EAST SIDE FARMS
PROPERTY MANAGEMENT PLAN

APPLICANT

East Side Farms, Inc.

PROJECT LOCATION

23083, 23119, 23131 & 23143 Jerusalem Grade
Lower Lake / Middletown, CA 95457
Lake County APNs 013-015-39, 40, 43 & 57

PROJECT PROPERTY

Lake County APNs 013-015-36, 38, 39, 40, 43 & 57

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I - Water Use Management Plan

PROJECT DESCRIPTION

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF currently operates an A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616.

The rural lands-zoned Project Property is composed of six parcels totaling approximately 35-acres (Lake County APNs 013-015-36, 38, 39, 40, 43 & 57), all of which are owned by Mr. Ross Cunningham, who is the owner and operator of East Side Farms, Inc. The Project Property is located in the Jerusalem Valley, within the Soda Creek Watershed (HUC 12), and approximately 7.5 miles northeast of Middletown, CA. The Project Property is accessed via a shared gravel access road that connects to Jerusalem Grade approximately 600 feet east of the Project Property. Current land uses of the Project Property include rural residential estates and commercial cannabis cultivation.

The Project Parcels and existing/proposed cultivation areas are accessed via private gravel access roads off of the shared private gravel access road. Locking metal gates control access to the private gravel access roads of the Project Parcels. The Project Parcels have been improved with two groundwater wells (within wooden well houses), a residence, a wooden bam, a metal building, two wooden sheds, five 2,500-gallon water storage tanks, and a 30,000-gallon metal fire water storage tank. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden bam for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip and micro-spray irrigation systems.

All water for the existing/proposed cultivation operation is/will be supplied from the two existing onsite groundwater wells (no surface water diversions associated with the existing/proposed cultivation operation). Irrigation water from the onsite groundwater wells is/will be stored within eight 2,500-gallon heavy-duty plastic water storage tanks, and delivered to the existing/proposed

cultivation areas via polyvinyl chloride (PVC) piping. Water for the 30,000-gallon metal fire water storage tank and existing outdoor cultivation area on APN 013-015-57 is/will be provided by the groundwater well located at Latitude 38.810926° and Longitude -122.488773° (identified as "B" on Site Plans). Water for the proposed immature plant area, existing outdoor cultivation area on APN 013-015-43, and proposed outdoor cultivation area on APN 013-015-40 is/will be provided by the groundwater well located at Latitude 38.809398° and Longitude -122.488449° (identified as "A" on Site Plans).

Three ephemeral Class III watercourses form on and flow off of the Project Property. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within the existing onsite Pesticide & Agricultural Chemicals Storage Area (wooden shed). Only pesticides approved by the California Department of Pesticide Regulation and/or the California Department of Food and Agriculture for use on cannabis are/will be used.

All cannabis waste generated from the existing/proposed cultivation operation is/will be chipped and composted onsite. Composted cannabis waste is/will be stored in the designated composting area, until it is incorporated into the growing medium of the cultivation areas, as an organic soil amendment. All solid waste is/will be stored in bins with secure fitting lids until being disposed of at the Eastlake Landfill, at least once a week during the cultivation season.

Power is/will be provided to the security cameras, lights and well pumps of the Project Property via ground and roof-mounted solar panels with battery storage/backup systems. The proposed Processing and Drying Buildings (existing and proposed metal buildings) will be equipped with fans, lights and dehumidifiers. Power would be provided to the Processing and Drying Buildings from roof-mounted solar arrays and battery banks. Two quiet and fuel efficient gasoline-powered generators will be used as a backup power sources for the proposed Processing and Drying Buildings, for when power cannot be supplied from the roof-mounted solar arrays and battery banks.

SITE PLANS AND MAPS

Sheet 1 - Location Map

Sheet 2 - Surrounding Area Aerial

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Sheet 4 - Proposed Conditions Site Plan

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Sheet 6 - Security Site Plan

Sheet 7 - Erosion & Sediment Control Site Plan

Sheet 8 - Drying Building Layout

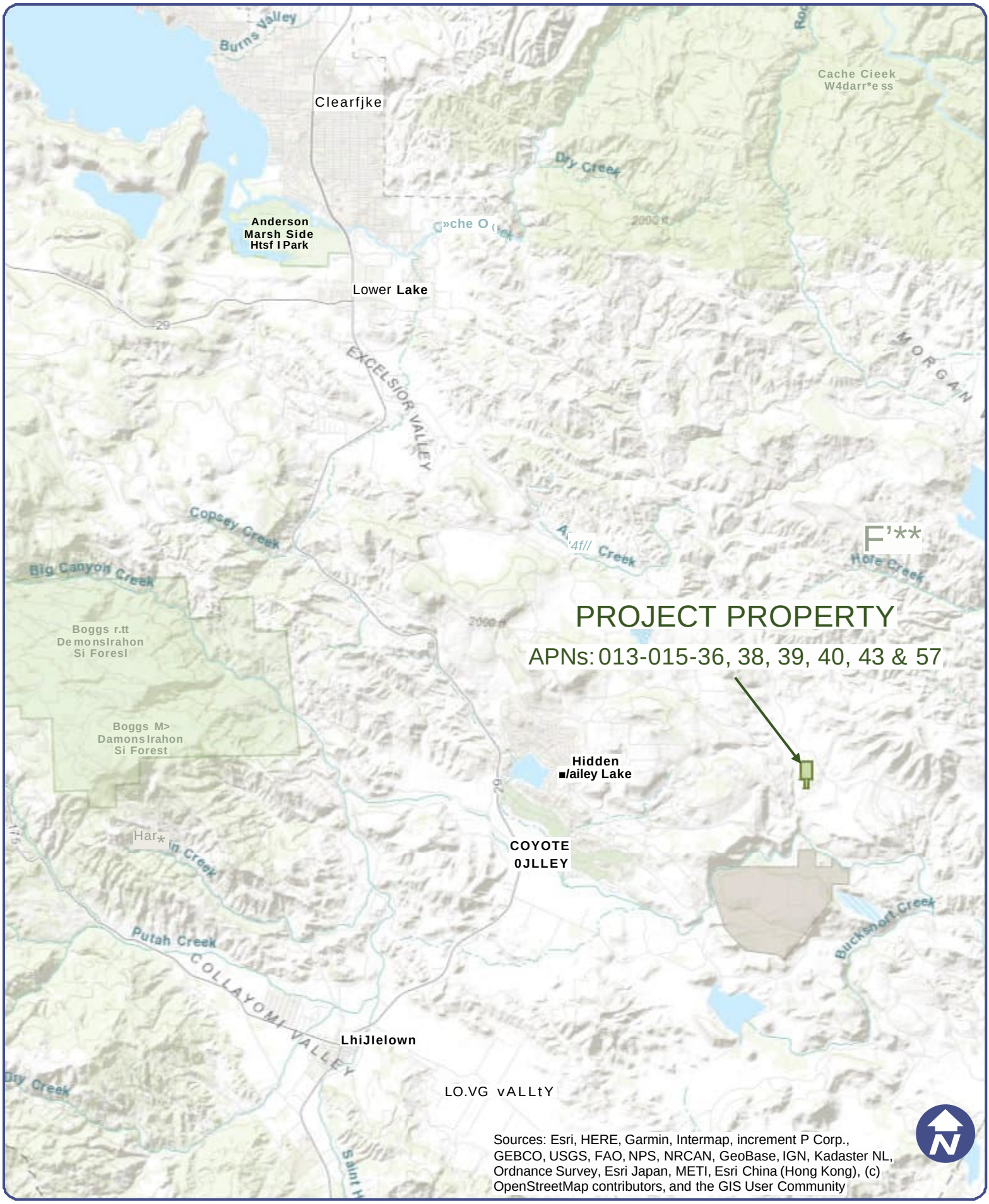
Sheet 9 - Processing Building Layout

Sheets 10 - Processing Building Elevations (End Walls)

Sheet 11 - Processing Building Elevation (Side)

