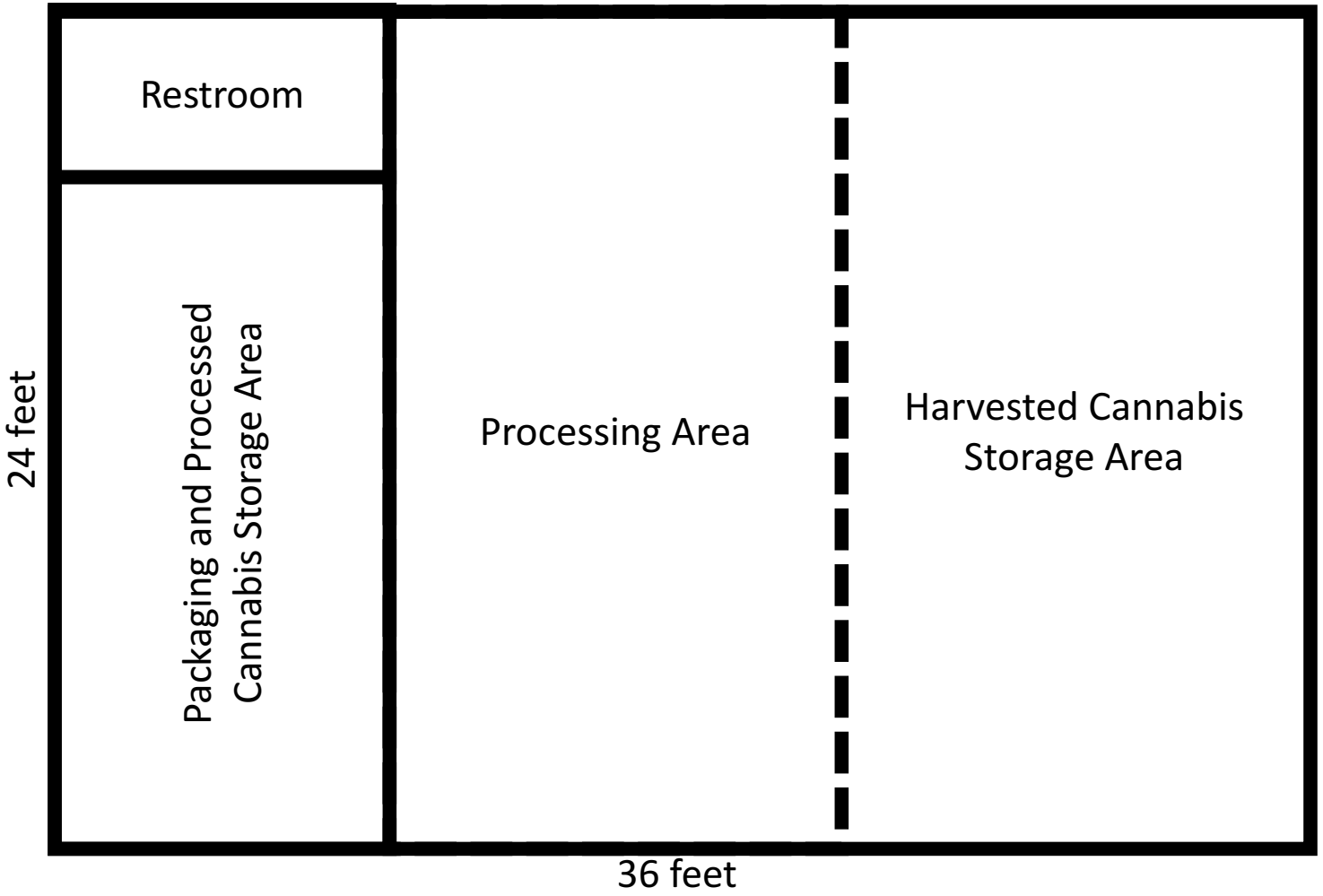
Proposed Processing Facility Layout
(Existing 864 ft^2 Metal Building)



COUNTY OF LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
Courthouse - 255 N. Forbes Street
Lakeport, California 95453
Phone (707) 263-2221 FAX (707) 263-2225

INITIAL FEES:	
MUP	$1,161.00
IS	$1,425.00
EA	$190.00
Arch Rev	$75.00
Daycare Proximity	$20.00
Cannabis Service Fee	$4,160.00
Subtotal:	$7,031.00
Technology Recovery (2%)	$55.52
General Plan Maintenance	$50.00
Total:	$7,136.52

Planning Division Application
Commercial Cannabis Cultivation Major and Minor Use Permit
(Please type or print)

Project name: FLORIBUNDA FARMS
Assessors Parcel # : 011 - 068 - 23
_____ - _____ - _____

Zoning: RR-B5-SC (2.5ac)
General Plan: RR
Receipt #_____
Initial: _____

APPLICANT:
NAME: Michael Blum
MAILING ADDRESS: P.O. Box 972
CITY: Middletown
STATE: CA **ZIP:** 95461
PRIMARY PHONE: ( )707-477-5691
SECONDARY PHONE: ( ) 707-928-4607
EMAIL: Blum@sonic.net

PROPERTY OWNER (IF NOT APPLICANT):
NAME: Bess Sage
MAILING ADDRESS: P.O. Box 972
CITY: Middletown
STATE: CA **ZIP:** 95461
PRIMARY PHONE: ( )707-928-4607
SECONDARY PHONE: ( )707-355-2232
EMAIL: Blum@sonic.net

PROJECT LOCATION
11444 Bottle Rock Road
ADDRESS: Cobb/Kelseyville, CA 95451

DESCRIPTION OF PROJECT:
Commercial Cannabis Cultivation Operation

PRESENT USE OF LAND:
Rural Residential and
Medicinal Cannabis Cultivation

SURROUNDING LAND USES:

North: Use & Zoning: Rural Residential & Open Space
South: Use: Rural Residential, Zoning: Rural Lands
East: Use: Rural Lands, Zoning: Rural Residential
West: Use & Zoning: Rural Lands

PARCEL SIZE(S):

Existing: 18.8 Acres
Proposed:

Existing/Proposed Water Supply: Existing Groundwater Well
Existing/Proposed Sewage Disposal: Existing Septic
Fire Protection District: Lake County Fire Protection District
School District: Kelseyville Unified School District

At-Cost Project Reimbursement

I, Michael Blum, the undersigned, hereby authorize the County of Lake to process the above referenced permit request in accordance with the County of Lake Code. I am paying an initial fee of $7,136.52 as an estimated cost for County staff review, coordination and processing costs related to my permit (Resolution No. 2017-19. February 7, 2017). **In making this initial fee, I acknowledge and understand that the initial fee may only cover a portion of the total processing costs. Actual costs for staff time are based on hourly rates adopted by the Board of Supervisors in the most current County fee schedule. I also understand and agree that I am responsible for paying these costs even if the application is withdrawn or not approved.**

I understand and agree to the following terms and conditions of this Reimbursement Agreement:

1. Time spent by County of Lake staff in processing my application and any direct costs will be billed against the available initial fee. ***"Staff time"*** **includes, but is not limited to, time spent reviewing application materials, site visits, responding by phone or correspondence to inquiries from the applicant, the applicant's representatives, neighbors and/or interested parties, attendance and participation at meetings and public hearings, preparation of staff reports and other correspondence, processing of any appeals, responding to public records act requests or responding to any legal challenges related to the application. "Staff" includes any employee of the Community Development Department.**

2. If processing costs exceed the available initial fee, I will receive invoices payable within 30 days of billing.

3. As the owner of the project location, I have the authority to authorize and I hereby do authorize the County of Lake or authorized representative(s) to make inspections at any reasonable time as deemed necessary for the purpose of review and processing this application.

4. If I fail to pay any invoices within 30 days, the County will stop processing my permit application. All invoices must be paid in full prior to issuance of the applied for permit.

5. If the County determines that any study submitted by the applicant requires a County-contracted consultant peer review, I will pay the actual cost of the consultant review. This cost may vary depending on the complexity of the analysis. Selection of any consultant for a peer review shall be at the sole discretion of the Community Development Director or his designee.

6. I agree to pay the actual cost of any public notices for the project as required by State Law and the Lake County Zoning Ordinance.

7. I may, in writing, request a further breakdown or itemization of invoices, but such a request does not alter my obligation to pay any invoices in accordance with the terms of this agreement.

8. I agree to pay all costs related to permit condition compliance as specified in any conditions of approval for my permit/entitlement including compliance monitoring.

9. I agree not to alter the physical condition of the property during the processing of this application by removing trees, demolishing structures, altering streams, and/or grading or filling. I understand that such alteration of the property may result in the imposition of criminal, civil or administrative fines or penalties, or delay or denial of the project.

10. Applicant shall defend, indemnify and hold harmless the County and its agents, including consultants, officers and employees from any claim, action or proceeding against the County or its agents, including consultants, officers or employees to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, including any claim for private attorney general fees claimed by or awarded to any party against the County, and shall also include the County's costs incurred in preparing the administrative record which are not paid by the petitioner. The County shall promptly notify the applicant of any claim, action or proceeding. Notwithstanding the foregoing, the County shall control the defense of any such claim, action or proceeding unless the settlement is approved by the applicant and that the applicant may act in its own stead as the real party in interest in any such claim, action or proceeding.

11. I have checked the current Hazardous Waste and Substances Sites List pursuant to Government Code Section 65962.5(f). www.envirostor.dtsc.ca.gov/public/ The proposed project site **is** ☐ or **is not** ☒ included on the most recent list.

12. I understand that pursuant to State Fish and Games Code Section 711.4, a filing fee is required for all projects processed with a Negative Declaration or Environmental Impact Report unless it has been determined by the California Department of Fish (CDFW) that the project will have no effect on fish and wildlife. The fees are collected by the County Community Development Department, Planning and Environmental review Division (PER) for payment to the State. I understand that I will be notified of the fee amount upon release of the environmental document for the project.

13. I hereby agree that any drainage studies and/or drainage models that are provided to the County as part of the technical studies for this entitlement process will be provided with a license or other satisfactory release allowing the County to duplicate, distribute, and/or publish the studies and models to the general public without restriction. I understand that failure to provide such license or release to the satisfaction of the County may result in comment that the study and or model is inadequate to support the entitlement request.

The signature(s) below signifies legal authority and consent to file an application in accordance with the information above. The signature also signifies that the submitted information and accompanying documents are true and accurate, and that the items initialed above have been read and agreed to.

Note: This agreement does not include other agency review fees or the County Clerk Environmental Document filing fees.

APPLICATIONS WILL NOT BE ACCEPTED WITHOUT SIGNATURE(S) OF LEGAL PROPERTY OWNERSHIP OR OFFICIAL AGENT/AUTHORITY TO FILE (circle one)

Ownership Contract to Purchase* Letter of Authorization* Power of Attorney*

**Must Attach Evidence*

Name of Property Owner or Corporate Principal Responsible or Appointed Designee for Payment of all At-Cost Project Reimbursement Fees:

Michael Blum

(*Please Print*)

Name of Company or Corporation (*if applicable*):

DBA: Floribunda Farms

(*Please Print*)

Mailing Address of the Property Owner or Corporation/Company responsible for paying processing fees:
(If a Corporation, please attach a list of the names and titles of Corporate officers authorized to act on behalf of the Corporation)

Name:* Michael Blum Date: _____

Email address: Blum@sonic.net Phone Number: 707-477-5691

_____ _____

Signature of Owners/Agent* Name ***Date***

_____ _____

Signature of Applicant ***Date***

Supplemental Data for Initial Study

The following supplemental information is required for all applications requiring environmental review in accordance with the California Environmental Quality Act (CEQA). Please answer the following questions as thoroughly as possible. If questions do not apply to your project, indicate by writing *'N/A"* or check "no". Use separate sheets of paper if necessary. **IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE LAKE COUNTY PLANNING DIVISION.**

Description of objective of project and its operational characteristics:

Type of Business: Commercial Cannabis Cultivation

Product or service provided: Cannabis

Hours of operation: 8 am to 6 pm Days of operation: Monday - Saturday

Number of shifts (normal): 1 Number of shifts (peak): 2

Employees per shift (normal): 1 Employees per shift (peak): 2

Number of deliveries per day: Max 1 Number of customer per day: Max 1

Number of pick-ups per day: Max 1 Lot size: 18.8 Acres

Number and type of company Vehicles: 0 Type of loading facilities: Open Loading Dock

Floor area of existing structures: 2,500 sq. ft. Proposed building floor area: 1,800 sq. ft.

Number of existing parking spaces: 2 Number of proposed parking spaces: 1

Number of floors: 1

Additional relevant information: Michael Blum (DBA: Floribunda Farms) is seeking a Lake County Commercial Cannabis Cultivation Minor Use Permit for three A-Type 1C "Specialty Cottage" 25 mature plant outdoor cultivation/ canopy areas, within an existing 12,000 sq. ft. medicinal cannabis garden.

Supplemental Data for Initial Study (Continued)

Description of site prep/construction activities

When do you anticipate starting construction?

September 2019 (greenhouse structure) - No other construction proposed.

How long will construction take?

Two Weeks (construction of greenhouse)

What days/times will construction occur?

9am - 6pm, Monday through Friday

What type of construction equipment will be used?

Small tractor, flatbed truck, forklift, and hand tools

How many truck/vehicle trips will be necessary for construction?

10 to 20

Will equipment be idling during construction?

No

Where will construction equipment be staged/stored?

Existing onsite road and parking area

Will any trees or vegetation be removed? If yes, please provide type and amounts.

No

Supplemental Data for Initial Study (Continued)

How much grading is anticipated to occur and where?

Minimal grading required (less than 50 cubic yards) to make a level surface on which to construct the greenhouse. No other grading proposed.

Will soil be imported or exported to/from the site? If so from where and what amount?

No

Is trenching required? If yes, please provide location, dimensions and cubic yards.

No

How much water will be used for construction, operation and maintenance? What is the water source?

500 gallons or less per day for construction, operation, and maintenance. Groundwater Well

Other questions and information needed for the Initial Study

Describe how scenic views or vistas are impacted by the cultivation site.

Existing cultivation area and proposed cultivation operation are not/ will not be visible from neighboring properties or public roads.

What lighting is proposed for the project? Will areas be lit at night?

Motion-sensing security lights (fully shielded and downward casting)

Are there any existing agricultural uses on-site besides cannabis? Will they be removed?

No

Supplemental Data for Initial Study (Continued)

Will this project result in the loss of forest land? If so, describe how many acres and what type of trees.

No

How will dust, ash, smoke, fumes or odors generated by the cultivation site be managed?

Dust: water truck/soil moisture and seed, mulch, and gravel bare soil

Odor: carbon filters plus Odor Response Program

Are there any water features (drainages, streams, creeks, lakes, rivers, vernal pools, wetlands, etc.) on-site or immediately adjacent to the project? If yes, will any work take place in or near them?

No

Will there be a loss of any wetland or streamside vegetation? If yes, describe where, total area, and type of vegetation lost.

No

Describe and site or buildings have any archaeological or historical significance.

No site or buildings with archaeological or historical significance.

What are the slopes on the cultivation site?

0% to 15% slopes

Supplemental Data for Initial Study (Continued)

Describe the soils found at the site and their potential for landslides, erosion, lateral spreading, subsidence, liquefaction, or collapse.

Gravelly loam on Clear Lake Volcanic bedrock. Not susceptible to landslides, erosion, lateral spreading, subsidence, liquefaction, or collapse.

Describe methods to be taken to reduce greenhouse gases.

Energy Management Plan to use as little grid power and fossil fuels as necessary.

Will solid waste be produced? If yes, how will it be disposed of?

Yes. Solid waste will be regularly transported to a Lake County Integrated Waste Management Facility.

Will hazardous waste be produced? If yes, how will it be disposed of?

No

How will vegetative waste be managed?

Vegetative waste is composted onsite and compost is incorporated into growing medium of cultivation area as an organic soil amendment.

How will growth medium waste be managed?

Organic growing medium will be reused each year

Will any material be taken to a landfill? If yes, which one and how much material is anticipated?

Eastlake Landfill. Anticipated that less than 100 pounds will be taken to landfill (not recycled) annually.

Supplemental Data for Initial Study (Continued)

Describe risk of an explosion or release of hazardous substances in case of an accident.

A fire or explosion could occur as a result of an ignition source reaching a petroleum storage container. Hazardous substances (fertilizers & pesticides) will be securely stored.

Do portions of the cultivation site periodically flood?

No

Describe the existing drainage patterns on the site and how they may be alternated and to what degree as a result of this project.

Please see Storm Water Management and Water Resources Management sections/plans in Property Management Plan.

What Best Management Practices (BMPs) or measures will be implemented in order to prevent erosion and impacts to water quality?

Large well-vegetated areas surrounding cultivation operation and straw wattles (please see Storm Water Management Plan).

Is wastewater treatment required for the project? If yes, what is the source?

Yes. Domestic wastewater from restroom of proposed Processing Facility. Wastewater will discharge to a permitted septic system.

Describe how this project is consistent with the County's General Plan and Zoning Ordinance.

The existing/proposed cultivation operation is/will be located on a RR zoned property. Chapter 21, Article 27 of the Lake County Code allows commercial cannabis cultivation on Rural Residential zoned properties.

Describe the level and frequency of noise or vibration that will be generated from this project.

Low levels of noise or vibration from the operation of gasoline powered equipment (lawnmower, weedeater, etc...)

Supplemental Data for Initial Study (Continued)

Describe what measures have been taken to maintain or improve level of service for the appropriate fire district and Cal Fire.

20-foot wide access road with a turnaround for emergency vehicle access.

100-foot defensible space will be maintained around cultivation operation.

How is the site accessed?

Via a private gravel access road/driveway off of Bottle Rock Road, approximately 7 miles southeast of Kelseyville, CA.

Describe the amount of traffic the project will generate.

2 to 4 vehicle trips per day.

Are there any road improvements that would be required? If yes, please provide specs (type of materials and dimensions).

No

Describe if this project will result increased traffic hazards to motor vehicles, bicyclists, or pedestrians?

No increase in daily vehicle trips to/from property. Therefore, no increase in traffic hazards to motor vehicles, bicyclists, or pedestrians.

Are greenhouses or other accessory structures proposed? If yes, what are the dimensions of the structures and materials/colors they will be constructed out of?

Yes, 60' x 30' (1,800 sq. ft.) greenhouse. Composed of steel frames with non-glare 6-mil polyethylene glaze/cover.

What sources of energy will be used?

Grid power serviced by PG&E

Supplemental Data for Cannabis Cultivation

The legal business name of the applicant entity: Michael Blum (DBA: Floribunda Farms)

The license type, pursuant to the California Department of Food and Agriculture cannabis cultivation program regulations, for which the applicant is applying and whether the application is for an M-license or A-license:
A-Type 1 "Specialty Outdoor"

A list of all the types, including the license numbers of valid licenses, from the department and other cannabis licensing authorities that the applicant already holds: None

DESIGNATED RESPONSIBLE PARTY

The designated responsible party, who shall also be an owner, with legal authority to bind the applicant entity, and the primary contact for the application.

Full legal name: Michael Blum

Title: Owner, Operator, Site Manager, Laborer

Mailing Address: P.O. Box 972

City: Middletown

State: CA Zip: 95461

Primary contact phone number: (707) 477 - 5691

Email address: blum@sonic.net +

A copy of the Designated Responsible Party's government-issued identification shall be attached. Acceptable forms of identification are a document issued by a federal, state, county, or municipal government, including, but not limited to, a driver's license or passport, that contains the name, date of birth, physical description, and picture of the individual.

AGENT

If an individual or entity is serving as agent for service of process for the applicant, the following information shall be provided:

Full legal name: _____

Title: _____

Mailing Address: _____

City: _____

State: _____ Zip: _____

Primary contact phone number: (_____) _____-_____

Email address: _____+_____

Owner

A complete list of every owner of the applicant entity. "Owner" means any of the following:

(1) A person with an aggregate ownership interest of 20 percent or more in the person applying for a license or a licensee, unless the interest is solely a security, lien, or encumbrance.

(2) The chief executive officer of a nonprofit or other entity.

(3) A member of the board of directors of a nonprofit.

(4) An individual who will be participating in the direction, control, or management of the person applying for a license.

Each individual owner named shall submit the following information:

Full legal name: Michael Blum

Title: Owner

Mailing Address: P.O. Box 972

City: Middletown

State: CA Zip: 95461

Primary contact phone number: (707) 477 - 5691

Email address: blum@sonic.net +

Date ownership interest in the applicant entity was acquired: N/A

Percentage of the ownership interest held in the applicant entity by the owner: 100

A list of all the valid licenses, including license type(s) and license number(s), from the department and other cannabis licensing authorities that the owner is listed as either an owner or financial interest holder:

None

A copy of the owner's government-issued identification shall be attached. Acceptable forms of identification are a document issued by a federal, state, county, or municipal government, including, but not limited to, a driver's license or passport, that contains the name, date of birth, physical description, and picture of the individual.

For applicants that are a cannabis cooperative as defined by Division 10, Chapter 22 (commencing with section 26220) of the Business and Professions Code, identification of all members.

Evidence that the applicant entity has the legal right to occupy and use the proposed location.


CALIFORNIA USA DRIVER LICENSE
DL S0043703
EXP 11/09/2020
CLASS C
END NONE
LN BLUM
FN MICHAEL STEVEN
PO BOX 972
MIDDLETOWN, CA 95461
DOB 11/09/1950
RSTR NONE
11091950
SEX M
HAIR GRY
EYES BLU
HGT 6'-01"
WGT 185 lb
ISS
DD 12/07/2010530RB/DDFD/20
09/19/2015

Central Valley Regional Water Quality Control Board

13 September 2016

WDID: 5A17MJ00006

Michael Blum
P.O. Box 972
Middletown, CA 95461

NOTICE OF APPLICABILITY

WATER QUALITY ORDER R5-2015-0113
WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR DISCHARGES OF WASTE ASSOCIATED WITH MEDICINAL CANNABIS CULTIVATION ACTIVITIES

Michael Blum submitted on 22 August 2016 a Notice of Intent (NOI) for coverage under Water Quality Order R5-2015-0113 (General Order). The General Order, which was adopted by the Central Valley Water Board on 2 October 2015, provides Waste Discharge Requirements (WDRs) for discharges of waste associated with medicinal cannabis cultivation activities. The General Order and associated documents are available at the following web address: http://www.waterboards.ca.gov/centralvalley/water_issues/cannabis/index.shtml

Based on the information provided in the NOI, the Central Valley Water Board has determined that the cannabis cultivation operation on Lake County Assessor's Parcel Number 011-068-230 is eligible for Tier 1 coverage under the General Order. This letter serves as formal notice that the Board has enrolled your operation under the General Order, and that the Board has assigned you Enrollee Number R5-2015-0113-0349. You should familiarize yourself with the entire General Order and its attachments, which prescribe mandatory discharge prohibitions, discharge specifications, and Best Management Practices (BMPs) for the protection of water quality.

TIER 1 DESCRIPTION AND REQUIREMENTS

Tier 1 medicinal cannabis cultivation operations are located on less than 30% slopes, occupy and/or disturb less than ¼ acre, and are not located within 200 feet of a wetland, Class I or Class II watercourse. Medicinal cannabis cultivators covered under the General Order must implement all applicable BMPs of the BMPs Manual, Attachment A to the General Order, and maintain a copy of the BMPs manual on premises where cannabis is being cultivated.

If you have any questions regarding compliance with the General Order or the Cannabis Cultivation Waste Discharge Regulatory Program please contact:

Trey Sherrell at (530) 224-4847, roy.sherrell@waterboards.ca.gov

(for) Pamela C. Creedon
Executive Officer

TS:reb

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, or potentially cause the issuance of air contaminants including odors, 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.

Air Quality Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Air Quality Management Plan (AQMP) is designed to promote the health, safety, welfare and environmental quality of the community, operational staff, and the Project Property. In-line with the directives of the Lake County Air Quality Management District, this AQMP includes measures to monitor and evaluate the performance of the plan, as well as ensure that all data and information is reported to Lake County and the proper local agencies. This AQMP identifies equipment and activities that may cause odor, contaminates, or other air quality hazards, and measures that operational staff will be required to follow to mitigate/minimize the amount of air pollution and particulates generated from the proposed cultivation operation. This AQMP also includes an Odor Response Program that establishes responsible parties and procedures for operational staff to follow in the event of an odor complaint.

Equipment or Activities that May Cause the Issuance of Air Contaminants

The following sources are anticipated to be the most significant emitters of odor, air pollutants and particulates from the proposed cultivation operation. However, no single source or combined sources is anticipated to be harmful or detrimental to neighboring residences or the community of Lake County.

Gasoline and Diesel Powered Equipment: The proposed cultivation operation will generate small amounts of carbon dioxide from the operation of small gasoline engines (tillers, weed eaters, lawnmowers, etc…) and from vehicular traffic associated with staff commuting. All equipment use will be minimized to the extent possible, and all equipment will be professionally maintained to ensure efficient operation. Additionally, the generation of carbon dioxide would be partially offset by the cultivation of plants, which remove carbon dioxide in the air for photosynthesis.

Fugitive Dust: The proposed cultivation operation may generate small amounts of fugitive dust through ground-disturbing activities, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. Fugitive dust will be controlled by wetting soils with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy, and by eliminating soil stockpiles. Additionally, the access road/driveway and parking areas of the

Project Property are graveled and will be well maintained and monitored monthly for quality of its surfacing.

Odors: Cannabis cultivation can generate objectionable odors, particularly when the plants are mature/flowering in the cultivation area(s) or when being processed (drying, curing, trimming, and grading) after harvest. No significant odor impacts are anticipated from the proposed cultivation operation due to generous setbacks from public roads, property lines, and neighboring residences/outdoor activity areas. Additionally, fragrant flowering and herb plants, such as Lavender, Rosemary, Thyme, and Daphane Odora will be planted around the Project Property to help mask any residual odors emanating from the cultivation operation.
The ventilation system of the proposed Processing Facility, in which the processing of raw cannabis plant material from the proposed cultivation area(s) will occur, will be equipped with carbon filters/air scrubbers (SureSorb Flocked Honeycomb Carbon Filters example attached) to mitigate odors emanating from the building.

Monitoring and Maintenance

All air filtration and odor mitigation equipment will be inspected bimonthly to determine if maintenance or replacement is required. All carbon filters/air scrubbers will be replaced in September of each year, prior to the start of the harvest and processing season. Floribunda Farms/Michael Blum will log and maintain accurate records of repairs and replacements to ventilation and odor mitigation systems, and will retain those records for at least three years. All data and information will be made available to Lake County and/or Lake County Air Quality Management District officials upon request.

Odor Response Program

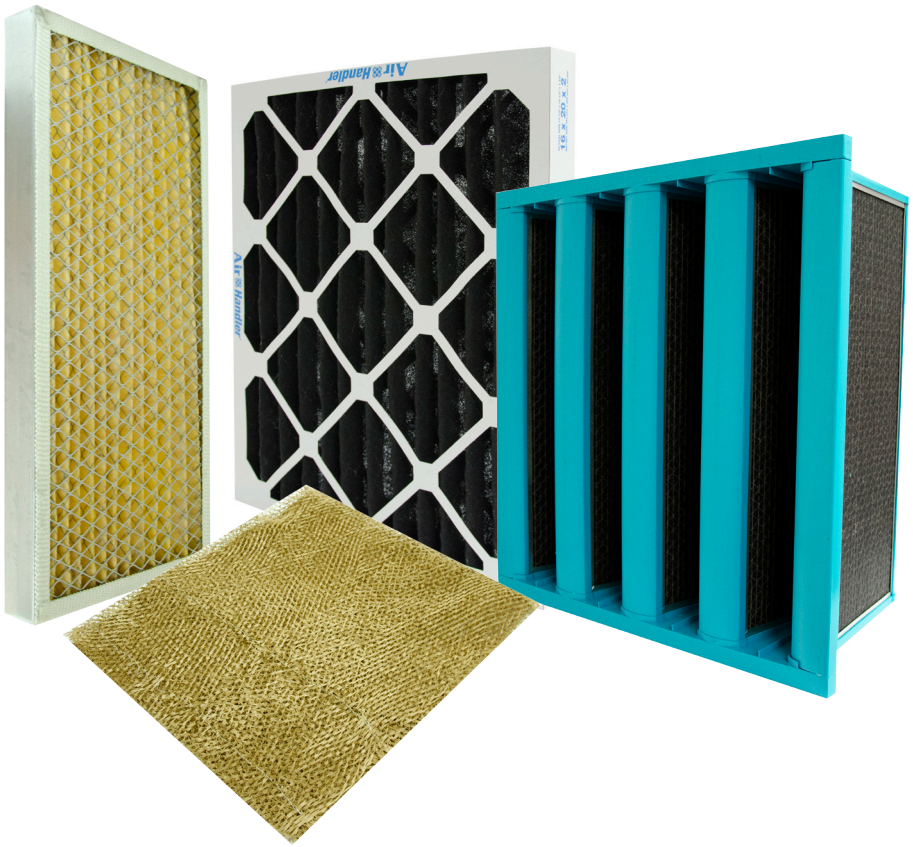
Odor Response Procedures

A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriff's Office at all times to address any needs or issues that may arise. The Community Liaison/Emergency Contact will be responsible for responding to odor complaints 24 hours a day, seven days a week, including holidays. Floribunda Farms/Michael Blum will provide the name, cell phone number, and email address of the Community Liaison/Emergency Contact to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. Floribunda Farms/Michael Blum will encourage neighboring residents to contact the Community Liaison/Emergency Contact to resolve any operating problems before contacting County Officials/Staff.
When an odor complaint is received, the Community Liaison/Emergency Contact will immediately halt all odor producing activities on the Project Property and take action to determine the source of the odor for which the complaint was received (cultivation area, processing facility, or other). Then mitigation methods will be immediately implemented to reduce/eliminate odors from emanating from the source. Depending on the source, mitigation measures include erecting windscreens, servicing and/or upgrading existing odor control filtration and ventilation systems, and/or the installation of additional air pollution/odor control equipment.

Community Liaison/Emergency Contact Information

The Community Liaison/Emergency Contact for the proposed cultivation operation is Mr. Michael Blum. Mr. Blum can be reached at (707) 477-5691 and via email at blum@sonic.net. There is one residence within 250 feet of the Project Property, located at 11222 Bottle Rock Road (Lake County APN 011-068-66), and two more within 1,000 feet of the proposed cultivation operation, located at 11160 Bottle Rock Road (Lake County APN 011-068-20) and 11588 Bottle Rock Road (Lake County APN 011-068-24). The owners of all properties within 1000 feet of the Project Property will receive Mr. Blum's contact information before development of the proposed cultivation operation begins.

SPECIALTY FILTRATION



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Find it at Grainger.

Air Handler®

Clear the air. Ease your mind.

CARBON PLEAT

- Dual purpose: Filters particulate and absorbs odor
- Effective gas phase filter for intermittent gas applications
- Excellent filter to determine if carbon filters will help remove the odor
- Low pressure drop
- Disposable, easy installation, low service cost
- All filters wrapped and sealed in protective plastic bags to maintain filter viability

DESCRIPTION

The Air Handler Carbon Pleat filters are designed for the control of intermittent odor problems. Carbon pleated filters remove a wide range of odors and common indoor air pollutants. The advanced media has improved capability to absorb nuisance odors.

The fitler's construction consists of pleated, non-woven/ polyester media, impregnanted with an activated carbon. The pleated filter pack is enclosed in a heavy duty, moisture resistant (beverage board) die-cut frame that will not crack, warp or distort under normal operating conditions.

BENEFITS

In some light duty applications, the effectiveness of carbon pleated filters can equal many long-term solutions used for controlling odor problems. Carbon pleated filters can be used as a low cost method to verify the potential effectiveness of carbon for controlling odors. The carbon pleat receives an efficient removal of particulate MERV 6 per ASHRAE Standard 52.2-2007.

APPLICATIONS

The Air Handler Carbon Pleat is well suited for use where gas contaminants are low and/ or intermittent. Provides relief of odors created by cigarette smoke, industrial process, copier, pets and musty areas.

These filters are well suited for use in air make-up systems and re-circulation applications in office buildings, hospitals, airports, food courts and manufacturing facilities.

For our complete line of filters, visit grainger.com/airhandler

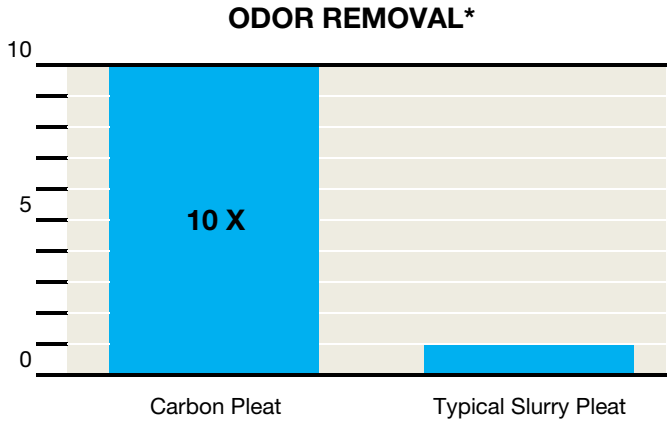
Find it at Grainger.

Air Handler®

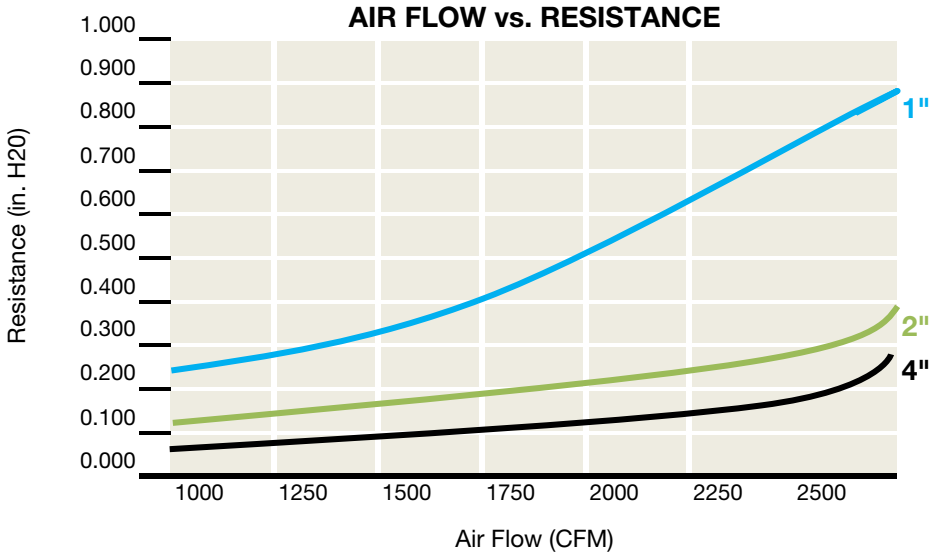
Clear the air. Ease your mind.

CARBON PLEAT

ODOR REMOVAL



*Amount of gas or odor removed at 50% break through given 880 PPM of Toluene @ 40 (media velocity)



*Results based on 24x24 filter

DIMENSIONS & PART #S

Nominal Size (in.)			Initial Resistance @ 250 FPM ("w.g.)	Initial Resistance @ 500 FPM ("w.g.)	Grainger #
H	W	D			
10	10	1	0.23	0.63	6B915
10	20	1	0.23	0.63	6B914
12	12	1	0.23	0.63	6B912
12	20	1	0.23	0.63	6B911
12	24	1	0.23	0.63	6B910
14	20	1	0.23	0.63	6B907
14	24	1	0.23	0.63	6B905
14	25	1	0.23	0.63	6B904
15	20	1	0.23	0.63	6B902
16	16	1	0.23	0.63	6B900
16	20	1	0.23	0.63	6B899
16	24	1	0.23	0.63	6B896
16	25	1	0.23	0.63	6B894
18	20	1	0.23	0.63	6B891
18	24	1	0.23	0.63	6B890
18	25	1	0.23	0.63	6B887
20	20	1	0.23	0.63	6B886
20	24	1	0.23	0.63	6B883
20	25	1	0.23	0.63	6B880
22	22	1	0.23	0.63	6B877
24	24	1	0.23	0.63	6B876
25	25	1	0.23	0.63	6B873
10	20	2	0.13	0.34	6B913
12	24	2	0.13	0.34	6B909
14	20	2	0.13	0.34	6B906
14	25	2	0.13	0.34	6B903
15	20	2	0.13	0.34	6B901
16	20	2	0.13	0.34	6B898
16	24	2	0.13	0.34	6B895
16	25	2	0.13	0.34	6B893
18	24	2	0.13	0.34	6B889
20	20	2	0.13	0.34	6B885
20	24	2	0.13	0.34	6B882
20	25	2	0.13	0.34	6B879
24	25	2	0.13	0.34	6B875
25	25	2	0.13	0.34	6B872
12	24	4	0.07	0.23	6B908
16	25	4	0.07	0.23	6B892
20	20	4	0.07	0.23	6B884
20	24	4	0.07	0.23	6B881
20	25	4	0.07	0.23	6B878
24	24	4	0.07	0.23	6B874

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Find it at Grainger.

 8S

Air Handler®

Clear the air. Ease your mind.

CARBON HONEYCOMB

- Dual function: Odor absorption and particulate filtration
- Granular activated carbon to remove odorous and irritating gaseous contaminants
- Honeycomb construction ensures low air flow resistance
- Effective gas phase filtration in a compact design
- Individually wrapped in plastic

DESCRIPTION

These combination particulate and carbon filters are designed for the control of intermittent odor problems in re-circulated air applications.

Honeycomb style filters are designed to remove a wide range of pollutants. The 1" honeycomb filters are constructed using 0.5" honeycomb with a 0.5" pre-filter pad. The 2" honeycomb filters are constructed using 0.75" of honeycomb with a 1" pre-filter pleat offering medium efficiency.

BENEFITS

The activated carbon presented in the honeycomb filter acts like a porous sponge, collecting and retaining certain chemical compounds on its surface. The ability of activated carbon to absorb a gas or vapor is called its activity.

Carbon used in these filters has a minimum carbon tetrachloride (CCL4) activity of 60% which means it will absorb 60% of its own weight of CCL4 vapor under a standard set of conditions.

Max. Temp. - 150°F

APPLICATIONS

Dual purpose activated Carbon Honeycomb filters are designed to eliminate general odor problems where concentration levels are not extremely heavy. These combination filters offer medium particulate filtration along with an absorbent carbon for fume and odor removal.

The honeycomb style filters are used extensively in office buildings, hospitals, airports, food courts and manufacturing facilities.

For our complete line of filters, visit grainger.com/airhandler

Find it at Grainger.

Air Handler®

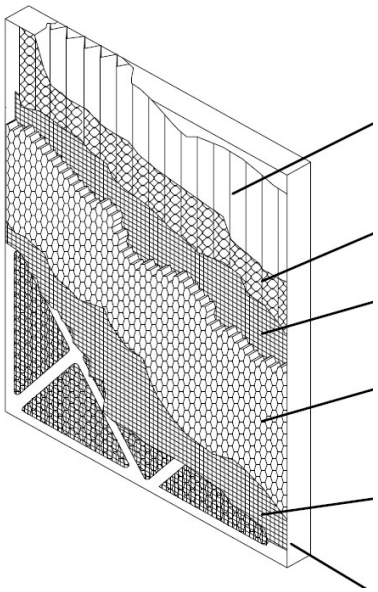
Clear the air. Ease your mind.