Sheet 12 - Immature Plant Greenhouse Layout

Sheet 13 - Immature Plant Greenhouse Elevation



Lake County, CA

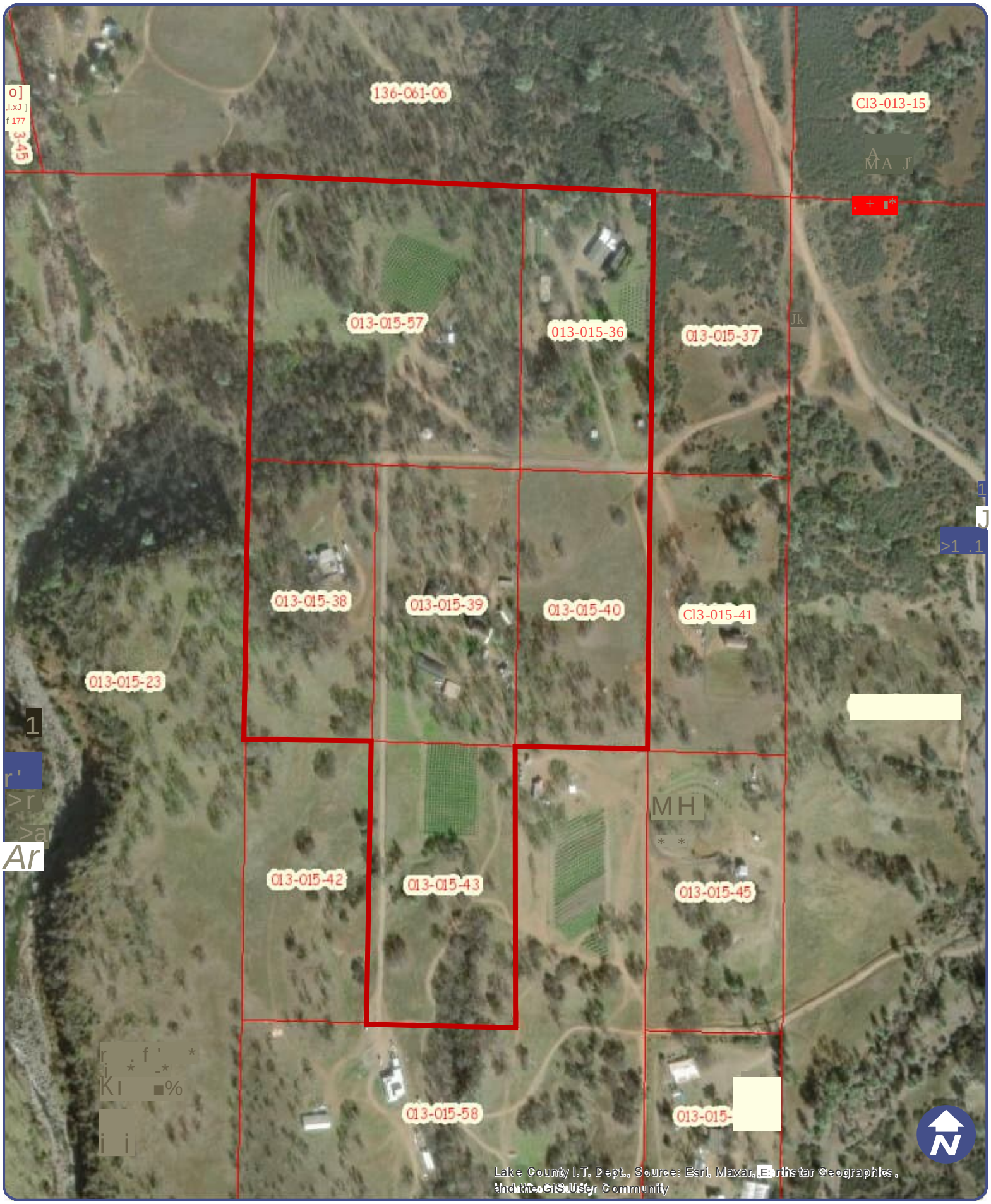
LOCATION MAP

Web AppBuilderfor ArcGIS

mi
0 2 4

All parcel bou ndaries are *approximate*. Discrepancies in acerage, shape and location are common.
This map is notthe legal survey document to be used in single site determinations. Consult your deed for a legal parcel description.

Print Date: 11/5/2024



Lake County, CA

SURROUNDING AREA AERIAL

Web AppBuilderfor ArcGIS

mi
0 0.07 0.14

All parcel boundaries are *approximate*. Discrepancies in acerage, shape and location are common.
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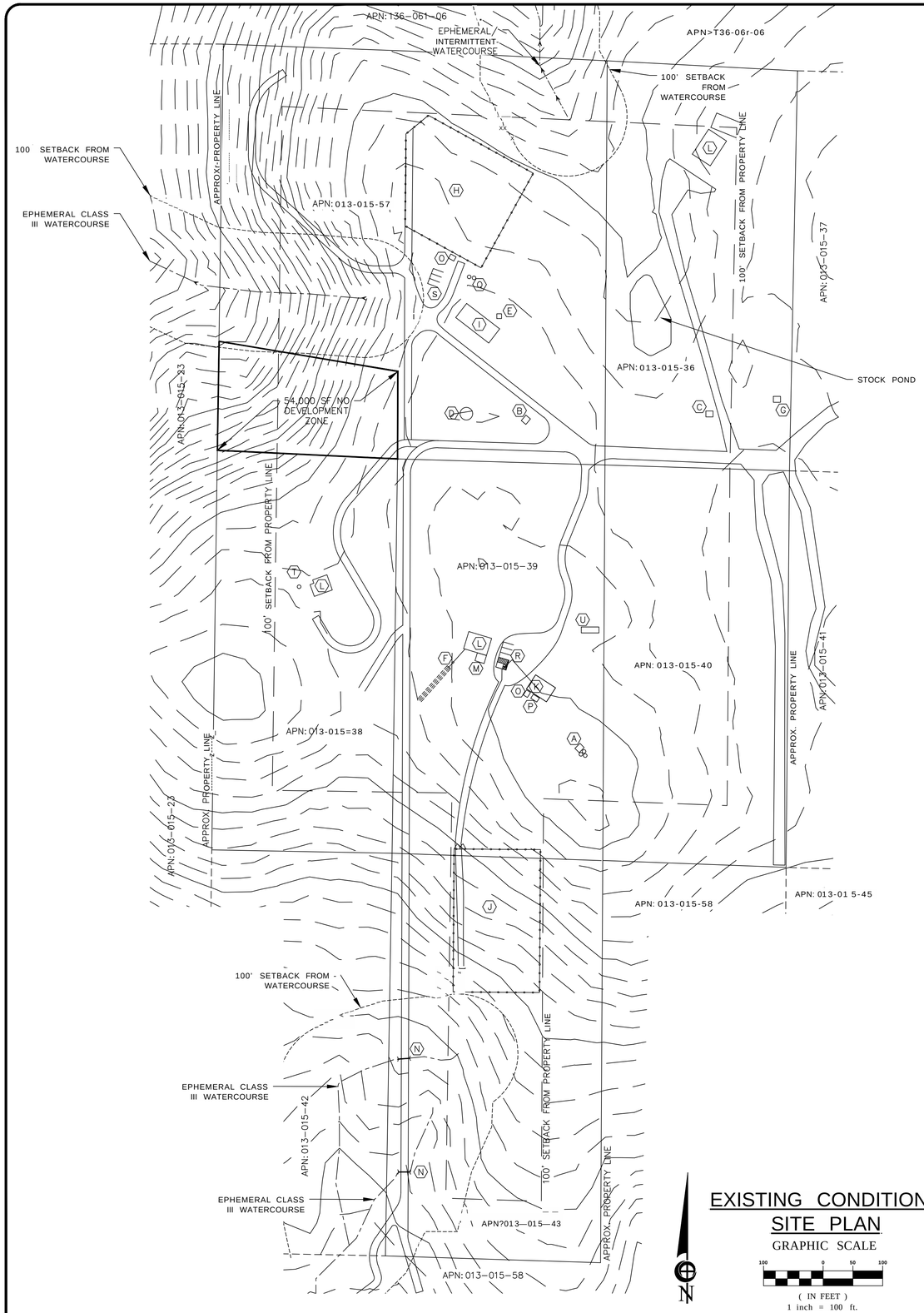
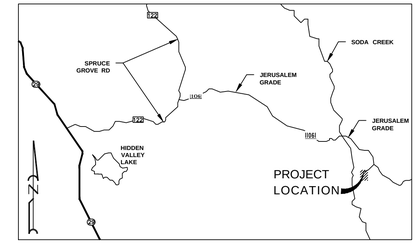


EXISTING CONDITIONS SITE PLAN

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.



VICINITY MAP
NO SCALE

EAST SIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95461 - LAKE COUNTY
APNS:013-015-36, 38, 39, 40, 43 & 57

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
°Qo	(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 5'

(A) (E) GROUNDWATER WELL & THREE 2,500 GAL WATER STORAGE TANKS:
LAT: 38.809398°
LONG: -122.488449°

(§) (E) GROUNDWATER WELL & 10'x12' WELL HOUSE
LAT: 38.810926°
LONG: -122.488773°

<C> (E) GROUNDWATER WELL & 10'X12' WELL HOUSE
LAT: 38.81094°
LONG: -122.48775°

(D) (E) 30,000 GAL. METAL FIRE WATER STORAGE TANK

(E) (E) 8'x8' PESTICIDES AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) SEPTIC AREA

(G) (E) 1O'x12' SHED

(H) (E) 34,346 SF OUTDOOR CULTIVATION AREA

(I) (E) 30'x70' METAL AGRICULTURE STORAGE BUILDING

(J) (E) 34,800 SF OUTDOOR CULTIVATION AREA

(K) (E) 28'x40' CANNABIS DRYING & STORAGE FACILITY

(L) (E) RESIDENCE

(M) (E) 14'x16' WOODEN SHED

(N) (E) 12" CMP CULVERT

(O) (E) DESIGNATED REFUSE AREAS

(P) (E) COMPOST AREA

(Q) (E) TWO 2,500 GAL WATER STORAGE TANKS

(R) (E) EMPLOYEE PARKING / A.D.A.