CARBON HONEYCOMB

ODORS REMOVED

- Cooking Odors
- Sewer Odors
- Gasoline Fumes
- Environmental Tobacco Smoke
- Most Volatile Organic Compound (VOC) Odors

FILTER ADVANCEMENTS



*NOTE: for 1" version a poly pad and no expanded metal replace the pleat media

DIMENSIONS & PART #S

0.5" POLY PRE-FILTER

50% Carbon Fill (with Pre-Filter)			
H	W	D	Grainger #
10	10	1	6B869
10	20	1	6B868
12	12	1	6B866
12	20	1	6B865
12	24	1	6W735
14	20	1	6B864
14	24	1	6B862
14	25	1	6B861
15	20	1	6B859
16	16	1	6B857
16	20	1	6W736
16	24	1	6B856
16	25	1	6W737
18	20	1	6B854
18	24	1	6B853
18	25	1	6B851
20	20	1	6W738
20	24	1	6B850
20	25	1	6W739
22	22	1	6B848
24	24	1	6W740
25	25	1	6B847

1" PLEATED PRE-FILTER

50% Carbon Fill (with Pre-Filter)			
H	W	D	Grainger #
10	20	2	6B867
12	24	2	6W741
14	20	2	6B863
14	25	2	6B860
15	20	2	6B858
16	20	2	6W742
16	24	2	6B855
16	25	2	6W743
18	24	2	6B852
20	20	2	6W744
20	24	2	6B849
20	25	2	6W754
24	24	2	6W746
25	25	2	6B846

0.5" POLY PRE-FILTER

1" PLEATED PREFILTER

H	W	D	50% Carbon Fill (No Pre-Filter) Grainger #	100% Carbon Fill (No Pre-Filter) Grainger #	100% Carbon Fill (with Pre-Filter) Grainger #
10	20	1	2JTW5	2JUA5	2JTR1
12	24	1	2JTW7	2JTR3	2JUT6
14	20	1	2JTW9	2JUA7	2JTR5
14	25	1	2JTX2	2JUA9	2JTR7
15	20	1	2JTX4	2JUC2	2JTR9
16	20	1	2JTX6	2JUC4	2JTT2
16	25	1	2JTX8	2JUC6	2JTT4
20	20	1	2JTY7	2JUC8	2JTT6
20	25	1	2JTY1	2JUD1	2JTT8
24	24	1	2JTY3	2GJD5	2JTU1
25	25	1	2JTY5	2JUD3	2JTU3
12	24	2	2GJD9	2JUD5	2JTU5
16	20	2	2JTY9	2JUD7	2JTU7
16	25	2	2JTZ2	2JUD9	2JTU9
18	24	2	2JTZ4	2JUF2	2JTV2
20	20	2	2JTZ6	2JUF4	2JTV4
20	24	2	2JTZ8	2JUF6	2JTV6
20	25	2	2JUA1	2JUF8	2JTV8
24	24	2	2GJE4	2JTD2	2JTW1
25	25	2	2JUA3	2JUH1	2JTW3

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FP GAS PHASE

- Improve indoor air quality through effective removal of contaminants, odors and gases
- Available with activated carbon for adsorption, potassium permanganate for chemisorption, or a 50/50 blend of both
- 100% fill for maximum single pass efficiency and longer service life

DESCRIPTION

The Air Handler FP Gas Phase filter is designed to remove a wide range of odors and common indoor air pollutants at high air flows. Constructed of heavy-duty galvanized steel and plastic, with 3/4" honeycomb media packs, the FP Gas Phase filter can be willed with one of two media or a blend of the two to fit any application.

BENEFITS

The FP Gas Phase filter provides effective odor removal with just a moderate increase in pressure drop.

Using 60% CTC activated carbon, potassium permanganate on zeolite, or a blend of the two, the FP Gas Phase filter removes a broad spectrum of compounds including Volatile Organic Compounds (VOC's), vehicle exhaust, sulfur compounds, ammonia and formaldehyde.

APPLICATIONS

These filters are used in commercial and industrial applications when odors and gases need to be removed to protect people, processes, equipment or artifacts.

With a standard header, it can be used in existing HVAC systems, easily retrofitted or specified for new construction. The dual direction design allows for a front or reverse mount installation, without a reduction in filter performance.

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FP GAS PHASE

DIMENSIONS & PERFORMANCE DATA

ACTIVATED CARBON (100%)			
Contaminants Removed by Activated Carbon			
Acetone	Gasoline	Naphtha	Perchloroethylene
Nitrobenzene	Pyridine	Chlorobenzene	Methyl Chloroform
Chloroform	Paint Fumes	Toluene	Methyl Ethyl Ketone
Benzene	Ozone	Styrene	Methylene Chloride

H	W	D	Initial Resistance @ 500 FPM ("w.g.)	Media Weight	Shipping Weight	Grainger #
12	24	12	0.51	11	16	2GGY7
20	24	12	0.51	20	27	2GGZ2
24	24	12	0.51	32	32	2GGV7

POTASSIUM PERMANGANATE (100%)			
Contaminants Removed by Potassium Permanganate Impregnated Media			
Acetylene	Amines	Mercaptans	Nitrogen Oxides
Alcohols	Ammonia	Sulfur Oxides	

H	W	D	Initial Resistance @ 500 FPM ("w.g.)	Media Weight	Shipping Weight	Grainger #
12	24	12	0.36	14	19	2GHA1
20	24	12	0.36	26	33	2GHA5
24	24	12	0.36	32	40	2GHA9

ACTIVATED CARBON / POTASSIUM PERMANGANATE BLEND (100%)			
Contaminants Removed by Activated Carbon / Potassium Permanganate Blend			
Acetic Acid	Cooking Odors	Butyric Acid	Chlorine Dioxide
Urea	Chlorine	Isoproanol	Sodium Thiosulfate
Trichloroethylene	Auto Exhaust	Tobacco Smoke	Cleaning Compounds
Animal Odors	Diesel Fumes		

H	W	D	Initial Resistance @ 500 FPM ("w.g.)	Media Weight	Shipping Weight	Grainger #
12	24	12	0.36	13	18	2GGY3
20	24	12	0.36	23	30	2GGZ6
24	24	12	0.36	28	37	2GGX8

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NESHAP / EPA METHOD 319

The EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) mandated that a new filtration test method be established to determine the efficiency of a filter to remove hazardous pollutants from paint overspray. The EPA guidelines went into effect on September 1, 1998 and continue to set the standard for paint overspray collection systems today. The test method to determine compliance is Test Method 319.

PREFERRED 1ST STAGE

PAINT FILTER PAD

Paint Filter Pad, Polyester media with ECXL style. The media is multilayered, with finer fiber structures downstream in order to enhance depth loading capacity. The multiple layers will avoid face loading as it captures overspray paint with a downstream tackifier.

APPROVED 2-STAGE SYSTEM

2 POCKET BAG FILTER

The recommended 2-stage system consists of a prefilter paint arrestor pad followed by a two pocket bag filter. This two pocket bag filter exceeds the approved EPA Method 319 testing requirements with or without the prefilter pad. The 2-pocket filter is self-sealing and has self supporting pockets. The Media construction is a multi-layered gradient density structure to maximize paint collection and retention.

APPROVED 3-STAGE SYSTEM

5 POCKET BAG FILTER

The recommended 3-stage system consists of a prefilter pad, a 2 pocket filter bag, followed by the EPA Method 319 approved 5 pocket bag filter. The 5 pocket bag filter is self sealing and exceeds the testing requirements with or without the pre-filter pad and two pocket filter bag. The media construction is multi-layered with the downstream layer consisting of a high efficiency synthetic media.

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NESHAP / EPA METHOD 319

DIMENSIONS & PART #S

Nominal Size (in.)			2-Pocket Bag
H	W	D	Grainger #
20	20	15	4YKR4
20	25	15	4YKR5
24	24	15	4YKR6

Nominal Size (in.)			5-Pocket Bag
H	W	D	Grainger #
20	20	12	4YKR1
20	25	12	4YKR2
24	24	12	4YKR3

PERFORMANCE COMPARISON 2-STAGE FILTER

Liquid Challenge - Oleic Acid			
Particle Size	EPA 319 Requirement	Air Handler Actual	ATI Actual
>2.2um	>10%	55.40%	41%
>4.1um	>50%	81.30%	87%
>5.7um	>90%	92.40%	96%

Solid Challenge - KCl			
Particle Size	EPA 319 Requirement	Air Handler Actual	ATI Actual
>2.2um	>10%	55.40%	41%
>4.1um	>50%	81.30%	87%
>5.7um	>90%	92.40%	96%

Initial dP @ 120 FPM Air Handler - 0.045”

Initial dP @ 120 FPM ATI - 0.13”

PERFORMANCE COMPARISON 3-STAGE FILTER

Liquid Challenge - Oleic Acid			
Particle Size	EPA 319 Requirement	Air Handler Actual	ATI Actual
>0.42um	>65%	83.50%	75%
>1.0um	>80%	95.00%	87%
>2.0um	>95%	99.10%	99%

Solid Challenge - KCl			
Particle Size	EPA 319 Requirement	Air Handler Actual	ATI Actual
>0.70um	>75%	93.80%	88%
>1.1um	>85%	97.80%	92%
>2.5um	>95%	99.50%	98%

Initial dP @ 120 FPM Air Handler - 0.22”

Initial dP @ 120 FPM ATI - 0.28”

The lower initial dP results in longer life and lower operating costs.

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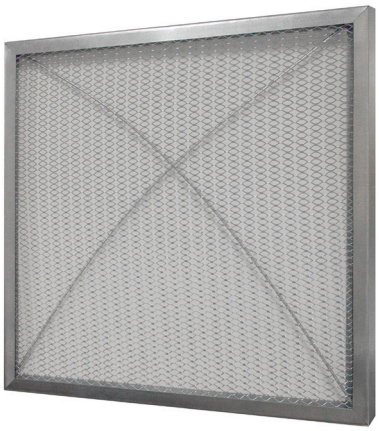
FILTER ACCESSORIES

PAD HOLDING FRAMES

Air Handler Pad Holding Frames are reusable. Permanent pad holding frames are constructed around a 24-gauge steel frame. The downstream side is 16-gauge, 1" x 1" welded wire. A hinged gate makes changing the pad easy, quick and safe.



DIMENSIONS & PART #S

H	W	D	Grainger #
10	10	1	6B730
10	20	1	6B729
12	12	1	5W082
12	20	1	6B727
12	24	1	5W081
14	20	1	6B725
14	25	1	6B723
15	20	1	6B721
16	16	1	6B719
16	20	1	5W080
16	24	1	6B718
16	25	1	5W079
18	18	1	5W078
18	20	1	6B716
18	24	1	5W077
18	25	1	6B714
20	20	1	5W076
20	24	1	6B713

H	W	D	Grainger #
20	25	1	5W075
22	22	1	5W074
24	24	1	5W073
25	25	1	5W083
10	20	2	6B728
12	24	2	6B726
14	20	2	6B724
14	25	2	6B722
15	20	2	6B720
16	20	2	5W072
16	24	2	6B717
16	25	2	5W071
18	24	2	6B715
20	20	2	5W070
20	24	2	6B712
20	25	2	5W069
24	24	2	6B711
25	25	2	6B710

AIR FILTER HOLDING FRAMES

Air Handler Filter Holding Frames are used to construct "built-from-scratch" filter banks for air handling systems. They may be bolted or riveted together utilizing matching holes on frames. Combined with a variety of holding clips, they can accept most 1", 2", 4", 6" and 12" supported filters and non-supporting pocket filters.

H	W	D	Case Qty.	Grainger #
24	24	3	8	6B731
20	24	3	8	6B732
12	24	3	8	6B733

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FILTER ACCESSORIES

GASKETING FOR AIR FILTERS

Air Handler Filter Gasketing consists of black neoprene foam construction with adhesive backing. Excellent resistant to chemicals, maximum temperature of 220°F. Used to seal filters and avoid air by-pass.

DIMENSIONS & PART #S

W	L	D	Grainger #
13/16"	75'	1/8"	6C523
13/16"	50'	1/4"	6C524

FILTER HOLDING CLIPS

Air Handler Filter Holding Clips keep all types of air filters firmly fastened within frames. Install using hand tools only - no rivets or bolts necessary. See chart below to match air filter to proper clip.

All pigtail clips are galvanized steel and all spring clips are stainless steel.

Case quantity equals 12

DIMENSIONS & PART #S

Clip Style	To Hold	No. Required	Grainger #
1" Pigtail	1" Header	4	5E904
2" Pigtail	2" Filter	2	5E905
3" Pigtail	2" Prefilter to a filter w/ header	4	5E906
4" Pigtail	4" Filter	4	5E907
6" Spring	6" Rigid or Box	4	5E908
12" Spring	12" Rigid or Box	4	5E909

Pigtail Clip

Spring Clip

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CULTURAL RESOURCES

Intent: All permittees shall protect the cultural, historical, archaeological, and paleontological resources on the lot of record where the permitted activity is located.

This section shall describe the procedures to be followed if cultural, historical, archaeological, and paleontological resources are found on the property.

The Department will consult with the appropriate Tribe regarding the potential of such resources being located on the lot of record. 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. The applicant will be responsible for paying the cost of such a study.

Based on that study and in consultation with the appropriate Tribe(s), the Department may require its findings and recommendation to be included in this section.

Cultural Resources Protection Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Cultural Resources Protection Plan (CRPP) is intended to protect the cultural, historical, archaeological, and paleontological resources of the Project Property. In-line with the goals of Lake County, this CRPP includes measures to monitor and evaluate the performance of the plan, as well as ensure that all data and information is reported to Lake County and the proper local agencies. This CRPP includes procedures that Floribunda Farms/Michael Blum will be required to follow if cultural, historical, archaeological, or paleontological resources are found on the Project Property.

Cultural Resources Evaluation

On March 11th, 2019, a Cultural Resources Investigation/Study was performed for the Project Property, by Registered Professional Archaeologist and Ph.D in Archaeology Dr. John Parker and his assistant Cheyanne Parker. The purpose of the investigation was to locate, describe, and evaluate any archaeological or historical resources that may be present in the area. Additionally, the Archaeologist was to assess the impact that might occur as a result of ground disturbance activities associated with cannabis production. A Cultural Resource Evaluation Report was prepared and provided to Floribunda Farms/Michael Blum on March 14th, 2019 (attached).

Background research conducted prior to the field inspection, indicated that five prehistoric sites had been recorded within one-half mile of the Project Property. During a field inspection, one isolated piece of chipped Konocti obsidian and an isolated piece of a wood stove was discovered on the Project Property. The discovery of these items indicates the general use of the area during prehistoric and historic periods, however they do not constitute "significant" cultural resources as defined by the California Environmental Quality Act or the Public Resources Code.

It was determined that no significant cultural resources exist on the Project Property, as no other historic or prehistoric sites or features were encountered during the field inspection.

If Cultural, Historical, Archaeological, or Paleontological Resources are Discovered

If any cultural, historical, archaeological, or paleontological resources are discovered, Floribunda Farms/Michael Blum will halt all activities in the vicinity of the discovery and will immediately notify Dr. John Parker or another qualified archeologist to evaluate and recommend mitigation procedures.

Dr. John Parker
PO Box 1353
Lucerne, CA 95458
(707) 274-2233
dr.john@wolfcreekarcheology.com

CULTURAL RESOURCE EVALUATION OF 11444 BOTTLE ROCK ROAD APN 011-068-23

Prepared at the request of:
Roy Sherrell
2136 Washington Ave.
Redding, CA 96001

Prepared by:
John W. Parker, Ph.D., RPA

USGS Quad:
Kelseyville 7.5'

March 14, 2019

Contents

SUMMARY

On February 22nd, Mr. Sherrell requested that the author conduct a cultural resource investigation of a parcel between Harrington Flat Road and Bottle Rock Road. The purpose of the investigation was to locate, describe, and evaluate any archaeological or historical resources that may be present. In addition, the author was to assess the impact that might occur as a result of proposed cannabis cultivation.

Background research indicated that 5 prehistoric sites had been recorded within 1/2 mile of the parcel (CA-LAK-304, 916, 917, 1247, and 1386). During the field inspection one isolated piece of chipped Konocti obsidian was discovered as was an isolated piece of a wood stove. Though these items indicate general use of the area during the prehistoric and historic period, they do not constitute "significant" cultural resources as defined by the California Environmental Quality Act (CEQA) or the Public Resources Code[1].

As no other historic or prehistoric sites or features were encountered, it has been determined that no significant cultural resources exist on this parcel.

It is recommended that the proposed project be approved as planned.

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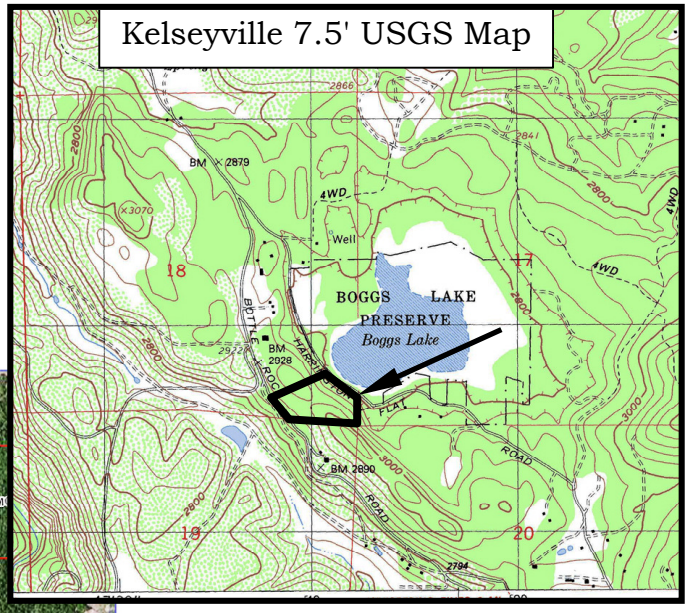
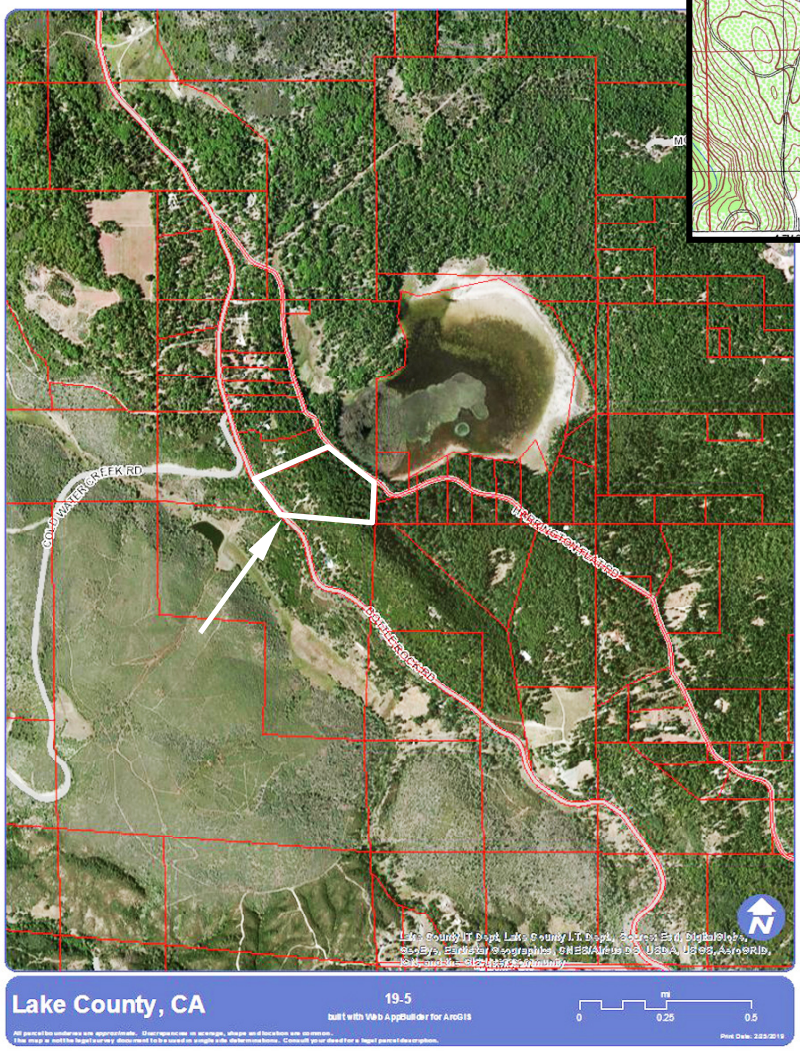
[1] CEQA Sec. 15064.5 a and 21074 a, Pub. Res. Code Sec. 5024.1, Title 14 CCR, Sec. 4852

In the unlikely event that undiscovered cultural sites are encountered during the ground disturbance process, it is recommended that work in the immediate vicinity of the find be suspended and a Registered Professional Archaeologist called in to evaluate the find as required by CEQA[2].

INTRODUCTION AND BACKGROUND

The fieldwork carried out as part of this study was conducted by John and Cheyanne Parker. Dr. Parker holds a Ph.D. in Archaeology, and is a Registered Professional Archaeologist. Cheyanne has 21 years of archaeological field and lab experience. The fieldwork took place March 11, 2019.





The proposed project will require a local discretionary permit indicating that the California Environmental Quality Act (CEQA) applies to the project. Therefore, this cultural resource evaluation was written to comply with the requirements set forth in CEQA (sec. 21083.2). This report follows the outline for identification of cultural resources as presented in the "Archaeological Resource Management Reports (ARMR): Recommended Contents and

[2] CEQA sec. 21083.2

Format" (State of California 1990).

The parcel consisted of rolling to steep terrain located between Bottle Rock Road and Harrington Flat Road.

The property is depicted on the Kelseyville 7.5' USGS topographic map as existing in Section 18, T12N, R8W (see attached map for area inspected).

The parcel is listed as 11444 Bottle Rock Road, Kelseyville.

Natural Setting

The project area sits atop a ridge that separates the Boggs Lake drainage to the north and the Sweetwater Creek drainage to the south. Soils and bedrock were volcanic in origin and consisted of vesicular basalt and reddish soils with abundant volcanic ash. These soils supported a mixed oak/conifer woodland environment within the area inspected.

The project area was mostly undeveloped with the exception of a driveway, single family residence, out-buildings, and a previous cultivation area (see cover photo).

The northeastern portion of the parcel was very steep and brush covered.


northeastern portion of parcel

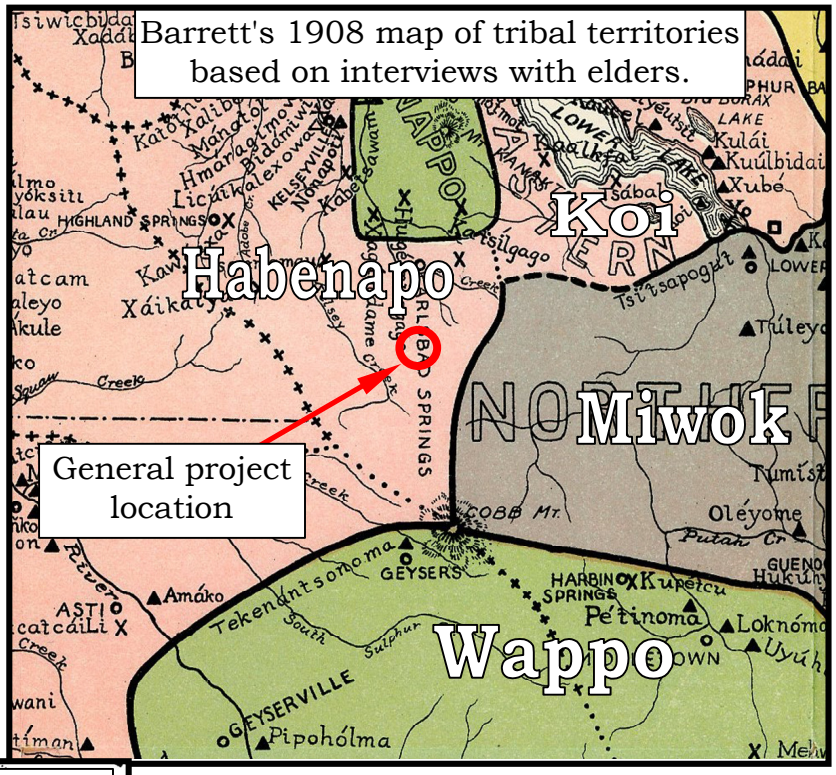

Ridge-top and basalt outcrops


Wildlife observed

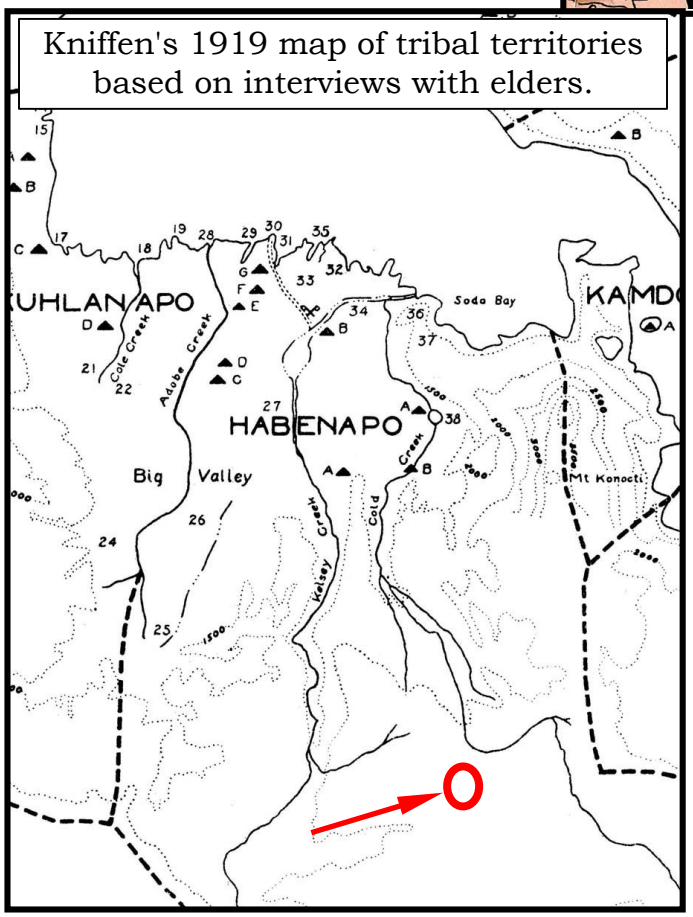
Prehistoric Background

Prior to European arrival, the project area was within territory of the Eastern Pomo Habenapo Tribe (Barrett 1908, Kniffen 1932).

The Pomo were part of the Hokan language family that occupied most of North America during the last Ice Age (Moratto 1984:551). Researchers have long suspected that Hokan was one of the two the oldest languages in the New World (Shipley 1978:81) and have recently established that the Hokan language family "is the oldest linguistic relationship among Western North American languages that can be established by normal comparative linguistic methods" (Golla 2004).



Barrett's 1908 map of tribal territories based on interviews with elders.



Kniffen's 1919 map of tribal territories based on interviews with elders.

The oldest archaeological sites in the Clear Lake Basin have been dated between 14,000 and 20,000 years. These sites indicate that a wave of people (most likely Hokan speakers) entered the Lake Basin by way of the Cache Creek drainage from California's Central Valley (Parker 1994, 2008, White 2002).

Research indicates that Hokan people settled along the shoreline of the eastern and southern arms of Clear Lake and utilized stone resources from the Borax Lake obsidian flow.

Archaeological evidence suggests there

was little or no change in the size or location of these communities until ~6,000 years ago. At that time, population growth prompted community settlements throughout the Clear Lake shoreline and into the uplands (Parker 1994:208).

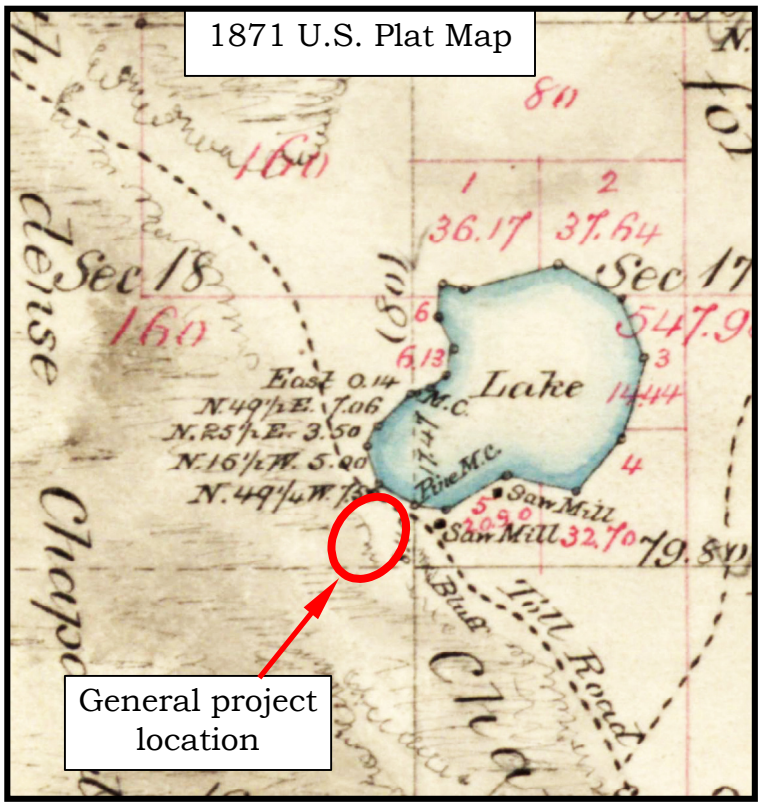
Further research has indicated that these people served as the origin of the Pomoan language and culture that ultimately spread westward to the coast, north to Fort Bragg, and south to Sebastopol (Whistler 1980:13, Golla 2004, Oswalt 1962).

Throughout the 14,000+ years of Pomoan habitation, there have been many political, technological, and cultural changes as these people sought to adjust to changes in climate, resource availability, and population growth.

Historic Background

The Boggs Lake area of Lake County was known early on by hunters for the abundant elk and bear (Mauldin nd).

The first saw mill in Lake County was built by Thomas Boyd in 1858 on the south side of Boggs Lake. It was steam-powered but burned down in 1860. It was rebuilt along the road leading from Kelseyville to Cobb Valley. Boyd sold the mill to George Allen and Benjamin Shaul who then sold it to Benjamin Moore. In 1866, H.C. Boggs bought the mill and land. The mill was rebuilt and in 1881 had the capacity to produce 10,000 board-feet of lumber a day (Slocum et.al. 1881).



The earliest map of the area was done in 1871 and shows two saw mills just south of Boggs Lake and the Old Toll Road to Clear Lake (now known as Harrington Flat Road).

During the late 1800's the sale of carp to the San Francisco Chinese community was a thriving business that could produce $0.45 to $1 per pound. Many Lake County businessmen installed carp ponds and began raising carp for this market. Mr. Boggs imported German Carp and put them in carp ponds constructed at the

old mill site (Slocum et.al. 1881). He may also have stocked Boggs Lake and Clear Lake with carp (Mauldin nd).

Dave and Jim Harrington arrived in Lake County in the 1880's for the bear hunting. They both lived in Harrington Flat and worked in the local mills splitting shakes to earn a living. Both had large families and the Flat and Road are named after them. The Harrington's moved out of Lake County in the 1890's (Mauldin nd).

Portions of Section 18 were patented to Robert Smith in 1895 and portions were patented to Fritz Spenker in 1896. Neither Robert nor Fritz are mentioned in any of the published Lake County histories.

FIELD INSPECTION

Prior to the field inspection, a record search was conducted at the California Historical Resources Inventory System office. This research discovered that 5 prehistoric sites had been recorded within 1/2 mile of the parcel (CA-LAK-304, 916, 917, 1247, and 1386).

In an effort to solicit information about traditional cultural properties, a request for a review of the Sacred Sites File was sent to the California Native American Heritage Commission (NAHC) on February 28th. In addition, a request for information was sent to Sarah Ryan (Environmental Director, Mission Rancheria of Pomo).

At the time of this writing, no responses have been received from the NAHC or Ms. Ryan.

The field inspection included a mixed strategy inspection of the parcel. All walkable areas were inspected in transects spaced 3 to 5 meters apart. The ground surface was examined for historic and prehistoric cultural materials.

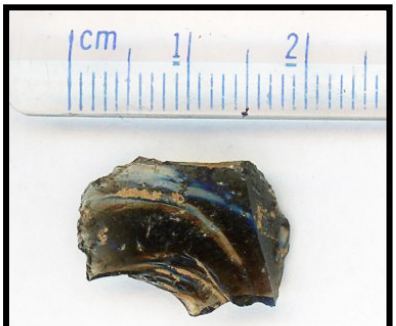
Areas too steep or too brushy for walking access were not inspected (see map at end of report).

Some of the project area was covered with a thin layer of leaf litter. When necessary, a trowel was used to clear through this layer to examine the mineral soil. In all areas, rodent dirt piles, tree roots, and cut banks were examined for buried cultural soils. All accessible rock outcrops were examined for rock art and food grinding activity.

STUDY RESULTS

Prehistoric Resources

During the field inspection, one isolated piece of chipped Konocti obsidian was found. No other prehistoric cultural materials were encountered.



Konocti obsidian flake

Historic Resources

One isolated door of a wood burning stove was discovered in the southeastern portion of the parcel. No other historical materials or features were encountered. The door appears to be the wood loading door of a large Majestic stove or the oven door of a small Majestic stove. The Majestic Manufacturing Co. was founded in 1892 in Saint Louis. The original manufacturing plant made stoves till 1925 and has been listed on the National Register of Historic Places (Baxter 1998). It is likely that this stove piece dates from that period.

CONCLUSIONS

The isolated obsidian flake and stove piece are an indication of the general use of the area by both historic and prehistoric people. Beyond the description of their existence, these items cannot provide any detailed information concerning Lake County's past. The isolated items are not considered "significant" cultural resources as defined by the California Public Resources Code[3].

As no "significant" historic or prehistoric cultural resources were found, it is recommended that the proposed project be approved as planned. No further cultural resource work is necessary.

In the unlikely event that buried historic or prehistoric cultural deposits are encountered, these should be evaluated for significance by a Registered

[3] 5024.1, Title 14 CCR, Sect. 4852

Professional Archaeologist and either preserved or mitigated as outlined in CEQA[4].

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[4] sec. 21083.2 [b] or 15126.4c

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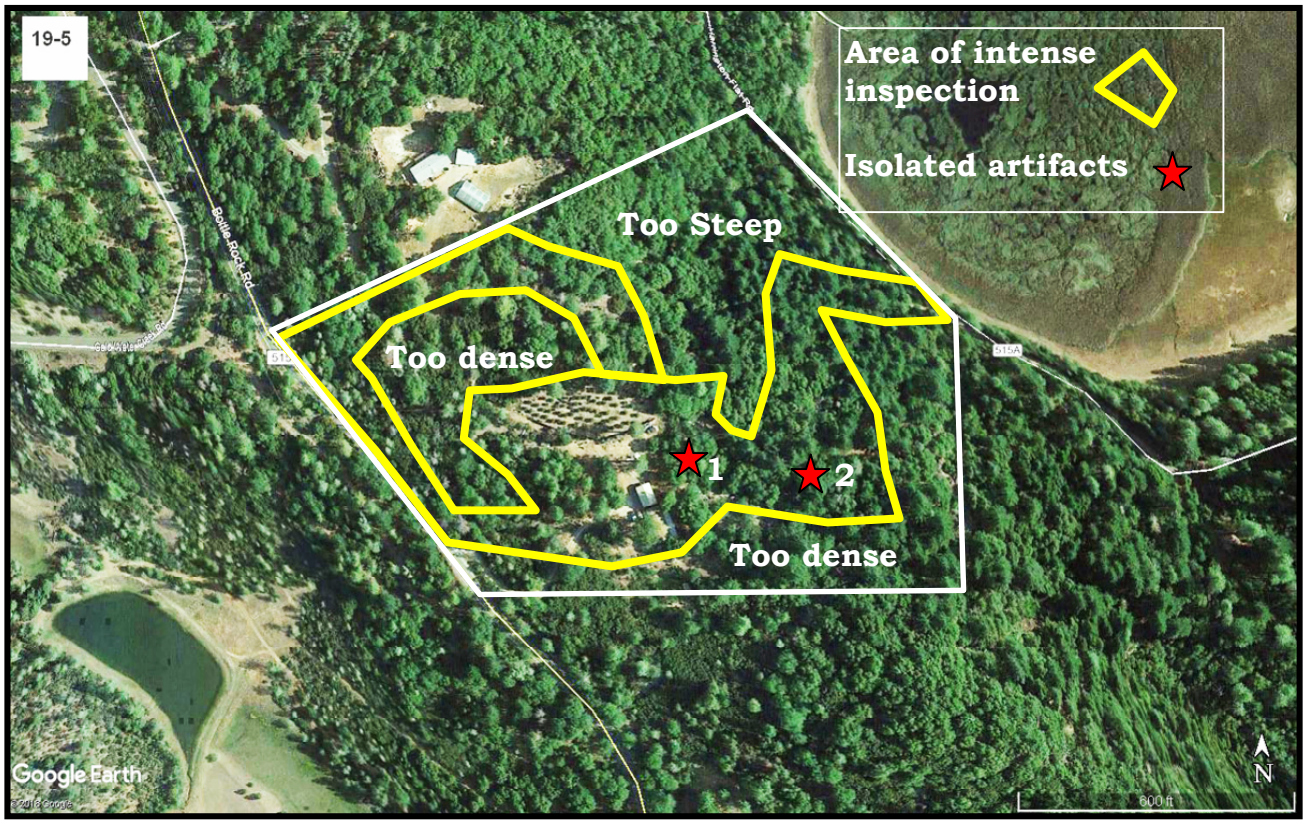
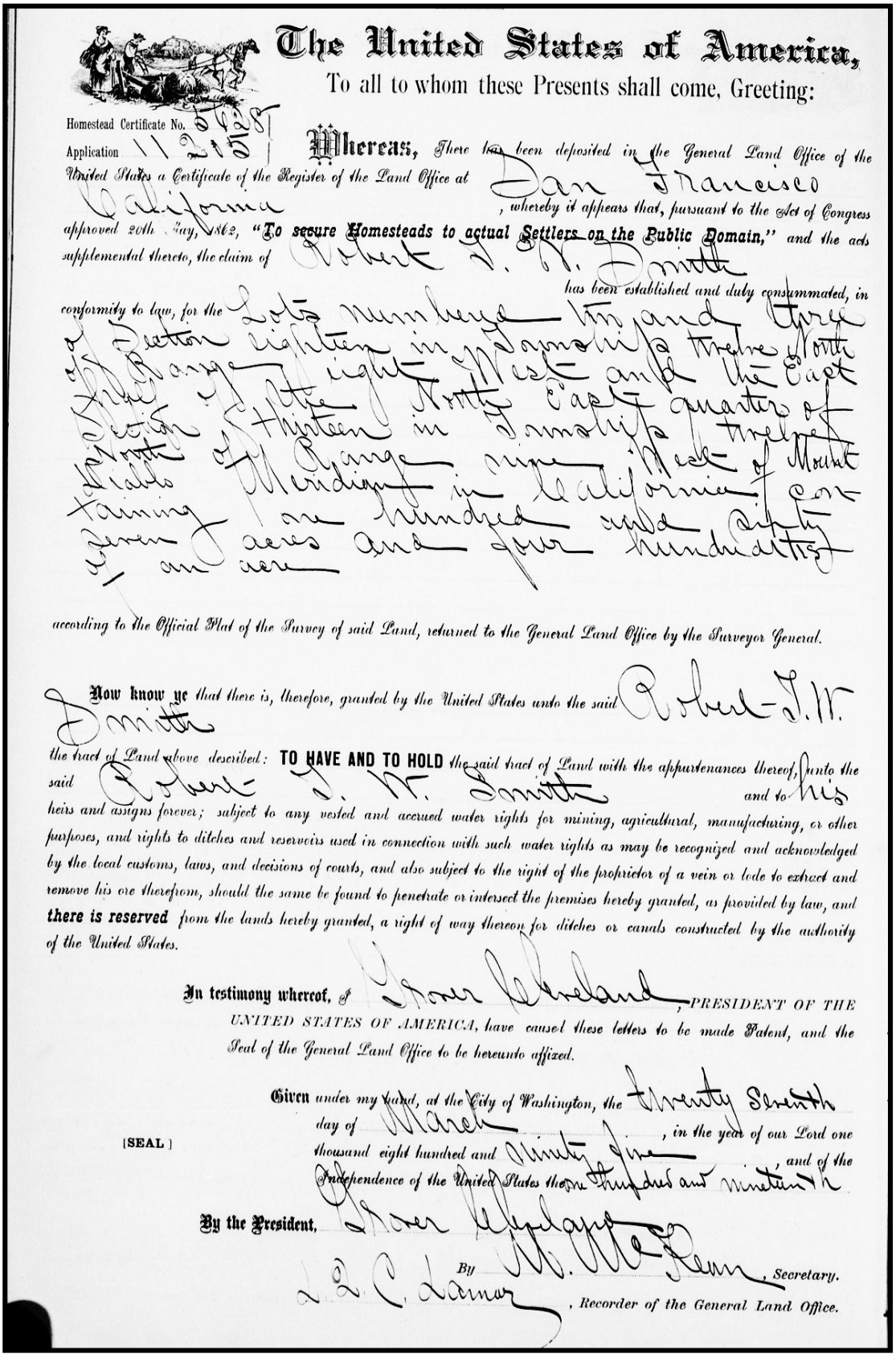
2002 ***Cultural Diversity and Culture Change in Prehistoric Clear Lake Basin; Final Report of the Anderson Flat Project***, Center for Archaeological Research at Davis, No 13.