(S) (E) EMPLOYEE PARKING

(T) (E) GROUNDWATER WELL & 10'X12' WELL HOUSE
LAT: 38.81013°
LONG: -122.49016°

(U) (E) GROUND-MOUNTED SOLAR ARRAY

Revisions:

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REGISTERED PROFESSIONAL ENGINEER
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EXISTING CONDITIONS SITE PLAN

EASTSIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95819
LAKE COUNTY APNS:013-01 5-34, 013-015-35, 013-015-39 & 013-015-43

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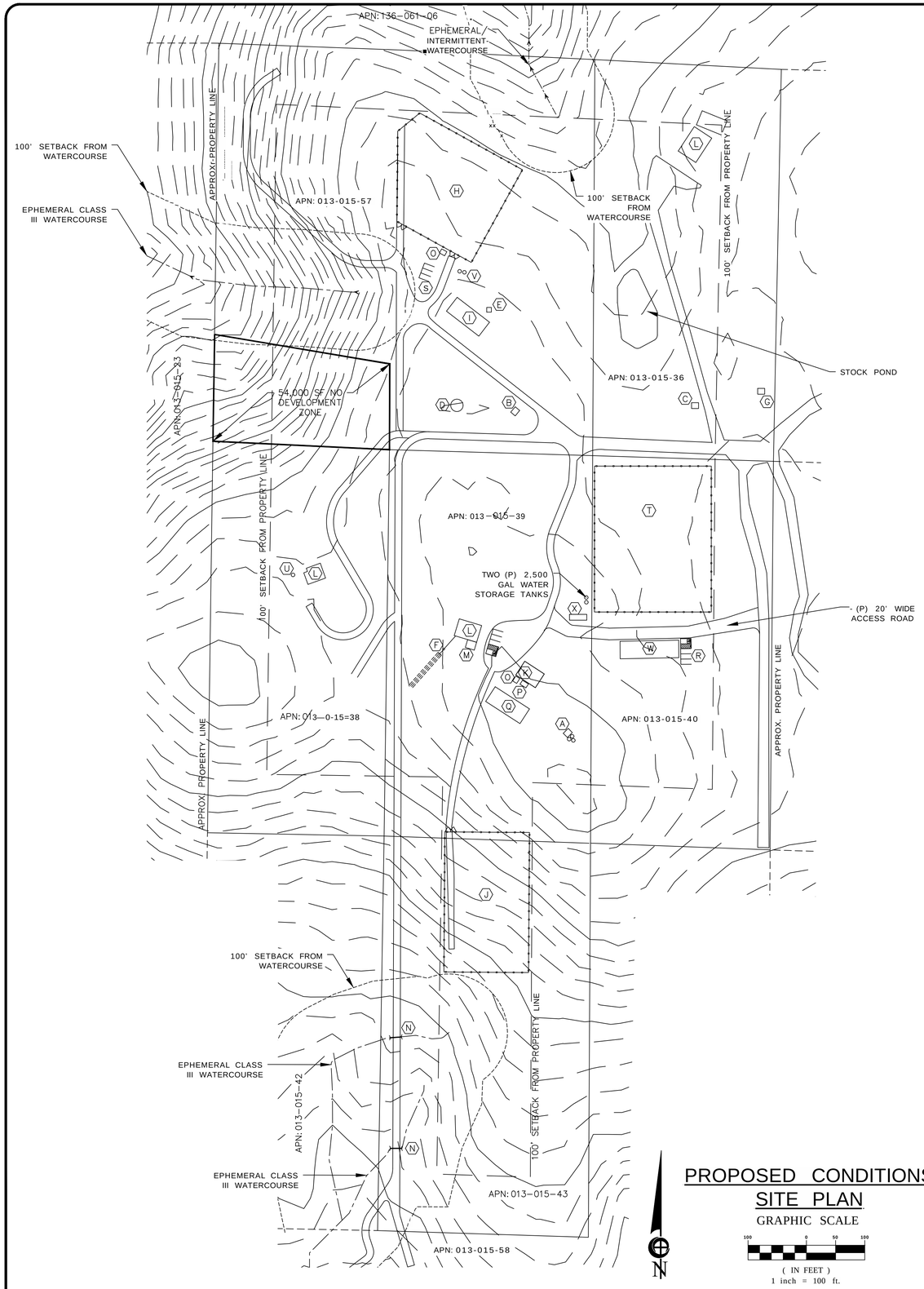

PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	(E) POWER POLE
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
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RD	ROAD
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NOTES:
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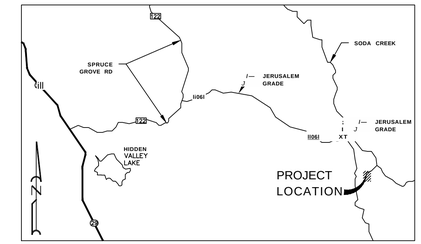

VICINITY MAP
NO SCALE

EAST SIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95461 - LAKE COUNTY
APNS:013-015-36, 38, 39, 40, 43 & 57

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(Q) (P) 30'x70' GREENHOUSE / IMMATURE PLANT AREA

(R) (P) EMPLOYEE PARKING / A.D.A.

(S) (E) EMPLOYEE PARKING

(T) (P) 200' X 250' (50,000 SF) OUTDOOR CULTIVATION AREA

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LAT: 38.81013°
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<V> (E) TWO 2,500 GAL WATER STORAGE TANKS

<W> (P) 30'x100' (3,000 SF) PROCESSING BUILDING

<X> (E) GROUND-MOUNTED SOLAR ARRAY

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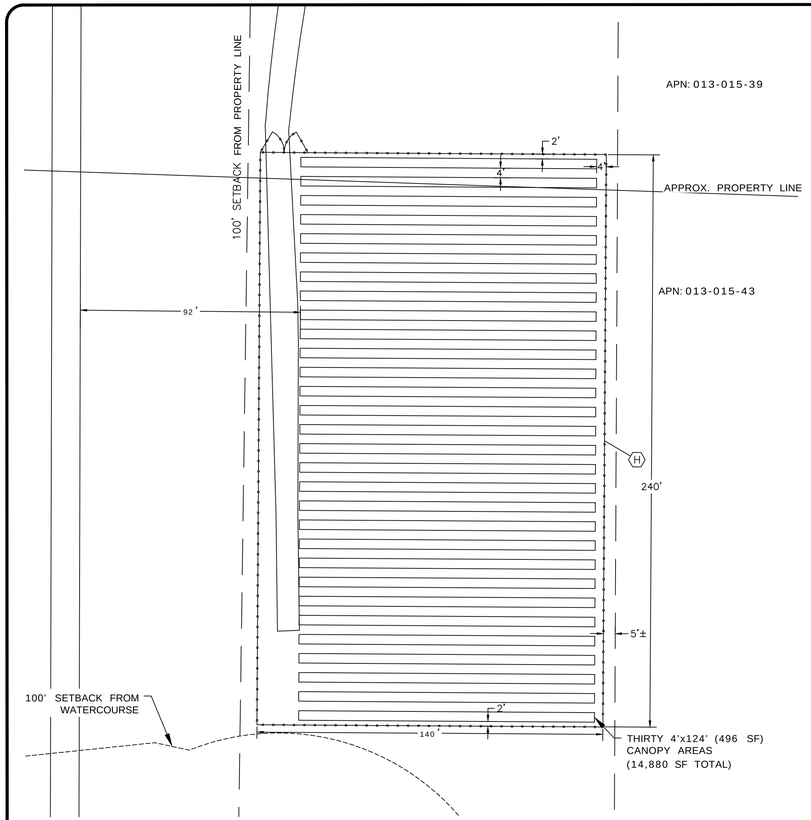


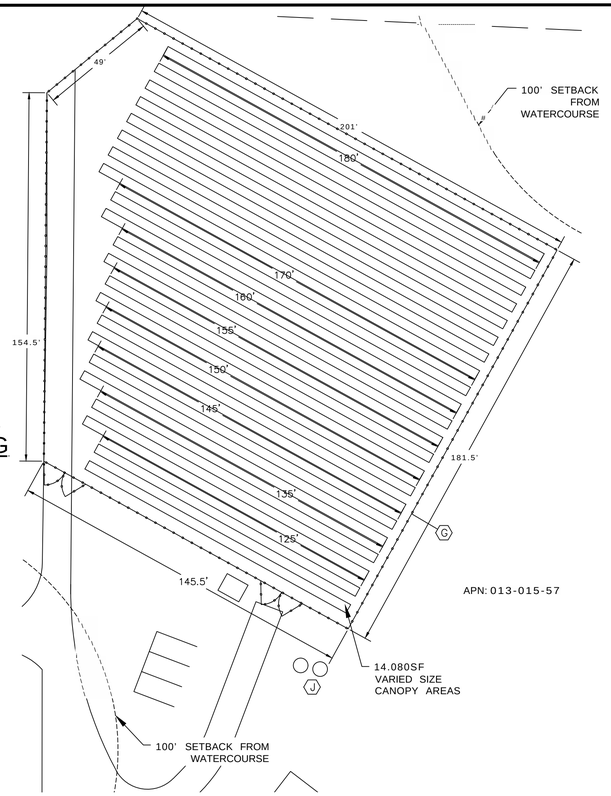
CULTIVATION SITE PLAN WITH CANOPY- EXISTING

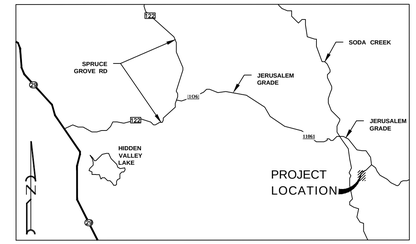
GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