AREA INSPECTED AND CULTURAL ITEMS



1. Konocti obsidian flake
2. Stove door



The United States of America,

To all to whom these Presents shall come, Greeting:

Homestead Certificate No. 2487

Application 1121

Whereas, There has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at San Francisco California, whereby it appears that, pursuant to the Act of Congress approved 20th May, 1862, **"To secure Homesteads to actual Settlers on the Public Domain,"** and the acts supplemental thereto, the claim of Robert V. N. Smith has been established and duly consummated, in conformity to law, for the Lots numbered Five and Three of Section eighteen in Township twelve North of Range eight West and the East half of the East quarter of Section thirteen in Township twelve North of Range nine West of Mount Diablo Meridian in California containing one hundred and eighty seven acres and four hundredths of an acre

according to the Official Plat of the Survey of said Land, returned to the General Land Office by the Surveyor General.

Now know ye that there is, therefore, granted by the United States unto the said Robert V. N. Smith the tract of Land above described: **TO HAVE AND TO HOLD** the said tract of Land with the appurtenances thereof, unto the said Robert V. N. Smith and to his heirs and assigns forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law, and **there is reserved** from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States.

In testimony whereof, I Grover Cleveland, PRESIDENT OF THE UNITED STATES OF AMERICA, have caused these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

Given under my hand, at the City of Washington, the twenty Seventh day of March, in the year of our Lord one thousand eight hundred and Ninety five, and of the Independence of the United States the One Hundred and nineteenth

[SEAL]

By the President, Grover Cleveland

By W. McFarland, Secretary.

R. C. Lamar, Recorder of the General Land Office.

1896 LAND PATENT

(4-773—a.)

The United States of America,

To all to whom these Presents shall come, Greeting:

Homestead Certificate No. 6001

Application 11366

Whereas, There has been deposited in the General Land Office of the United States a Certificate of the Register of the Land Office at San Francisco, California, whereby it appears that, pursuant to the Act of Congress approved 20th May, 1862, **"To secure Homesteads to actual Settlers on the Public Domain,"** and the acts supplemental thereto, the claim of Fritz M. Spenker has been established and duly consummated, in conformity to law, for the Lots numbered Five and six, and the West half of the South East quarter of Section Eighteen, in Township Twelve North of Range Eight West of Mount Diablo Meridian in California containing one hundred and fifty-two acres and twenty-eight hundredths of an acre.

according to the Official Plat of the Survey of said Land, returned to the General Land Office by the Surveyor General.

Now know ye that there is, therefore, granted by the United States unto the said Fritz M. Spenker the tract of Land above described: **TO HAVE AND TO HOLD** the said tract of Land with the appurtenances thereof, unto the said Fritz M. Spenker and to his heirs and assigns forever; subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws, and decisions of courts, and also subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom, should the same be found to penetrate or intersect the premises hereby granted, as provided by law, and **there is reserved** from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States.

In testimony whereof, I, Grover Cleveland, PRESIDENT OF THE UNITED STATES OF AMERICA, have caused these letters to be made Patent, and the Seal of the General Land Office to be hereunto affixed.

[SEAL]

Given under my hand, at the City of Washington, the ninth day of November, in the year of our Lord one thousand eight hundred and ninety-six, and of the Independence of the United States the one hundred and twenty-first.

By the President, Grover Cleveland

By J. A. Pugh Acting, Secretary.

L. Q. C. Lamar, Recorder of the General Land Office.

NATIVE AMERICAN HERITAGE COMMISSION
915 Capitol Mall, RM 364
Sacramento, CA 95814
(916) 653-4082
(916) 657-5390 – Fax
nahc@pacbell.net

Information Below is Required for a Sacred Lands File Search

Project:_____19- 5 Blum Cannabis Farm_____

County_____Lake_____

USGS Quadrangle

Name_____Kelseyville 7.5' USGS_____

Township _12N Range _9W___ Section(s) 18

Company/Firm/Agency:

_____Archaeological Research_____

Contact Person: ___John Parker_____

Street Address: __PO Box 1353_____

City: _____Lucerne_____Zip:__95458_____

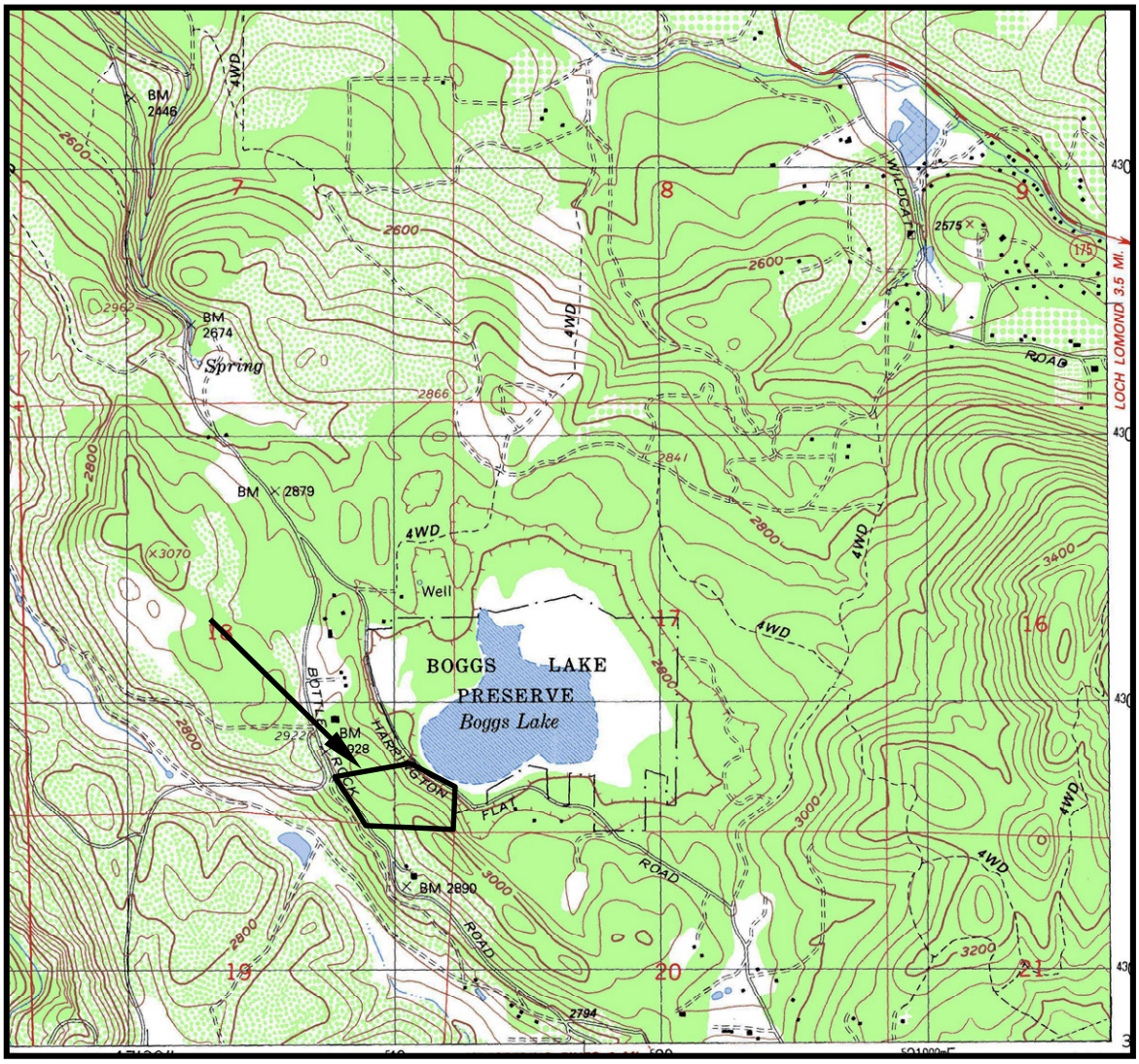
Phone: _____(707) 274-2233_____

Fax: _____

Email: _dr.john@wolfcreekarcheology.com_____

Project Description: Field inspection of ~20 acres (see attached map)

KELSEYVILLE TOPO MAP SHOWING PROPOSED PROJECT AREA



John Parker

From: "John Parker" <dr.john@wolfcreekarcheology.com>
Date: Thursday, February 28, 2019 10:26 AM
To: "NAHC" <nahc@nahc.ca.gov>
Cc: "Sarah Ryan" <sryan@big-valley.net>
Attach: 19-5NAHCsearch.pdf
Subject: Sacred Sites review

Dear NAHC staff,

Please find attached 1 cultural resource inspection area in Lake county. We need to know if there have been any sacred land locations recorded in or near this area.

We are also forwarding this email to the Big Valley Pomo tribe for their review and comment.

Thank you in advance for your assistance.

Sincerely,
John Parker

John Parker, Ph.D.
Archaeological Research
www.wolfcreekarcheology.com
(707) 274-2233
http://ucla.academia.edu/JohnParkerPhD

ENERGY USAGE

Intent: Permittees shall minimize energy usage.

In this section permittees shall:

a) Provide energy calculations 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 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.

Energy Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

The primary goal and objective of this Energy Management Plan (EMP) is to establish reliable baseline metrics and benchmark standards for the performance and efficiency of the proposed cultivation operation. This EMP outlines key strategies and operational procedures that will reduce/limit the proposed cultivation operation's energy consumption and carbon footprint. In-line with the goals of Lake County, this EMP includes measures to monitor and evaluate the performance of the plan, as well as ensure that all data and information is reported to Lake County and the proper local agencies. Floribunda Farms/Michael Blum will follow the procedures outlined in this EMP to monitor the proposed cultivation operation's energy consumption, and to reduce/limit its energy consumption and carbon footprint.

Energy Sources

The Project Property is serviced by Pacific Gas and Electric's electrical grid, which will serve as the primary source of energy for the proposed cultivation operation. Electricity will be used to power equipment used in the proposed cultivation areas (such as security lights and cameras), and the proposed Processing Facility (such as lights, security system, climate control system, and dehumidifiers). Gasoline will be used to power some of the equipment used to develop the proposed cultivation operation, and to maintain the surrounding Project Property (such as weed eaters, lawnmowers, and vehicles).

Energy Usage

The following load demand calculations for the proposed cultivation operation are in accordance with Article 220 Branch-Circuit, Feeder, and Service Calculations, Section V. Farm Load Calculations (220.100 – 220.103) of the 2016 CA Electrical Code.

Appliance	Number in Use	Watts per Unit	Hours per Day	Total Watts per Day
Computer	1	120	8	960
Security System	1	450	24	10,800
Water Pump	1	2000	4	8,000
Refrigerator	1	70	24	1680
Security Lights	5	60	1	300
Interior Lights (Flourescent)	8	120	8	7,680
Fans	2	100	4	800
Stereo	1	60	4	240
Printer	1	45	0.5	22.5
Coffee Maker	1	1500	1	1500
Climate Control System (Processing Facility)	1	6000	8	48,000
Dehumidifier	1	600	0 - 12	0 – 7,200

Total Watts per Day: 79,982.5
KWh/Day: 80
KWh/Month: 2400

It is conceivable, however highly unlikely, that all of the above appliances could be in use at the same time. Therefore, the Farm Load for the proposed cultivation operation is 12.305 KWh (100% Demand Factor).

Energy Conservation

Floribunda Farms/Michael Blum will implement the following Energy Conservation Measures/Practices:

- Provide employees with guidelines, tips and tricks for energy efficient practices and attach laminated guidelines to the interior walls of the proposed processing facility
- Turn off lights and unnecessary electronics when possible
- Conduct annual employee energy efficiency training to review conservational practices
- Reduce “plug” load by removing personal equipment such as desk lamps and space heaters or installing smart power strips
- Use energy efficiency features in all technology including computers, data storage, processing machinery, or other devices which consume excess energy
- Schedule pumps, motors, and other energy intensive machinery for operation during off-peak use hours
- Replace and recycle old electronics

The proposed outdoor cultivation operation is not subject to requirements of CCR Title 3, Division 8, Chapter 8315, which only applies to Indoor cultivation operations.

Monitoring and Reporting

In order to monitor and to actively reduce the proposed cultivation operation's energy consumption, and to provide Lake County officials with accurate energy use records, Floribunda Farms/Michael Blum will:

- Log and maintain electricity bills for five years
- Log and maintain monthly fuel consumption
- Maintain accurate recordkeeping as to the cultivation/production performance of the proposed cultivation operation
- Make records and all data available to Lake County officials and PG&E
- Adjust strategies as needed to meet energy conservation goals

Floribunda Farms/Michael Blum will review all procedures and conservation measures annually to determine if they are meeting their energy conservation goals, and will consult with an energy professional to ensure that their cultivation operation is in full compliance with local, state, and federal regulations pertaining to energy usage, conservation, and consumption.

All data and information will be reported to the Lake County Community Development Department and other interested licensing agencies upon request.

FERTILIZER USAGE

Intent: To ensure consistency of fertilizer storage and use with other sections of the Property Management Plan.

This section shall describe how cultivation and nursery permittees will comply with the following fertilizer application and storage protocols:

a. Complying with all fertilizer label directions;
b. Storing fertilizers in a secure building or shed;
c. Containing any fertilizer spills and immediately clean up any spills'
d. Applying the minimum amount of product necessary;
e. Preventing offsite drift;
f. Not spraying 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. Not applying fertilizer when they may reach surface water or groundwater; and
h. Nor using fertilizer 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.

This section shall include a map of the parcel where the cultivation site is located showing 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 or any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. This map shall include the location of where fertilizers will be stored and used.

A description what parameters will be monitored and the methodology of the monitoring program shall be included in this section.

Fertilizer Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Fertilizer Management Plan provides guidelines for the application and storage of fertilizers on the proposed cultivation operation, and procedures to properly respond to fertilizer spills. In-line with the goals of Lake County, this FMP includes measures to monitor and evaluate the performance of the plan, as well as ensure that all data and information is reported to Lake County officials and the proper local agencies.

Fertilizer/Nutrient Sources & Protocols for Use

Floribunda Farms/Michael Blum will apply irrigation water and nutrients at a rate not more than that which is necessary to satisfy the plants' evapotranspiration requirements and growth needs (Agronomic Rate). The agronomic rate considers allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, nutrients present in irrigation water, leaching requirement, and plant available nitrogen. The planting medium of the proposed outdoor cultivation area will be an above grade organic soil mixture in 300-gallon fabric pots ("smart pots") with drip irrigation systems in full sun.

All fertilizers/nutrients will be mixed/prepared on an impermeable surface that is at least 100 feet from surface water bodies. At the beginning of each cultivation season, an amendment mixture composed of equal parts of Down to Earth (DTE) Azomite Granulated Trace Minerals (0-0-0.2), DTE Kelp Meal (1-0.1-2), DTE Oyster Shell, DTE Rock Phosphate (0-3-0), and DTE Bat Guano (9-3-0) will be prepared/mixed and then incorporated into the organic soil mixture of each 300-gallon fabric pot of the outdoor cultivation area, along with composted cannabis waste, chicken manure, and worm castings.

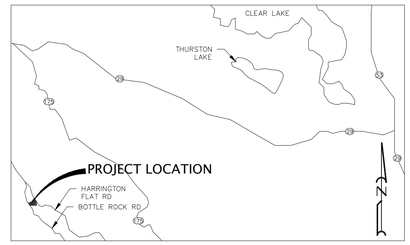
At no time will fertilizers/nutrients be applied at a rate greater than 319 pounds of nitrogen per acre per year (requirement of the State Water Resource Control Board's Cannabis General Order).

Fertilizer Storage and Spill Containment

When not in use, all fertilizers/nutrients will be stored under cover and in compliance with label instructions, within the secure Pesticides and Agricultural Chemicals Storage Area and more than 100 feet from the nearest surface water body. All liquid fertilizers/nutrients will be stored in their manufacturer's original containers/packaging, with secondary containment to prevent possible exposure to the environment. Absorbent materials designed for spill containment and spill cleanup equipment will be maintained within the Pesticides and Agricultural Chemicals Storage Area, for use in the event of an accidental spill.
Materials Safety Data Sheets (MSDS/SDS) for all fertilizers will be stored within the Pesticides and Agricultural Chemicals Storage Area, and will be made available for personnel to reference at any time. Personnel will be trained how to appropriately prepare and apply fertilizers/nutrients before being allowed to use them. When using/preparing fertilizers and other chemicals, personnel will be required to use personal protective equipment (PPE) consistent with the MSDS/SDS recommendations for the product they're using/preparing. PPE to be used by staff include safety glasses, gloves, dust masks, boots, pants, and long-sleeved shirts.

Monitoring and Reporting

Floribunda Farms/Michael Blum will maintain an accurate log of all fertilizer/nutrient usage of the proposed cultivation operation. The log will detail the date, fertilizer type, amounts applied, method, the operator applying, and any additional inputs or amendments. This log will be kept in the proposed Processing Facility, and will be made available to State and County officials upon request.



FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

- 1530 — CONTOUR ELEVATION
- FENCE
- LIMITS OF DISTURBED AREA
- ASPHALT
- GRAVEL
- EARTH
- FLOOD ZONE
- CREEK / SWALE
- (E) POWER POLE
- APN — ASSESSOR'S PARCEL NUMBER
- APPROX — APPROXIMATELY
- DWY — DRIVEWAY
- (E) — EXISTING
- (P) — PROPOSED
- RD — ROAD
- SF — SQUARE FEET

NOTES:

1. CONTOUR INTERVAL IS 10'

- (A) (E) RESIDENCE
- (B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)
- (C) (E) GROUNDWATER WELL
- (D) (E) SEPTIC TANK
- (E) (E) 12'x16' WOODEN SHED
- (F) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA
- (G) (E) 2,500-GALLON WATER STORAGE TANK
- (H) (E) 12,000 SF OUTDOOR CULTIVATION AREA
  CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.
- (I) (P) 30'x60' GREENHOUSE
- (J) (P) ADA / EMPLOYEE PARKING
- (K) (P) COMPOSTING AREA
- (L) (P) DESIGNATED REFUSE AREA

PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 ft.

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON R. VAN
No. 67800
EXP. 06/30/19
CIVIL
STATE OF CALIFORNIA

PROPOSED CONDITIONS SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY:
--- --- ---
DATE PLOTTED:
4/19/19
SCALE OF DRAWING:
SEE PLAN
JOB NUMBER:
CADD FILE:
SHEET:
1

FISH AND WILDLIFE PROTECTION

Intent: To minimize adverse impacts to fish and wildlife.

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. These habitats shall be located on a map;
c. A description of the watershed in which the permitted activity is located. A map shall be provided showing the full watershed;
d. Describe how the permittee will minimize adverse impacts on the fish and wildlife; and
e. A map showing the location of any conservation easements or wildlife corridors proposed.

Fish and Wildlife Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Fish and Wildlife Management Plan (FWMP) is designed to minimize any adverse impacts to fish and wildlife, and to ensure that the cultivation operation is in no way destructive to important and/or sensitive habitat. This FWMP includes a description of fish and wildlife that live on, or seasonally inhabit the Project Property, a description of the habitats found on the Project Property, the watershed in which the Project Property is located, and avoidance and protection measures to minimize adverse impacts to fish and wildlife. A wildlife and botanical survey was conducted on the Project Property on April 27th, 2019 by Dr. Christopher DiVittorio of Pinecrest Environmental Consulting, and a Biotic Assessment (attached) was prepared to inform this FWMP. The purpose of the Biotic Assessment was to evaluate the existence of special-status species and/or habitats, as well as assess the potential for special-status species to occur on or near the site of the proposed cultivation operation.

Please see the Biotic Assessment attached to the end of this section for more detailed descriptions of the fish, wildlife, and botanical resources on the Project Property. The information provided in this FWMP is derived from that Biotic Assessment.

Habitats / Natural Communities

The Project Property is located in the Northwestern California region and North Coast Ranges geographic sub-region of the California Floristic Province. It is approximately 75 miles north of San Francisco, CA in southeast Lake County and approximately seven miles south-southeast of Kelseyville, CA. The climate of the area is Mediterranean, characterized by hot dry summers and wet, moderately-cold winters; average temperatures range from a high of 92 °F to a low of 55 °F in the dry summer months to a high of 55 °F and a low of 32 °F in the wet season.

The Project Property sits atop a low ridge that separates Boggs Lake and Harrington Flat Road to the northeast, from Bottle Rock Road and the headwaters of Sweetwater Creek to the southwest. Land uses in the vicinity of the Project Parcel are primarily rural residential, commercial vineyard and orchard, timber production, and chaparral wildlands. Recent land uses for the area of the proposed commercial cannabis cultivation operation are/were rural residential and medicinal cannabis cultivation. The dominant habitat types of the Project Property are Chaparral and Mixed Oak and Pine Woodland. The onsite communities consist

entirely of mixed chaparral and pine woodland, with a small clearing that contains the existing/proposed cultivation area and developed structures.
Please see the Biotic Assessment attached to the end of this section for detailed descriptions of the Chaparral and Mixed Oak and Pine Woodland habitats of the Project Property.

Watershed

The Project Property is located within the the Kelsey Creek – Clear Lake watershed (HUC10), and straddles the divide between the Kelsey Creek and Cole Creek sub-watersheds (HUC12). There are no watercourses or potential wetlands on the Project Property or within 100 feet of the existing/proposed cultivation operation, as it sits on the top of a low ridge with highly porous volcanic soils.

Avoidance and Protection Measures (APMs)

Potential impacts to biological resources as a result of the existing/proposed cultivation operation can be avoided through the implementation of the Operational APMs listed below**. In all cases, if special status species are detected within the Project Area or reasonable buffer zone around the Project, the appropriate regulatory authority (Lake County or CDFW, or both) should be contacted for guidance.**

Floribunda Farms/Michael Blum will implement the following Avoidance and Protection Measures to reduce, avoid, and/or eliminate impacts to special-status plant and wildlife species.

Project Operation APMs

The following activities or preventative measures should be adopted during operations and site management to protect wildlife resources, aquatic organism, and water quality.

- Implement a noxious weed management program;
- Closely monitor the cannabis production facility and adjacent areas for wildlife presence, especially during rain events. Do not attempt to move or otherwise relocate any wildlife species should they appear on site. Allow all wildlife to return to their habitat without assistance.
- Avoid allowing pesticide to drift into areas beyond the cannabis cultivation operations;
- Maintain installed erosion control measures;
- Maintain enrollment the SWRCB Cannabis Waste Discharge Permit Program and adhere to the Best Practicable Treatment and Control (BPTCs) measures designed for the program;
- Maintain State of CA-required buffer zones stream courses.
- All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in trash containers with an adequate lid or cover to contain trash. All food waste should be placed in a securely-covered bin and removed from the site on a weekly basis to avoid attracting animals.
- Vehicles and equipment will be parked on pavement, existing roads or paved road shoulders developed areas, or approved work areas. Vehicles will be confined to public roadways and pre-approved access routes (e.g., private paved and unpaved roads, and overland routes), previously disturbed and unvegetated roadsides, and work areas. Access routes and construction work areas will be limited to the minimum necessary to achieve the project goals.

BIOLOGICAL RESOURCES ASSESSMENT

11444 BOTTLE ROCK ROAD [APN 011-068-23]

LAKE COUNTY, CALIFORNIA

SUBMITTED TO:

California Cannabis Consultants
11444 Bottle Rock Road
Cobb, California 95426

PREPARED BY:

Pinecrest Environmental Consulting
6425 Telegraph Avenue #8
Oakland, California 94609
(510) 881-3039

PROJECT № CCC011

Pinecrest Environmental Consulting

MARCH 24, 2019

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this reconnaissance-level Biotic Resource Assessment (BRA) is to evaluate the existence of special-status species (SSS) and/or habitats, as well as assess the potential for SSS listed in Appendix A to occur on or near the site of commercial cultivation activities, pursuant to applicable regulations from County of Lake and the State of California. This BRA also analyzes the potential for jurisdictional wetlands and other waters of the U.S. to exist onsite, and classifies landforms that may potentially convey sediment to waters of the U.S. including dry creeks, washes, swales, gullys, and other erosional features. Also included is a set of Best Management Practices (BMPs) that are adapted from a variety of sources including State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ and other state and local ordinances.

1.2 PROJECT DESCRIPTION

The proposed project involves permitting of a commercial *Cannabis* cultivation facility on the parcel located at 11444 Bottle Rock Road in unincorporated Lake County near the town of Cobb (Figure 1). The fenced cultivation area measures approximately 10,000 sqft and is located on a slope above a single onsite residence (Figure 3 & 6). The residence and cultivation area accessed by a gravel driveway that extends to the northeast off of Bottle Rock Road that is in good condition, with access restricted by a locked metal gate (Figure 7). There is also a secondary access road that extends to the southwest off of Harrington Flat Road that is locked with a metal gate and not currently used by the owners but is potentially accessible for emergency vehicles (Figure 8).

1.3 LOCATION

1.3.1 Site Overview

The project site is located at 11444 Bottle Rock Road in unincorporated Lake County, 4.7 miles northwest of the community of Cobb, 7.1 miles southeast of the town of Kelseyville, and 9.3 miles west of the town of Lower Lake (Figure 1). The parcel is located to the east of Bottle Rock Road and to the west of Harrington Flat Road, to the southwest of Boggs Lake Preserve (Figure 2). The parcel is accessed via graveled and packed dirt driveway that extends to the northeast from Bottle Rock Road (Figure 6). There is a second locked emergency route that extends to the southwest from Harrington Flat Road as well that is secured with a locked metal gate (Figure 8). The property is designated Assessor's Parcel Number 011-068-23, is 18.78 acres, is zoned Rural Residential (RR), and is under the jurisdiction of the Central Valley (District 5) Regional Water Quality Control Board (RWQCB).

1.3.2 Critical Habitat & Special-Status Species Occurrences

Federal Critical Habitat (FCH) is designated by the U.S. Fish & Wildlife Service (USFWS) and provides special protections for habitats considered important for long-term population persistence of endangered or threatened species. There is no FCH onsite for any animal or plant species. The nearest FCH is located immediately adjacent to the parcel to the northeast associated with habitat for Slender Orcutt grass (*Orcuttia tenuis*) in Boggs Lake. The next nearest FCH is located 4.1 miles southwest of the project parcel for Steelhead (*Oncorhynchus mykiss*) associated with Squaw Creek. The next nearest FCH is located 5.9 miles to the southeast of the project site on the southwest slope of Cobb Mountain associated with habitat for Northern Spotted Owl (*Strix occidentalis*; NSO). There is also FCH for NSO located 18 miles to the southeast in Robert L Stevenson State Park.

Special-status species (SSS) are those species that receive special protections under either local, state, or federal law and include both state and federally endangered and threatened species of animals and plants, as well as candidate listing species and other species or populations of special concern for which additional information is required. The California Natural Diversity Database (CNDDB) provides information on most known SSS occurrences in the State of California. A description of the habitat requirements and likelihood of occurrence of potential SSS on the project parcel based the CNDDB database, published scientific literature, and the expertise of PEC staff, is provided in Appendix A highlighting all SSS known from a 5 mile radius around the project parcel. Additionally, map-based representation of all of the SSS within a approximately 5 mile radius around the project site is provided in Appendix B.

There are no known occurrences of SSS from within the project parcel. The nearest occurrences of SSS animal species are Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*), Obscure bumble bee (*Bombus caliginosus*), and Purple martin (*Progne subis*) located offsite to the northeast in aquatic and marsh habitat surrounding Boggs Lake (Appendix C). The next nearest occurrence of SSS is Foothill Yellow-Legged Frog (*Rana boylii*; FYLF) observed in 1956 located 1.9 miles to the south of the project parcel near Binkley Road (Appendix C). The next nearest occurrence of SSS is Pacific giant salamander (*Dicamptodon ensatus*; PGS) located 2.5 miles southeast of the project parcel in Cobb Valley, observed at an unspecified time. There is also an occurrence of PGS located 3.1 miles to the southeast of the project parcel observed in 1961 in the vicinity of Sulphur Creek. The next nearest occurrence of SSS animal species is Red-bellied newt (*Taricha rivularis*) observed in 1960 located 2.7 miles northwest of the project site near McKinley Road (Appendix C). The nearest occurrence of NSO is located 7.2 miles southeast of the project parcel in Boggs Mtn. Demonstration State Forest.

The nearest occurrences of SSS plant species are a large number of aquatic plants that occur in the specialized volcanic habitat of Boggs Lake including Boggs Lake hedge hyssop (*Gratiola heterosepala*), Watershield (*Brasenia schreberi*), Slender Orcutt grass (*Orcuttia tenuis*), Bolander's horkelia (*Horkelia bolanderi*), Many-flowered Navarretia (*Navarretia leucocephala* spp. *plieantha*), Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*), and Glandular western flax (*Hesperolinon adenophyllum*). Of these species, only Konocti manzanita and Glandular western flax occur in habitats found onsite, namely chaparral and upland mixed oak-conifer forest (Appendix A). The other species are dependent on aquatic habitats provided by Boggs Lake that do not exist on the

project parcel. The next nearest occurrences of SSS plant species are Raiche's manzanita (*Arctostaphylos stanfordiana* ssp. *raichei*) located 2.7 miles east of the project site along the Highway 175 corridor, and Serpentine cryptantha (*Cryptantha dissita*) and Marsh checkerbloom (*Sidalcea oregana* spp. *hydrophila*) located 2.8 miles southeast of the project parcel along Bottle Rock Road near the community of Glenbrook (Appendix C).

1.3.3 Landforms & Water Features

The parcel comprises a low saddle on the ridge top separating Boggs Lake and Harrington Flat Road to the northeast, from Bottle Rock Road and the headwaters of Sweetwater Creek to the southwest (Figure 2). The maximum elevation of the parcel is 3,069 feet above sea level along the southern property line near the top of the ridge, and the minimum elevation is 2,845 feet above sea level at the far northern corner of the parcel along Harrington Flat Road. The entirety (95%) of the parcel is steep, heavily vegetated, closed canopy chaparral and forest, with slopes between 5% and 40%, as measured by handheld clinometer. The remaining 5% is cleared and consists of a flat area near the top of the saddle in the ridge that has slopes between 1% and 5%, that contains the single residence and cultivation area.

There are no blue-line watercourses onsite (Figure 2). Due to the location of the parcel at the top of a ridge the vast majority of water inputs are from direct precipitation. There are no upstream water sources. There are no features onsite that exhibit ordinary high water mark (OHWM) or evidence of scour or sediment transport. All onsite precipitation infiltrates locally, and there are no classifiable streamcourses onsite. Water eventually infiltrates either northeast towards Boggs Lake, or southwest towards the unnamed seasonal channel that comprises the headwaters of Sweetwater Creek (Figure 2).

Although the vast majority of water exiting the property is via subsurface flow, water flowing southwest offsite overland such as during large storm events eventually enters a roadside ditch along Bottle Rock Road and then passes through a ditch relief culvert or passes over the roadway into dense vegetation on the south side of Bottle Rock Road, where it infiltrates fully before reaching the valley floor below, approximately 700 feet offsite to the southwest (Figure 1). There is a large settling basin/stock pond that forms the headwaters of Sweetwater Creek, and from there water drains mostly via subsurface flow towards the northwest. Downstream from the stock pond the flow becomes gradually more channelized, flowing generally northwest and passing through a series of small valleys for 4.3 miles before the confluence with Kelsey Creek. Kelsey Creek then flows north from the confluence with Sweetwater Creek for 10 miles through the town of Kelseyville and enters Clear Lake near Clear Lake State Park (Figure 2).

Clear Lake empties towards the east near the town of Lower Lake and forms Cache Creek, which continues for 80 miles east through deeply incised valleys of the Inner Coast Ranges, then continuing south through Capay Valley and then emerging into the Central Valley, passing beneath I-5 at Yolo, then becoming indistinct and ending just short of the Sacramento River channel at the Yolo Bypass near Fremont. From there water eventually makes its way into the Sacramento River, and flows south for 55 miles through farmland and the City of Sacramento before emptying into Suisun Bay, which continues for another 25 miles before turning into San Pablo Bay, and eventually emptying into the Pacific Ocean (Figure 1).

1.3.4 Existing Structures

There is one residential structure and one detached garage structure onsite (Figure 9). The metal garage measures approximately 1,000 sqft and the residence measures approximately 1,300 sqft. There are also several small tool sheds and a pump house. Barbed wire and/or welded wire fencing surrounds much of the property, although the areas near Bottle Rock Road and Harrington Flat Road are so steep that there is no need for fencing. The cultivation area itself is surrounded by taller fencing comprised of plastic sheeting and welded wire mesh (Figure 12). There is one HDPE water storage tank of approximately 2,500 gal (Figure 10) that is fed via PVC pipe from a groundwater well that is located on the north slope of the ridge and is located in a clearing and accessed via packed earth and gravel road (Figure 11).

Roads onsite are generally in good condition. The main entrance to the parcel is located off of Bottle Rock Road to the northeast via packed earth and gravel driveway (Figure 7) that extends approximately 500 feet up the side of the ridge through dense chaparral before entering the clearing where the residence and cultivation area are located. The driveway and parking area at the top of the ridge is free from obvious rutting or erosion. The road continues over the top of the ridge and passes next to the groundwater well, and continues through closed-canopy Douglas fir forest down the back side of the ridge towards Harrington Flat Road (Figure 7). Access from Harrington Flat Road is controlled via locked metal access gate (Figure 8), although it is possible to use this road during emergencies.

The cultivation area measures approximately 10,000 sqft within the current fenced area, and is composed of a combination of 3 x 3 foot wood raised bed boxes and also roughly 3 foot diameter permeable pots (Figure 12). These boxes and pots are arrayed across the cultivation area in gentle terraces. The overall slope of the cultivation area is approximately 5%. The cultivation area is covered in loose straw mulch for ground cover and a cover crop of annual grasses and clover between and inside the pots.

1.3.5 Regional Land Uses

Land uses in the vicinity of the project parcel are primarily rural residential, commercial vineyard and orchard, timber production land, and chaparral wildlands. The majority of the land regionally is privately owned, with the Mayacamas Mountains to the southwest and Clear Lake to the northeast. Immediately to the northeast of the parcel is the Boggs Lake Preserve owned by CDFW and The Nature Conservancy. To the north and south are private residential parcels and *Cannabis* cultivation sites, while farther to the west are geothermal sites, part of The Geysers power generation facility.

1.4 METHODS

1.4.1 Records Search & Literature Review

Based on a review of the literature and all relevant databases, we compiled a list of special-status plant and animal species that are known to occur within 5 miles of the project site, or that occupy habitats that are known to be present on or near the project site (Appendix A). Sources of information referenced include the California Natural Diversity Database (CNDDB 2019), U.S. Fish and Wildlife Service Environmental Conservation Online System (USFWS 2019), the California Native Plants Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2018), and the knowledge of PEC staff familiar with the species and habitats of Lake County. Additional information on sensitive habitats including wetlands was obtained from the USFWS National Wetlands Inventory (NWI 2018), and County of Lake Geographic Information System Portal (Lake Co. 2019). Plant species included here are State or Federally Endangered or Threatened, and/or considered Rare by CDFW, and/or are recognized as special-status species by the CNPS or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or California Species of Special Concern, and/or Fully Protected species by the CDFW. In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the Migratory Bird Treaty Act (MBTA) and California Fish and Wildlife Code.

1.4.2 Field Surveys

A wildlife and botanical survey was conducted at the site on February 27, 2019. The weather was rainy and the temperature was cool for this time of year, approximately 55 degF in the morning, increasing to 60 degF in the afternoon. Approximately 15" of rain fell in the preceding month which was much higher than normal, thus all of the vegetation was green and many species were flowering. Starting with the central, most easily accessible portion of the property closest to the proposed cultivation area, the entire project site was surveyed on foot by Dr. Christopher T. DiVittorio, recording the location and identity of all plant and animal species encountered. Plant voucher specimens were taken of any species that were not identifiable in the field, and that were not likely to be special-status. The vast majority of species were identifiable at the time of the survey, although some had to be identified based on dry flowering parts.