N





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NO SCALE

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LEGEND:

1530	CONTOUR ELEVATION
	FENCE
IW	ASPHALT
	GRAVEL
	EARTH
Qj	(E) POWER POLE
APN	ASSESSOR'S PARCEL NUMBER
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NOTES:
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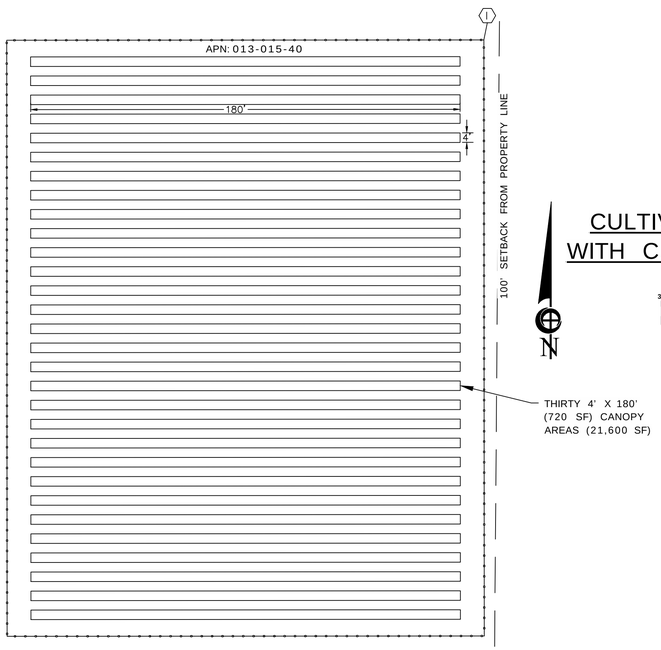

CULTIVATION SITE PLAN WITH CANOPY- PROPOSED

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

N

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(E) 34,346 SF OUTDOOR CULTIVATION AREA

(E) 34,800 SF OUTDOOR CULTIVATION AREA

(E) 200' X 250' (50,000 SF) OUTDOOR CULTIVATION AREA

(E) TWO 2,500 GAL WATER STORAGE TANKS

Revisions:

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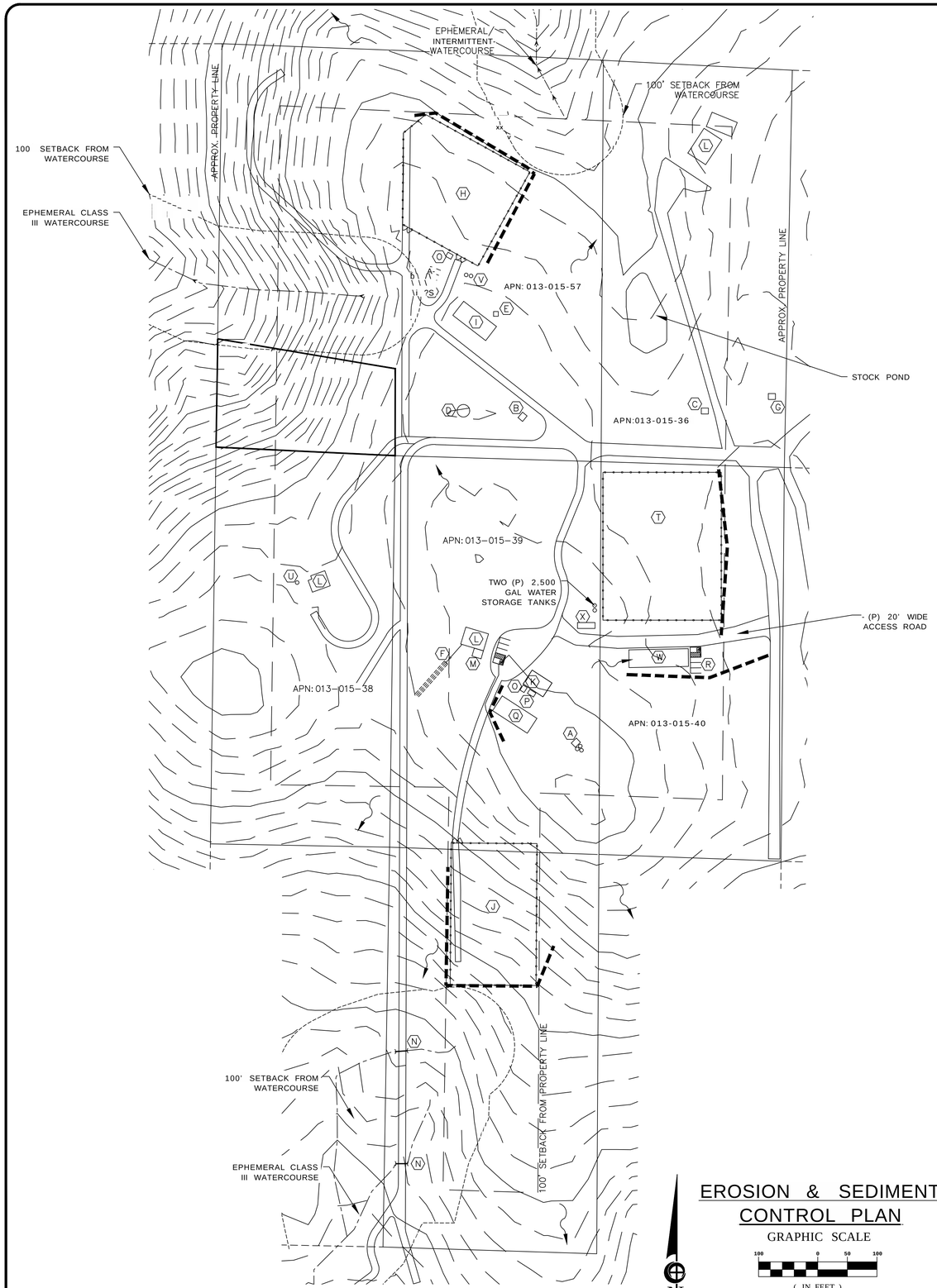

EROSION & SEDIMENT CONTROL PLAN

GRAPHIC SCALE

100 0 50 100

(IN FEET)
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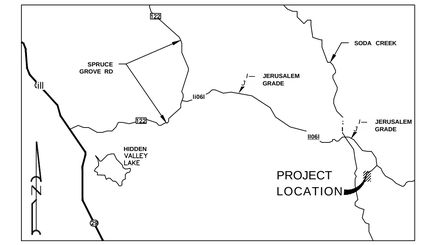


VICINITY MAP
NO SCALE

EAST SIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95461 - LAKE COUNTY
APNS:013-015-36, 38, 39, 40, 43 & 57

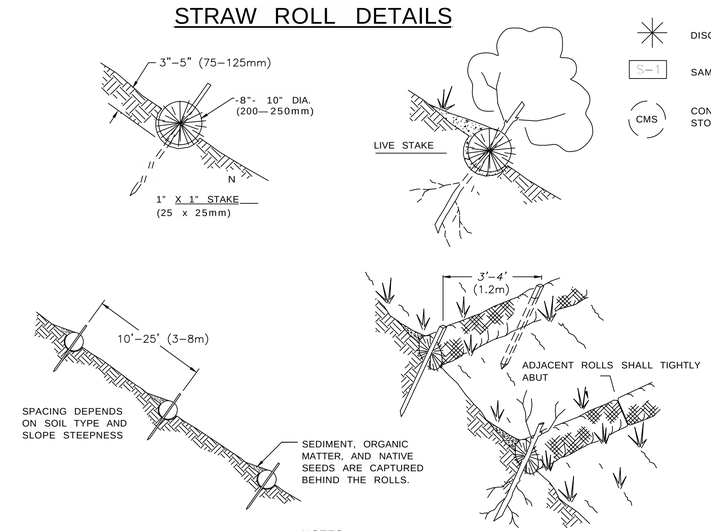
LEGEND:

-----1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	(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 5'

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

STRAW ROLL DETAILS



NOTES:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. STRAW ROLLS MUST BE PLACED ALONG SLOPE CONTOURS

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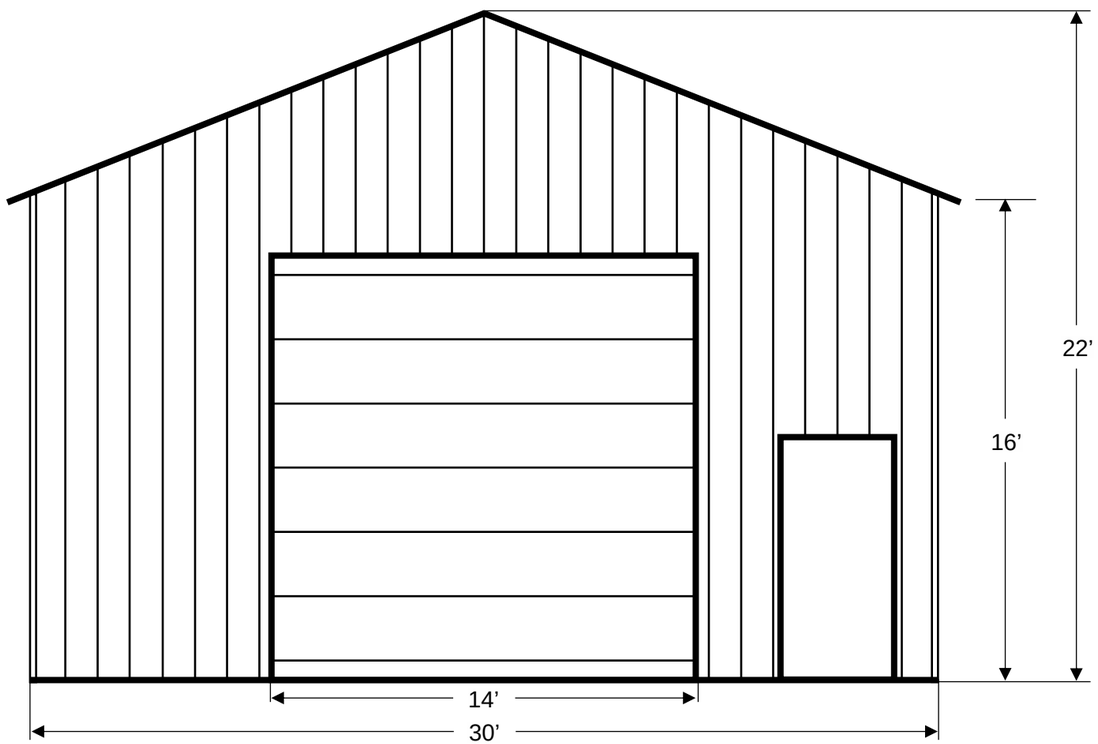
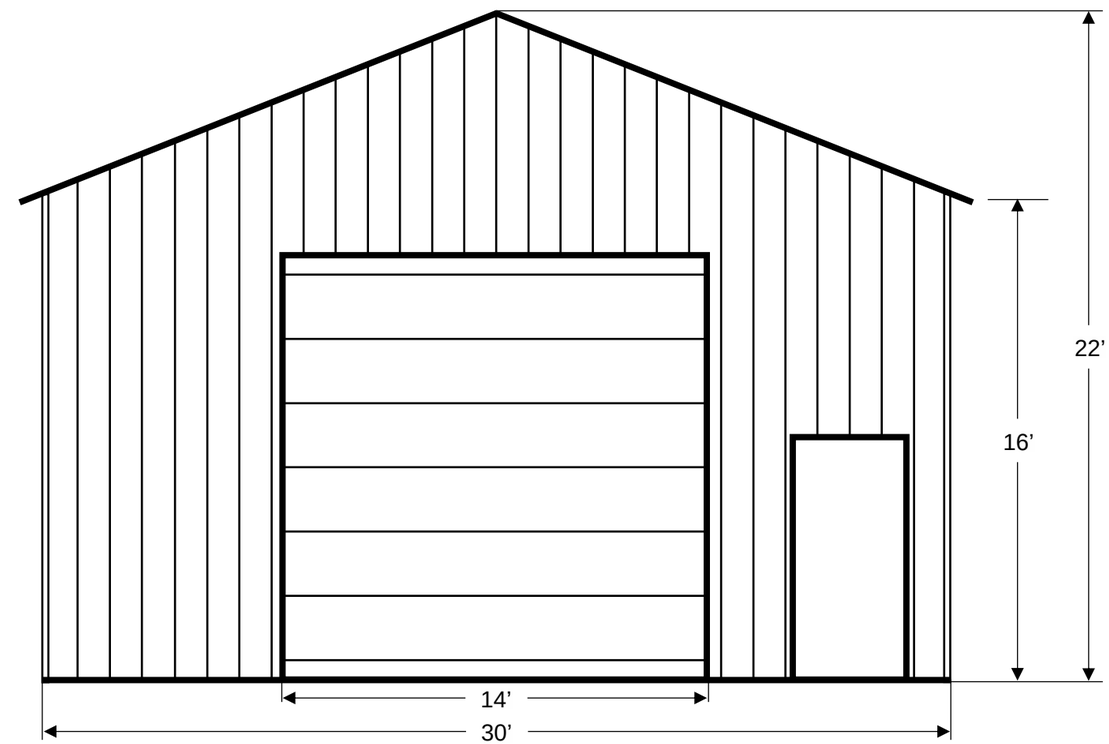
PROCESSING BUILDING ELEVATIONS



EAST END WALL ELEVATION

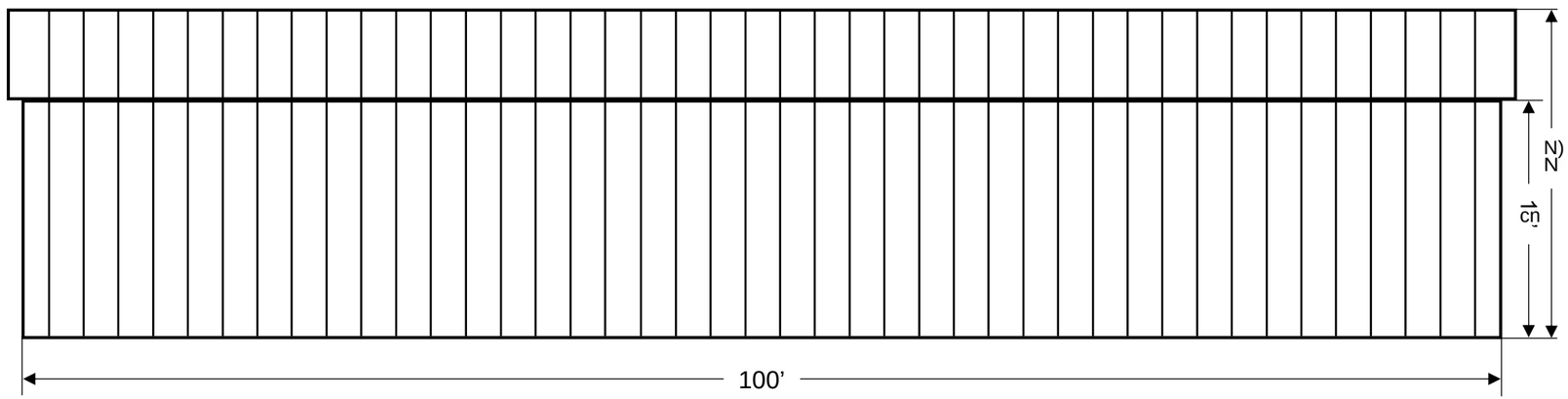
SCALE: 1” = 5’



WEST END WALL ELEVATION

SCALE: 1” = 5’

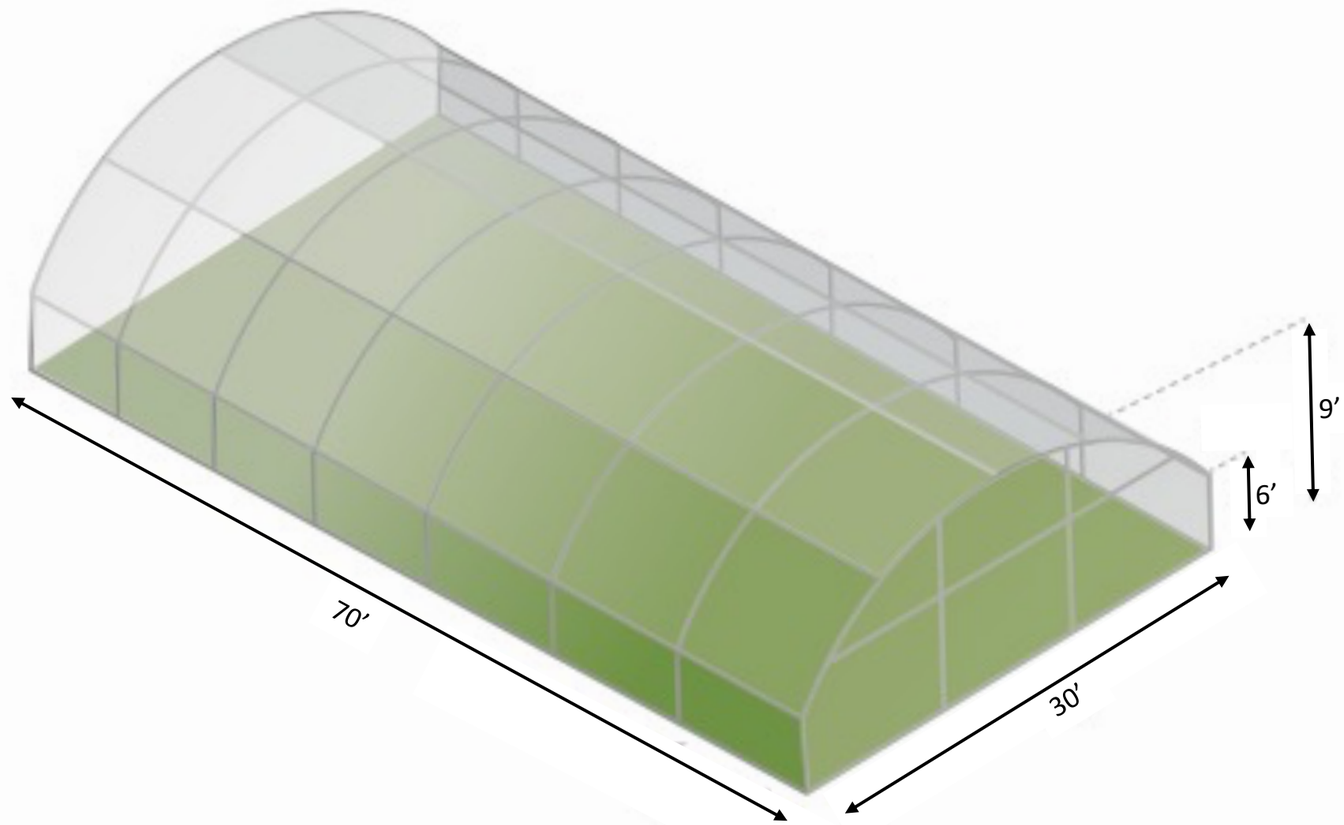
PROCESSING BUILDING ELEVATION



PROCESSING BUILDING SIDE ELEVATION

SCALE: 1” = 10’

IMMATURE PLANT GREENHOUSE ELEVATION



SECTION - C

AIR QUALITY MANAGEMENT PLAN

Air Quality Management Plan

Purpose and Overview

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). ESF currently operates an existing A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616. The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden barn for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip irrigation systems. All water for the existing and proposed cultivation operation is/will be supplied from two existing onsite groundwater wells. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within an existing onsite wooden shed, and all cannabis waste is/will be chipped and composted onsite.