Photographs and voucher specimens were taken of any plants that were identified solely based on vegetative characters. The field survey was conducted by dividing the outdoor portions of the parcel into zones and cataloging all of the species found in each zone. Each zone was surveyed by walking in parallel lines until the whole zone was covered. Notes were also taken in each zone documenting the general site characteristics and current land uses, as well as any surface erosional features that may require remediation. Botanical specimens were taken back to the laboratory for identification if identification was not possible in the field. If species were not flowering at the time of the survey and morphological characteristics indicated that the species may be special-status, notes were made for a follow-up visit. Birds and nests were identified by call and with binoculars. Vocalizations, scat, tracks, feathers, burrows, nests, and molts were used for identification of animals present onsite. Any onsite aquatic habitats were observed for a minimum of ten minutes without movement in order to observe animals that may hide when approached.

2.0 RESULTS

2.1 NATURAL COMMUNITIES IN THE EVALUATION AREA

Using field surveys, a review of published literature, and the knowledge of PEC staff, all of the natural communities present on and around the project site were assessed. Regionally, the dominant vegetation type is mixed chaparral and pine forest, with grasslands on the alluvial valley floors, and some mixed development in the form of rural residences and vineyards (Figure 4). To the south and west of the project parcel the terrain becomes steep and forested as you increase in elevation in the Mayacamas Mountains. To the north and east the terrain becomes flat and increasingly developed until reaching Clear Lake. Many areas to the south burned in the Valley Fire in 2015, and much of the area to the north burned in the River Fire in 2018.

2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE

The onsite communities consist entirely of mixed chaparral and pine woodland, with a small clearing at the top of the ridge that contains the cultivation area and developed structures (Figure 2). The community descriptions below are organized based on the zones that were surveyed, and the floristic results presented in Appendix B. Overall, the parcel consists of approximately 95% closed canopy chaparral and mixed oak and pine woodland with greater proportion of woodland on the northeast facing slope and greater proportion of chaparral on the southwest facing slope. The remaining 5% of the parcel is developed (Figure 5).

2.2.2 Mixed Oak & Pine Woodland

The northeast side of the ridge contains a higher proportion of tree species, as well as species that are less tolerant of drought and are adapted to the more mesic conditions. Species found in greatest abundance on the north side of the ridge include Interior live oak (*Quercus wislizeni*) to 24" DBH, madrone (*Arbutus menziesii*) to 24" DBH, Douglas fir (*Pseudotsuga menziesii*) to 24" DBH, Ponderosa pine (*Pinus ponderosa*) to 18" DBH, gray pine (*Pinus sabiniana*) to 20" diameter-at-breast-height (DBH), Coast live oak (*Quercus agrifolia*) to 16" DBH, Canyon live oak (*Quercus chrysolepis*) to 14" DBH, black oak (*Quercus kelloggii*) to 12" DBH, poison oak (*Toxicodendron diversilobium*), Himalayan blackberry (*Rubus armeniacus*), wild carrot (*Daucus pusillus*), California bedstraw (*Galium californicum*), bracken fern (*Pteridium aquilinum*), (*Lonicera* spp.), woodland madia (*Ansiocarpus madioides*), California fescue (*Festuca californica*), California sword fern (*Polystichum californicum*), and blue wildrye (*Elymus glaucus*).

2.2.3 Chaparral

The southwest facing slopes contain a greater proportion of shrubby chaparral species, in addition to many of the tree and herbaceous species found on the northeast facing slope and discussed above. Additional species found in the chaparral dominated portions of the parcel include toyon (*Heteromeles arbutifolia*), sticky monkeyflower (*Diplacus aurantiacus*), chamise (*Adenostoma fasciculatum*), common manzanita (*Arctostaphylos manzanita*), leather oak (*Quercus durata*), deer brush (*Ceanothus integerrimus*), buck brush (*Ceanothus cuneatus*), Scotch broom (*Cytisus scoparius*), Yerba Santa (*Eriodictyon californicum*), coyote brush (*Baccharis pilularis*), Western lupine (*Lupinus formosa*), blue wildrye (*Elymus glaucus*), soft chess (*Bromus hordeaceous*), silver hairgrass (*Aira caryophyllea*), cudweed (*Pseudognaphalium beneolens*), dogstail grass (*Cynosurus echinatus*), Zorro fescue (*Festuca myuros*), Italian thistle (*Carduus pycnocephalus*), Harding grass (*Phalaris aquatica*), hayfield tarweed (*Hemizonia congesta*), common madia (*Madia elegans*), and tufted hairgrass (*Deschampsia cespitosa*).

2.2.3 Developed Areas

Developed areas contained primarily ruderal and ornamental species characteristic of small residential and agricultural parcels in this part of Lake County. Species encountered in these areas include foxglove (*Digitaria purpurea*), Fuller's teasel (*Dipsacus fullonum*), rough hedgenettle (*Stachys rigida*), foxtail chess (*Bromus madritensis*), annual stinging nettle (*Urtica urens*), prickly lettuce (*Lactuca serriola*), Shepard's purse (*Capsella bursa-pastoris*), sheep sorrel (*Rumex acetocella*), smooth cat's ear (*Hypochaeris glabra*), slender wild oats (*Avena barbata*), yellow star thistle (*Centaurea solstitalis*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), bentgrass (*Agrostis exarata*), medusahead (*Elymus caput-medusae*), wild parsley (*Torilis arvensis*), spiny sowthistle (*Sonchus asper*), crane's bill geranium (*Geranium molle*), cheeseweed (*Malva parviflora*), hairy bitter cress (*Cardamine hirsuta*), and wild carrot (*Daucus pusillus*).

2.3 WILDLIFE

Due to the cold and rainy conditions present at the time of the survey, few animals were observed actively foraging onsite. Despite this, numerous species were observed both directly and indirectly. Species observed onsite include turkey vulture (*Cathartes aura*), Western blue jay (*Aphelocoma californica*), common crow (*Corvus brachyrhynchos*), Western fence lizard (*Sceloporous occidentalis*), prints of mule deer (*Odocoileus hemionus*), excavation mounds of pocket gopher (*Thomomys bottae*), gray squirrel (*Sciurus griseus*), and Pacific flycatcher (*Empidonax difficilis*).

We also documented any habitats that special-status animals may use for foraging, breeding, or estivation. No suitable habitat for amphibian breeding is available onsite including ponds or watercourses, and there is very poor habitat for estivation near the cultivation site due to the rocky soils and rock outcrops present.

2.4 WETLANDS & STREAMS

There are no potential watercourses subject to CDFW jurisdiction onsite. The location of the site on the top of a ridge top prevents substantial overland water accumulation. Sheet flow rapidly infiltrates into the porous forest soil and leaf matter on the north side of the ridge, and on the south side of the ridge the soil cover is nearly nonexistent, and the rocky substrate is present at or very near the surface, which precludes substantial channel formation since this bedrock layer is highly impervious and not highly fractured. For example, along the side of the driveway approach from Bottle Rock Road, the roadside ditch is limited in depth to approximately 2-4" due to the presence of a solid bedrock floor that creates a pavement-like impervious surface.

There are no potential wetlands subject to ACOE jurisdiction onsite. No portions of the habitat have appreciable cover of hydrophytic vegetation, and there is no evidence of suitable soils or hydrology in any locations onsite. There are no freshwater marshes or other boggy areas associated with springs or seeps, and no streamchannels that have the potential to exhibit high cover of hydrophytic or aquatic riparian vegetation. There are no vernal pools or other temporary isolated ponds such as stock ponds. Although the site is near to Boggs Lake, the property begins where the terrain steepens dramatically to around 25% at the driveway entering the property from Harrington Flat Road, to around 4-0% near the road and at the lake itself. The vegetation changes entirely over this distance, and so the entirety of the parcel would be considered upland habitat.

2.5 SOILS & LOCAL GEOMORPHOLOGY

The parent materials are typical of inner Coast Range mountains of the Lake County subtype, with highly dissected valleys cut into soft Franciscan sediments, with abundant volcanic extrusive and intrusive formations (USGS 1985). Local formations on the project site are mapped entirely as well-drained Collayomi-Aiken-Whispering complex, 30 to 50 percent slopes (#128), with lesser proportions of unnamed volcanic rock outcrops nearby, average soil depth of 24", and 0% of hydric soils. There are no serpentine or other ultramafic rock types onsite and no serpentine derived soils. There are no alkalai or vernal pool soil types onsite despite the proximity to Boggs Lake which is a vernal pool formed by compacted volcanic tuff (ash) deposits.

3.0 SUMMARY & CONCLUSIONS

No special-status plant species were observed during the surveys performed at the site in February 2019. No impacts are predicted for any of the State or Federal special-status plant species in Appendix A based on lack of actual sightings, and lack of suitable habitat in the proposed development areas. Development is proposed to be limited to existing disturbed areas. The redevelopment areas are located on previously stabilized and graded pads and the vast majority of vegetation surrounding these areas was destroyed by the fire. There are no wetlands and no serpentine or other special soil types onsite that would indicate high likelihood of special status species. Despite the high abundance of special-status species in nearby Boggs Lake (Appendix C), these species are adapted to the aquatic vernal pool habitats of the volcanic lake, conditions which do not exist on the project parcel, and not near the project area. The only species that have a significant likelihood of occurrence are Konocti manzanita and Glandular western flax, however neither of these species was observed onsite, and no chaparral is proposed to be removed as part of this project.

No special-status animal species were observed during the surveys performed at the site in October 2018. No impacts are predicted for any State or Federal special-status animal species in Appendix A due to the lack of actual observations and lack of suitable habitat near the proposed redevelopment sites. There is no suitable breeding habitat onsite for any special-status species, and estivation habitat is very poor quality due to the proximity of bedrock to the soil surface. The nearest occurrence of special status amphibian is yellow-legged frog (*Rana boylii*; YLF) located 1.9 miles to the south near Glenbrook Road, with numerous obstacles to migration between this locality and the project parcel, thus there is a very low likelihood that any animals from this location would end up on the project site.

There are no locations that appear to be in need of urgent erosion control, i.e. capable of imminently discharging sediment to any wetlands or waters of the US. Overland routes for sediment to enter Boggs Lake are nonexistent and the entire north slope is densely vegetated with a thick litter layer and no visible scoured channels or ditches present. There are no jurisdictional streamchannels or wetlands onsite to discharge sediment into. The entirety of the site is largely bedrock and dense chaparral, or dense forest with intact litter layer. Erosion prevention measures such as straw mulch should continue to be implemented up to and throughout the winter months as necessary, and as recommended in the attached BMPs (Appendix D).

4.0 REGULATORY FRAMEWORK

4.1 FEDERAL ENDANGERED SPECIES ACT

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally-listed threatened and endangered species under the federal Endangered Species Act (FESA). The USFWS also maintains a list of 'proposed' species and candidate species that are not legally protected under the FESA, but are often included in their review of a project as they may become listed in the near future. The FESA protects listed animal species from harm or "take" which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that results in death or injury to a listed species. An activity can be defined as a "take" even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under FESA if they occur on federal lands. Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed threatened or endangered species (plants and animals) may be present in the project area and determine whether the proposed project may affect such species. Any activities that could result in the take of a federally-listed species will require formal consultation with the USFWS.

4.2 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) protects any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the California Department of Fish and Wildlife (CDFW) has jurisdiction over state-listed species (California Fish and Wildlife Code 2070). Take of state-listed species requires a permit from CDFW, which is granted only under strictly limited circumstances. Additionally, the CDFW maintains lists of "species of special concern" that are defined as animal species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed or proposed endangered or threatened species may be present in the project area and determine whether the proposed project may result in a significant impact on such species.

4.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts, if it finds that the species meets the criteria of a threatened or endangered species.

4.4 CLEAN WATER ACT

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may also be subject to Corps jurisdiction. In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill are sometimes covered by Nationwide Permits, which were established to streamline the permit process for projects with "minimal" impacts on wetlands or other waters of the U.S. An Individual Permit is required for projects that result in more than a minimal impact on jurisdictional areas. The Individual Permit process requires evidence that fill of jurisdictional areas has been minimized to the extent "practicable" and provides an opportunity for public review of the project.

4.5 CALIFORNIA WATER QUALITY REGULATORY PROGRAMS

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB sometimes asserts jurisdiction over wetlands that the Corps does not (e.g. certain isolated wetlands) and may impose mitigation requirements even if the Corps does not. The CDFW also exerts jurisdiction over the bed and banks of watercourses and water bodies according to provisions of Section 1601to1603 of the Fish and Wildlife Code. The Fish and Wildlife Code requires a Stream Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body.

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FIGURE 1: REGIONAL LOCATION

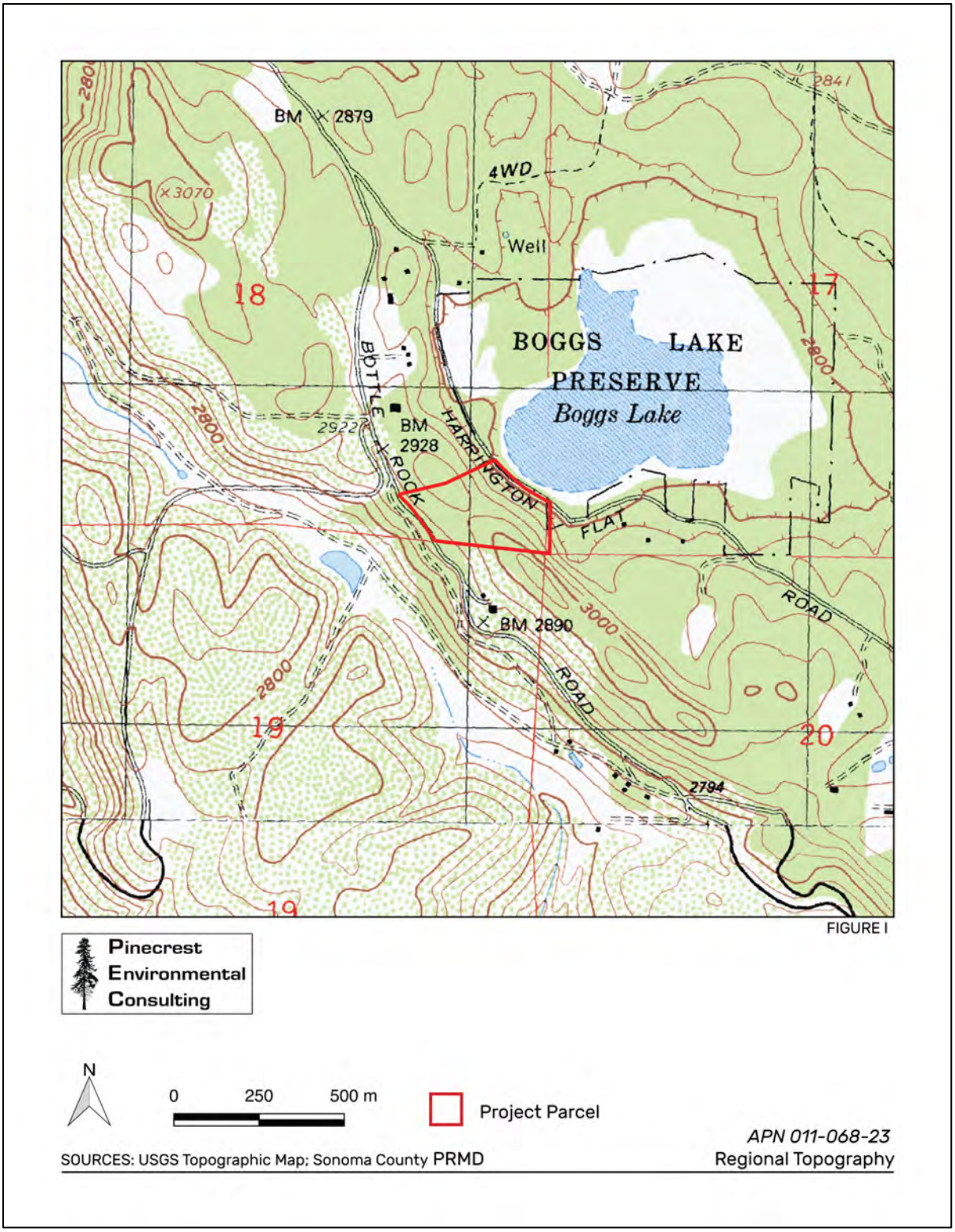

FIGURE 2: 40 FOOT CONTOURS

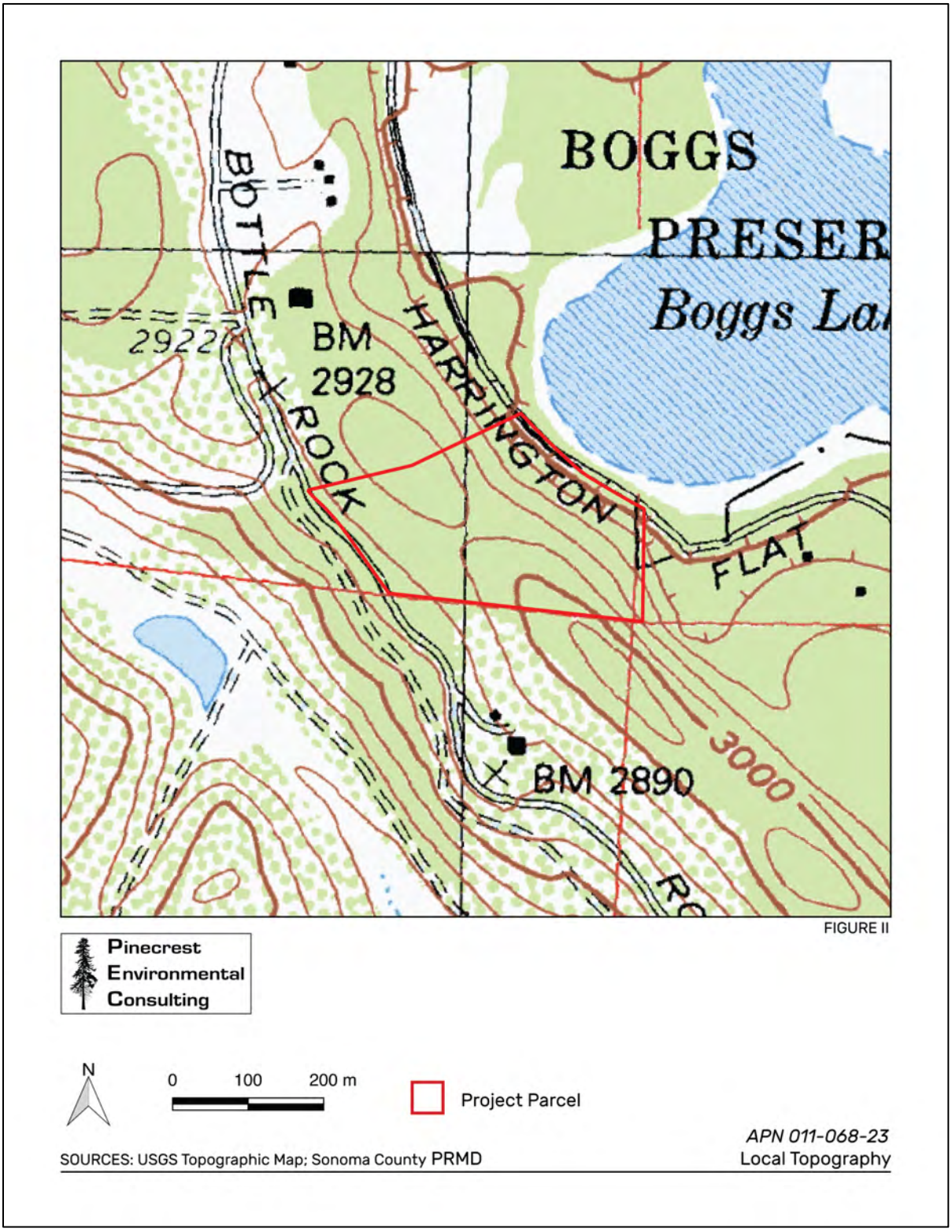

FIGURE 3: BUFFERS & SETBACKS

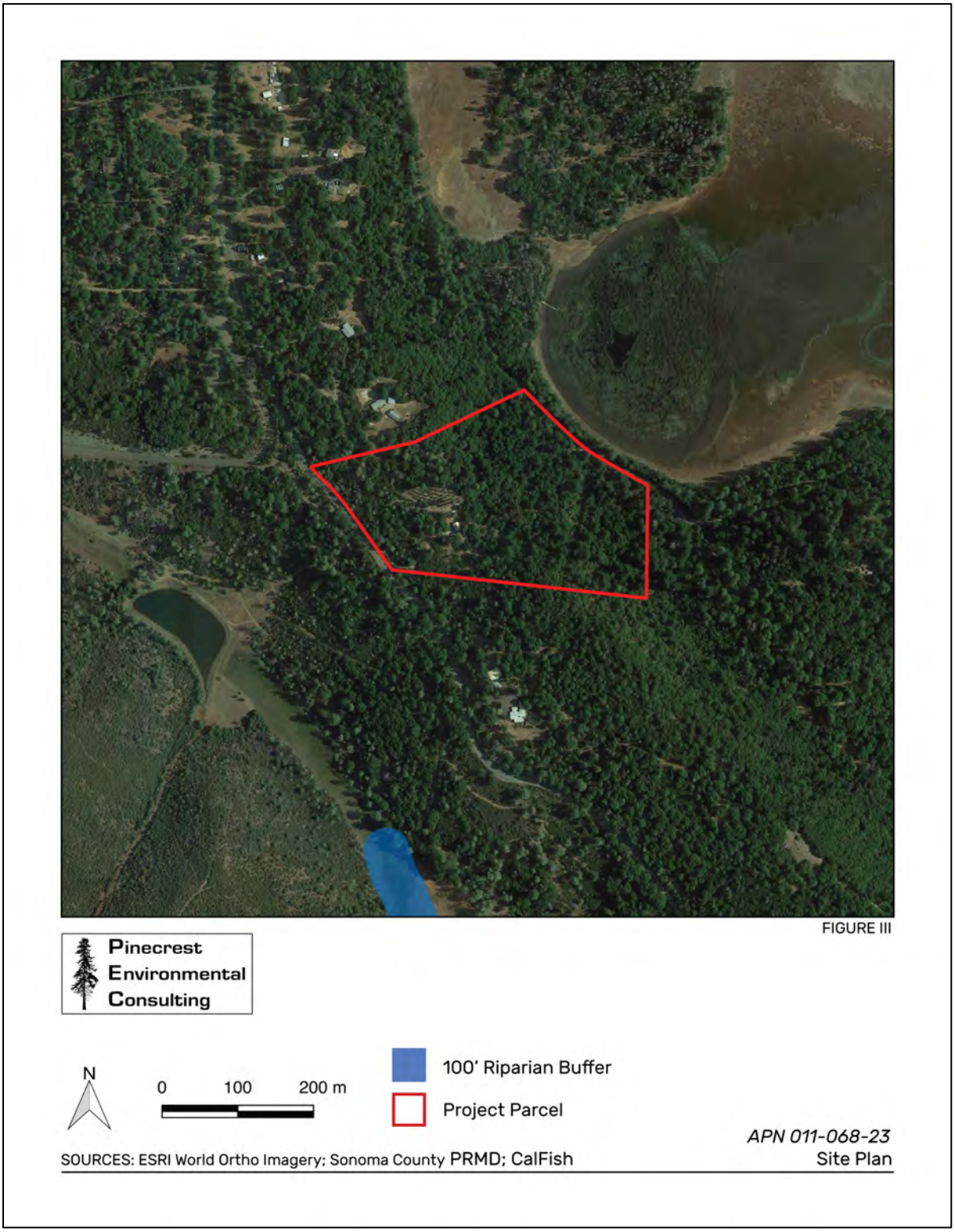

FIGURE 4: REGIONAL COMMUNITY TYPES

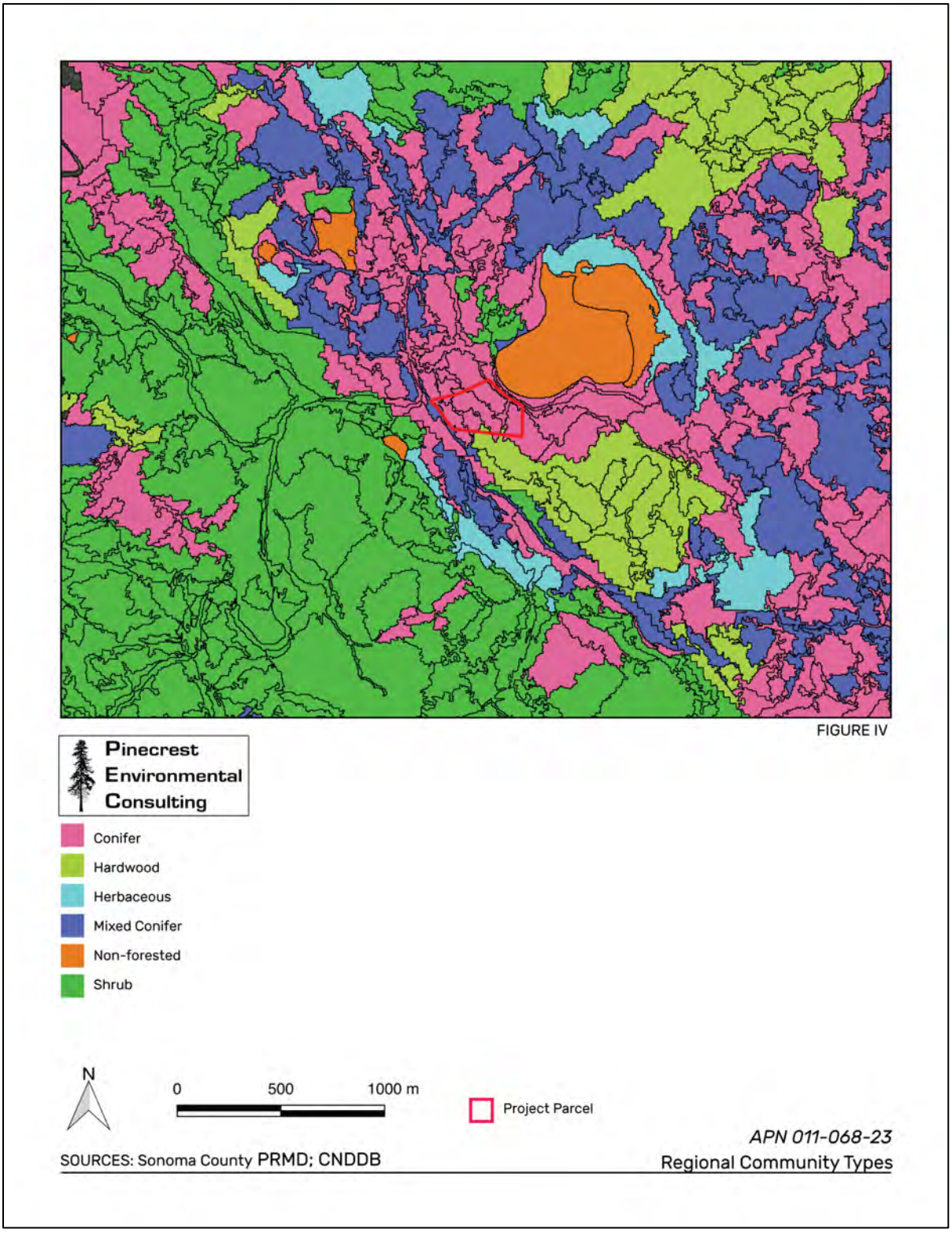

FIGURE 5: ONSITE PLANT COMMUNITIES

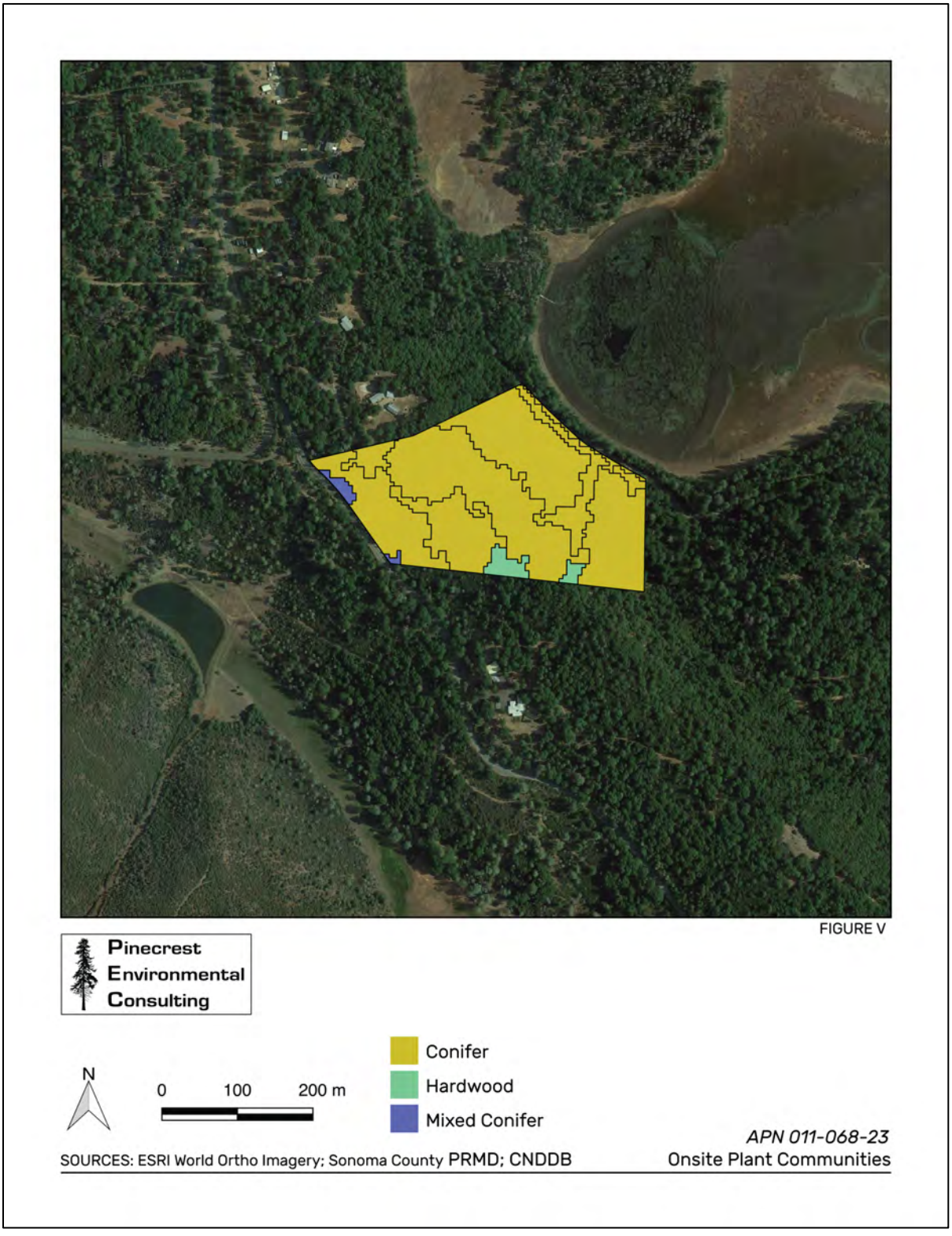

FIGURE 6: PHOTOGRAPH OF MAIN ACCESS ROAD

Pinecrest Environmental Consulting

SOURCES: Pinecrest Environmental

APN 011-068-23
11444 Bottle Rock Road, Cobb, CA 95426

FIGURE 7: PHOTOGRAPH OF ACCESS ROAD

Pinecrest
Environmental
Consulting

APN 011-068-23
11444 Bottle Rock Road, Cobb, CA 95426

SOURCES: Pinecrest Environmental

FIGURE 8: PHOTOGRAPH OF ALTERNATE GATE ON HARRINGTON FLAT

Pinecrest
Environmental
Consulting

APN 011-068-23
11444 Bottle Rock Road, Cobb, CA 95426

SOURCES: Pinecrest Environmental

FIGURE 9: PHOTOGRAPH OF RESIDENCE & GARAGE

Pinecrest
Environmental
Consulting

SOURCES: Pinecrest Environmental

APN 011-068-23
11444 Bottle Rock Road, Cobb, CA 95426

FIGURE 10: PHOTOGRAPH OF WATER STORAGE

Pinecrest Environmental Consulting

SOURCES: Pinecrest Environmental

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FIGURE 11: PHOTOGRAPH OF GROUNDWATER WELL

Pinecrest
Environmental
Consulting

SOURCES: Pinecrest Environmental

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FIGURE 12: PHOTOGRAPH OF CULTIVATION AREA