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 the County of Lake 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 particles from the proposed cultivation operation. However, no single source or combined sources are 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. The generation of carbon dioxide would be offset by the cultivation of cannabis plants, which remove carbon dioxide in the air for photosynthesis.

Fugitive Dust: The proposed cultivation operation may generate fugitive dust emissions through ground-disturbing activities, uncovered soil or compost piles, and vehicle or truck trips on unpaved roads. Fugitive dust would be controlled by applying gravel or crushed rock (no white rock) to the primary access roads and parking areas of the Project Property, by delaying ground disturbing activities until site conditions are not windy, by wetting soils with a mobile water tank and hose during ground disturbing activities, and by eliminating and/or covering soil stockpiles.

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) after harvest. No significant odor impacts are anticipated from the proposed cultivation operation, due to the generous setbacks provided from property lines, neighboring residences, and outdoor activity areas. The proposed Processing Building will be equipped with an air ventilation system that utilizes carbon filters/air scrubbers to prevent odors from emanating from the building.

Monitoring and Maintenance

The carbon filters/air scrubbers of the proposed Processing Building's ventilation system will be replaced each quarter. Management will log and maintain accurate records, repairs, and replacements to the ventilation/odor mitigation system, and those records will be maintained onsite for at least three years. Management will review all documentation pertaining to the performance of this AQMP annually, to determine if the risk of nuisance odors or other air contaminants are within acceptable tolerances, or if they can be mitigated further by implementing new best management practices or advanced mechanical systems. 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

A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriffs 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. The Community Liaison/Emergency Contact will provide their name, cell phone number, and email address to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. The Community Liaison/Emergency Contact will encourage neighboring residents and property owners to contact them to resolve any operating problems before contacting County Officials/Staff.

When an odor complaint is received, the Community Liaison/Emergency Contact will immediately take action to determine the source of the odor for which the complaint was received (cultivation areas or other). Then mitigation methods will be implemented to reduce/eliminate odors from emanating from the source. Depending on the source, mitigation measures include erecting windscreens and/or the installation of additional air pollution/odor control equipment.

Community Liaison/Emergency Contact Information

The Community Liaison/Emergency Contact for the existing/proposed cultivation operation is Mr. Isaac Cohen. Mr. Cohen's cell phone number is (707) 264-9298, and his email address is pinball28@gmail.com. There are three residences within 250 feet of the Project Property. The residents and owners of all properties within 250 feet of the Project Property, have already been provided with Mr. Cohen's contact information.

SPECIALTY FILTRATION

Carbon Pleat (p.2-3)

Carbon Honeycomb (p.4-5)

FP Gas Phase (p. 6-7)

Paint Collection (p.8-10)

NESHAP/EPA Method (p. 11-12)

Filter Accessories (p. 13-14)

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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.

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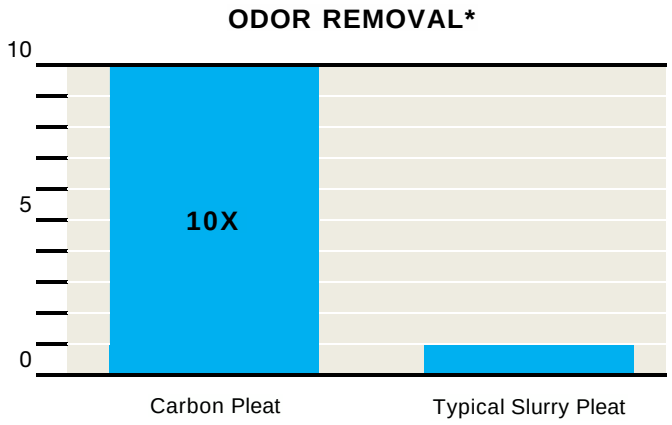
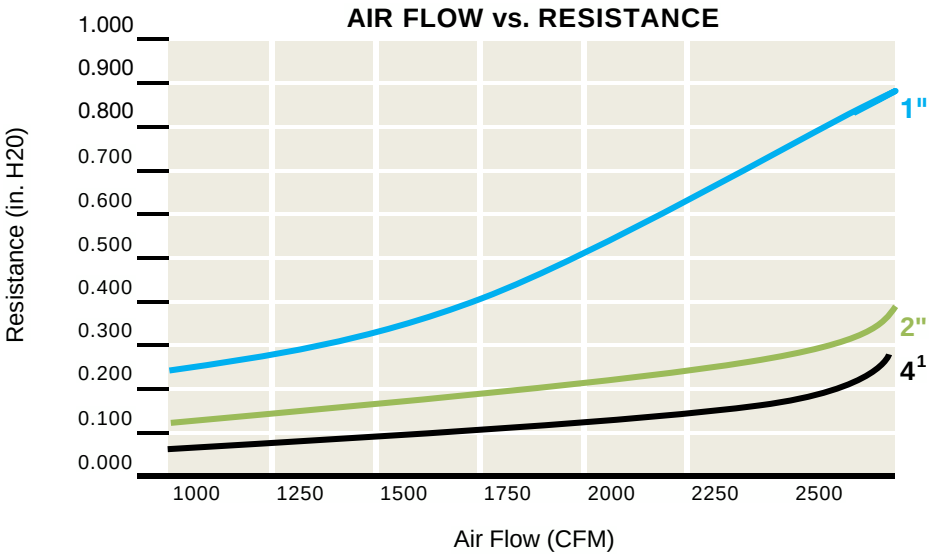
CARBON PLEAT

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.) H	W	D	Initial Resistance @ 250 FPM C'w.g.)	Initial Resistance @ 500 FPM C'w.g.)	Grainger #
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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AirHandler®

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.

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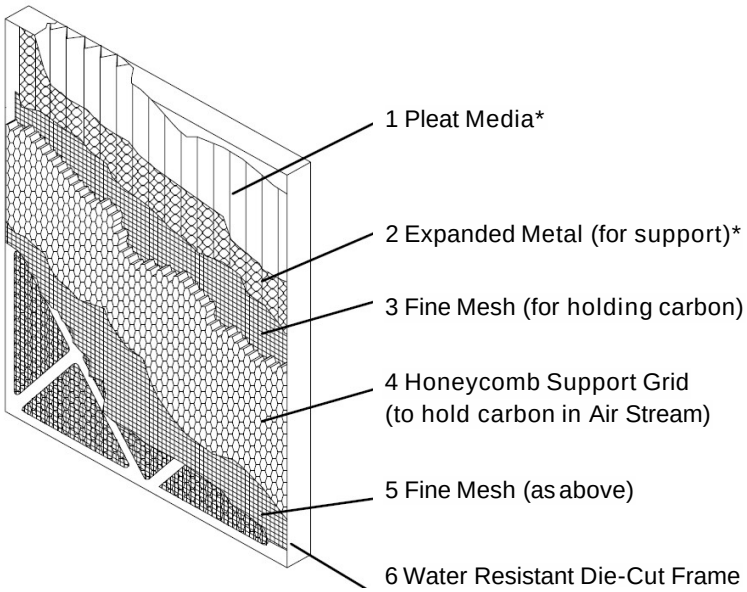
CARBON HONEYCOMB

ODORS REMOVED

- Cooking Odors
- Sewer Odors
- Gasoline Fumes
- Environmental Tobacco Smoke
- ▶ J* 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 or 1" PLEATED 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

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

1" PLEATED PRE-FILTER

			50% Carbon Fill (No Pre-Filter)	100% Carbon Fill (No Pre-Filter)	100% Carbon Fill (with Pre-Filter)
H	W	D	Grainger #	Grainger #	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

0.5" POLY PRE-FILTER

1" PLEATED PREFILTER

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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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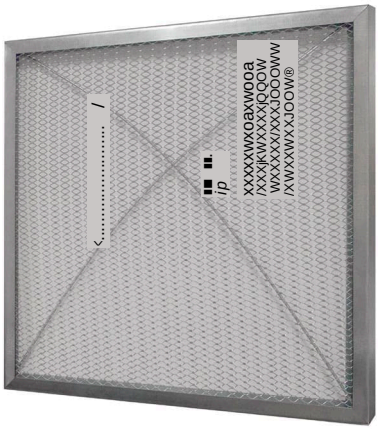
FILTER ACCESSORIES

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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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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SECTION - D

CULTURAL RESOURCES STUDY
(REDACTED)

SECTION – E

BIOLOGICAL RESOURCES ASSESSMENT

BIOLOGICAL RESOURCES ASSESSMENT

23071-23143 JERUSALEM GRADE [APN 013-015-36, 013-015-39, 013-015-40, 013-015-43 & 013-015-57]

LAKE COUNTY, CALIFORNIA

PREAPRED FOR:

California Cannabis Consultants
23131 Jerusalem Grade
Lower Lake, California 95457

PREPARED BY:

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PROJECT N2 LAK091

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JULY 10, 2024

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this Biological Resources 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 are analysis of potential impacts to special-status species and habitats from proposed project activities, and avoidance and minimization measures for any sensitive species or habitats onsite that may be impacted by project activities.