Pinecrest Environmental Consulting

SOURCES: Pinecrest Environmental

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APPENDIX A: SPECIAL-STATUS SPECIES CONSIDERED

The following is a list of special-status plant and animal species generated based on knowledge of the species and habitats of Lake County by PEC staff, from various State and Federal databases, and from the California Natural Diversity Database (CNDDB). CNDDB occurrences within 5 miles of the project site are shown in bold.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
PLANTS			
Alkalai milk-vetch (*Astragalus tener* var. *tener*)	—/—/1B.2	Valley grasslands, alkali sinks	None: No suitable alkalai habitat exists onsite.
Anthony peak lupine (*Lupinus antoninus*)	—/—/1B.2	Mixed evergreen forest	Very Low: Some forest habitat exists onsite.
Baker's goldfields (*Lasthenia californica* ssp. *bakeri*)	—/—/1B.2	Coastal grasslands	Very Low: Some grassland habitat exists, although this species prefers coastal habitats.
Baker's larkspur (*Delphinium bakeri*)	—/—/1B.1	Coastal scrub	None: No coastal scrub habitat exists onsite.
Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*)	—/—/1B.1	Serpentine chaparral, mixed evergreen forest	None: No serpentine habitat exists onsite.
Baker's meadowfoam (*Limnanthes bakeri*)	—/ST/1B.1	Vernal pools, freshwater wetland	None: No suitable wetland habitat onsite.
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	**—/—/1B.1**	**Vernal pools, riparian woodland**	**None: No vernal pools exist onsite.**
Beaked tracyina (*Tracyina rostrata*)	—/—/1B.2	Valley grassland, foothill woodland	Low: Some grassland habitat exists onsite.
Bent flowered fiddleneck (*Amsinckia lunaris*)	—/—/1B.2	Valley grassland, foothill woodland	Very Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Big scale balsamroot (*Balsamorhiza macrolepis*)	—/—/1B.2	Valley grassland	Low: Some grassland habitat exists onsite.
Big tarplant (*Blepharizonia plumosa*)	—/—/1B.1	Foothill woodland, chaparral	Very Low: Some grassland habitat exists onsite.
Blasdale's bent grass (*Agrostis blasdalei*)	—/—/1B.2	Coastal prairie	Low: Some grassland habitat exists onsite.
Blue coast gilia (*Gilia capitata* ssp. *chamissonis*)	—/—/1B.1	Coastal sand dunes	None: No sand dune habitat exists onsite.
Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)	**—/—/1B.2**	**Freshwater marsh, riparian**	**None: No suitable wetland habitat exists onsite.**
Bolander's horkelia (*Horkelia bolanderi*)	**—/—/1B.2**	**Yellow pine forest, grassland**	**Medium: Some suitable forest habitat exists onsite.**
Brandegee's eriastrum (*Eriastrum brandegeeae*)	**—/—/1B.1**	**Chaparral**	**Low: Some poor quality chaparral habitat exists onsite.**
Bristly sedge (*Carex comosa*)	—/—/2B.1	Freshwater marsh, riparian	None: No suitable wetland habitat exists onsite.
Brownish beaked-rush (*Rhynchospora capitellata*)	—/—/2B.2	Freshwater marsh, riparian	None: No suitable wetland habitat exists onsite.
Burke's goldfields (*Lasthenia burkei*)	**FE/SE/1B.1**	**Vernal pools**	**None: No vernal pool habitat exists onsite.**
California alkalai grass (*Puccinellia simplex*)	—/—/1B.2	Grassland, riparian	None: No alkalai wetland habitat exists onsite.
California beaked-rush (*Rhynchospora californica*)	—/—/1B.1	Freshwater wetlands	None: No wetland habitat exists onsite.
California satintail (*Imperata brevifolia*)	**—/—/2B.1**	**Chaparral, wetlands**	**Low: No suitable habitat exists onsite.**
Calistoga ceanothus (*Ceanothus divergens*)	**—/—/1B.2**	**Chaparral**	**Low: Some chaparral habitat exists onsite.**
Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)	—/—/1B.1	Valley grassland	Very Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Clara Hunt's milk vetch (*Astragalus claranus*)	—/—/1B.1	Chaparral, grassland	Very Low: Some chaparral habitat exists onsite.
Coast lily (*Lilium maritimum*)	—/—/1B.1	Coastal prairie	Low: Some grassland habitat exists onsite.
Coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*)	—/—/1B.2	Coastal prairie	Very Low: Some grassland habitat exists onsite, although this species prefers coastal habitats.
Cobb Mountain lupine (*Lupinus sericatus*)	**—/—/1B.2**	**Chaparral, pine forest**	**Medium: Some chaparral habitat exists onsite.**
Colusa layia (*Layia septentrionalis*)	**—/—/1B.2**	**Chaparral, valley grassland**	**None: No suitable grassland habitat exists onsite.**
Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*)	—/—/1B.1	Valley grassland, wetlands	Very Low: Some grassland habitat exists onsite.
Congested hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	—/—/1B.2	Grassland, coastal scrub	Very Low: Some grassland habitat exists onsite.
Contra Costa goldfields (*Lasthenia conjugens*)	FE/—/1B.1	Vernal pool	None: No vernal pool habitat exists onsite.
Cunningham marsh cinquefoil (*Potentilla uliginosa*)	—/—/1A	Freshwater marsh	None: No suitable wetland habitat exists onsite.
Deceiving sedge (*Carex saliniformis*)	—/—/1B.2	Coastal prairie	Very Low: Some grassland habitat exists onsite.
Deep scarred cryptantha (*Cryptantha excavata*)	—/—/1B.2	Foothill woodland	Very Low: Some grassland habitat exists onsite.
Dimorphic snapdragon (*Antirrhinum subcordatum*)	—/—/4.3	Serpentine, chaparral	None: No serpentine habitat exists onsite.
Dwarf downingia (*Downingia pusilla*)	—/—/2B.2	Vernal pool, freshwater wetland	None: No vernal pool habitat exists onsite.
Dwarf soaproot (*Chlorogalum pomeridianum* var. *minus*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Eel-grass pondweed (*Potamogeton zosteriformis*)	**—/—/2B.2**	**Freshwater wetland, aquatic**	**None: No suitable wetlands exist onsite.**
Fragrant fritillary (*Fritillaria liliacea*)	—/—/1B.2	Freshwater wetland, coastal prairie	None: No suitable wetlands exist onsite, and this species prefers coastal habitats.
Few-flowered navarretia (*Navarretia leucocephala* ssp. *pauciflora*)	**—/—/1B.1**	**Chaparral**	**Low: Some chaparral habitat exists onsite.**
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	—/—/1B.2	Coastal prairie	Very Low: Some grassland habitat exists onsite.
Geysers panicum (*Panicum acuminatum* var. *thermale*)	**—/—/1B.2**	**Chaparral, wetlands**	**Low: Some chaparral habitat exists onsite.**
Glandular western flax (*Hesperolinon adenophyllum*)	**—/—/1B.2**	**Chaparral**	**Medium: Some chaparral habitat exists onsite.**
Golden larkspur (*Delphinium luteum*)	FE/SR/1B.1	Chaparral, coastal prairie	Very Low: Some grassland habitat exists onsite; no chaparral onsite.
Grassleaf water plantain (*Alisma gramineum*)	—/—/2B.2	Wetland, riparian	None: No suitable wetland habitat exists onsite.
Greene's narrow-leaved daisy (*Erigeron greenei*)	—/—/1B.2	Serpentine grassland	None: No serpentine habitat exists onsite.
Hall's harmonia (*Harmonia hallii*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Hoffman's bristly jewelflower (*Streptanthus glandulosus* spp. *hoffmanii*)	—/—/1B.3	Chaparral, foothill woodland	Very Low: Some chaparral habitat exists onsite.
Holly-leaved ceanothus (*Ceanothus purpureus*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*)	—/—/1B.2	Foothill woodland	Very Low: Some woodland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Jepson's coyote thistle (*Eryngium jepsonii*)	—/—/4.2	Wetlands and vernal pools	None: No vernal pool habitat exists onsite.
Jepson's leptosiphon (*Leptosiphon jepsonii*)	—/—/1B.2	Chaparral, serpentine grassland	None: No serpentine chaparral habitat exists onsite.
Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*)	—/—/1B.2	Chaparral, serpentine grassland	Very Low: Some chaparral habitat exists onsite.
Kenwood marsh checkerbloom (*Sidalcea oregana* ssp. *valida*)	FE/SE/1B.1	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*)	**—/—/1B.3**	**Chaparral, foothill woodland**	**High: Some chaparral habitat exists onsite.**
Lake County stonecrop (*Sedella leiocarpa*)	**—/—/1B.1**	**Rock outcrops**	**Low: Some rock outcrop habitat exists onsite.**
Legenere (*Legenere limosa*)	**—/—/1B.1**	**Freshwater wetland, valley grassland**	**None: No suitable wetland habitat exists onsite.**
Livermore tarplant (*Deinandra bacigalupii*)	—/—/1B.1	Grassland	Low: Some grassland habitat exists onsite.
Loch Lomond button-celery (*Eryngium constancei*)	**FE/SE/1B.1**	**Freshwater wetland**	**None: No suitable wetland habitat exists onsite.**
Many-flowered navarretia (*Navarretia leucocephala* spp. *plieantha*)	**—/—/1B.2**	**Vernal pools**	**Very Low: No vernal pool habitat exists onsite.**
Maple leaved checkerbloom (*Sidalcea malachroides*)	—/—/4.2	Coastal prairie, coniferous forest	Very Low: Some grassland habitat exists onsite.
Marin knotweed (*Polygonum marinense*)	—/—/3.1	Coastal salt marsh	None: No coastal salt marsh habitat exists onsite.
Marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*)	**—/—/1B.2**	**Freshwater wetland, riparian**	**None: No suitable riparian habitat exists onsite.**
Marsh microseris (*Microseris paludosa*)	—/—/1B.2	Northern coastal scrub	None: No marsh habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Marsh pea (*Lathyrus palustris*)	—/—/2B.1	Coastal prairie	None: Species only found near the coast.
Milo Baker's lupine (*Lupinus milo-bakeri*)	—/—/1B.1	Foothill woodland, valley grassland	None: No serpentine habitat exists onsite.
Morrison's jewelflower (*Streptanthus morrisonii* ssp. *morrisonii*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Mt. St. Helena morning-glory (*Calystegia collina* ssp. *oxyphylla*)	—/—/4.2	Serpentine chaparral	None: No serpentine habitat exists onsite.
Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*)	—/—/1B.1	Chaparral	Very Low: Some woodland habitat exists onsite.
Napa false indigo (*Amorpha californica* var. *napensis*)	—/—/1B.2	Forest, woodland	Very Low: Some woodland habitat exists onsite.
Narrow-anthered brodiaea (*Brodiaea leptandra*)	—/—/1B.2	Foothill woodland, grassland	None: No suitable wetland or vernal pool habitat exists onsite.
North Coast semaphore grass (*Pleuropogon hooverianus*)	—/—/1B.1	Freshwater wetland, vernal pools	None: No suitable wetland or vernal pool habitat exists onsite.
Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*)	—/—/2B.2	Freshwater wetlands	None: No wetland or pond habitat exists onsite.
Oregon polemonium (*Polemonium carneum*)	—/—/2B.2	Coastal scrub, yellow pine forest	None: No coastal scrub habitat exists onsite.
Oval-leaved viburnum (*Viburnum ellipticum*)	—/—/2B.3	Chaparral	Low: Some chaparral habitat exists onsite.
Pacific gilia (*Gilia capitata* ssp. *pacifica*)	—/—/1B.2	Coastal prairie, woodland, chaparral	Low: Few open areas exist onsite, and species prefers coastal habitats.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	—/—/1B.2	Grassland, wetland	None: No wetland habitat exists onsite.
Pennell's bird's beak (*Cordylanthus tenuis* ssp. *capillaris*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Perennial goldfields (*Lasthenia californica* ssp. *macrantha*)	—/—/1B.2	Northern coastal scrub	Very Low: Some grassland habitat exists onsite.
Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)	—/—/1B.2	Grassland, chaparral	Very Low: Parasitic plant, typical host plants not known from the property, no chaparral onsite.
Petaluma popcornflower (*Plagiobothrys mollis* var. *vestitus*)	—/—/1A	Coastal salt marsh	None: No coastal salt marsh habitat exists onsite.
Pink sand verbena (*Abronia umbellata* var. *breviflora*)	—/—/1B.1	Coastal sand dunes	None: No sand dune habitat exists onsite.
Pitkin Marsh lily (*Lilium pardalinum* ssp. *pitkinense*)	FE/SE/1B.1	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Pitkin Marsh paintbrush (*Castilleja uliginosa*)	FE/SE/1A	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habiat exists onsite.
Point Reyes salty bird's beak (*Chloropyron maritimum* ssp. *palustre*)	—/—/1B.2	Coastal salt marsh	None: No salt marsh habitat exists onsite.
Purple-stemmed checkerbloom (*Sidalcea malviflora* spp. *purpurea*)	—/—/1B.2	Wetlands	None: No suitable wetland habitat exists onsite.
Raiche's manzanita (*Arctostaphylos stanfordiana* ssp. *raichei*)	—/—/1B.1	Coastal scrub	None: No coastal scrub habitat exists onsite.
Raiche's red ribbons (*Clarkia concinna* spp. *raichei*)	—/—/1B.1	Coastal scrub	None: No coastal scrub habitat exists onsite.
Rincon Ridge ceanothus (*Ceanothus confusus*)	**—/—/1B.1**	**Chaparral**	**Medium: Some chaparral habitat exists onsite.**
Rincon Ridge manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*)	—/—/1B.1	Chaparral	Very Low: Some chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Round-headed beaked-rush (*Rhynchospora globularis*)	—/—/2B.1	Freshwater wetlands, riparian	None: No suitable wetland habitat exists onsite.
Round-leaved filaree (*California macrophylla*)	—/—/1B.2	Foothill grassland	Very Low: Some grassland habitat exists onsite.
Saline clover (*Trifolium hydrophilum*)	—/—/1B.2	Wetland, riparian	None: No suitable wetland habitat exists onsite.
San Joaquin spearscale (*Extriplex joaquinana*)	—/—/1B.2	Shadscale scrub, valley grassland	None: No alkalai scrub habitat exists.
Santa Cruz clover (*Trifolium buckwestiorum*)	—/—/1B.1	Coastal prairie	Very Low: Some grassland habitat onsite but species prefers the coast.
Santa Cruz microseris (*Stebbinsoseris decipiens*)	—/—/1B.2	Coastal scrub	None: No coastal scrub habitat exists onsite.
Santa Rosa horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Freshwater wetland, vernal pools	Low: Some chaparral habitat exists onsite.
Santa Cruz microseris (*Stebbinsoseris decipiens*)	—/—/1B.2	Chaparral	None: No chaparral habitat exists onsite.
Sebastopol meadowfoam (*Limnanthes vinculans*)	FE/SE/1B.1	Freshwater wetland, vernal pools	None: No vernal pool habitat exists onsite.
Serpentine cryptantha (*Cryptantha dissita*)	**—/—/1B.2**	**Serpentine chaparral**	**None: No serpentine habitat exists onsite.**
Serpentine daisy (*Erigeron serpentinus*)	—/—/1B.3	Chaparral	Very Low: Some chaparral habitat exists onsite.
Short-leaved evax (*Hesperevax sparsiflora var. brevifolia*)	—/—/1B.2	Coastal prairie	Very Low: Some grassland habitat exists onsite.
Slender Orcutt grass (*Orcuttia tenuis*)	**—/—/1B.1**	**Grassland, freshwater wetlands**	**None: No suitable grassland habitat exists onsite.**
Small-flowered calycadenia (*Calycadenia micrantha*)	—/—/1B.2	Foothill grassland	Low: Some suitable grassland habitat onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Small groundcone (*Kopsiopsis hookeri*)	—/—/2B.3	Redwood forest	None: No redwood forest habitat exists onsite.
Soft salty bird's beak (*Chloropyron molle* ssp. *molle*)	FE/ST/1B.2	Coastal salt marsh	None: No salt marsh habitat exists onsite.
Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*)	FE/—/1B.1	Freshwater wetland, vernal pools	None: No wetland or vernal pool habitat exists onsite.
Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*)	—/—/1B.3	Chaparral	Very Low: Some grassland habitat exists onsite.
Sonoma ceanothus (*Ceanothus sonomensis*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Sonoma spineflower (*Chorizanthe valida*)	—/—/1B.1	Coastal prairie	Low: Some grassland habitat exists onsite.
Sonoma sunshine (*Blennosperma bakeri*)	—/—/1B.1	Valley grassland, freshwater wetland	Very Low: Some grassland habitat exists onsite, although this species prefers wetlands.
Supple daisy (*Erigeron supplex*)	—/—/1B.2	Coastal prairie	Very Low: Some grassland habitat exists onsite.
Swamp harebell (*Campanula californica*)	—/—/1B.2	Coastal prairie, freshwater wetlands	None: No wetlands exist on site, and this species prefers coastal habitats.
The Cedars fairy lantern (*Calochortus raichei*)	—/—/1B.2	Hardpan chaparral	Very Low: Some chaparral habitat exists onsite.
The Cedars manzanita (*Arctostaphylos bakeri* ssp. *sublaevis*)	—/—/1B.2	Hardpan chaparral	Very Low: Some chaparral habitat exists onsite.
Thin-lobed horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Thurber's reed grass (*Calamagrostis crassiglumis*)	—/—/2B.1	Coastal scrub, freshwater wetland	None: No suitable wetland habitat exists onsite.
Torren's grimmia (*Grimmia torenii*)	—/—/1B.3	Forest, woodland	Very Low: Some woodland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Two-carpellate Western flax (*Hesperolinon bicarpellatum*)	**—/—/1B.2**	**Chaparral**	**Low: Some chaparral habitat exists onsite.**
Two-fork clover (*Trifolium amoenum*)	—/—/1B.1	Grassland, wetland	Very Low: Some grassland habitat exists onsite.
Vine Hill ceanothus (*Ceanothus foliosus* var. *vineatus*)	—/—/1B.1	Chaparral	Very Low: Some chaparral habitat exists onsite.
Vine Hill clarkia (*Clarkia imbricata*)	FE/SE/1B.1	Chaparral, grassland	Very Low: Some chaparral habitat exists onsite.
Vine Hill manzanita (*Arctostaphylos densiflora*)	—/SE/1B.1	Chaparral	Very Low: Some chaparral habitat exists onsite.
Watershield (*Brasenia schreberi*)	**—/—/2B.3**	**Pond, wetland**	**None: No pond habitat exists in the project area.**
Western leatherwood (*Dirca occidentalis*)	—/—/1B.2	Foothill woodland, chaparral	Low: Some chaparral or woodland habitat exists onsite.
White beaked-rush (*Rhynchospora alba*)	—/—/2B.2	Wetlands, riparian	None: No suitable wetland habitat exists onsite.
White flowered rein orchid (*Piperia candida*)	—/—/1B.2	Yellow pine forest	Very Low: No suitable forest habitat exists onsite.
Wolly headed gilia (*Gilia capitata* ssp. *tomentosa*)	—/—/1B.1	Coastal prairie	Low: Some grassland habitat exists onsite.
Wolly meadowfoam (*Limnanthes floccosa* ssp. *floccosa*)	**—/—/4.2**	**Vernal pools**	**None: No vernal pool habitat exists onsite.**
MOSSES, LICHENS & LIVERWORTS			
Methuselah's beard lichen (*Dolichousnea longissima*)	—/—/4.2	Old growth conifer and hardwood forests	Medium: Some forest habitat exists onsite.
Slender silver moss (*Anomobryum julaceum*)	—/—/4.2	Rocky substrates in forests	None: No suitable forest habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Coastal triquetrella (*Triquetrella californica*)	—/—/1B.2	Forest, woodland	None: No suitable forest habitat exists onsite.
FISH			
Chinook Salmon Coastal California DPS (*Oncorhynchus kisutch*)	FT/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.
Clear Lake Drainage Resident Rainbow trout (*Oncorhynchus mykiss*)	FE/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.
Clear Lake hitch (*Lavinia exilicauda chi*)	FE/SE/—	Freshwater lakes and streams	None: No suitable streams exist onsite.
Coho Salmon Central California Coast ESU (*Oncorhynchus kisutch*)	FE/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.
Gualala roach (*Lavinia symmetricus parvipinnis*)	—/SSC/—	Freshwater streams	None: No suitable streams exist onsite.
Longfin smelt (*Spirinchus thaleichthys*)	FT/ST/—	Estuaries and coastal lakes	None: No suitable estuary habitat exists onsite.
Navarro roach (*Lavinia symmetricus navarroensis*)	—/SSC/—	Freshwater streams	None: No suitable streams exist onsite.
Sacramento perch (*Archoplites interruptus*)	—/SSC/—	Low gradient sloughs and lakes	None: No suitable habitat exists onsite.
Sacramento splittail (*Pogonichthys macrolepidotus*)	—/SSC/—	Low gradient freshwater streams	None: No suitable streams exist onsite.
Steelhead Central California Coast DPS (*Oncorhynchus mykiss irideus*)	**FT/—/—**	**Freshwater streams, open ocean and estuaries**	**None: No suitable streams exist onsite.**
Steelhead Northern California DPS (*Oncorhynchus mykiss irideus*)	FT/—/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Tidewater goby (*Eucyclogobius newberryi*)	FE/SSC/—	Brackish coastal lagoons and streams	None: No brackish coastal lagoons exist onsite.
AMPHIBIANS & REPTILES			
Alameda whipsnake (*Masticophis lateralis euryxanthus*)	FT/ST/—	Grasslands	None: Some grassland habitat exists onsite, not known from region.
California giant salamander (*Dicamptodon ensatus*)	**—/SSC/—**	**Wetlands and riparian areas**	**Very Low: No suitable wetland habitat exists onsite. Very poor estivation habitat onsite.**
California glossy snake (*Arizona elegans occidentalis*)	—/SSC/—	Grasslands	Very Low: Some habitat exists onsite.
California red-legged frog (*Rana draytonii*)	FT/SSC/—	Vernal pools, seasonal pools, stock ponds, and associated grasslands	None: No suitable habitat exists onsite.
California tiger salamander (*Ambystoma californiense*)	FT/SSC/—	Ponds, streams, drainages, and associated uplands	None: No suitable habitat exists onsite.
Foothill yellow-legged frog (*Rana boylii*)	**—/SSC/—**	**Wetlands, riparian, streams and ponds**	**Low: No suitable breeding habitat onsite. Some very poor estivation habitat onsite.**
Red bellied newt (*Taricha rivularis*)	**—/SSC/—**	**Woodland streams, riparian corridors**	**None: No suitable habitat exists onsite.**
San Joaquin coachwhip (*Masticophis flagellum ruddocki*)	—/SSC/—	Grasslands	None: Some suitable grassland habitat, not known from region.
Western pond turtle (*Emys marmorata*)	**—/SSC/—**	**Slow-moving creeks, streams, ponds, rivers, ditches.**	**None: No pond habitat exists onsite.**
INVERTEBRATES			
Behren's silverspot butterfly (*Speyeria zerene behrensii*)	FE/SSC/—	Coastal prairie	None: Requires blue violet to reproduce; none onsite.
Brownish dubiraphian riffle beetle (*Dubiraphia brunnescens*)	—/SSC/—	Freshwater streams	None: No suitable wetland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
California brackishwater snail (*Tryonia imitator*)	—/SSC/—	Brackish wetlands	None: No suitable wetland habitat exists onsite.
California floater (*Anodonta californiensis*)	—/SSC/—	Freshwater ponds, streams	None: No suitable stream habitat exists onsite.
California freshwater shrimp (*Syncaris pacifica*)	FE/SE/—	Freshwater ponds, streams	None: No suitable vernal pool habitat exists onsite.
California linderiella (*Linderiella occidentalis*)	—/SSC/—	Vernal pools	None: No vernal pool habitat exists onsite.
Clear Lake pyrg (*Pyrgulopsis ventricosa*)	**—/SSC/—**	**Freshwater streams**	**None: No suitable stream habitat exists onsite.**
Crotch bumble bee (*Bombus crotchii*)	—/SSC/—	Grassland and chaparral	Low: Some grassland habitat exists onsite.
Leech's skyline diving beetle (*Hydroporus leechi*)	—/SSC/—	Freshwater ponds	None: No suitable pond habitat exists onsite.
Myrtle silverspot butterfly (*Speyeria zerene myrtleae*)	FE/SSC/—	Coastal prairie, chaparral	None: Requires western dog violet for reproduction; none onsite.
Monarch butterfly California overwintering Population #1 (*Danaus plexippus*)	—/SSC/—	Large trees required for roosting.	None: No suitable trees for roosting onsite.
Obscure bumble bee (*Bombus caliginosus*)	**—/SSC/—**	**Grassland, foothill woodland, chaparral**	**Very Low: No grassland habitat exists onsite.**
Opler's longhorn moth (*Adela oplerella*)	—/SSC/—	Usually associated with *Platystemon* (creamcups)	Very Low: No suitable host plants onsite.
Oregon floater (*Anodonta oregonensis*)	—/SSC/—	High order freshwater streams	None: No suitable stream habitat exists onsite.
Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)	**—/SSC/—**	**Freshwater ponds**	**None: No suitable pond habitat exists onsite.**
Sonoma zerene fritillary (*Speyeria zerene sonomensis*)	—/SSC/—	Grasslands and meadows	None: Requires *Viola* for reproduction; none onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Tomales isopod (*Caecidotea tomalensis*)	—/SSC/—	Ponds and streams	None: No pond or stream habitat exists onsite.
Western bumblebee (*Bombus occidentalis*)	**—/SSC/—**	**Grassland**	**Very Low: No grassland habitat exists onsite.**
Vernal pool andrenid bee (*Andrena blennospermatis*)	—/SSC/—	Upland areas near vernal pools	None: No vernal pool habitat exists onsite.
BIRDS			
American perigrine falcon (*Falco peregrinus anatum*)	—/SSC/—	Forages in open grasslands, nests in trees	Very Low: No suitable nesting habitat exists.
Bank swallow (*Riparia riparia*)	FE/SE/—	Typically found near lakes and streams	None: No suitable stream habitat exists onsite.
Black swift (*Cypseloides niger*)	—/SSC/—	Cliff faces near water	None: No suitable stream habitat exists onsite.
Burrowing owl (*Athene cunicularia*)	—/SSC/—	Grasslands	Very Low: Some suitable grassland habitat exists onsite.
California black rail (*Laterallus jamaicensis coturniculus*)	FE/SE/—	Coastal salt marshes and mudflats	None: No suitable salt marsh habitat exists onsite.
California horned lark (*Eremophila alpestris actia*)	—/SSC/—	Herbaceous vegetation, chaparral	None: No suitable scrub or chaparral habitat exists onsite.
Cooper's hawk (*Accipiter cooperii*)	—/WL/—	Forages over open grassland.	Low: Some suitable foraging habitat exists onsite. No suitable nesting habitat onsite.
Ferruginous hawk (*Buteo regalis*)	—/SSC/—	Forages over open grassland. Nests in old-growth trees.	Low: Little suitable foraging habitat exists onsite. No suitable nesting habitat onsite.
Golden eagle (*Aquila chrysaetos*)	—/SSC/—	Forages over open grassland. Nests in old-growth trees.	Very Low: Little suitable foraging habitat exists onsite. No suitable nesting habitat.
Grasshopper sparrow (*Ammodramus savannarum*)	—/SSC/—	Forages over open grassland.	Low: Some suitable foraging habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Great egret (*Ardea alba*)	FE/SE/—	Nests in trees, forages in wetlands and grasslands	Low: Some suitable habitat exists onsite.
Marbled murrelet (*Brachyramphus marmoratus*)	FT/SE/—	Old growth forest	Very Low: No suitable old growth forest habitat exists.
Northern goshawk (*Accipiter gentilis*)	—/SSC/—	Old growth forest	None: No suitable forest habitat exists onsite.
Osprey (*Pandion haliaetus*)	—/WL/—	Areas with fish	None: No suitable habitat exists onsite.
Purple martin (*Progne subis*)	**FE/SE/—**	**Insectivorous, nests in cavities**	**Medium: Some suitable nesting habitat onsite. Some suitable foraging habitat onsite.**
Ridgway's rail (*Rallus obsoletus obsoletus*)	FE/SE/—	Mudflats and tidal sloughs	None: No suitable tidal habitat exists onsite.
Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)	—/SSC/—	Forages in grasslands and nests in dense freshwater marshes	Very Low: No suitable nesting habitat exists. Some suitable foraging habitat.
San Pablo song sparrow (*Melospiza melodia samuelis*)	—/SSC/—	Forages in grasslands and nests in dense freshwater marshes	Very Low: No suitable nesting habitat exists. Some suitable foraging habitat.
Sharp-shinned hawk (*Accipiter striatus*)	—/SSC/—	Forest and woodland	Very Low: No suitable nesting habitat exists onsite. Some suitable foraging habitat exists onsite.
Tricolored blackbird (*Agelaius tricolor*)	—/SSC/—	Forages in grasslands and nests in dense freshwater marshes	Low: Some suitable nesting habitat exists onsite. Some suitable foraging habitat onsite.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	—/SE/—	Woodland, riparian	Very Low: No suitable nesting habitat exists. Some suitable foraging habitat exists.
White-tailed kite (*Elanus leucurus*)	—/CFP/—	Prefers to nest in marshes adjacent to deciduous forests.	Very Low: No suitable nesting habitat exists. Some suitable foraging habitat exists.
Yellow breasted chat (*Icteria virens*)	—/SSC/—	Dense shrubby growth, farmland.	Low: Some suitable habiat onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Yellow rail (*Coturnicops noveboracensis*)	—/SSC/—	Breeds in marshes, forages in wet meadows.	None: No marsh habiat onsite.
Yellow warbler (*Coturnicops noveboracensis*)	—/SSC/—	Riparian, shrubland, farmland.	Low: Some suitable habiat onsite.
MAMMALS			
American badger (*Taxidea taxus*)	—/SSC/—	Open grassland habitats with plenty of prey.	None: Insufficient habitat complexity exists for this territorial animal.
Big free-tailed bat (*Nyctinomops macrotis*)	—/SSC/—	Forages over open areas, roots in trees or caves	None: Some suitable foraging habitat. No suitable roosts.
Fisher (*Pekania pennanti*)	—/SSC/—	Forages and breeds primarily in forests.	None: No suitable forest habitat.
Fringed myotis (*Myotis thysanodes*)	**—/SSC/—**	**Roosts in caves or buildings and forages in open habitats**	**Very Low: Some suitable foraging habitat. No suitable roosts in project area.**
Hoary bat (*Lasiurus cinereus*)	**—/SSC/—**	**Forages over open areas, roots in trees or caves at high altitude.**	**Very Low: Foraging limited to high altitudes. No suitable roosts in the project area.**
Long-eared myotis (*Myotis evotis*)	**—/SSC/—**	**Roosts in caves or buildings and forages in open habitats**	**Very Low: Some suitable foraging habitat. No suitable roosts in project area.**
Long-legged myotis (*Myotis volans*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	None: Some foraging habitat. No suitable roosts.
North American porcupine (*Erethizon dorsatum*)	**—/SSC/—**	**Require rocky areas or trees for dens, abundant open space for foraging.**	**Very Low: Some suitable foraging habitat. No suitable den habitat.**
Pallid bat (*Antrozous pallidus*)	**—/SSC/—**	**Common in open dry habitats with rocky areas for roosting.**	**Very Low: Some foraging habitat exists. No suitable roosts in the project area.**
Salt marsh harvest mouse (*Reithrodontomys raviventris*)	FE/SE/—	Salt marshes	None: No salt marsh habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE/ST/—	Grasslands	None: Not known from region. No suitable burrowing habitat.
Silver haired bat (*Lasionycteris noctivagans*)	—/SSC/—	Nocturnal, migratory, solitary, roosts in tree cavities.	Low: Some suitable trees exist for roosting. Some foraging habitat exists.
Sonoma tree vole (*Arborimus pomo*)	—/SSC/—	Old growth Douglas fir canopies.	None: No forest habitat exists onsite.
Townsend's big-eared bat (*Corynorhinus townsendii*)	**—/SSC/—**	**Hibernate in mines or caves, roost in man made structures and caves.**	**Very Low: Few man-made structures exist suitable for roosting. Some habitat for foraging.**
Western red bat (*Lasiurus blossevillii*)	**—/SSC/—**	**Forages over open areas, roots in trees or caves.**	**Very Low: No suitable roosting habitat. Some suitable foraging habitat.**
Yuma myotis (*Myotis yumanensis*)	—/SSC/—	Forages over open areas, roots in trees or caves.	Very Low: No suitable nesting habitat exists, some suitable foraging habitat exists.
HABITATS			
Coastal & Valley Freshwater Marsh (CVFM)	—	—	None: No marsh habitat exists onsite.
Coastal Brackish Marsh (CVFM)	—	—	None: No brackish marshes exist onsite.
Northern Coastal Salt Marsh (NCSM)	—	—	None: No salt marsh habitat exists onsite.
Northern Hardpan Vernal Pool (NHVP)	—	—	None: No hardpan vernal pool habitat exists onsite.
Northern Vernal Pool (NVP)	—	—	None: No vernal pool habitat exists onsite.
Sycamore Alluvial Woodland (SAW)	—	—	None: No woodland habitat exists onsite.
Valley Needlegrass Grassland (VNG)	—	—	Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Valley Oak Woodland (VOW)	—	—	None: No valley oaks exist onsite.
Valley Sink Scrub (VSS)	—	—	None: No sink habitat exists onsite.

[1] Status:

Federal
FE = Federally Endangered Species
FT = Federally Threatened Species

State
SE = State Endangered Species
ST = State Threatened Species
SR = State Rare (applies to plants only)
SSC = California Species of Special Concern
CFP = California Fully Protected Species

CNPS (applies to plants only)
List 1B = plants considered rare, threatened, or endangered in California and elsewhere
List 2B = plants rare, threatened or endangered in California, but more common elsewhere
List 4 = plants of limited distribution

[2] USFWS

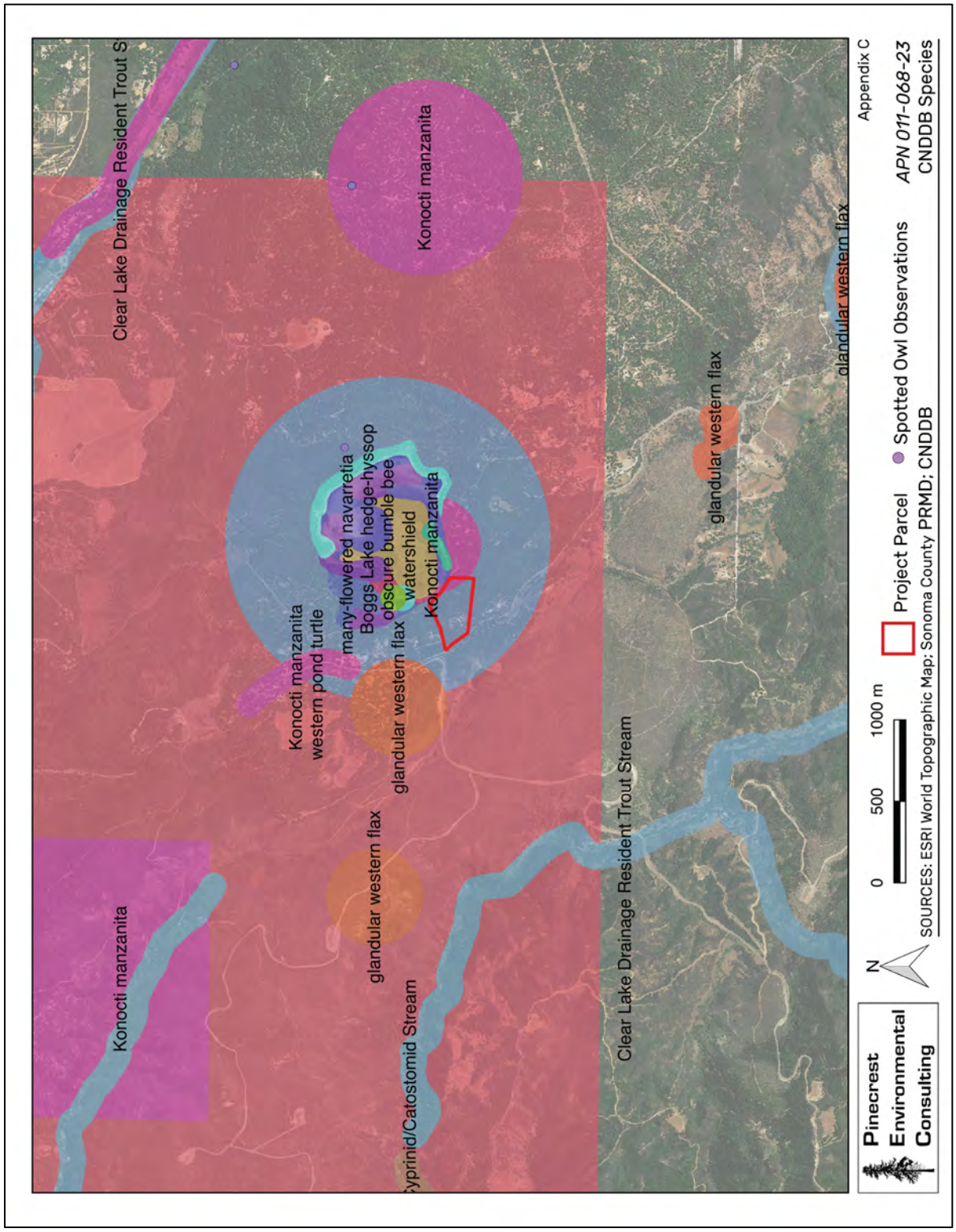
APPENDIX B: SPECIES ENCOUNTERED

PLANTS
Adenostoma fasciculatum
Agrostis exarata
Aira caryophyllea
Ansiocarpus madioides
Arbutus menziesii
Arctostaphylos manzanita
Avena barbata
Baccharis pilularis
Brassica nigra
Bromus diandrus
Bromus hordeaceous
Bromus madritensis
Capsella bursa-pastoris
Cardamine hirsuta
Carduus pycnocephalus
Ceanothus cuneatus
Ceanothus integerrimus
Centaurea solstitalis
Cynosurus echinatus
Cytisus scoparius
Daucus pusillus
Deschampsia cespitosa
Digitaria purpurea
Diplacus aurantiacus
Dipsacus fullonum
Elymus caput-medusae
Elymus glaucus
Eriodictyon californicum
Festuca californica
Festuca myuros
Galium californicum
Geranium molle
Hemizonia congesta
Heteromeles arbutifolia
Hypochaeris glabra
Lactuca serriola
Lonicera
Lupinus formosa
Madia elegans

Malva parviflora
Phalaris aquatica
Pinus ponderosa
Pinus sabiniana
Polystichum californicum
Pseudognaphalium beneolens
Pseudotsuga menziesii
Pteridium aquilinum
Quercus agrifolia
Quercus chrysolepis
Quercus durata
Quercus kelloggii
Quercus wislizeni
Rubus armeniacus
Rumex acetocella
Sonchus asper
Stachys rigida
Torilis arvensis
Toxicodendron diversilobium
Urtica urens

ANIMALS
Aphelocoma californica
Cathartes aura
Corvus brachyrhynchos
Empidonax difficilis
Odocoileus hemionus
Sceloporous occidentalis
Sciurus griseus
Thomomys bottae

APPENDIX C: CNDDB OCCURRENCES MAP


Clear Lake Drainage Resident Trout S
Konocti manzanita
Konocti manzanita
western pond turtle
many-flowered navarretia
Boggs Lake hedge-hyssop
obscure bumble bee
watershield
Konocti manzanita
glandular western flax
glandular western flax
Konocti manzanita
Cyprinid/Catostomid Stream
Clear Lake Drainage Resident Trout Stream
glandular western flax
glandular western flax
Appendix C
Pinecrest Environmental Consulting
N
0
500
1000 m
Project Parcel
Spotted Owl Observations
APN 011-068-23
SOURCES: ESRI World Topographic Map; Sonoma County PRMD; CNDDB
CNDDB Species

APPENDIX D: CANNABIS CULTIVATION BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are designed to prevent, minimize, and control the discharge of waste and pollutants associated with site operations and maintenance for the aforementioned project. Many of these BMPs are considered enforceable conditions under North Coast Regional Water Quality Board Order No. R1-2015-0023 and applicable State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

A.1 CANNABIS CULTIVATION

- Pesticide and fertilizer storage facilities shall be located outside of the Riparian Corridor setbacks for structures.
- Pesticide and fertilizer storage facilities shall not be located within 100 feet of a wellhead, or within 50 feet of identified wetlands.
- Pesticide and fertilizer storage facilities shall be adequate to protect pesticide and fertilizer containers from the weather.
- Store all bags and boxes of pesticides and fertilizers off the ground on pallets or shelves.
- If the structure does not have an impermeable floor, store all liquid pesticides and fertilizers on shelves capable of containing spills or provide appropriate secondary containment.
- Routinely check for leaks and spills.
- Have spill cleanup kit onsite to be able to respond to any leaks or spills.
- Inspect planting stock for pests and diseases prior to planting. Avoid planting stock with pests and disease and notify the supplier of the planting stock of the infestation.
- Comply with all pesticide laws and regulations as enforced by the California Department of Pesticide Regulation and Sonoma County Agricultural Commissioner.
- For pesticides with the signal word CAUTION that have listed food uses, comply with all pesticide label directions as they pertain to personal protective equipment, application method, and rate, environmental hazards, longest reentry intervals and greenhouse and indoor use directions.
- For all other pesticides, use must comply with all label requirements including site and crop restrictions.
- Prior to the use of any registered pesticide on cannabis, Operator Identification Number should be obtained from the County Agricultural Commissioner if required.
- Submit monthly pesticide use reports to the County Agricultural Commissioner if required.

- Prior to applying fertilizers, evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over fertilization.
- Apply fertilizers at label rates and no higher.
- Do not apply fertilizers in a way that will result in runoff that may contaminate ground or surface water or escape via airborne drift or fugitive dust.
- Observe riparian corridor setbacks for agricultural cultivation as applicable. These shall be maintained as "no touch" areas. The removal of vegetation is prohibited within these setback areas.
- No equipment, vehicles, or other materials shall be stored in the riparian setback areas.
- Composting areas shall not be located in the riparian setback areas.
- Irrigation must be conducted in a manner that does not result in runoff from the cultivated area.
- Any water tanks or storage facilities must obtain all necessary permits from the Sonoma County Permit and Resource Management Department (PRMD).
- The use of membrane based water bladders is prohibited.
- If using an irrigation system, inspect for and repair leaks prior to planting each year and continuously during the season.
- Irrigation systems shall be equipped with a backflow prevention devices and shutoff valves.
- Recycle or properly dispose of all plastic bags, containers, and irrigation materials.
- Properly dispose of green waste in a manner that does not discharge pollutants to a watercourse. This may be accomplished by composting, chipping, and/or shredding. The method of green waste disposal must be documented.
- Used growth medium (soil and other organic medium) shall be handled to minimize or prevent discharge of soil and residual nutrients and chemicals to watercourses. Proper disposal could include incorporating into garden beds, spreading on a stable surface and re-vegetating, storage in watertight dumpsters, or covering with tarps or plastic sheeting prior to proper disposal. The method of disposal must be documented.
- Compost piles are to be located outside of riparian setbacks for agricultural cultivation and in a manner that will not discharge pollutants to a watercourse. If necessary, construct a berm or install fiber roll around compost area to prevent runoff or use straw wattles around perimeter.
- Cover compost piles with tarp or impermeable surface prior to fall rains and continuously throughout the rainy season.
- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Avoid soil disturbance between November 1 and April 15 and during times of active precipitation.

- All exposed and disturbed soil must be covered with a minimum of 2 inches of mulch, such as straw, bark, wood chips, etc., by November 15. Alternatively, establish a thick cover crop over disturbed areas composed of native species.
- Erosion control materials shall be available on site at all times in the form of straw or appropriate mulch adequate to cover area of disturbed soil.
- In the event of a forecast storm event likely to produce runoff, apply mulch to disturbed areas prior to rain event.
- Any grading or drainage conducted as part of site preparation shall have the appropriate permits from the Sonoma County PRMD.

A.2 EROSION & SEDIMENT CONTROL

- Erosion control and sediment detention devices and materials shall be incorporated into the cleanup/restoration work design and installed prior to the end of project work and before the beginning of the rainy season or any predicted rain events.
- Any continuing, approved project work conducted after October 15 shall have erosion control measures completed and up-to-date.
- All erosion control measures shall be inspected daily during severe rain events.
- Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
- Approved project work within the 5-year flood plain shall not begin until all temporary erosion controls (straw bales or silt fences that are effectively keyed-in) are installed downslope of cleanup/restoration activities.
- Native species appropriate to the local habitat shall be used for all revegetation purposes. Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
- Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
- The disturbed area will be minimized at all times to only that which is essential for the completion of the project.
- Provide temporary cover over disturbed areas that are not currently being worked on.
- Heavy equipment shall not be used in flowing water.
- Use of heavy equipment shall be avoided or minimized in a channel bottom with rocky or cobbled substrate.
- Heavy equipment shall not introduce chemicals or foreign sediment to the channel (e.g., remove mud from tracks or cover channel work area with plastic sheeting prior to heavy equipment entry).
- When heavy equipment is used, any woody debris and stream bank or streambed vegetation disturbed shall be replaced to a pre-project density with native species appropriate to the

site.