1.2 PROJECT SUMMARY

The proposed project involves permitting of a commercial *Cannabis* cultivation facility on five parcels located at 23071, 23131, 23083, 23143, and 23119 Jerusalem Grade in unincorporated Lake County near the town of Lower Lake (Figure 1). Existing cultivation areas are shown in the locations shown in Figure 2. The proposed cultivation site is to be located in the grassland portion of parcel 013-015-40. The parcels can be accessed via graded dirt and gravel road that branches to the north off of Jerusalem Grade, that is in good condition. Several special-status species were found as well as one sensitive plant community type, however these should be able to be avoided or relocated as described in Section 3.0, below. There are several culvert crossings on Class III ephemeral drainages however none of these are required to reach the cultivation or work areas. There are no areas that appear to be jurisdictional wetlands. All parcels have received two early and late spring special-status plant surveys except for APN 013-015-40 that still requires an early spring plant survey that should be performed in 2025 as described in Section 3.0, below. As long as this future plant survey does not detect any special-status plants in the project area, the project as designed should have no impact on sensitive species or habitats if the measures described in Section 3.0, below, are implemented to the greatest extent practicable.

1.3 LOCATION

1.3.1 Site Overview

The project area is located in unincorporated Lake County, 3.8 miles east of Lower Lake, 9.6 miles southeast of Lower Lake, and 28 miles southwest of Lakeport (Figure 1). The project is located at 23071, 23131, 23083, 23143, and 23119 Jerusalem Grade, and assigned respective Assessor's Parcel Numbers (APN) 013-015-36, 013-015-39, 013-015-40, 013-015-43 & 013-015-57 (Figure 2). The parcels are located in Section 14, Township 11 North, Range 6 West, on the USGS Jericho Valley 7.5

minute quad. All five parcels are zoned Rural Lands (RL), are under the jurisdiction of the Central Valley (Region 5) Regional Water Quality Control Board (RWQCB), and the North-Central Region (District 2) of the California Department of Fish & Wildlife (CDFW).

1.3.2 Federal Critical Habitat

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 4.3 miles to the northwest of the project parcel for Slender Orcutt grass *(Orcuttia tenuis)* near Little High Valley. There is also FCH for Slender Orcutt grass 18 miles to the west associated with Bogg's Lake. The next nearest species with designated FCH is for Northern spotted owl *(Strix occidentalism* NSO) located 13 miles to the west near Cobb Mountain. There is no other FCH within 10 miles of the project parcel.

1.3.3 CNDDB Occurrences

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, with all SSS known from a 15 mile radius around the project parcel highlighted. Additionally, map-based representation of all of the SSS within a 5 mile radius around the project site is provided in Appendix B.

There is one known occurrence of special-status animal species from the project parcel, an indistinct locality of Prairie Falcon *(Falco mexicanus)* located in the Jericho Valley 7.5 minute USGS quad, observed in 1991. The next nearest known occurrence of SSS animal species is Foothill Yellow-Legged Frog *(Rana boyliv,* FYLF) observed in 2018 located 1.9 miles north of the project parcel in Soda Creek. There is also an occurrence of FYLF 2.6 miles south of the parcel in Putah Creek. The next nearest known occurrences of SSS animal species is Western Pond Turtle *(Emys marmorata)* observed in 1946 located 2.4 miles southeast of the project parcel in Putah Creek (Appendix C). The next nearest known occurrence of special-status animal species is Bald Eagle *(Haliaeetus leucocephalus)* located 2.7 miles southwest of the project parcel near McCreary Lake. The next nearest occurrence of SSS animal species is Golden Eagle *(Aquila chrysaetos)* observed in 1992 located 3.7 miles west of the project parcel near Hunting Creek. There are no other known SSS animal species from within 3 miles of the project parcel (Appendix C).

Several special-status plant species are known from the project parcel, as described in Section 2.0, below. Aside from these known species onsite, there are 19 different special-status plant species known from within 5 miles of the project parcel (Appendix C). Two special-status species are known from an adjacent parcel to the south based on field surveys by PRC in 2024: Sharsmith's Western Flax *(Hesperolinon sharsmithiae)* and Colusa layia *(Layia septentrionalis).* The nearest known occurrence of special-status plant species in the CNDDB database is an indistinct locality of Sharsmith's Western Flax observed in 2010 whose boundary comes as close as 0.13 miles east of the project parcel. There is another occurrence of Sharsmith's Western Flax located 0.4 miles northeast of

the project parcel in Jerusalem Valley. The next nearest known occurrence of special-status plant species is Adobe Lily *(Fritillaria pluriflora}* observed in 2015 located 0.4 miles southeast of the project parcel. There is another occurrence of Adobe Lily located 3.1 miles northeast of the project parcel in Jericho Valley. The next nearest known occurrence of special-status plant species is Hall's Harmonia *(Harmonia halhi)* observed in 1947 located 1.9 miles southeast of the project parcel near Amel Lake. The next nearest known occurrence of special-status plant species is Two-carpellate Western Flax *(Navarrelia leucocephala* ssp. *pauciflora}* observed in 2000 located 2.8 miles south of the project parcel near McCreary Lake. There are no other known occurrences within 3 miles of the project parcel (Appendix C).

1.3.4 Landforms & Water Features

The parcels encompass the north side of a small ridge that forms from the western slope of Bishop Mountain, on the east slope of Salt Creek canyon (Figure 1). The maximum elevation is 1,080 feet above sea level along the center of the eastern boundary of parcel 013-015-39, and the minimum elevation is 958 feet above sea level on parcel 013-015-57 along the western parcel boundary where a Class III drainage exits the parcel (Figure 2). Most of the parcels are blue oak savannah, with slopes between 5% and 20%, as measured by Suunto PM5 handheld clinometer. The only classifiable watercourses onsite are the headwaters of two unnamed Class III ephemeral drainages that flow off the sides of the ridge on parcels 013-015-57 and 013-015-43 (Figure 2). More information on watercourses onsite is provided in Section 2.4, below.

Precipitation falling onsite eventually mostly infiltrates locally, gradually draining west before passing offsite and entering Salt Creek. Salt Creek is a Class I watercourse in this reach, and flows south for 1.0 miles before the confluence with Putah Creek, which flows southeast for approximately 19 miles before emptying into Lake Berryessa. From the outlet of Lake Berryessa at Monticello Dam, Putah Creek continues east for 27 miles flowing into the Central Valley and past the City of Davis before emptying into a series of low-lying basins known as the Putah Creek Sinks. From there water flows into the Yolo Bypass and south into the Sacramento River which flows south for approximately 40 miles before emptying into Suisun Bay and the Pacific Ocean.

1.3.5 Existing Structures

There residential buildings on parcels 013-015-36 and 013-015-39. Existing cultivation facilities including outdoor and/or hoop house type structures exist on parcels 013-015-36 (Figure 6), 013-015-39, 013-015-43 (Figure 8), and 013-015-57 (Figure 9). A cultivation area is proposed for parcel 013-015-40 in the central grassland area (Figure 7). There are three locking entrance gates to parcels 013-015-36, 013-015-39 and 013-015-57. Access is provided by graded and/or graveled roads that are generally in good condition.

1.3.6 Regional Land Uses

Land uses in the vicinity of the project parcel are primarily private property including undeveloped brushland, wildlands managed for mixed uses including timber harvest, rural residential parcels, irrigated and nonirrigated pastureland, and vineyard and orchard developments. Farther to the west is the community of Hidden Valley Lake. Much of the land to the north and east and south of the parcels were severely burned in the Jerusalem and Rocky Fires in 2015. The project parcels have not been burned in the last 10 years.

1.4 METHODS

1.4.1 Records Search & Literature Review

Based on a review of the literature and relevant databases, we compiled a list of special-status plant and animal species that are known to occur within 10 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 Department of Fish & Wildlife (CDFW) *California Natural Diversity Database* (CNDDB 2024), U.S. Fish and Wildlife Service Environmental Conservation Online System (USFWS 2024), the California Native Plants Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024), the CDFW *Habitat Relationships System* (HRS), 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 2024), and the County of Lake Geographic Information System Portal (Lake Co. 2024). Plant species included here are state or federal endangered or threatened species, and/or considered rare by CDFW, and/or are recognized as special-status species (SSS) by CNPS or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or CDFW species of special concern (SSC), and/or CDFW fully protected species (FPS). In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the U.S. Migratory Bird Treaty Act (MBTA) and relevant sections of the California Fish & Wildlife Code.