- When possible, existing ingress or egress points shall be used or work shall be performed remotely from the top of the creek banks.
- Divert runoff away from unprotected slopes or loose soils using a combination of mats, geotextiles, silt fencing, wattling, check dams, sediment basins, vegetated buffers, or rock armor.
- Deploy appropriate erosion control measures such as silt fencing or straw wattles around all temporary exposed piles or soil or surface disturbances.
- All temporary exposed piles or soil or surface disturbances shall have tarping and sand bags or other stabilization materials deployed in order to prevent discharge of sediments in the event of a rain or wind event.
- Geotechnical fabric shall be deployed on all exposed dirt surfaces with a slope of greater than 15% and staked in place during ground disturbing activities, and silt fencing deployed on slopes of greater than 15% where appropriate.
- Sand bags, straw bales, or other devices shall be placed at appropriate locations near and alongside the roadsides and swales in anticipation of large storm events.
- Bioswales and cultivation areas including parking areas shall be maintained free of trash including empty soil and pesticide or fertilizer containers.
- Locations of sediment sources shall be identified during rain events and mitigated where appropriate.
- Protect ditch inlets and outlets from erosion using rock armor.
- Silt fencing shall be installed downstream of rock piles, stockpiles, and temporary soils storage areas.
- Desilting or retention basins shall be installed if the capacity of the natural percolation exceeds the inputs during routine storm events.
- Sediment traps shall be used on all exposed driveway surfaces where natural vegetation is not able to be established.
- Exposed unvegetated surfaces will be graveled where appropriate.
- Rock placed for slope protection shall be the minimum necessary to avoid erosion, and shall be part of a design that provides for native plant revegetation and minimizes bank armoring.
- Soil exposed as a result of project work, soil above rock riprap, and interstitial spaces between rocks shall be revegetated with native vegetation by live planting, seed casting, or hydroseeding prior to the rainy season of the year work is completed.
- Avoidance of earthwork on steep slopes and minimization of cut/fill volumes, combined with proper compaction, shall occur to ensure the area is resilient to issues associated with seismic events and mass wasting. If cracks are observed, or new construction is anticipated, consultation with a qualified professional is recommended.
- Culvert fill slopes shall be constructed at a 2:1 slope or shall be armored with rock.

- If it is necessary to conduct work in or near a live stream, the work space shall be isolated to avoid project activities in flowing water.
- Any spoils associated with site maintenance shall be placed in a stable location where it cannot enter a watercourse.
- Sidecasting shall be minimized and shall be avoided on unstable areas or where it has the potential to enter a watercourse.
- Entrance to the project site shall be maintained in a condition that will prevent tracking or flowing of sediment into the public right-of-way.
- All sediment spilled, dropped, washed, or tracked onto the public right-of-ways shall be removed immediately.
- When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-ways.
- When wheel washing is required, it shall be done in an area stabilized with crushed stone that drains into a sediment trap fitted with appropriate erosion control measures.
- To control surface water runoff in and around cultivation areas use fiber rolls or wattling and stake appropriately and perpendicular to the flow path.
- Cover crops should be utilized on all exposed slopes that are not able to be protected by other means.
- Cover crops should be native species as described in the associated biological resources report.
- Rip compacted soils prior to placing spoils to prevent the potential for ponding under the spoils that could result in spoil site failure and subsequent sedimentation.
- Compact and contour stored spoils to mimic the natural slope contours and drainage patterns to reduce the potential for fill saturation and failure.
- Ensure that spoil materials are free of woody debris, and not placed on top of brush, logs or trees.
- Inspect all roads and culverts regularly for blockages.

A.3 WATER USE & POLLUTION

- Ensure that all appropriate water rights permits are filed with the State Water Resources Control Board.
- Notify the California Department of Fish and Wildlife by submitting a Lake and Streambed Alteration (LSA) notification package if the proposed activities involve substantial diversion from or alteration of the bed or bank of a stream or other waterbody.
- Ensure that all water storage features are permitted from the Department of Water Rights if necessary.

- All refueling and pesticide and chemical storage and transfer shall occur greater than 100 feet away from any swales, creeks, or natural areas.
- All refueling and pesticide and chemical storage and transfer shall occur on top of an impermeable metal or other fabric mat that is no less than 2 inches high on all sides and capable of completely containing any spillage.
- Concrete truck and other vehicles shall not be washed out in natural areas or directly onto soil and shall be washed out into a metal or other impermeable basin and disposed of properly such that no water is discharged to the soil.
- All waste shall be kept in plastic drums with tight fitting lids so that water is not able to make contact with the contents and potentially leach to the environment.
- All pesticide sprays shall occur on windless nights for outdoor facilities.
- Chemical or fertilizer wastes shall never be disposed of into swales or creeks and shall be contained inside closed-roof facilities and designated with appropriate labeling until it is possible to dispose of properly.
- Septic leach fields and graywater mulch fields shall be maintained free of large vegetation and not used for aboveground storage that may impact their proper functioning.
- Chemical contamination (fuel, grease, oil, hydraulic fluid, solvents, etc.) of water and soils is prohibited during routine equipment operation and maintenance.
- The use or storage of petroleum-powered equipment shall be accomplished in a manner that prevents the potential release of petroleum materials into waters of the state (Fish and Game Code 5650).
- Schedule excavation and grading activities for dry weather periods.
- Designate a contained area for equipment storage, short-term maintenance, and refueling. Ensure it is located at least 50 feet from waterbodies.
- Inspect vehicles for leaks and repair immediately.
- Clean up leaks, drips and other spills immediately to avoid soil or groundwater contamination.
- Conduct major vehicle maintenance and washing offsite.
- Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste offsite.
- Ensure that all construction debris is taken to appropriate landfills and all sediment disposed of in upland areas or offsite, beyond the 100-year floodplain.
- Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. If necessary for dust control, use only a minimal amount of water.
- Sweep up spilled dry materials immediately.
- Separate organic material (e.g., roots, stumps) from the dirt fill and store separately. Place this material in long-term, upland storage sites, as it cannot be used for fill.
- Spoils shall not be placed or stored in locations where soils are wet or unstable, or where slope stability could be adversely affected.

- Do not locate spoil piles in or immediately adjacent to wetlands and watercourses.
- Store spoil piles in a manner (e.g. cover pile with plastic tarps and surround base of pile with straw wattle) or location that would not result in any runoff from the spoil pile ending up in wetlands and watercourses.
- Keep temporary disposal sites out of wetlands, adjacent riparian corridors, and ordinary high water areas as well as high risk zones, such as 100-year floodplain and unstable slopes.
- Conduct operations on a size and scale that considers available water sources and other water use and users in the planning watershed.
- Implement water conservation measures such as rainwater catchment systems, drip irrigation, mulching, or irrigation water recycling where possible.
- Hauled water utilized for irrigation shall be documented via receipt or similar, and show the date, name, and license plate of the water hauler, and the quantity of water purchased.
- If using a water storage tank, do not locate the tank in a flood plain or next to equipment that generates heat. Locate the tank so it is easy to install, access, and maintain.
- Vertical tanks should be installed according to manufacturer's specifications and placed on firm, compacted soil that is free of rocks/sharp objects and capable of bearing the weight of the tank and its maximum contents.
- Install float valves on tanks to prevent them from overflowing.
- Place proper lining or sealing in ponds to prevent water loss.

A.4 ROAD MAINTENANCE & GENERAL CONSTRUCTION

- Always limit work to the appropriate work date windows considering wet weather, migratory bird and other biological and environmental constrains that may be placed on the project.
- Proper design and location of roads and other features is critical to ensuring that a road or other feature be adequately drained and is best accomplished through consultation with a qualified professional.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- If inspection identifies surface rills or ruts, then surfacing and drainage likely needs maintenance. Consultation should be made with a licensed professional to design appropriate erosion control strategies.
- Design of roads should allow for sheet flow of water and use water bars and rolling dips to break up slope length.
- Vehicle speed shall be kept to a maximum of 10 mph while onsite to minimize dust generation.
- All unvegetated and unpaved roadways and vehicle turnarounds shall be graveled to a depth of not less than 1" in order to prevent dust and sediment entrainment.

- Applicant will use geotechnical fabric or similar materials on exposed slopes, and distribute weed-free straw mulch wherever possible on exposed surfaces on the perimeter of all graded roads and graveled areas.
- Roads and the berms alongside all roads shall be maintained free of headcuts, gullies, stutter bumps, and other erosion features capable of discharging sediment to adjacent grassland areas.
- Roads will be graveled with clean rock whenever required to prevent dust and sediment erosion during the wet season.
- Whenever possible, road maintenance activities shall be performed from May 1 to October 15.
- Work performed outside of this window should take extra precautions for winter weather erosion control prevention beyond that which is described in this Plan.
- A 48 hour advance forecast for rain shall trigger a temporary cessation of work, and all soils piles will need to be covered and secured with sandbags or other materials.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- Whenever feasible, finished grades shall not exceed 1.5:1 side slopes. In circumstances where final grades cannot achieve 1.5:1 slope, additional erosion control or stabilization methods shall be applied as appropriate for the project location.
- Spoils and excavated material not used during project activities shall be removed and placed outside of 100-year floodplains.
- Upon completion of grading, slope protection of all disturbed sites shall be provided prior to the rainy season through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock, or equivalent.
- Position vehicles and other apparatus so as to not block emergency vehicle access.
- After construction is complete, all storm drain systems and culverts shall be inspected and cleared of accumulated sediment and debris.
- Sediment barriers including wattles and silt fencing should be checked for sediment accumulation following each significant rainfall and sediment removed or the feature replaced as needed.
- Road drainage shall be discharged to a stable location away from a watercourse.
- Use sediment control devices, such as check dams, sand/gravel bag barriers, and other acceptable techniques, when it is neither practical nor environmentally sound to disperse ditch water immediately before the ditch reaches a stream.
- Within areas with potential to discharge to a watercourse (i.e. within riparian areas of at least 200 feet of a stream) road surface drainage shall be filtered through vegetation, slash, or other appropriate material or settled into a depression with an outlet with adequate drainage.

A.5 SWALE & VEGETATION MANAGEMENT

- The work area shall be restored to pre-project work condition or better.
- Any stream bank area left barren of vegetation as a result of cleanup/restoration activities shall be stabilized by seeding, replanting, or other means with native trees, shrubs, and/or grasses appropriate to the site prior to the rainy season in the year work was conducted.
- Ensure that vegetated swales are properly formed, allow moderate velocity water passage without causing sediment entrainment, and are otherwise functioning properly.
- Create and expand vegetated bioswales where necessary, should additional construction or road maintenance be required, in order to maintain flow without scour.
- All bioswales and other drainage features requiring revegetation will be seeded with native vegetation and lawns and hedgerows maintained in good health and watered in dry years.
- Vegetation including grasses shall be mowed as necessary to create fire breaks and to prevent the accumulation of fuels that would be able to sustain a ground fire.
- All vegetation shall be surveyed on foot once a year by staff and new outbreaks of any invasive weeds identified by the California Invasive Plant Council as noxious or invasive to be removed by the owner or qualified landscaping professionals.
- Channels and swales that show evidence of overland flow and scour (e.g. bare of vegetation) shall be seeded with native grasses such as *Stipa pulchra*, *Hordeum brachyantherum*, *Elymus glaucus*, and *Bromus carinatus*, and kept vegetated at all times.
- If shrubs and non-woody riparian vegetation are disturbed, they shall be replaced with similar native species appropriate to the site.
- Disturbance to native shrubs, woody perennials or tree removal on the streambank or in the stream channel shall be avoided or minimized.
- If riparian trees over six inches dbh (diameter at breast height) are to be removed, they shall be replaced by native species appropriate to the site at a 3:1 ratio.
- Where physical constraints in the project area prevent replanting at a 3:1 ratio and canopy cover is sufficient for habitat needs, replanting may occur at a lesser replacement ratio.
- Vegetation planting for slope protection purposes shall be timed to require as little irrigation as possible for ensuring establishment by the commencement of the rainy season.
- The spread or introduction of exotic plant species shall be avoided to the maximum extent possible by avoiding areas with established native vegetation during cleanup/restoration activities, restoring disturbed areas with appropriate native species, and post-project monitoring and control of exotic species.
- Removal of invasive exotic species after construction activities is strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling) of exotics shall be done in preparation for establishment of native plantings.
- Where permanent soil stabilization is required a locally-appropriate mix of native grass species shall be used such as a mix containing *Nassella pulchra*, *Hordeum*

brachyantherum, *Elymus glaucus*, and *Bromus carinatus* or as described in the site's Biological Resources Assessment.

- Entire cultivation site shall be seeded and maintained as a permanent non-tilled cover crop during non-usage times. Straw mulch shall be used where native seeding is not practicable.
- Use mulches (e.g. wood chips or bark) in cultivation areas that do not have ground cover to prevent erosion and minimize evaporative loss.
- Mulch shall be applied at a rate of 4000 lbs / acre and seeding shall be applied to achieve 70% cover in the first year or approximately 200 lbs / acre.
- Annual inspections for the purpose of assessing the survival and growth of revegetated areas and the presence of exposed soil shall be conducted for three years following project work.
- Dischargers and/or their consultant(s) or third party representative(s) shall note the presence of native/non-native vegetation and extent of exposed soil, and take photographs during each inspection.
- Dischargers and/or their consultant(s) or third party representative(s) shall provide the location of each work site, pre- and post-project work photos, diagram of all areas revegetated and the planting methods and plants used, and an assessment of the success of the revegetation program in the annual monitoring report as required under relevant state and local water board regulations.

A.6 IRRIGATION & CULTIVATION MANAGEMENT

- Cultivation-related waste shall be stored in a place where it will not enter a stream.
- Soil bags and other garbage shall be collected, contained, and disposed of at an appropriate facility, including for recycling where available.
- Pots shall be collected and stored where they will not enter a waterway or create a nuisance.
- Plant waste and other compostable materials be stored (or composted, as applicable) at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.
- Imported soil for cultivation purposes shall be minimized. In the event that containers (e.g. grow bags or grow pots) are used for cultivation, reuse of soil shall be maximized to the extent feasible.
- Spent growth medium (i.e. soil and other organic medium) shall be handled to minimize discharge of soil and residual nutrients and chemicals to watercourses. Proper handling of spent soil could include incorporating into garden beds, spreading on a stable surface and revegetation, storage in watertight dumpsters, covering with tarps or plastic sheeting prior to proper disposal.
- Trash containers of sufficient size and number shall be provided and properly serviced to contain the solid waste generated by the project.

- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Use lined bins or dumpsters to reduce leaking of liquid waste. Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash. Consider using refuse containers that are bear-proof and/or secure from wildlife.
- Refuse shall be removed from the site on a frequency that does not result in nuisance conditions, transported in a manner that they remain contained during transport, and the contents shall be disposed of properly at a proper disposal facility.
- Ensure that human waste disposal systems do not pose a threat to surface or ground water quality or create a nuisance. Onsite treatment systems should follow applicable County ordinances for human waste disposal requirements, consistent with the applicable tier under the State Water Resources Control Board Onsite Waste Treatment System Policy.
- Install buffer strips, bioswales, or vegetation downslope of cultivation areas to filter runoff of chemicals from irrigation.
- Irrigate at rates to avoid or minimize runoff.
- Regularly inspect and repair leaks in mains and laterals, in irrigation connections, or at the ends of drip tape and feeder lines.
- Design irrigation system to include redundancy (i.e., safety valves) in the event that leaks occur, so that waste of water is prevented and minimized.
- Recapture and reuse irrigation runoff (tailwater) where possible, through passive (gravity-fed) or active (pumped) means.
- Construct retention basins for tailwater infiltration; percolation medium may be used to reduce pollutant concentration in infiltrated water. Constructed treatment wetlands may also be effective at reducing nutrient loads in water.
- Ensure that drainage and/or infiltration areas are located away from unstable or potentially unstable features.
- Regularly replace worn, outdated or inefficient irrigation system components and equipment.
- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over-fertilization.
- All chemicals shall be stored in a manner, method, and location that ensures that there is no threat of discharge to waters of the State.
- Products shall be labeled properly and applied according to the label.

- Use integrated pest management strategies that apply pesticides only to the area of need, only when there is an economic benefit to the grower, and at times when runoff losses are least likely.
- Periodically calibrate pesticide application equipment.
- Use anti-backflow devices on water supply hoses, and other mixing/loading practices designed to reduce the risk of runoff and spills.
- Petroleum products shall be stored with a secondary containment system such as a pan or a tub
- Throughout the rainy season, any temporary containment facility shall have a permanent cover and side-wind protection, or be covered during non-working days and prior to and during rain events.
- Materials shall be stored in their original containers and the original product labels shall be maintained in place in a legible condition. Damaged or otherwise illegible labels shall be replaced immediately.
- Bagged and boxed materials shall be stored on pallets and shall not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials shall be covered during non-working days and prior to rain events.
- Have proper chemical and fertilizer storage instructions posted at all times in an open and conspicuous location.
- Prepare and keep a spill prevention and cleanup plan onsite when dealing with any hazardous materials.
- Keep ample supply of appropriate spill clean-up material near storage areas.
- Plant cover crops to boost soil fertility, improve soil texture, and protect from storm caused sediment runoff.

OPERATIONS MANUAL

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.

This section shall include the following:

a. Authorization for the County, its agents, and employees, to see 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;
b. A description of the staff screening processes;
c. The hours and days of the week when the facility will be open;
d. Description of measures taken to minimize or offset the carbon footprint from operational activities;
e. Description of chemicals stored, used and any effluent discharged as a result of operational activities;
f. 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 so as to prevent contamination in areas where cannabis products may be exposed to such a system's waste or waste by-products.

If the lot of record is bordered by grounds outside the applicant's control that are not maintained in the manner described in subsections (i) through (iv) 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.

Operations Manual

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Operations Manual is designed to outline the operating procedures for the proposed commercial cannabis cultivation operation to ensure compliance with the use permit(s), protect the public health, safety and welfare, as well as the natural environment of Lake County. This Operations Manual includes authorizations for Lake County officials to verify all information in the proposed operation's Use Permit, a description of Floribunda Farms/Michael Blum's staff screening process, the hours and days of cultivation related activities for the proposed operation, measures to minimize the operation's carbon footprint, chemicals stored and used onsite, a description of how the Project Property will be maintained, and a description of how Floribunda Farms/Michael Blum will comply with the requirements of the California Cannabis Track-and-Trace system.

Official Authorizations

Floribunda Farms/Michael Blum authorizes the County of Lake, its agents, and employees, to seek verification of the information contained within the Use Permit Application package, the Operations Manual, and the Operating Standards for the proposed cannabis cultivation operation at 11444 Bottle Rock Road, Kelseyville, CA at any time before or after a Use Permit is issued. All information contained in this Use Permit Application package is currently available for viewing, and will remain viewable in a physical and digital format given to the County of Lake and its agents/employees and kept at the project site.

Staff Screening

All employees must undergo a background check by the Lake County Sheriff's Department before starting employment. Floribunda Farms/Michael Blum will not employ individuals that have convictions of an offense that is substantially related to the qualifications, functions, or duties of the proposed cultivation operation, unless the Sheriff determines that the individual would not compromise the operation or public safety after a thorough review of the crime, conviction, circumstances, and evidence of rehabilitation. All staff must be a United States citizen or eligible for employment within the US.

Facility Hours of Operation

The proposed cultivation operation will be closed to the public. The core operating/business hours for the proposed cultivation operation will be from 8am to 6pm with deliveries and pick-ups restricted to 9am to 6pm, Monday through Saturday.

Facility Carbon Footprint

Floribunda Farms/Michael Blum recognizes that the most sustainable source of power/light is the sun, and is committed to growing high quality cannabis with as little supplemental light as necessary. Floribunda Farms/Michael Blum will implement the Energy Conservation Measures/Practices outlined in their Energy Management Plan (see Energy Use section of this Property Management Plan for details) to use as little grid power and fossil fuels as necessary to meet their operational goals. Equipment that uses grid power or fossil fuels will be regularly maintained to assure efficient energy usage and will adhere to all applicable emissions standards.

Chemicals Storage and Effluent

Chemicals that will be stored and used at the proposed cultivation operation include fertilizers/nutrients, pesticides, and petroleum products (Agricultural Chemicals) and chemical sanitation products necessary to maintain a sterile work environment inside the Processing Facility. All fertilizers/nutrients and pesticides, when not in use, will be stored in their manufacturer's original containers/packaging and undercover inside the secure Pesticides and Agricultural Chemicals Storage Area. Petroleum products will be stored at least 100 feet from surface water bodies, under cover and in State of California-approved containers with secondary containment and separate from pesticides and fertilizers. Sanitation products will be stored in their manufacturer's original containers/packaging within a secure cabinet inside the Processing Facility. Spill containment and cleanup equipment will be maintained within the secure Pesticides and Agricultural Chemicals Storage Area and the Processing Facility. No effluent is expected to be produced by the proposed cultivation operation.

Site Maintenance

When not in use, all equipment will be stored in their proper designated area upon completion of the task for which the equipment was needed. Any refuse created during the work day will be placed in the proper waste disposal receptacle at the end of each shift, or at a minimum upon completion of the task assigned. Any refuse which poses a risk for contamination or personal injury will be disposed of immediately. The Project Property will be mowed and trimmed regularly around the cultivation operation to ensure safe and sanitary working conditions.

Access roads and parking areas are/will be graveled to prevent the generation of fugitive dust, and vegetative ground cover has been/will be preserved throughout the entire site to filter and infiltrate stormwater runoff from the access roads, parking areas, and the proposed cultivation operation. The restroom of the Processing Facility will be made available for use whenever staff onsite .

Track-and-Trace Compliance

Floribunda Farms/Michael Blum will adhere to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All staff will be trained in the requirements of the CCTT system, and at least one member of Floribunda Farms/Michael Blum's staff will be designated the track-and-trace system administrator. The designated track-and-trace system administrator will complete an initial training provided by the California Department of Food and Agriculture, and will participate in ongoing training as required. All cannabis transfers/movement will be reported through the CCTT system, and the track-and-trace system administrator will supervise all tasks with high potential for diversion/theft. Processing (drying, curing, grading, trimming, storing, packaging, and labeling) of harvested cannabis plants will take place in the Processing Facility. Immediately after being harvested, raw cannabis plant material will be weighed, recorded, then hung in the drying/harvest storage area of the Propagation Facility. Once dry, the raw cannabis plant material will be weighed, recorded, then transferred to the processing area of the Processing Facility. There it will be trimmed, graded, and packaged, then weighed, recorded, and transferred to the secure storage area of the Processing Facility, until transferred to a State of California-licensed Distributor. All activities within the Processing Facility will be under constant video surveillance and will be overseen by a track-and-trace system administrator.

All cannabis waste generated from the existing/proposed cultivation operation will be composted on-site in the designated composting area located directly adjacent to the Processing Facility. Composted cannabis waste will be stored in the designated composting area of the proposed cultivation operation, until it is incorporated into the soils of the outdoor cultivation area as a soil amendment. Cannabis waste generated from the existing/proposed cannabis cultivation operation will be identified, weighed, and tracked while onsite. All required information pertaining to cannabis waste will be entered into the CCTT system. Floribunda Farms/Michael Blum will maintain accurate and comprehensive records regarding cannabis waste generation that will account for, reconcile, and evidence all activity related to the generation and disposition of cannabis waste.

Before transferring cannabis to a State of California-licensed Distributor, the track-and-trace system administrator will enter all required commercial cannabis activities into the California Cannabis Track-and-Trace - Marijuana Enforcement Tracking Reporting Compliance system (CCTT-METRC). For each purchase order/shipment, an electronic shipping manifest that includes a track-and-trace unique identifier will be completed. The track-and-trace system administrator will then securely transmit the manifest to the licensed distributor that will be receiving the cannabis product. Upon receiving the cannabis product, the licensed distributor will be given a physical copy of the manifest and will ensure that the product received is as described in the

manifest, and shall record acceptance and acknowledgment of the product in the track-and-trace system. The physical copy of the shipping manifest shall be maintained by the licensed distributor receiving the cannabis product, so that it can be provided should it be requested by the Bureau of Cannabis Control or law enforcement officers. If for some reason there is any major discrepancy identified during inventory by diversion, theft, loss, criminal activity, or alteration of records, the appropriate licensing authority and law enforcement agency will be notified within 24 hours of discovery.

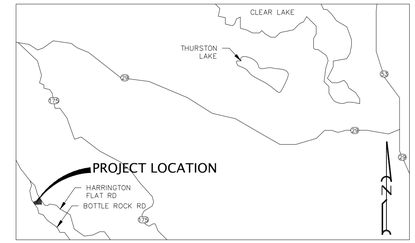
CULTIVATION SITE PLAN WITH CANOPY

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.



VICINITY MAP
NO SCALE

FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	LIMITS OF DISTURBED AREA
	ASPHALT
	GRAVEL
	EARTH
	FLOOD ZONE
	CREEK / SWALE
	(E) POWER POLE
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
(P)	PROPOSED
RD	ROAD
SF	SQUARE FEET

NOTES:

1. CONTOUR INTERVAL IS 10'

(A) (E) RESIDENCE

(B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)

(C) (E) SEPTIC TANK

(D) (E) 12'x16' WOODEN SHED

(E) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) 2,500-GALLON WATER STORAGE TANK

(G) (E) 12,000 SF OUTDOOR CULTIVATION AREA
CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.

(H) (P) 30'x60' GREENHOUSE

(I) (P) ADA / EMPLOYEE PARKING

(J) (P) COMPOSTING AREA

(K) (P) DESIGNATED REFUSE AREA

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON B. WADE
No. 67800
EXP. 06/30/19
CIVIL

CULTIVATION SITE PLAN WITH CANOPY

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN:011-068-23-00

PLOTTED BY:
--- ---

DATE PLOTTED:
4/19/19

SCALE OF DRAWING:
SEE PLAN

JOB NUMBER:

CADD FILE:

SHEET:
1

PEST MANAGEMENT

Intent: To ensure consistency of pest management with the other sections of the Property Management Plan.

This section shall describe how cultivation and nursery permittees will comply with the following pesticide application and storage protocols:

a. Complying 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. Complying with all pesticide label directions;
c. Storing chemicals in a secure building or shed to prevent access by wildlife;
d. Containing any chemical leaks and immediately clean up any spills;
e. Preventing offsite drift;
f. Not applying pesticides when pollinators are present;
g. Not allowing drift to flowering plants attractive to pollinators;
h. Not spraying directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;
i. Not applying pesticides when they may reach surface water or groundwater;
j. Using only properly labeled pesticides; and
k. Not using pesticides 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 or 7.79 feet on the Rumsey Gauge.

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 or any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. This map shall include the location of where pesticides will be stored and used.

Pest Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Pest Management Plan focuses on the prevention of pest outbreaks and their damage compliantly using only pesticides approved by the California Department of Food and Agriculture and the California Department of Pesticide Regulation (DPR) for use on cannabis plants. This Pest Management Plan includes a description of the pesticides allowed to be used in cannabis cultivation and associated reporting requirements, a description of practices and protocols for pesticide usage, storage, and spill containment and cleanup.

Allowable Pesticides for Cannabis Cultivation & Required Reporting

A pesticide product can legally be applied to cannabis under state law if the active ingredients found in the product are exempt from residue tolerance requirements and the product is either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis. Residue tolerance requirements are set by the U.S. Environmental Protection Agency for each pesticide on each food group and are the amount of pesticide residue allowed to remain in or on each treated crop with "reasonable certainty of no harm". Some pesticides are exempt from the tolerance requirement when they are found to be minimal risk. Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil. Cannabis cultivators who are licensed by the California Department of Food and Agriculture (CDFA) are required to comply with pesticide laws and regulations as enforced by the California Department of Pesticide Regulation (DPR) and County Agricultural Commissioners (CACs). DPR has provided a list of pesticides that are legal to use on cannabis (attached).

All pesticide product labels include a warning statement, precautionary statements for protecting human and environmental health, storage and disposal statements, and directions for use. By law, all pesticide users must follow these statements. When using pesticide products in cannabis cultivation, applicators must not use a rate that is higher than the rates listed on the label and follow the agricultural use requirements including method of application, restricted entry interval, personal protective equipment, and pre-harvest interval. Additionally, cannabis cultivators using pesticides in the production of cannabis for commercial purposes must obtain an Operator Identification Number (OID) from their County's Department of Agriculture, and submit Monthly Pesticide Use Reports (PURs). PURs are required to be submitted by the 10th

day of the month following the month in which the work was performed. PURs can be submitted either electronically through the CalAg Permits website or by using the appropriate paper form.
Only pesticides approved by the California Department of Food and Agriculture and the California Department of Pesticide Regulation for use on cannabis plants will be used at this cannabis cultivation facility. Floribunda Farms/Michael Blum will apply pesticides at a rate consistent with pesticide label directions, and will adhere to all State and County pesticide use reporting requirements.

Pesticide Practices & Protocols for Use

Floribunda Farms/Michael Blum will implement Integrated Pest Management (IPM) practices that focus on the long-term prevention of pests and their damage through an integrated ecosystem-based strategy that uses a combination of techniques such as biological controls, habitat manipulation, adaptive cultivation practices, and the use of pest resistant varieties/strains. Floribunda Farms/Michael Blum will implement proactive systems using beneficial plants and insects as well as daily pest monitoring to ensure production of the cleanest, purest, highest quality cannabis.

Pest Deterrence

The following techniques will be implemented to minimize pest infestations:

- Minimizing dust
- Releasing predatory mites and ladybugs
- Removing and destroying any infested plant material
- Cultivating companion plants that attract beneficial insects (yarrow and coreopsis)
- Cultivating naturally insecticidal companion plants (chrysanthemums and pyrethrum daisies)

Pesticides

Floribunda Farms/Michael Blum will use the following Pesticides approved by the California Department of Pesticide Regulation for use on cannabis, when daily monitoring indicates that they are needed to prevent pest infestations and save the cannabis crop:

Pesticide	**Active Ingredient**
Doctor Zymes Eliminator (insecticide & fungicide)	Citric Acid, Yeast, and Potassium Sorbate
Venerate (bioinsecticide)	*Burkholderia* spp. Strain A396

Any employee who is involved in the application or handling of pesticides must first complete Pesticide Handler safety training as described in 40 Code of Federal Regulations, Section 170.230. Personnel will be trained how to appropriately prepare and apply pesticides before

signature, and a copy of this record will be maintained on-site for at least 3 years after their term of employment.

Floribunda Farms/Michael Blum's trained pesticide applicator(s) will prepare and apply pesticides at rates and using methods consistent with product labeling. All pesticides will be mixed/prepared on an impermeable surface at least 100 feet from surface water resources and neighboring properties, and will never be applied or allowed to drift offsite or within riparian setbacks (minimum 100 feet). No pesticides will be applied within 48 hours of a predicted rainfall event greater than 0.25 inches (requirement of the State Water Resource Control Board's Cannabis General Order).

Honey bees and other pollinating/beneficial insects forage during daylight hours, then return to their hives and/or become less active in the evenings as the sun begins to set. Therefore, Floribunda Farms/Michael Blum will only apply pesticides in the evening hours, to protect honey bees and other pollinating/beneficial insects. Additional care will be taken to make sure that pesticides are not applied or allowed to drift onto flowering plants and pollinators during periods when flowering plants are blooming and pollinators are present around the existing/proposed cultivation area. Pesticides will never be applied on windy days when the potential for pesticides to drift onto pollinators, flowering plants, neighboring properties, or riparian areas is higher.

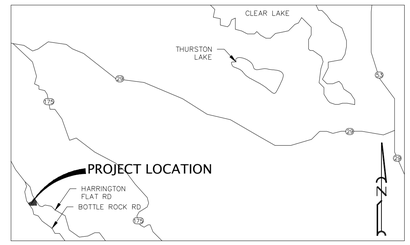
When applying pesticides and other chemicals or handling plants that have had pesticides or other chemicals applied to them, personnel will be required to use personal protective equipment (PPE) consistent with the MSDS/SDS recommendations for the product that is being/has been applied. No personnel will be allowed to enter any greenhouse where pesticides have been applied during the restricted entry interval. Any personnel entering a greenhouse where a pesticide has been applied after the restricted entry interval and less than 24 hours after application, must don coveralls, waterproof gloves, and shoes with socks.

When preparing/mixing pesticides, Floribunda Farms/Michael Blum's trained pesticide applicator(s) will don the following Personal Protective Equipment (PPE):

- A dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95;
- Long-sleeved shirt and long pants;
- Waterproof gloves; and
- Shoes plus socks.

Pesticide Storage and Spill Containment

When not in use, all pesticides will be stored under cover and in compliance with label instructions, within the secure Pesticides and Agricultural Chemicals Storage Area, located more than 100 feet from the nearest surface water body. All pesticides will be stored in their manufacturer's original containers/packaging, with secondary containment to prevent possible exposure to the environment. Absorbent materials designed for spill containment and spill cleanup equipment will be maintained within the Pesticides and Agricultural Chemicals Storage Area and Processing Facility, for use in the event of an accidental spill. If there is a spill or accidental discharge in or on any waters of the site, Floribunda Farms/Michael Blum's staff will immediately notify the Office of Emergency Services so that the local health officer can decide water actions, if any, may need to be taken to protect public safety – HAZMAT SPILL NOTIFICATIONS 1 (800) 852-7550 or (916) 845-8911.
Materials Safety Data Sheets (MSDS/SDS) for all pesticides used at the proposed cultivation operation will be stored within the Processing Facility and made available for personnel to reference at any time.



FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

- 1530 — CONTOUR ELEVATION
- FENCE
- LIMITS OF DISTURBED AREA
- ASPHALT
- GRAVEL
- EARTH
- FLOOD ZONE
- CREEK / SWALE
- (E) POWER POLE
- APN — ASSESSOR'S PARCEL NUMBER
- APPROX — APPROXIMATELY
- DWY — DRIVEWAY
- (E) — EXISTING
- (P) — PROPOSED
- RD — ROAD
- SF — SQUARE FEET

NOTES:

1. CONTOUR INTERVAL IS 10'

- (A) (E) RESIDENCE
- (B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)
- (C) (E) GROUNDWATER WELL
- (D) (E) SEPTIC TANK
- (E) (E) 12'x16' WOODEN SHED
- (F) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA
- (G) (E) 2,500-GALLON WATER STORAGE TANK
- (H) (E) 12,000 SF OUTDOOR CULTIVATION AREA
  CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.
- (I) (P) 30'x60' GREENHOUSE
- (J) (P) ADA / EMPLOYEE PARKING
- (K) (P) COMPOSTING AREA
- (L) (P) DESIGNATED REFUSE AREA

PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 ft.

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON R. VAN
No. 67800
EXP. 06/30/19
CIVIL
STATE OF CALIFORNIA

PROPOSED CONDITIONS SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY:
--- --- ---
DATE PLOTTED:
4/19/19
SCALE OF DRAWING:
SEE PLAN
JOB NUMBER:
CADD FILE:
SHEET:
1

SPECIMEN LABEL

VENERATE® CG

BIOINSECTICIDE

Active Ingredient:	
Heat-killed *Burkholderia* spp. strain A396 cells and spent fermentation media*	94.46%
Other Ingredients:	5.54%
Total:	100.00%

*Contains not less than 1,500 Beet Armyworm Killing Units (BAWKU)/mg.
Note: The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No.: 84059-14

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15–20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.

CAN BE USED IN ORGANIC PRODUCTION

Marrone® Bio Innovations
1540 Drew Ave., Davis, CA 95618 USA
info@marronebio.com

OMRI® LISTED
For Organic Use

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and protective eye wear. Mixers/loaders and applicators must wear NIOSH-approved particulate respirator with any P or R filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying aspirator with a HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization. Follow manufacturer's instructions for cleaning and maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

USER SAFETY RECOMMENDATIONS

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handing this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. See the Directions for Use section of this label for application instructions that minimize risk to bees and other beneficial insects, *including those used in Integrated Pest Management (IPM) programs or organic agriculture.*

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

- In New York State, aerial application is prohibited.
- In New York State, application is prohibited within 100 feet of any surface water.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water), is:

- Protective eyewear
- Coveralls
- Chemical resistant gloves (made from any waterproof material)
- Shoes plus socks

EXCEPTION: If the product is soil incorporated or soil injected, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

For non-WPS uses: Keep unprotected persons out of treated areas until sprays have dried.

PRODUCT INFORMATION

VENERATE® CG is a biological insecticide containing killed cells of *Burkholderia* spp. strain A396 and spent fermentation media for use on agricultural crops against the pests listed in the Directions for Use section. VENERATE® CG controls insect pests by enzymatic degradation of exoskeletal structures and interference with the molting process leading to mortality through contact and/or ingestion. VENERATE® CG controls or suppresses many foliar feeding pests including caterpillars and foliage feeding coleopteran and many soft-bodied insects such as, aphids, whiteflies and plant sucking mites infesting labeled crops and plants. For insect control, the concentrate of VENERATE® CG must be mixed with water and applied as a foliar spray with ground or aerial equipment equipped for conventional insecticide spraying.

VENERATE® CG can be used in either the field or greenhouse for the control of any labeled pest.

GENERAL USE INSTRUCTIONS – FOR INSECT CONTROL

VENERATE® CG is an insecticide for use against listed insects. Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting newly hatched larvae, nymphs or immature pests is important for optimal results.

Thorough coverage of infested plant parts is necessary for effective control. For some crops, directed drop nozzles by ground machine are required.

Under heavy pest populations, use the higher label rates, shorten the spray interval, increase the spray volume to improve coverage, and/or apply in tank mixture with another product that has activity on the target pest.

Repeat applications at an interval sufficient to maintain control, usually 3–10 days depending upon plant growth rate, insect and mite activity, and other factors. If attempting to control an insect population with a single application, make the treatment when egg hatch is essentially complete but before economic damage occurs.

The use of adjuvants with VENERATE® CG is not recommended, except to improve control of insect pests in situations where achieving uniform plant coverage is difficult such as closed crop canopy, dense foliage and penetration into waxy leaf surfaces.

Bees and beneficial insects:
- To minimize potential exposure to bees and other pollinating insects, do not apply while bees are foraging.
- Do not allow product to drift to blooming crops or weeds if bees are foraging.
- Minimize spray drift away from the target area to reduce effects to other non-target insects.

VENERATE® CG has been evaluated for toxicity to non-target insects in a variety of bioassays and on a variety of crops under various normal growing conditions. However, testing all beneficial insects, in all situations, mixtures and combinations, is not feasible. Prior to treating entire crop where the release of beneficial insects serve as part of an Integrated Pest Management (IPM) program, consult with an extension specialist, a pest control advisor (PCA) or with the product manufacturer.

VENERATE® CG has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

GROUND APPLICATION

Apply VENERATE® CG in ground equipment with quantities of water sufficient to provide thorough coverage of infested plant parts. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage.

Mixing directions

Important – Fill tank 1/2 to 3/4 of desired amount of water. Start the mechanical or hydraulic agitation to provide moderate circulation before adding VENERATE® CG. Add the desired volume of VENERATE® CG to the mix tank and the remaining volume of water and continue circulation. Maintain circulation while loading and spraying. Do not mix more VENERATE® CG than can be used in 24 hours. Use a strainer no finer than 50 mesh in conventional spray systems.

Tank mixing

Do not combine VENERATE® CG in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, or non-injurious under your use conditions.

To ensure compatibility of tank mix combinations they must be evaluated prior to use. To determine the physical compatibility of this product with other products use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables second, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can readily be remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Row Crop Application

Use calibrated power-operated ground equipment capable of providing uniform coverage of the target crop. Orient the boom and nozzles to obtain uniform crop coverage. A minimum of 0.23 gallon per 1000 sq. ft. by ground should be utilized, increasing volume with crop size and/or pest pressure. Use hollow cone, disc core/hollow cone or twin jet flat fan nozzles suitable for insecticide spraying. Under certain conditions, drop nozzles may be required to obtain complete coverage of plant surfaces. Follow manufacturer's recommendations for ideal nozzle spacing and spray pressure and minimize boom height to optimize uniformity of coverage and maximize deposition to reduce drift.

Orchard Spraying

- Dilute spray application: This application method is based on the premise that all plant parts are thoroughly wetted, to the point of runoff, with spray solution. To determine the number of gallons of dilute spray per acre, contact your extension specialist, state agricultural experiment station, or certified pest control advisor for assistance.
- Concentrate spray application: This application method is based on the premise that all plant parts are uniformly covered with spray solution but not to the point of runoff as with a dilute spray. Instead, a lower spray volume is used to deliver the same application rate of product as is used for the dilute spray.

Do not spray when wind speed favors drift beyond the area intended for use.

Avoiding spray drift is the responsibility of the applicator.

CHEMIGATION USE – DIRECTIONS FOR INSECT CONTROL

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand moved irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

Spray preparation

First prepare a suspension of VENERATE® CG in a mix tank. Fill tank 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of VENERATE® CG, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of VENERATE® CG into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of VENERATE® CG with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Any questions on calibration should be directed to your State Extension Service Specialists, to equipment manufacturers or other experts.

Do not combine VENERATE® CG with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. VENERATE® CG has not been fully evaluated for compatibility with all adjuvants or surfactants. It is advisable to conduct a spray compatibility test if a mixture with adjuvants or surfactants is planned.

General Requirements

1) Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4) Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
5) A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Specific Requirements for Chemigation Systems Connected to Public Water Systems

1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Sprinkler Chemigation

1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5) The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Application Instructions for All Types of Chemigation

1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. Utilize agitation to keep solution in suspension.

– SHAKE WELL BEFORE USE –

FOR USE ON THE FOLLOWING CROPS FOR CONTROL OR SUPPRESSION OF INSECTS AND MITES:

Pre-harvest Interval (PHI) = 0 days

Asparagus

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids

Stink bugs - tank-mix with a contact insecticide for improved control.

Bedding Plants

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Azalea caterpillar, Diamondback moth, Ello moth, Lo moth, Loopers, Oleander moth, Omnivorous leafroller, Omnivorous looper, Tobacco budworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Aphids, Azalea lace bug, Lygus, Mites, Thrips, Whiteflies

Bulbs

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Cross-striped cabbage worm, Cutworm, Diamondback moth, Green cloverworm, *Heliothis*, Hornworm, Imported cabbageworm, Loopers, Omnivorous leafrollers, Saltmarsh caterpillar, Webworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids Thrips

Bushberries

1.28-2.57 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Cherry fruitworm, Cranberry fruitworm, Fireworms, Leafrollers, Loopers,

Plum Curculio

For Plum curculio, begin applications when adults are active and prior to start of oviposition. Repeat applications on a 4-7 day interval until adults are no longer active and developing fruit is no longer susceptible to damage. Rotation or tank-mixing with other insecticides labeled for plum curculio is recommended.

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (suppression)
Aphids, Blueberry blossom weevil, Thrips

Spotted wing drosophila – begin applications as soon as adult flies are active and continue until adult activity is no longer present. Use of VENERATE® CG for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, make applications at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs – tank-mix with a contact insecticide for improved control.

Caneberries

1.28-2.57 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Green fruitworm, Leafrollers, Loopers, Western raspberry fruitworm

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Thrips

Spotted wing drosophila and Fruit flies

Spotted wing drosophila and Fruit flies – begin applications as soon as adult flies are active and continue until adult activity is no longer present. Use of VENERATE® CG for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, make applications at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs – tank-mix with a contact insecticide for improved control

Citrus

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Asian citrus psyllid, Citrus cutworm, Citrus leafminer, Citrus rust mite, Fruittree leafroller, Orangedog

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Citrus red mite, Citrus thrips, Florida red scale, Mealybugs, Texas citrus mite, Twospotted spider mite, Six-spotted mite

Stink bugs – tank-mix with a contact insecticide for improved control.

Cranberry

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Cranberry fruitworm, Fireworms, Leafrollers, Loopers, Spanworms, Sparganothis fruitworm

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Cranberry blossom weevil, Mites, Thrips

Cole Crops

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Cabbage looper, Cabbage webworm, Diamondback moth, Imported cabbageworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (suppression)
Aphids, Billbugs, Leafhoppers, mites, Swede midge, Thrips, Whiteflies

Stink bugs – tank-mix with a contact insecticide for improved control.

Corn

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworm, European corn borer, southwestern corn borer, western bean cutworm, corn earworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Corn leaf aphid, mites, leafhoppers.

Stink bugs and plant bugs - tank-mix with a contact insecticide for improved control.

Cucurbit Vegetables

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworm, Cabbage looper, Melonworm, Pickleworm,
Rindworm complex

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Silverleaf whitefly, Thrips, Whiteflies

Stink bugs – tank-mix with a contact insecticide for improved control.

Fig

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Navel orangeworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Thrips

Stink bugs – tank-mix with a contact insecticide for improved control.

Flowering Plants

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Azalea caterpillar, Diamondback moth, Ello moth, Lo moth, Loopers,

Oleander moth, Omnivorous leafroller, Omnivorous looper, Tobacco budworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Aphids, Azalea lace bug, Lygus, Mites, Thrips, Whiteflies

Fruiting Vegetables

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, European corn borer, Hornworm, Loopers, Saltmarsh caterpillar, Thrips

Tomato fruitworm, Tomato pinworm, variegated cutworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Psyllids, Whiteflies

Lygus, Pepper weevil, Plant bugs, Stink bugs – tank-mix with a contact insecticide for improved control. Use pheromone traps to time applications for control of pepper weevil.

Grape

1.28-2.57 Tablespoons VENERATE® CG per 1,000 square feet
Grape berry moth, Grape leafroller, Grape leaf skeletonizer, Leafhopper, Oblique banded leafroller, Omnivorous leafroller, Orange tortrix

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (suppression)
Mealybug, Pacific spider mite, Thrips, Twospotted Spider Mite, Whiteflies, Willamette Spider Mite

Stink Bugs

Stink bugs – tank-mix with a contact insecticide for improved control.

Herbs and Spices

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworm, Loopers, Saltmarsh caterpillar

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Thrips, Whiteflies

Hops and Dried Cones

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworm, Loopers

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Thrips, Whiteflies

Leafy Vegetables and Leaves of Root and Tuber and Legume Vegetables

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Cabbage Looper, Diamondback moth

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Psyllids, Thrips, Whiteflies

Stink bugs – tank-mix with a contact insecticide for improved control.

Ornamentals

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Azalea caterpillar, Diamondback moth, Ello moth,
Lo moth, Loopers,

Oleander moth, Omnivorous leafroller, Omnivorous looper,
Tobacco budworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Aphids, Azalea lace bug, Lygus, Mites, Thrips, Whiteflies

Pineapple

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Gummosos-Batracheda comosae (Hodges), Thecla-thecla basilides (Geyr)

Pome Fruit

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Pear psylla, San jose scale

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Stink bugs and plum curculio – tank-mix with a contact insecticide for improved control.

Pomegranate

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworm, Cankerworm, Codling moth, Cutworm, Filbert leafroller, Fruittree leafroller, Gypsy moth, Oblique banded leafroller, Oriental fruit moth, Redbanded leafroller, Tufted apple budmoth, Twig borer, Variegated leafroller, Walnut caterpillar

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
European red mite, McDaniel spider mite, Pacific spider mite, Twospotted red mite

Potatoes and Tuberous and Corm Vegetables

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Aphids, Armyworms, Artichoke plume moth, European corn borer, Loopers, Potato aphid, Psyllids, Whiteflies

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Potato leafhopper

Root Vegetables

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, European corn borer, Loopers

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Thrips, Whiteflies

Stone Fruits

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Green fruitworm, Leafrollers (including oblique-banded, fruit tree, pandemic, redbanded, variegated), Oriental fruit moth, Peach twig borer, Redhumped caterpillar, Tent caterpillar

Application timing: optimal timing for peach twig borer and leafrollers can vary between species and geographic locations. Monitor moth flights with pheromone traps and scout regularly to determine larval populations. Use a 7-10 day re-treatment schedule to maintain control if the crop is growing rapidly or if there is heavy pest pressure. Use a 3-4 day re-treatment schedule at flowering.

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mealybugs, Mites, Thrips, Whiteflies

Spotted wing drosophila and fruit flies – begin applications as soon as adult flies are active and continue until adult activity is no longer present. Use of VENERATE® CG for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, make applications at no more than a 7-day interval and more frequently if necessary to maintain control.

Plum curculio – tank mix with a contact insecticide for improved control.

Strawberry

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Armyworms, Leafrollers, Thrips

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Whiteflies

Spotted wing drosophila and Fruit flies

Spotted wing drosophila and Fruit flies – begin applications as soon as adult flies are active and continue until adult activity is no longer present. Use of VENERATE® CG for control of spotted wing drosophila should be part of an integrated management program that includes tank-mixes and rotation with other products labeled for control of spotted wing drosophila. During periods of adult fly activity, make applications at no more than a 7-day interval and more frequently if necessary to maintain control.

Stink bugs, Plant bugs and Lygus – tank-mix with a contact insecticide for improved control.

Tobacco

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Hormworm, Looper, Tobacco budworm

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Thrips, Whiteflies

Tree Fruits

1.28-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Avocado leafroller, Citrus peelminer, Cutworms, Fruit tree leafroller, Omnivores leafroller, Orange tortrix, Western tussock moth

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mites, Thrips, Whiteflies

Tree Nuts

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet
Fall webworm, Filbert worm, Hickory shuckworm, Naval orange worm, Oblique banded leafroller, Peach twig borer, Pecan nut casebearer, Redhumped caterpillar

2.57-5.13 Tablespoons VENERATE® CG per 1,000 square feet (Suppression)
Aphids, Mealybugs, Whiteflies

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place. Do not freeze.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For plastic, refillable containers: Refillable container. Refill this container with Venerate CG EP only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times.

Marrone Bio Innovations is a member of the
Ag Container Recycling Council.

Visit http://www.acrecycle.org/contact for information on how to arrange pick-up of this empty pesticide container.

WARRANTY

To the extent permitted by applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in strict accordance with the accompanying directions.

Label date: Nov 2017
Patent pending
VENERATE® is a registered trademark of Marrone Bio Innovations, Inc.
Marrone Bio Innovations name and logo are registered trademarks of Marrone Bio Innovations, Inc.

1540 Drew Ave., Davis, CA 95618
1-877-664-4476
info@marronebio.com

SAFETY DATA SHEET
The Amazing Doctor Zymes Eliminator

Section 1-Chemical Product & Company Identification
Trade Name: The Amazing Doctor Zymes Eliminator
Product Description: A fermentation product made from a proprietary blend, Citric Acid. Contains no hazardous chemicals.
Manufacturer's Name: The Amazing Doctor Zymes
Address: 44911 North Highway 101, PMB #148, Laytonville, CA 95454
Phone: 707-984-6094

Section 2-Composition/Information of Ingredients
The Amazing Doctor Zymes Eliminator is a proprietary composition NOT CONSIDERED HAZARDOUS under the
OSHA Hazard Communication Standard CFR Title 29 1910.1200.

Section 3-Physical and Chemical Properties
Vapor Pressure: <1
Vapor Density (air = 1) Unknown
Specific Gravity: 1.000-1.010 @ 77 degrees F. (25 degrees C.)
Solubility in water: Infinitely Soluble
Volatile Organic: Negligible
Content:
Appearance: Orange/brown translucent liquid
PH: 3.25-4.20@ 77 degrees F. (25 degrees C.)
Evaporation Rate: <1 (water = 1)
Weight: Approximately 8.5 lb. gallon (3.8 kg/liter)
Odor: Mild, slightly sweet

Section 4-Fire Fighting Measures
Flammable Properties: Non-Flammable
Flammable Limits: N/A
Hazardous Combustion: None known
Products:
Extinguishing Method: Water fog, foam, carbon dioxide, dry chemical foam
Fire Fighting Instructions: Wear self-contained breathing apparatus and protective clothing.

Section 5-Hazards Identification & First Aid Measures
HMIS Hazard Ratings
Health-0,1,2 Fire-0 Reactivity-0 Personal Protection-See Section 8
Routes of Entry: Product may enter the body via eye contact, skin contact and ingestion.
Potential Health Effects:
Eye: Eye Contact with product may cause irritation. Avoid eye contact.
Skin: Adverse effect not known to occur. Avoid prolonged skin contact with the product.
Ingestion: Swallowing may cause irritation of mouth and throat. Mild diarrhea may occur if ingested.

First Aid Measures
Eye Contact: Direct contact with eyes may be painful and irritating. Flush eyes immediately with plenty of water. Seek medical attention if irritation occurs.
Skin Contact: Adverse effects are not known to occur. Rinse exposed areas with water.
Ingestion: If swallowed, give 2 glasses of water. Do not induce vomiting. If spontaneous vomiting is inevitable, PREVENT ASPIRATION by keeping victim's head below the knees. Seek immediate medical attention.
Inhalation: Adverse effects not know to occur. Remove to fresh air, if breathing is difficult.

Section 6-Stability and Reactivity
Hazardous Polymerization: Will not occur.
Materials to Avoid: Avoid contact with strong oxidizing and reducing agents.
Hazardous Decomposition Products: N/A

Section 7-Accidential Release Measures
Large Spill: Product is biodegradable and ecologically harmless. Rinse spill with water if desired.
Small Spill: Contain spill. Follow same procedure as above for large spill.
Waste Disposal Method: Flush with water; safe for sewer disposal; harmless to aquatic, plant and animal life.

Section 8-Exposure Controls, Personal Protection
Personal Protection:
Gloves: Always wear gloves when handling this product in bulk.
Safety Glasses: Always wear eye protection. Goggles or safety glasses with side shields are recommended when spraying.

Section 9-Handling and Storage
Storage Temperature: Store this product below 120 Degrees F (49 Degrees C), preferably below 75 degrees F (24 Degrees C), in a cool, dry, well ventilated area away from heat, sparks, flame, oxidizers and out of direct sunlight.
General Precautions: Keep container closed when handling and storing.

Section 10-Other Information
Disclaimer: The information contained herein is based upon data available to us and reflects our best professional judgment. However, no warranty is expressed or implied regarding the accuracy of such information or the results obtained from the use thereof. We assume no legal responsibility whatsoever for any damage resulting for reliance upon this information since it is being furnished upon the condition that the person receiving it shall make his or her own determination of the suitability of the material described herein for a particular application of storage situation.
The Amazing Doctor Zymes urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.
To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product, and (3) request its customers to notify their employees, customers and other users of this product information.

SECURITY

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.

This section shall include at a minimum a description of the security measures to be taken to:

a. Prevent access to the cultivation site by unauthorized personnel and protect the physical safety of employees. This includes, but is not limited to:
    i. A description of fences;
    ii. Establishing physical barriers to secure perimeter access and all points of entry (such as locking primary entrances with commercial-grad, non-residential door locks, or providing fencing around the grounds, driveway, and any secondary entrances including windows, roofs, or ventilation systems);
    iii. Installing a security alarm system to notify and record incidents where physical barriers have been breached;
    iv. Establishing an identification and sign-in/sign-out procedure for authorized personnel, suppliers, and/or visitors;
    v. Maintaining the premises such that visibility and security monitoring of the premises is possible; and
    vi. Establishing procedures for the investigation of suspicious activities.
b. 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 time-frames 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.
c. Identification of emergency contact(s) that is/are available 24 hours/seven (7) days a week including holidays. This section 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 keep this information current at all times. 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. This section shall include a description of the procedures on receiving complaints, responding to the complaints, maintaining records of all complaints and resolution of

complaints, and providing a tally and summary of issues in the annual Performance Review Report.

d. A description of the required video surveillance.
e. A description of the required fences.
    i. Any commercial cannabis cultivation site 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.

Security Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

The purposed of this Security Management Plan (SMP) is to minimize criminal activity, provide for safe and secure working environments, protect private property and prevent damage to the environment. This SMP includes a description of the security measures that will be implemented at the proposed cultivation operation to prevent unauthorized access and theft or diversion of cannabis, a description of the proposed video surveillance system, and protocols that Floribunda Farms/Michael Blum are to follow to ensure overall site security. This SMP is also designed to be compliant with the Emergency Regulations for Cannabis Cultivation, authored by CDFA's CalCannabis Licensing programs, as well as the regulations established by the California Department of Public Health for state-licensed cannabis businesses.

Secured Entry and Access

The Project Property is accessed via an existing private gravel access road/driveway off of Bottle Rock Road. Secured entry and access to the Project Property is controlled via a locking metal gate on the access road/driveway located directly adjacent to Bottle Rock Road. There will be no signage indicating that there is a cannabis business on the Project Property, and the Project Property will be closed to the public.

A 6-foot tall wire fence has been erected around the existing/proposed outdoor cultivation area. Metal and wooden posts were set into the ground at no more than 10-foot intervals, with terminal posts set into concrete footings. Secured entry and access to the existing/proposed outdoor cultivation area is controlled via a locking metal gate located on the south side of the outdoor cultivation area. This gate is/will be secured with commercial grade padlocks whenever Floribunda Farms/Michael Blum personnel are not present.

A 100-foot defensible space (vegetation management) will be established and maintained around the proposed cultivation operation for fire protection and to provide for visibility and security monitoring. A motion-sensing alarm will be installed at the entrance to the Project Property from Bottle Rock Road, to alert personnel when someone/something has entered onto the premises. Motion-sensing security lights will be installed around the perimeter of the existing/proposed cultivation areas, and above the entrances to the proposed Processing Facility. All lighting will be fully shielded, downward casting and will not spill over onto other properties or the night sky.

The doors of the proposed Processing Facility will be secured with commercial grade locks whenever Floribunda Farms/Michael Blum personnel are not present. The proposed Processing Facility will be equipped with an alarm system that covers all possible entry points and alerts Floribunda Farms/Michael Blum personnel in the event of a breach. All entry/access points will be equipped with security lights and cameras capable of recording the face of each person that enters and exits the building.

Staff Security Protocols

All staff will be instructed to lock any secured area when exiting, if there are no other staff still working in that area. Staff will be instructed to investigate suspicious activity for potential threats, issues, or concerns if/when suspicious activity is detected. Staff will be instructed to contact the Lake County Sheriff's Office immediately if/when a threat is detected.
When a visitor arrives at the proposed commercial cannabis cultivation operation via the main entrance during core operating/business hours, they will be immediately greeted by a member of Floribunda Farms/Michael Blum's staff. Floribunda Farms/Michael Blum's staff will verify the visitor's identification and appropriate documentation/credentials. They will then be assigned an escort to show the visitor to the appropriate area(s), in accordance to their approved itinerary. No visitors will ever be left unattended.

Diversion/Theft Prevention

All personnel will be required to undergo a criminal background check. Visitors and personnel will be required to sign-in and sign-out each day, and record the areas in which they worked and the tasks they were assigned. Personnel will be required to store personal items in their vehicles throughout their shift.
Floribunda Farms/Michael Blum will adhere to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All personnel will be trained in the requirements of the CCTT system, and all cannabis transfers/movement will be reported through the CCTT system. Michael Blum will be the designated the track-and-trace system administrator this cultivation operation. The track-and-trace system administrator will supervise all tasks with high potential for diversion/theft, and will document which personnel took part in the task(s). In the event of any diversion/theft, law enforcement and the appropriate licensing authority will be notified within 24 hours of discovery.

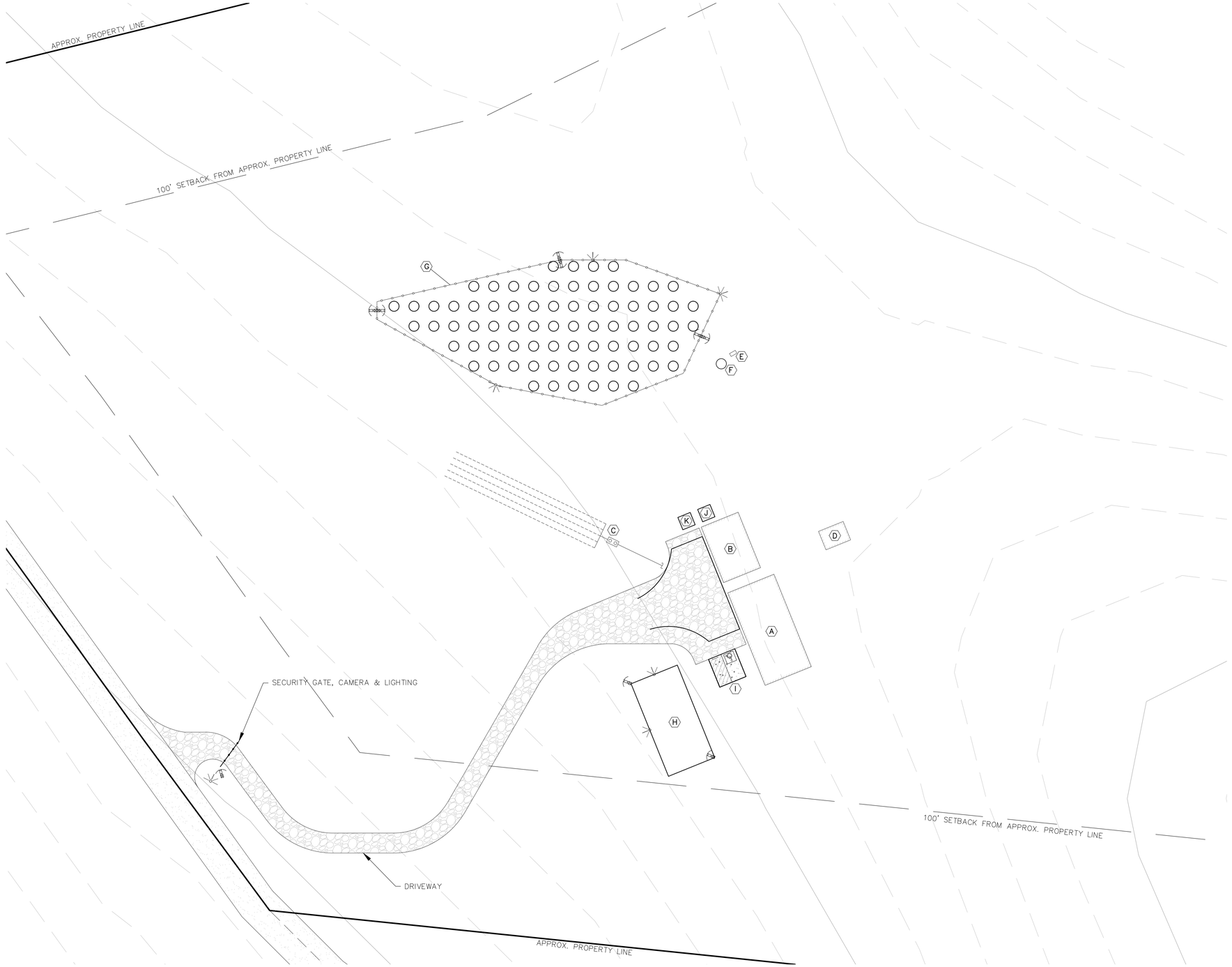
Community Liaison and Emergency Contact

A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriff's Office at all times to address any needs or issues that may arise. Floribunda Farms/Michael Blum will provide the name, cell phone number, and email address of the Community Liaison/Emergency Contact to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. Floribunda Farms/Michael Blum will encourage neighboring residents to contact the Community Liaison/Emergency Contact to resolve any problems before contacting County Officials. When a complaint is received, the Community Liaison/Emergency Contact will document the complainant and the reason for the complaint, then take action to resolve the issue (see the Odor Response Program in the Air Quality section of this Property Management Plan for odor related complaints/issues). A tally and summary of complaints/issues will be provided in the proposed cultivation operation's annual Performance Review Report.
The Community Liaison/Emergency Contact for the proposed cultivation operation is Mr. Michael Blum. Mr. Blum can be reached at (707) 477-5691 and via email at blum@sonic.net.

Video Surveillance

A closed-circuit television (CCTV) system with a minimum camera resolution of 1080p at a minimum of 30 frames per second will be used to record activity in all sensitive areas. All cameras will be color capable. All exterior cameras will be waterproof and all interior cameras will be moisture proof. Cameras monitoring the perimeter of the cultivation/canopy areas will be equipped with thermal technology. The CCTV system will feed into a monitoring and recording station in the proposed Processing Facility, where video from the CCTV system will be digitally recorded. Video management software of the monitoring and recording station will be capable of integrating cameras of the CCTV system with door alarms, and will be equipped with a failure notification system that immediately notifies Michael Blum of any interruptions or failures. All cameras of the CCTV system will operate continuously 24 hours a day, 7 days a week. All recordings will be kept a minimum of 90 days, and 7 years for any corresponding reported incidents caught on tape.
Proposed camera placements can be found on the accompanying Security Site Plan. Areas that will be covered by the CCTV system include:

- Entryways to the cultivation area(s) and proposed Processing Facility;
- The perimeter of the cultivation/canopy areas;
- The monitoring and recording station (within the proposed Processing Facility); and
- The interior of the proposed Processing Facility.

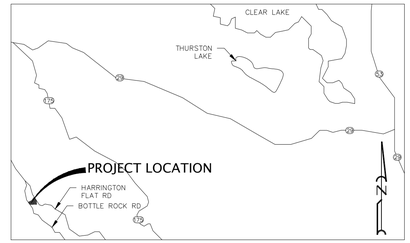


SECURITY SITE PLAN

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.



VICINITY MAP
NO SCALE

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	WATERCOURSE / SWALE
	EXISTING POWER POLE
	TREES
	(P) SECURITY LIGHTS
	(P) SECURITY CAMERAS
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
(P)	PROPOSED
RD	ROAD
SF	SQUARE FEET
OH	OVER HEAD POWER LINES

NOTES:
1. CONTOUR INTERVAL IS 10'

(A) (E) RESIDENCE

(B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)

(C) (E) SEPTIC TANK

(D) (E) 12'x16' WOODEN SHED

(E) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) 2,500-GALLON WATER STORAGE TANK

(G) (E) 12,000 SF OUTDOOR CULTIVATION AREA
CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.

(H) (P) 30'x60' GREENHOUSE

(I) (P) ADA / EMPLOYEE PARKING

(J) (P) COMPOSTING AREA

(K) (P) DESIGNATED REFUSE AREA

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON R. VAN
No. 67800
EXP 06/30/19
CIVIL

SECURITY SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN:011-068-23-00

PLOTTED BY:
--- ---
DATE PLOTTED:
4/19/19
SCALE OF DRAWING:
SEE PLAN
JOB NUMBER:
CADD FILE:
SHEET:
1

STORM WATER MANAGEMENT

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.

This section shall include at a minimum:

a. Provide written and graphic representation of how storm water runoff will be managed to protect downstream receiving water bodies from water quality degradation;
b. Provide written and graphic representation of how the applicant will comply with the California State Water Resources Control Board, the Central Valley Regional Water Quality Control Board, and/or the North Coast Regional Water Quality Control Board orders, regulations, and procedures as appropriate;
c. Provide written and graphic representation showing the cultivation operation, including any topsoil, pesticide or fertilizers storage areas;
d. Provide written discussion describing how the illicit discharges 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 will be prevented;
e. Identify any Lake County maintained drainage or conveyance systems that the storm water is discharged into and documentation that the storm water discharge is in compliance with the design parameters of those structures;
f. Identify any public roads and bridges that are downstream of the discharge point and documentation that the storm water discharge is in compliance with the design parameters of any such bridges;
g. Provide documentation that the discharge of storm water from the site will not increase the volume of water that historically has flowed onto adjacent properties;
h. Provide documentation that the discharge of storm water will not increase flood elevations downstream of the discharge point;
i. Provide documentation of compliance with the requirements of Chapter 29, Storm Water Management Ordinance of the Lake County Ordinance Code;
j. Describe the proposed grading of the property;
k. 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; and
l. Describe what parameters will be monitored and the methodology of the monitoring program.

Storm Water Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

The purpose of this Storm Water Management Plan is to protect the water quality of the surface water and stormwater management systems managed by Lake County. Floribunda Farms/Michael Blum will focus on low impact development (LID) and "green" stormwater management infrastructure to achieve permanent stabilization post site development as quickly as possible. LID practices utilizing "green" infrastructure will manage storm water by minimizing impervious surfaces, maintaining, preserving, and enhancing existing vegetation, and by using natural systems to filter and infiltrate stormwater into the ground. LID with "green" storm water infrastructure is cost competitive with traditional storm water management infrastructure/practices, while providing numerous other long-term benefits, such as improved water quality, ecosystem enhancement, and preserved/improved aesthetics.

Stormwater Management Measures

Existing ancillary facilities include a groundwater well, a 2,500-gallon water storage tank, a. Proposed ancillary facilities include an 1,800 ft^2 greenhouse / Immature Plants Cultivation Area, an 80 ft^2 composting area, and an 80 ft^2 designated refuse area. There is also an ~1,300 ft^2 residence on the Project Property, that is not directly associated with the proposed cultivation operation.

The current/existing impervious surface area of the 18.8-acre Project Property is approximately 2,356 ft^2 (1,300 ft^2 Residence + 192 ft^2 wooden shed, and an 864 ft^2 metal building), or roughly 0.3% of the Project Property. Floribunda Farms/Michael Blum proposes to increase the impervious surface area by approximately 1,800 ft^2 through the development of a proposed 1,800 ft^2 greenhouse structure. Post construction of the proposed cultivation operation, the total impervious surface area will be approximately 4,156 ft^2, or roughly 0.5% of the Project Property.

All of the existing/proposed cultivation areas and associated facilities are/will be located more than 100 feet from surface water bodies. Stormwater runoff from the existing/proposed cultivation areas, infiltrates/will infiltrate into the porous volcanic soils of the Project Property. There are no surface water bodies on the Project Property, and the nearest downslope surface water body is at least 500 feet west of the proposed cultivation operation (west of Bottle Rock Road). Stormwater runoff from the existing outdoor cultivation area infiltrates into the porous

volcanic soils of the Project Property prior to reaching the stormwater conveyance ditches of Bottle Rock Road. Straw rolls/wattles will be installed around the proposed greenhouse structure (Immature Plants Cultivation Area) immediately following construction (please see Erosion and Sediment Control Site Plan), to filter pollutants and promote stormwater retention and infiltration.

Erosion and Sediment Control Measures

Established and re-established vegetation within and around the proposed cultivation operation will be maintained/protected as a permanent erosion and sediment control measure. Minimal grading will be required to develop the proposed greenhouse structure (less than 50 cubic yards), and no grading will be required for any other aspect of the proposed cultivation operation. A Lake County Building Permit will be obtained before site development and construction of the proposed greenhouse structure begins. A native grass seed mixture and certified weed-free straw mulch will be applied to all areas of exposed soil prior to November 15th of each year, until permanent stabilization has been achieved. The existing access road/driveway has a gravel surface, that will be maintained to allow for infiltration while mitigating the generation of sediment laden stormwater runoff. Straw rolls/wattles will be installed around the proposed greenhouse structure immediately following construction (please see Erosion and Sediment Control Site Plan), to filter pollutants and promote stormwater retention and infiltration. If areas of concentrated stormwater runoff begin to develop, additional erosion and sediment control measures will be implemented to protect those areas and their outfalls. Michael Blum will conduct monthly monitoring inspections to confirm that this operation is in compliance California Water Code. Monitoring inspections conducted during and following the 2018/2019 winter wet weather period, indicate that the erosion and sediment control measures implemented within and around the existing outdoor cultivation area were successful in preventing sediment discharges to surface water bodies.

Regulatory Compliance (Stormwater)

The existing cultivation area/the Project Property has been enrolled for coverage under and maintained compliance with the Central Valley Regional Water Quality Control Board's General Order for Cannabis Cultivation Activities since September 13th, 2016 (WDID 5A17MJ00006). On January 28th, 2019, Michael Blum migrated this site's enrollment under the Central Valley Water Board's General Order for Cannabis Cultivation Activities to the State Water Resources Control Board's Cannabis General Order (Order No. 2017-023-DWQ) as a Tier 1, Low Risk Discharger.

The stormwater management measures outlined above and in the attached Erosion and Sediment Control Site Plan meet or exceed the requirements of the Lake County Storm Water Management Ordinance (Chapter 29 of the Lake County Ordinance Code). Stormwater runoff from the proposed cultivation operation should not discharge off of the Project Property or into any Lake County maintained drainage or conveyance system. Development of the proposed

greenhouse structure, with the implementation of the LID practices and erosion and sediment control measures outlined above, will not increase the volume of stormwater discharges from the Project Property onto adjacent properties or flood elevations downstream.

Monitoring and Reporting Program

The following are the Monitoring and Reporting Requirements for the proposed cannabis cultivation operation from the Cannabis General Order:

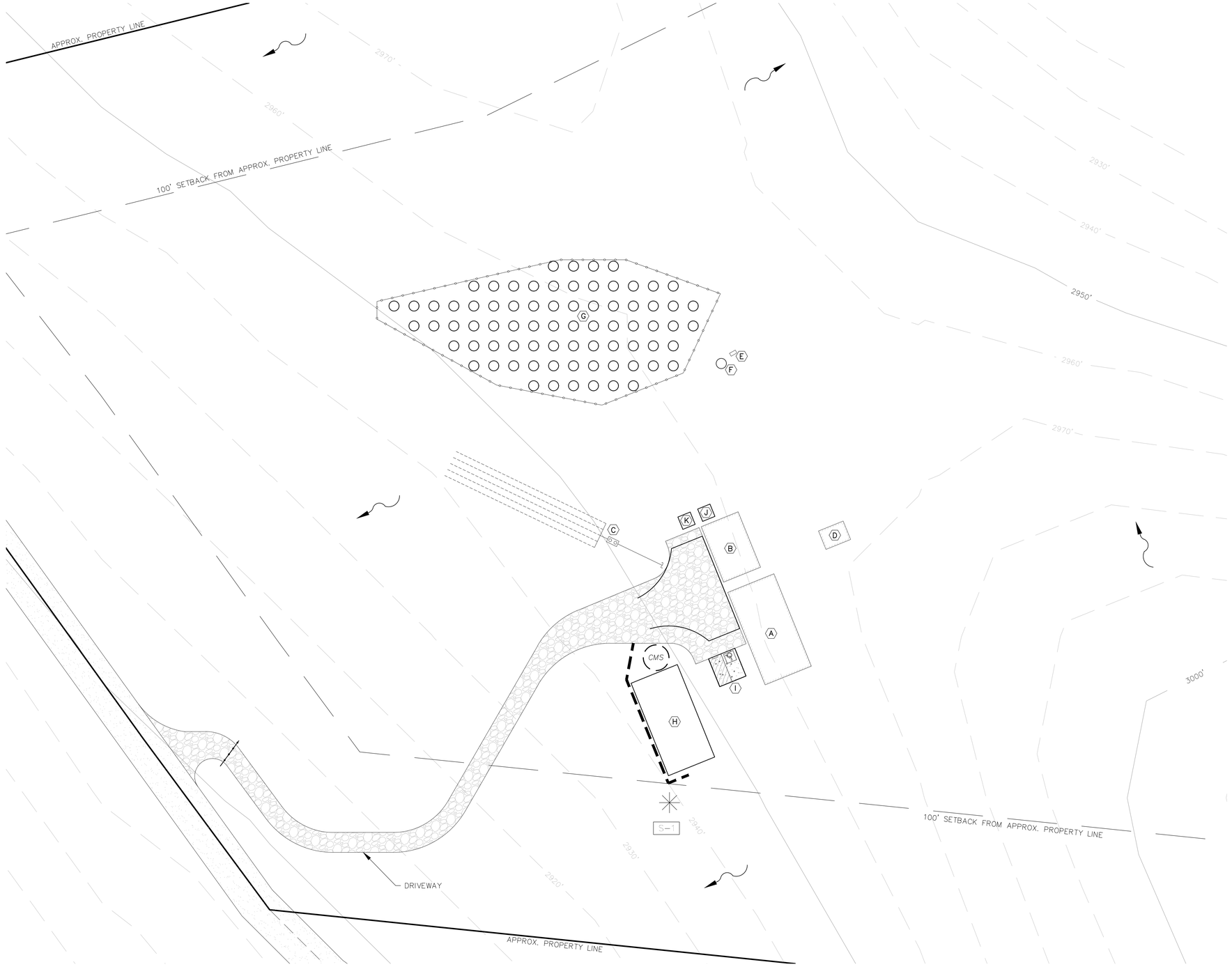
- Winterization Measures Implementation
- Tier Status Confirmation
- Third Party Identification (if applicable)
- Nitrogen Application (Monthly and Total Annual)

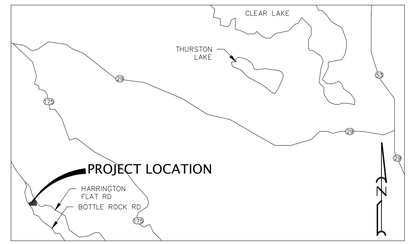
An Annual Report shall be submitted to the Central Valley Regional Water Quality Control Board by March 1st of each year. The Annual Report shall include the following:

1. Facility Status, Site Maintenance Status, and Storm Water Runoff Monitoring.
2. The name and contact information of the person responsible for operation, maintenance, and monitoring.

A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:
"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Floribunda Farms/Michael Blum will adhere to these monitoring requirements to maintain compliance with the Cannabis General Order, and will be happy to provide a copy of the Annual Monitoring Reports to Lake County Officials if requested.





VICINITY MAP
NO SCALE

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND

- DRAINAGE PATTERNS
- STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)
- DISCHARGE POINT
- S-1 SAMPLING LOCATION
- CMS CONSTRUCTION MATERIALS STORAGE AREA

(A) (E) RESIDENCE

(B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)

(C) (E) SEPTIC TANK

(D) (E) 12'x16' WOODEN SHED

(E) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) 2,500-GALLON WATER STORAGE TANK

(G) (E) 12,000 SF OUTDOOR CULTIVATION AREA
CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.

(H) (P) 30'x60' GREENHOUSE

(I) (P) ADA / EMPLOYEE PARKING

(J) (P) COMPOSTING AREA

(K) (P) DESIGNATED REFUSE AREA

EROSION AND SEDIMENT CONTROL PLAN

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON B. VIM
No. 67800
EXP. 06/30/19
CIVIL

EROSION AND SEDIMENT CONTROL PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY: ---
DATE PLOTTED: 4/19/19
SCALE OF DRAWING: SEE PLAN
JOB NUMBER:
CADD FILE:
SHEET: 1

Waste Management

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.

Solid Waste Management

The solid waste management section shall:
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

Describe how the permittee will minimize solid waste generation including working with vendors to minimize packaging.
Describe the waste collection frequency and method.
Describe how solid waste will be temporarily stored prior to transport to a compost, recycling, or final disposal location.
Describe the composting, recycling, or final disposal location for each of the above categories of solid waste.

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 preventative 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 preventative 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 conditions of the manufacturing facility and its equipment;
iv. The ingredients and components used in a given 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; and
x. Any other relevant factors.

2) Management Plan

The Management Plans 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 maps 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.

Cannabis Vegetative Material Waste Management

The cannabis vegetative material waste management section shall:

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; and
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.

Growing Medium Management

The growing medium management section shall:

- Provide an estimate of the type and amount of new growing medium that will be used and the amount of growing medium that will be disposed of on an annual basis;
- Describe how the permittee will minimize growing medium waste generation;
- Describe any non-organic content in the growing medium used (such as vermiculite, silica gel, or other non-organic additives;
- Describe how growing medium waste will be disposed; and
- 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.

Waste Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Waste Management Plan (WMP) provides guidelines to minimize the generation of waste, and for the proper disposal of waste produced during the cultivation and processing of cannabis at the proposed cultivation operation. The goal of implementing this WMP is to prevent the release of hazardous waste into the environment, and to minimize the generation of solid waste, cannabis vegetative waste, and growing medium waste at the proposed cultivation operation.

This WMP is broken into four sections:

- Solid Waste Management,
- Hazardous Waste Management (includes Hazardous Materials Business Plan),
- Cannabis Vegetative Material Waste Management, and
- Growing Medium Management.

Each section includes proper waste handling and disposal procedures, and procedures for Floribunda Farms/Michael Blum's staff to follow to monitor, record, and report waste generation from the proposed cultivation operation.

Solid Waste Management

Solid Waste Overview

The types of solid waste that will be generated from the proposed cultivation operation include gardening materials and wastes (such as used plastic seedling pots and spent plastic fertilizer/pesticide bags and bottles) and general litter from staff/personnel. All solid waste will be stored in bins with secure fitting lids, located directly adjacent to the Processing Facility. At no time will the bins be filled to a point that their lids cannot fit securely. Solid waste from the bins will be deposited into a trailer ("dump trailer"), then hauled away by Floribunda Farms/Michael Blum's staff to a Lake County Integrated Waste Management facility, at least every seven (7) days/weekly during the cultivation season. The closest Lake County Integrated Waste Management facility to the proposed cultivation operation is the Eastlake Landfill. Most, if not all, of the solid waste generated by Floribunda Farms/Michael Blum's cultivation operation can and will be deposited there.

Solid Waste Monitoring and Reporting

Before transporting solid waste to a solid waste disposal facility, Floribunda Farms/Michael Blum's staff will record the volume (in cubic feet) of solid waste generated. Additionally, solid waste will be weighed and the weight recorded before depositing it in/at a solid waste disposal facility. The "dump trailer" will be equipped with a secure fitting cover, to prevent solid waste from escaping the trailer while in transport. Floribunda Farms/Michael Blum will maintain records onsite for at least 5 years from the date that waste is generated, and is willing to provide a copy of their solid waste disposal records and receipts to County Officials whenever requested.

Estimated Solid Waste Generation

Anticipated Annual Amount Generated (AAG) and Anticipated Max Daily Generated (MDG) for the following solid wastes:

- Paper – AAG: 20 lbs MDG: 2 lbs
- Glass – AAG: 100 lbs MDG: 20 lbs
- Metal – AAG: 20 lbs MDG: 10 lbs
- Electronics – AAG: 10 lbs MDG: 7 lbs
- Plastic –AAG: 50 lbs MDG: 10 lbs
- Organics – AAG: 0 MDG: 0 (All organics to be composted)
- Inerts – AAG: <1 lb MDG: <1 lb
- Household hazardous waste – AAG: <5 lbs MDG: <1 lb
- Special waste & Mixed residue – AAG: <1 lb MDG: <1 lb

Solid Waste Reduction Plan

To reduce the solid waste generated by the proposed cultivation operation, Floribunda Farms/Michael Blum will:

- Work with suppliers to reduce the amount of packaging associated with the materials and inputs brought onsite, taking into account that some products (such as pesticides) have stringent packaging requirements,
- Prioritize the purchasing of materials in reusable, eco-friendly, compostable, and/or recyclable packaging when possible,
- Designate multiple recyclable materials collection receptacles on the Project Property,
- Reuse and recycle materials as much as possible to divert waste from landfills,
- Conduct annual trainings for staff on waste reduction and recycling strategies,
- Manage, track, and analyze waste generation information/data for actionable insights and cost savings.

Floribunda Farms/Michael Blum will locate solid waste disposal and recycling receptacles in convenient and high traffic areas, to make it as easy as possible for staff to adhere to this Waste Management Plan.

Hazardous Waste Management

Hazardous Waste Overview

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 cannabis cultivation process is prohibited. No Hazardous Wastes will be generated from the proposed cultivation operation.

Hazards

Hazards with the potential to occur at the proposed cultivation operation include:

- exposure to sun and heat,
- the use of hazardous equipment/machinery,
- exposure to unsanitary conditions, and
- exposure to agricultural and processing chemicals.

Illnesses and injuries from all of these hazards can and should be avoided/prevented.

To avoid/prevent over exposure to sun and heat and heat-related illnesses, Floribunda Farms/Michael Blum's personnel should drink water every 15 minutes (even when not thirsty), wear a hat and light-colored clothing, and rest in the shade. Hydration stations equipped with water coolers filled with ice and potable water will be established in or directly adjacent to the cultivation areas and serviced daily.

Staff will be trained on how to appropriately and safely use potentially hazardous equipment/machinery, such as lawn mowers and tillers, before using them to avoid/prevent injuries.

Staff will be required to clean and sanitize the buildings of the proposed cultivation operation on a regular basis. Personal Protective Equipment (PPE) will be available for personnel, when cleaning/sanitizing potentially hazardous unsanitary areas.

Personnel will have access to the restroom/washroom of the Processing Facility at all times when onsite.

The Hazardous Materials Business Plan below addresses hazards associated with agricultural and processing chemicals.

No manufacturing activities are planned at this time at the proposed cultivation operation. All packaging will be done by hand, and only for the purposes of transferring cannabis product to a California-licensed Distributor.

Hazardous Materials Business Plan

The Lake County Division of Environmental Health is the Certified Unified Program Agency (CUPA) for all of Lake County, including the Project Property, dealing with hazardous waste and hazardous materials. The Lake County Fire Protection District is most likely to be the first responders in the event of a hazardous materials incident. The proposed cannabis cultivation operation will not generate hazardous waste, and at no time will more than 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas hazardous material be maintained onsite.

Agricultural and Processing Chemicals

Potentially hazardous agricultural and processing chemicals that will be stored and used at the proposed cannabis cultivation operation include the following.

Flammable/Petroleum Products:

- Gasoline – no more than 5 gallons at any given time;
- Diesel Fuel – no more than 5 gallons at any given time; and
- Oils/Lubricants – no more than 1 gallon in total at any given time;
- Isopropyl alcohol – no more than 3 gallons at any given time.

All petroleum products will be stored under cover and in State of California-approved containers with secondary containment within a secure cabinet in the Processing Facility. Isopropyl alcohol is used to sanitize equipment used for harvesting and processing cannabis. Isopropyl alcohol will be stored within a secure cabinet within the Processing Facility.

Fertilizers:

- DTE Azomite (0-0-0.2) – no more than 25 pounds at any given time
- DTE Bat Guano (9-3-1) – no more than 25 pounds at any given time
- DTE Kelp Meal (1-0.1-2) – no more than 25 pounds at any given time
- DTE Rock Phosphate (0-3-0) – no more than 25 pounds at any given time

Pesticides:

- Doctor Zymes Eliminator (Citric Acid) – no more than 2.5 gallons at any given time;
- Venerate (*Burkholderia* spp. Strain A396) – no more than 1 gallon at any given time;

All fertilizers and pesticides will be securely stored undercover and in their manufacturer's original packaging within the secure Pesticides and Agricultural Chemicals Storage Area, and all liquids will have secondary containment to prevent accidental release to the environment in the event of a spill or leak. Fertilizers, pesticides, and petroleum products will be prepared/mixed on an impermeable pad, and absorbent materials designated for spill

containment and spill cleanup equipment will be maintained inside the Pesticides and Agricultural Chemicals Storage Area and Processing Facility.

Chemical Incident Response

When a person discovers a leak, an overfill, a spill, or other signs of an agricultural chemical incident, the following steps should be taken to clean up the release to comply with state laws regarding agricultural chemical incident cleanups:

1. Secure Site
    - Secure a perimeter and keep all non-essential people out of the incident area;
    - Do not allow smoking in area;
    - Alert firefighters and/or other emergency personnel of precautions as advised by material safety data sheets;
    - Arrange off-site evacuation if necessary (this should be done through working with the local officials); and,
    - If the leak or spill is indoors, ventilate the area as thoroughly as possible.
2. Abatement
    - If it can be done safely, stop further leakage from damaged containers; Contain above-ground runoff by placing absorbent pillows, clay, other heavy soil, etc., around liquid spills to limit further spread of spilled chemical;
    and,
    - Plug or berm underground waterways (storm sewers, sanitary sewers, etc.).
3. Recovery
    - Transfer the remaining contents of each leaking container into a clean empty container of the same type and remove the salvaged container from the contaminated area;
    - Separate any containers that have not been affected by the spill; and,
    - Arrange to remove, hold, or dispose of pooled contaminated water, soil, etc.
4. Remediation
    - Determine the extent and degree of contamination;
    - Develop steps for the final clean-up of the incident;
    - Reuse or dispose of the recovered chemicals and/or contaminated materials;
    and,
    - Determine the effectiveness of the clean-up through the collection & analysis of samples

Worker Safety

Floribunda Farms/Michael Blum will conduct onsite safety audits, policy writing and staff training on all Occupational Safety and Health Administration (OSHA) workplace safety protocols. Materials Safety Data Sheets (MSDS/SDS) for all agricultural chemicals used by at the proposed cultivation operation will be stored within the secure Pesticides and Agricultural Chemicals Storage Area, and available for personnel to reference at any time. Personnel will be trained on how to appropriately use agricultural and processing chemicals and equipment, before being allowed to use them. When using/preparing agricultural and/or processing chemicals and equipment, personnel will be required to use personal protective equipment (PPE) consistent with the manufacturer's and/or MSDS/SDS recommendations for the product/equipment they're using/preparing. PPE to be used by staff include:

- Dust/mist filtering respirators meeting NIOSH standards of at least N-95, R-95, or P-95;
- Long-sleeved shirt and long pants;
- Waterproof gloves; and
- Shoes plus socks.

Cannabis Vegetative Material Waste Management

Cannabis Waste Overview

"Cannabis waste" is an organic waste, as defined in Section 42649.8(c) of the Public Resources Code. Anticipated cannabis waste generated from the proposed cannabis cultivation operation is limited to cannabis plant stems. It is anticipated that all other parts of cannabis plants cultivated at this site will be transferred to a State of California-licensed Distributor for distribution to State of California-licensed Manufacturers and Retailers. The proposed cannabis cultivation operation is anticipated to generate less than 200 pounds of dried cannabis waste each year.

Cannabis Waste Composting

All cannabis waste generated from the proposed cultivation operation will be composted on-site and in compliance with Title 14 of the California Code of Regulations at Division 7, Chapter 3.1. Cannabis waste will be ripped/shredded and placed in plastic containers under video surveillance within the Processing Facility. When a plastic container is full, its contents will be dumped in the designated composting area of the proposed cultivation operation, until it is incorporated into the soils of the proposed cultivation area(s) as a soil amendment.

Cannabis Waste Records/Documentation

Cannabis waste generated from the proposed cannabis cultivation operation will be identified, weighed, and tracked while onsite. All required information pertaining to cannabis waste will be entered into the State of California Cannabis Track-and-Trace (CCTT) system. Floribunda Farms/Michael Blum will maintain accurate and comprehensive records regarding cannabis waste generation that will account for, reconcile, and evidence all activity related to the generation or disposition of cannabis waste. All records will be kept on-site for seven (7) years and will be made available during inspections.

Growing Medium Management

Growing Medium Overview

The growing medium of the proposed cannabis cultivation area(s) will be an above grade organic soil mixture in fabric and plastic pots. Each year the organic soil mixture will be amended and reused. Only low salt fertilizers will be used, so that salts do not accumulate within the organic soil mixture of the proposed cultivation area(s), rendering the organic soil mixture unusable.

Growing Medium Waste

Ideally, the organic soil mixture of the cultivation areas will be amended and reused each year/cultivation season. Any “spent” or compromised soil media (soil media that cannot or should not be amended and reused to cultivate cannabis) will be utilized onsite to cultivate fragrant flowering and herb plants (please see the Air Quality Management Plan/section of this Property Management Plan for more information on the cultivation of fragrant flowering and herb plants). In the event of a root and/or soil born pest infestation, the infested soil will be removed from the cultivation area, quarantined and treated with a pesticide that targets the infestation and that is approved for use in cannabis cultivation by the California Department of Food and Agriculture and/or California Department of Pesticide Regulation, then incorporated with compost in the designated composting area. After composting, the treated soil will be reintroduced into the fabric and plastic pots of the proposed cultivation area or used as a growing medium for the fragrant flowering and herb plants that are to be planted around the cultivation operation.

WATER RESOURCES

Intent: To minimize adverse impacts on surface and groundwater resources.

This section shall include:

a. A description of the surface and groundwater resources that are located on the lot of record where the permitted activity is located.
b. A description of the watershed in which the permitted activity is located.
c. A description of how the permittee will minimize adverse impacts on surface and ground water resources.
d. A description of what parameters will be measured and the methodology of how they will be measured.
e. 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 200 feet of the lot of record.
f. A topographic map of the parcel prepared by a licensed surveyor where the permitted activity is located with contours no greater than five (5) feet.

Water Resources Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Water Resources Management Plan (WRMP) is designed to minimize adverse impacts on surface and groundwater resources and to ensure that onsite water resources and management is in full compliance with applicable local, county and state regulations. This WRMP, in conjunction with this site's Water Use Plan and Stormwater Management Plan, identifies Best Management Practices (BMPs) / Best Practical Treatment and Controls (BPTCs) to reduce water demand, increase water supply, reduce potential sediment delivery to waterways, and improve water quality. In-line with the goals of Lake County, this WRMP includes measures to monitor and evaluate the performance of the plan, as well as ensure that all data and information is reported to Lake County and State agencies.

Description of Water Resources

Surface Water

The Project Property is located within the Kelsey Creek – Clear Lake watershed (HUC10) and straddles the divide between the Kelsey Creek and Cole Creek sub-watersheds (HUC12). The Project Property sits atop a low ridge that separates the Boggs Lake drainage to the north and the Sweetwater Creek drainage to the south. There are no surface water bodies on the Project Property, and the nearest downslope surface water body is at least 500 feet west of the proposed cultivation operation (west of Bottle Rock Road). Stormwater runoff from the existing/proposed cultivation areas, infiltrates/will infiltrate into the porous volcanic soils of the Project Property.

Groundwater

Soils of the Project Property are well drained very gravelly loams derived from weathered andesite (bedrock), and classified as the Collayomi-Aiken-Whispering complex by the USDA-NRCS Soil Survey. The United States Geological Survey Geologic Map of the Santa Rosa Quadrangle 1982 identifies the Geology of the Project Property as being Clear Lake Volcanics, composed of dacite, andesite, basalt, rhyolite, tuff and other pyroclastic rocks.

The Project Property is not located within any of the 13 groundwater basins/source areas identified in the 2006 Lake County Groundwater Management Plan. There is an existing groundwater well on the Project Property (Latitude 38.883086° and Longitude -122.780791°)

that serves as the water supply source for both the existing onsite residence and the existing cultivation area. This well was drilled in July of 1992 through red and black volcanic rock (0-180 feet below ground surface) and greywacke, serpentine, and chert (180-220 feet below ground surface) to a depth of 220 feet.

Water Source

The existing groundwater well on the Project Property, located at Latitude 38.883086° and Longitude -122.780791°, was drilled in 1992 to a depth of 220 feet below ground surface, and screened between 160 and 220 feet below ground service. This well serves as the water supply source for both the existing onsite residence and the existing cultivation area, and Floribunda Farms/Michael Blum plans to continue using it as the primary water source for the proposed cultivation operation. After it was drilled, the well had an estimated yield of six (6) gallons per minute. Floribunda Farms/Michael Blum estimates that the most water the proposed cultivation operation will need on the hottest and driest day in August when the plants are in their largest and fullest vegetative phase, is less than 500 gallons. To date, the well has successfully been able to meet all of the water demands/needs of the existing cultivation area and residence, and Floribunda Farms/Michael Blum is not proposing a significant increase in the cultivation area of the Project Property. Therefore, we can confidently estimate/anticipate that the existing onsite groundwater well can meet the water use demands of the proposed cultivation operation.

Prior to the 2019 cultivation season, a continuous water level monitor will be installed in the existing well. Before installing the continuous water level monitor, samples will be collected from the existing well and analyzed for Total Coliforms, E. coli, and a suite of standard groundwater contaminants. Additionally, Floribunda Farms/Michael Blum will have a thorough well inspection and pump test performed by a California-licensed Well Drilling Contractor.

Water Resources Protection

Floribunda Farms/Michael Blum will maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharges. Access roads and parking areas are/will be graveled to prevent the generation of fugitive dust, and vegetative ground cover will be preserved and/or re-established as soon as possible throughout the entire site to filter and infiltrate stormwater runoff from the access roads, parking areas, and the proposed cultivation operation.

The restroom of the existing metal building (proposed Processing Facility) will be serviced regularly, and personnel will have access to it at all times. The Project Property has been enrolled for coverage under and maintained compliance with the Central Valley Water Board's General Order for Cannabis Cultivation Activities since September 13th, 2016, and will continue to comply with all requirements of the Cannabis General Order to protect water resources.

Water Conservation

Per the Water Conservation and Use requirements outlined in the SWRCB's Cannabis General Order, Floribunda Farms/Michael Blum will implement the following Best Management Practices (BMPs) / Best Practical Treatment and Control (BPTC) measures to conserve water resources:

- Regularly inspect the entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks
- Install float valves on all water storage tanks to keep them from overflowing onto the ground
- Use water conserving irrigation systems/methods, such as drip/trickle and micro-spray irrigation and hand watering, and never overwater the plants
- Document and maintain daily records of all water used by the proposed cannabis cultivation operation

Monitoring and Reporting Program

The following are the Monitoring and Reporting Requirements for the proposed cannabis cultivation operation from the Cannabis General Order:

- Winterization Measures Implementation
- Tier Status Confirmation
- Third Party Identification (if applicable)
- Nitrogen Application (Monthly and Total Annual)

An Annual Report shall be submitted to the Central Valley Regional Water Quality Control Board by March 1st of each year. The Annual Report shall include the following:

3. Facility Status, Site Maintenance Status, and Storm Water Runoff Monitoring.
4. The name and contact information of the person responsible for operation, maintenance, and monitoring.

A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

In the event that water deliveries are needed (secondary/back-up water source), Floribunda Farms/Michael Blum will collect and maintain for a minimum of five years the following documentation:

1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler,
2. A copy of the Water Hauler's License (California Health and Safety Code section 111120)
3. A copy of proof of the Water Hauler's water right, groundwater well, or other authorization to take water, and the location of the water sources, and
4. The quantity of water delivered or picked up from a water source, in gallons.

Floribunda Farms/Michael Blum will adhere to these monitoring requirements to maintain compliance with the Cannabis General Order. All documentation will be made available, upon request, to the Water Boards, California Department of Fish and Wildlife, and Lake County Officials.

Central Valley Regional Water Quality Control Board

13 September 2016

WDID: 5A17MJ00006

Michael Blum
P.O. Box 972
Middletown, CA 95461

NOTICE OF APPLICABILITY

WATER QUALITY ORDER R5-2015-0113
WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR DISCHARGES OF WASTE ASSOCIATED WITH MEDICINAL CANNABIS CULTIVATION ACTIVITIES

Michael Blum submitted on 22 August 2016 a Notice of Intent (NOI) for coverage under Water Quality Order R5-2015-0113 (General Order). The General Order, which was adopted by the Central Valley Water Board on 2 October 2015, provides Waste Discharge Requirements (WDRs) for discharges of waste associated with medicinal cannabis cultivation activities. The General Order and associated documents are available at the following web address: http://www.waterboards.ca.gov/centralvalley/water_issues/cannabis/index.shtml

Based on the information provided in the NOI, the Central Valley Water Board has determined that the cannabis cultivation operation on Lake County Assessor's Parcel Number 011-068-230 is eligible for Tier 1 coverage under the General Order. This letter serves as formal notice that the Board has enrolled your operation under the General Order, and that the Board has assigned you Enrollee Number R5-2015-0113-0349. You should familiarize yourself with the entire General Order and its attachments, which prescribe mandatory discharge prohibitions, discharge specifications, and Best Management Practices (BMPs) for the protection of water quality.

TIER 1 DESCRIPTION AND REQUIREMENTS

Tier 1 medicinal cannabis cultivation operations are located on less than 30% slopes, occupy and/or disturb less than ¼ acre, and are not located within 200 feet of a wetland, Class I or Class II watercourse. Medicinal cannabis cultivators covered under the General Order must implement all applicable BMPs of the BMPs Manual, Attachment A to the General Order, and maintain a copy of the BMPs manual on premises where cannabis is being cultivated.

If you have any questions regarding compliance with the General Order or the Cannabis Cultivation Waste Discharge Regulatory Program please contact:

Trey Sherrell at (530) 224-4847, roy.sherrell@waterboards.ca.gov

(for) Pamela C. Creedon
Executive Officer

TS:reb

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File with DWR

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Page ___ of ___

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 486022

DWR USE ONLY — DO NOT FILL IN
12N/08W-18M
STATE WELL NO./STATION NO.
LATITUDE ___ LONGITUDE ___
APN/TRS/OTHER

Owner's Well No. ___
Date Work Began 7-D.W.R. Ended 7-15-92
Local Permit Agency Lake County Environmental Health
Permit No. WE 719 Permit Date 7-2-92

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

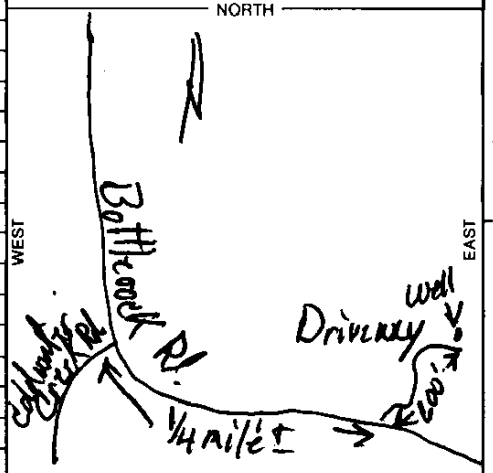
DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
0	1	Red Soil + Vol. Rock
1	15	Black Vol. Rock
15	180	No Returns (Vol.??)
180	220	Graywacke, Serpintine, Chert

TOTAL DEPTH OF BORING 220 (Feet)
TOTAL DEPTH OF COMPLETED WELL 220 (Feet)

WELL LOCATION

Address 11444 Bottlerock Rd.
City Cobb
County Lake
APN Book 11 Page 010 Parcel 48
or Township 12N Range 08W Section 18
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
X Domestic
___ Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Air FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 162 (Ft.) & DATE MEASURED 7-14-92
ESTIMATED YIELD* 6 (GPM) & TEST TYPE Air Lift
TEST LENGTH 1 (Hrs.) TOTAL DRAWDOWN 220 (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0	21	10 5/8	X				PVC	6"	125	
0	160	6 1/8	X				PVC	4"	160	
160	220	6 1/8		X			PVC	4"	160	1/8"

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	X			
20	220			X	3/8 Pea Gravel

AUG ?

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

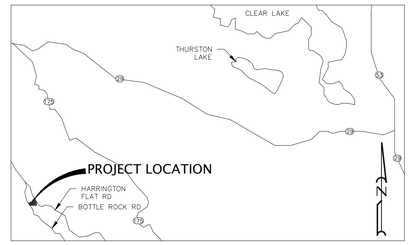
CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Dan McMullen Well Drilling 1603
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1487 Old Long Valley Rd. CITY Clearlake Oaks STATE CA ZIP 95423
Signed Dan McMullen WELL DRILLER/AUTHORIZED REPRESENTATIVE
DATE SIGNED 7-28-92 C-57 LICENSE NUMBER 533152

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM



FLORIBUNDA FARMS

11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY
APN:011-068-23-00

LEGEND:

- 1530 — CONTOUR ELEVATION
- FENCE
- LIMITS OF DISTURBED AREA
- ASPHALT
- GRAVEL
- EARTH
- FLOOD ZONE
- CREEK / SWALE
- (E) POWER POLE
- APN — ASSESSOR'S PARCEL NUMBER
- APPROX — APPROXIMATELY
- DWY — DRIVEWAY
- (E) — EXISTING
- (P) — PROPOSED
- RD — ROAD
- SF — SQUARE FEET

NOTES:

1. CONTOUR INTERVAL IS 10'

- (A) (E) RESIDENCE
- (B) (E) 24'x36' PROCESSING FACILITY (METAL BUILDING)
- (C) (E) GROUNDWATER WELL
- (D) (E) SEPTIC TANK
- (E) (E) 12'x16' WOODEN SHED
- (F) (E) 2'x4' PESTICIDE AND AGRICULTURAL CHEMICALS STORAGE AREA
- (G) (E) 2,500-GALLON WATER STORAGE TANK
- (H) (E) 12,000 SF OUTDOOR CULTIVATION AREA
  CIRCLES REPRESENT 75-6' DIA. 300-GALLON SMART POTS W/28.25 SF OF CANOPY EACH. 2,120 SF TOTAL AGGREGATE CANOPY.
- (I) (P) 30'x60' GREENHOUSE
- (J) (P) ADA / EMPLOYEE PARKING
- (K) (P) COMPOSTING AREA
- (L) (P) DESIGNATED REFUSE AREA

PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 ft.

Revisions:

REALM ENGINEERING
CIVIL ENGINEERING, SURVEYING & PLANNING
1767 MARKET STREET SUITE C
REDDING, CA. 96001
530-526-7493

JASON R. VAN
No. 67800
EXP. 06/30/19
CIVIL
STATE OF CALIFORNIA

PROPOSED CONDITIONS SITE PLAN

FLORIBUNDA FARMS
11444 BOTTLE ROCK RD
KELSEYVILLE, CA 95451
LAKE COUNTY APN#011-068-23-00

PLOTTED BY:
--- --- ---
DATE PLOTTED:
4/19/19
SCALE OF DRAWING:
SEE PLAN
JOB NUMBER:
CADD FILE:
SHEET:
1

WATER USE

Intent: To conserve the County's water resources by minimizing the use of water.

a) All permitted activities shall have a legal water source on the premises, and have all local, state, and federal permits required to utilized 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 permits required to utilize the water source, and have a written agreement between the property 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.
b) Permittees shall not engage in unlawful or unpermitted drawing of surface water.
c) 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.
d) 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.
e) 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.

This section shall:

- Identify the source of water, including location, capacity, and documentation that it is a legal source.
- Describe the proposed irrigation system and methodology.
- 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.
- Provide calculations as to the efficiency of the irrigation system using the methodology of the Model Water Efficient Landscape Ordinance (California Code of Regulations, Title 23, Division 2, Chapter 27).
- Describe the methodology that will be used to measure the amount of water used and the required monitoring.

Water Use Management Plan

Purpose and Overview

Floribunda Farms/Michael Blum is applying for a Commercial Cannabis Cultivation Minor Use Permit in Lake County, California for three A – Type 1C "specialty cottage" 25 mature plant outdoor cultivation areas. Upon receiving a permit from the County of Lake, Floribunda Farms/Michael Blum will apply for a state issued A-Type 1 "specialty outdoor" MAUCRSA license.

This Water Use Management Plan is designed to conserve Lake County's water resources and to ensure that the proposed cultivation operation's water use practices are in compliance with applicable County, State, and Federal regulations at all times. This Water Use Management Plan focuses on designing a water efficient delivery system and irrigation practices, and the appropriate and accurate monitoring and reporting of water use practices.

Water Source

There is an existing groundwater well on the Project Property (Latitude 38.883086° and Longitude -122.780791°) that currently serves as the water supply source for both the existing onsite residence and the existing cultivation area, and Floribunda Farms/Michael Blum plans to continue using it as the primary water source for the proposed cultivation operation. After it was drilled, the well had an estimated yield of six (6) gallons per minute. Floribunda Farms/Michael Blum estimates that the most water the proposed cultivation operation will need on the hottest and driest day in August when the plants are in their largest and fullest vegetative phase, is less than 500 gallons. To date, the well has successfully been able to meet all of the water demands/needs of the existing cultivation area and residence, and Floribunda Farms/Michael Blum is not proposing a significant increase in the cultivation area of the Project Property. Therefore, we can confidently estimate/anticipate that the existing onsite groundwater well can meet the water use demands of the proposed cultivation operation. Prior to the 2019 cultivation season, a continuous water level monitor will be installed in the existing well. Before installing the continuous water level monitor, samples will be collected from the existing well and analyzed for Total Coliforms, E. coli, and a suite of standard groundwater contaminants. Additionally, Floribunda Farms/Michael Blum will have a thorough well inspection and pump test performed by a California-licensed Well Drilling Contractor. Currently, Floribunda Farms/Michael Blum has a 2500-gallon water storage tank that store water from the well for fire suppression and the existing cultivation area. Floribunda Farms/Michael Blum will develop additional water storage capacity if the inspection and pump test indicate that the existing well cannot meet all of the proposed cultivation operation's water demands at all times.

Irrigation

From the CalCannabis Cultivation Licensing Program's Final Programmatic Environmental Impact Report (PEIR):
"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). In a study of cannabis cultivation in Humboldt County, approximate water use for an outdoor cultivation site was 27,470 gallons (0.08 acre-feet) per year on average and ranged from approximately 1,220 to 462,000 gallons per year (0.004 to 1.4 acre-feet), with the size of the operation being a major factor in this range. Annual water uses for a greenhouse operation averaged approximately 52,300 gallons (0.16 acre-feet) and ranged from approximately 610 to 586,000 gallons (0.002 to 1.8 acre-feet) annually (Butsic and Brenner 2016). During a field visit conducted by technical staff to an outdoor cultivation site, one cultivator reported using approximately 75,000 gallons (0.23 acre-feet) for 1 year's entire cannabis crop (approximately 66 plants), or approximately 1,140 gallons per plant per year."
The proposed cultivation operation's cultivation practices are most similar to commercial heirloom tomato production, which has an estimated water use requirement of 25 inches per year. Using an estimated water use requirement of 25 inches per year, the total proposed outdoor cannabis cultivation area is 12,000 ft^2 with an expected total annual water use requirement of approximately 187,000 gallons. The following table presents Floribunda Farms/Michael Blum's expected water use requirements for the proposed cultivation operation by month during the cultivation season in gallons.

April	May	June	July	August	September	October
3,000	10,000	15,000	15,000	15,000	15,000	10,000

Irrigation water for the proposed cultivation operation, will be pumped from the existing onsite well to the 2,500-gallon water storage tank located directly adjacent to the existing/proposed cultivation area, via an HDPE water supply line. The water storage tank will be equipped with float valves to shut off the flow of water from the well and prevent the overflow and runoff of irrigation water when full. An HDPE water supply line will be run from the water storage tanks to the irrigation systems of each of the proposed cultivation areas. The water supply lines will be equipped with redundant safety valves, capable of shutting off the flow of water so that waste of water and runoff is prevented/minimized when leaks occur and the system needs repair. The irrigation system of the proposed cultivation area(s) will be composed of PVC piping, black poly tubing, and drip tapes/lines. Supplemental irrigation may be applied when needed by hand using garden hoses.

Water Conservation

Per the Water Conservation and Use requirements outlined in the SWRCB's Cannabis General Order, Floribunda Farms/Michael Blum will implement the following Best Management Practices (BMPs) / Best Practical Treatment and Control (BPTC) measures to conserve water resources:

- Regularly inspect the entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks
- Install float valves on all water storage tanks to keep them from overflowing onto the ground
- Use water conserving irrigation systems/methods, such as drip/trickle and micro-spray irrigation and hand watering, and never overwater the plants
- Document and maintain daily records of all water used by the proposed cannabis cultivation operation

Water Efficient Landscape Worksheet

Section A. Hydrozone Information Table

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)	Hydrozone Area (HA) (ft^2)	PF x HA (ft^2)
Cultivation Area(s)	[1]Moderate/Medium	0.4- 0.6	13,800	5,520 – 8,280
Companion Herbs/Plants[2]	[2]Low	0-0.3	2,000	0 – 600

[1] Hops (*Humulus lupulus*) was used as an analog for Cannabis (Cannabis, Corn, Tomotoes, and Alfalfa are not listed in Water Use Classification of Landscape Species for the Clearlake Region)

[2] Lavender (*Lavandula spp.*) was used to represent the fragrant flowering and herb plants to be grown throughout cultivation operation

MAWA=(ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]
MAWA = Maximum Applied Water Allowance (gallons per year)
ETo = Reference Evapotranspiration (inches per year)
0.62 = Conversion Factor (to gallons)
0.7 = ET Adjustment Factor (ETAF)
LA = Landscape Area including SLA (square feet)
0.3 = Additional Water Allowance for SLA
SLA = Special Landscape Area (square feet)

ETWU = (ETo) (0.62) [(PF x HA)/IE + SLA)]
ETWU = Estimated Total Water Use per year (gallons)
ETo = Reference Evapotranspiration (inches)
PF = Plant Factor from Water Use Classification of Landscape Species
HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
SLA = Special Landscape Area (square feet)
0.62 = Conversion Factor
IE = Irrigation Efficiency (Drip Irrigation System Design Efficiency = 88%)

MAWA = (45.4) (0.62) [(0.7 x 15,800) + (0.3 x 0)] = 311,317 gallons
ETWU = (45.4) (0.62) [(8,880)/0.88 + 0] = 219,960 gallons

The proposed cannabis cultivation operation has a Maximum Applied Water Allowance greater than its Estimated Total Water Use, per the Water Efficient Landscape Worksheet.
The anticipated water usage of the proposed cultivation operation is 83,000 gallons (not 219,960 gallons as estimated in the Water Efficient Landscape Worksheet), which is less than a third of the Maximum Applied Water Allowance for the proposed cultivation operation.

Monitoring and Reporting

Prior to the 2019 cultivation season, a continuous water level monitor will be installed on the existing well. Inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7 will be installed on the main water supply line running between the groundwater well and the facilities/cultivation areas of the proposed cultivation operation. Floribunda Farms/Michael Blum will maintain weekly water level readings records and daily water meter readings records for a minimum of five years, and will make those records available to Water Boards, CDFW, and Lake County staff upon request.

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Page ___ of ___

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 486022

DWR USE ONLY — DO NOT FILL IN
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STATE WELL NO./STATION NO.
LATITUDE ___ LONGITUDE ___
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Owner's Well No. ___
Date Work Began 7-D.W.R. Ended 7-15-92
Local Permit Agency Lake County Environmental Health
Permit No. WE 719 Permit Date 7-2-92

GEOLOGIC LOG

ORIENTATION (✓) X VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE

DEPTH FROM SURFACE Ft.	to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
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1	15	Black Vol. Rock
15	180	No Returns (Vol.??)
180	220	Graywacke, Serpintine, Chert

TOTAL DEPTH OF BORING 220 (Feet)
TOTAL DEPTH OF COMPLETED WELL 220 (Feet)

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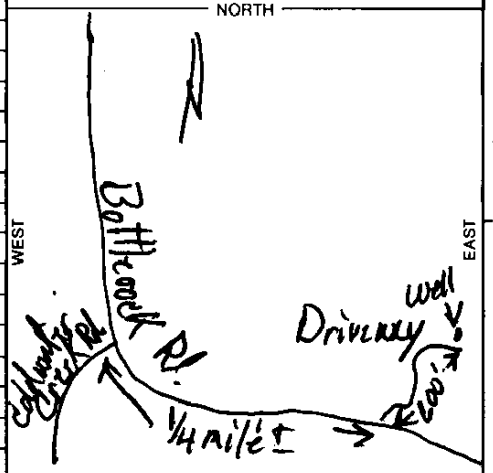
City Cobb
County Lake
APN Book 11 Page 010 Parcel 48
or Township 12N Range 08W Section 18
or Latitude ___ DEG. ___ MIN. ___ SEC. NORTH Longitude ___ DEG. ___ MIN. ___ SEC. WEST

LOCATION SKETCH



Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc.
PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
X NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
___ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

PLANNED USE(S) (✓)
___ MONITORING
WATER SUPPLY
X Domestic
___ Public
___ Irrigation
___ Industrial
___ "TEST WELL"
___ CATHODIC PROTECTION
___ OTHER (Specify)

DRILLING METHOD Air FLUID ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH OF STATIC WATER LEVEL 162 (Ft.) & DATE MEASURED 7-14-92
ESTIMATED YIELD* 6 (GPM) & TEST TYPE Air Lift
TEST LENGTH 1 (Hrs.) TOTAL DRAWDOWN 220 (Ft.)
** May not be representative of a well's long-term yield.*

CASING(S)

DEPTH FROM SURFACE Ft.	to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL/GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
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ANNULAR MATERIAL

DEPTH FROM SURFACE Ft.	to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	20	X			
20	220			X	3/8 Pea Gravel

AUG ?

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
___ Other ___
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Dan McMullen Well Drilling 1603
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1487 Old Long Valley Rd. CITY Clearlake Oaks STATE CA ZIP 95423
Signed Dan McMullen WELL DRILLER/AUTHORIZED REPRESENTATIVE
DATE SIGNED 7-28-92 C-57 LICENSE NUMBER 533152

DWR 188 REV. 7-90

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

Site Photos

Metal gate at eastern entrance to Project Property (east view from Bottle Rock Road)

Gravel access road/driveway of Project Property (west view from existing parking area)

Existing 864 ft^2 metal building/proposed Processing Facility (east view from parking area)

Existing ~1,300 ft^2 residence of Project Property (not directly associated with cultivation operation)

Existing/proposed outdoor cultivation area and wire fence around cultivation area (south view)

Existing/proposed outdoor cultivation area (north view)

Area of proposed greenhouse structure/Immature Plants Cultivation Area (west view)

Existing groundwater well/water supply source