1.4.2 Field Surveys

Four protocol-level special-status plant surveys were conducted on the various parcels on May 24 in 2019, April 6 in 2021, April 23 in 2024, and June 11 in 2024. The 2019 survey was performed on parcels 013-015-39 & 013-015-57, the 2021 survey was performed on parcel 013-015-57, the April 23, 2024 survey was performed on 013-015-36, 013-015-39, 013-015-43 & 013-015-57, and the June 11, 2024 survey was performed on all five parcels. Thus, the only parcel that still needs a second (early or mid) spring survey to meet the County of Lake's requirements for two appropriately timed rare plant surveys is 013-015-40.

At each survey date, the entirety of each parcel was surveyed on foot by PRC botanist Dr. Christopher T. DiVittorio, recording the location and identity of all plant and animal species encountered. On some dates consulting botanist Dr. Zoya Akulova assisted with surveys. For each of the parcels surveyed at each time point, methods were performed as specified in the California Department of Fish & Wildlife (CDFW) publication titled *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*, dated March 20, 2018.

Protocol-level field surveys involved walking the entire parcel on foot in parallel lines approximately 15 feet apart, identifying every species that was flowering, and making note of any species that were past flowering or that had not yet flowered. Table 1 contains a list of all plant species found across all survey dates. Voucher specimens were taken of any species that required identification in the laboratory. All terminology follows currently accepted nomenclature as described in *The Jepson Manual* (2012) or subsequent taxonomic treatments.

All animals onsite were also recorded and a habitat assessment performed to determine if habitat for special-status animals in Appendix C exists onsite. As part of this assessment, Dr. DiVittorio observed and recorded all direct visual encounters, as well as indirect observations including vocalizations, scat, tracks, feathers, burrows, nests, and molts.

2.0 RESULTS

2.1 NATURAL COMMUNITIES IN THE EVALUATION AREA

Using field surveys, a review of published literature, and the knowledge of PRC staff, all of the natural communities present on and around the project site were assessed. Regionally, the dominant vegetation type is burned chaparral and mixed conifer and chaparral scrub, with higher proportions of hardwoods near watercourses, and grasslands on flat floodplains and ridge tops, with scattered serpentine outcrops particularly to the east.

2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE

The community types present on the project parcels consist of chaparral and oak savannah (Figure 3), interspersed with patches of grassland. The specific 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 45% oak savannah, 45% grassland, and 10% developed areas.

2.2.1 Blue Oak Savannah

All five parcels can be described as blue oak savannah with interspersed with grassland primarily dominated by non-native annual grasses but with some remnant patches of native grassland (Figure 2). A full list of all plant species observed across the five site visits is provided in Appendix B, below.

Two special-status plant species and one sensitive plant community type were positively identified from the site (Figure 1). Recommended avoidance and mitigation measures for these species are provided in Section 3.0, below.

Hoover’s lomatium *(Lomatium hooverl)* is a perennial plant in the Apiaceae family and was found on the north side of a greenhouse in the area shown by a yellow star in Figure 2. This species is not listed as Threatened or Endangered by the State or Federal governments, but is included on California Native Plant Society (CNPS) List 4.3. Hoover's lomatium was also found along the west side of the cultivation area in parcel 013-015-57, however these plants were relocated as part of permitting for the installation of the garden, as recommended in the rare plant report prepared for the project by PRC dated May 1,2021.

Colusa layia *(Layia septentrionalis)* is an annual plant in the Asteraceae family and was found in oak woodland habitat in the areas shown in blue in Figure 2. A representative ground-level photograph is presented in Figure 4. This species is not listed as Threatened or Endangered by the State or Federal governments, but is included on CNPS List IB.2. This species was also discussed in the rare plant

report dated May 1, 2021, however the populations described in that report as well as those presented in this BRA are not near any proposed development areas.

Several patches of native grassland with greater than 80% cover of native grasses were found in the areas shown in blue in Figure 2. A representative ground-level photograph is presented in Figure 5. Species in this grassland habitat include *Stipa pulchra, Elymus glaucus, Elymus triticoides, Elymus multisetus,* and *Festuca microstachys.* Native grassland with greater than 80% cover are considered sensitive habitats by CDFW.

2.3 WILDLIFE

Numerous animal species were observed both directly and indirectly across the five site visits, although protocol-level targeted surveys were not performed for any species or animal group specifically. Bird species observed onsite include acorn woodpecker *(Melanerpes formicivorus),* Western scrub jay *(Aphelocoma californica),* turkey vulture *(Cathartes aura),* common crow *(Corvus brachyrhynchos),* white-breasted nuthatch *(Sitta carolinensis),* and mourning dove *(Zenaida macroura)*.

Other animal species observed onsite include Western bumblebee *(Bombus occidentalis),* pocket gopher *(Thomomys bottae),* Western fence lizard *(Sceloporous occidentalis),* prints of mule deer *(Odocoileus hemionus),* excavation mounds of California ground squirrel *(Otospermophilus beecheyi),* scat of Western coyote *(Canis latrans),* and runways of black-tailed jackrabbit *(Lepus californicus).*

2.4 WETLANDS & STREAMS

Streams and watercourses onsite were classified according to the three-tier method used by the California Department of Forestry & Fire Protection (CALFIRE 2017) and included as a reference in Appendix E. Jurisdictional streamcourses are mapped in Figure 2. According to these criteria, there are two unnamed seasonal Class III watercourses on parcel 013-015-57 that initiate onsite and that flow offsite to the north and west off the main ridge top. These channels do not exhibit riparian vegetation or scour and do not support aquatic life. There are also several Class III channels that drain to the west off parcel 013-015-43 that are conveyed beneath the access road by several culverts (Figure 2). The north culvert is an approximately 16" diameter corrugated metal culvert and is non-jurisdictional and does not exhibit any scour up or down slope from the culvert (Figure 10). The middle culvert is an approximately 16" diameter HDPE structure on a Class III watercourse (Figure 11). The south culvert is an approximately 16" diameter corrugated metal structure on a Class III watercourse (Figure 12).

One stock pond exists on parcel 013-015-36, that has a 24" diameter HDPE overflow culvert installed on the north side of the pond (Figure 13). There is no scour downstream of the overflow culvert and no obvious inlet watercourse to the pond, thus it does not appear to be an in-stream pond.

Potential wetlands onsite were assessed based on the likelihood to satisfy the three-tier wetland delineation criteria used by the Army Corps of Engineers *Wetland Delineation Manual* (ACOE

1987). There are no locations onsite that appear to satisfy the ACOE criteria for wetlands, although a protocol-level wetland delineation was not performed. There are no locations onsite that appear to be jurisdictional wetlands based on the absence of any areas near the proposed cultivation areas that exhibit satisfactory cover of hydrophytic vegetation or that exhibit signs of wetland hydrology such as spring seeps or ponding. The Class III drainages are furthermore likely too steep and rocky to exhibit soils of sufficient duration of saturation to qualify as wetland soils. There is also no riparian wetland vegetation around these channels that would be required to be jurisdictional wetlands.

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 majority of the site are mapped as well-drained Bally-Phipps complex, 15-30% slopes (#107), with lesser proportions of Forbesville (12%) formations. The far southern portion of the site is mapped as Phipps complex, 5 to 15 percent slopes (#195), with lesser proportions of Forbesville (10%), and unnamed (10%) formations. 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.

3.0 SUMMARY & CONCLUSIONS

Plants

Several special-status plant species and one sensitive plant community were found onsite during four site surveys, as described in Section 2.2.1 and shown in Figure 2. The following recommendation were developed in order to avoid impacts to these sensitive species and habitats.

Recommendation 1: Populations of Colusa layia shown in Figure 2 should be avoided. These populations are not in proposed development areas and it should be possible to keep vehicle traffic to the existing roadbed. If any individuals of Colusa layia are in proposed development areas in the future, including expansion or maintenance of the north side of the road on parcel 013-015-57, they should not be disturbed until a plan for reseeding is prepared by a qualified biologist. The plan should involve collecting seed of plants from the proposed development areas and distributing them in an area of the site that is not to be disturbed.

Recommendation 2: One individual of Hoover's lomatium was found to the west of the existing greenhouse on parcel 013-015-36 in the location shown in Figure 2. This plant should be allowed to grow and trenching or ground disturbing activities should be avoided in the vicinity of the plant. If the area near the plant needs to be disturbed, the plant should be excavated and transplanted to a similar habitat that will not be disturbed in the future, under supervision of a qualified biologist. In addition, if it is possible to collect seeds from the plant, they should be collected and dispersed near the transplanted soil.

Recommendation 3: Several populations of native grassland with greater than 80% cover of native grasses were observed in the locations shown in Figure 2. These areas should not be disturbed since they are not located near any potential or existing cultivation areas. If disturbance of these areas is required in the future such as for road widening, a plan should be developed by a qualified biologist to collect seed of affected individuals and disperse them in suitable habitat onsite that is not proposed to be disturbed.

Recommendation 4: Parcel 013-015-40 has only received one spring survey. If this parcel is to be developed one more spring survey should be performed ideally in April to satisfy the County of Lake's requirement for two spring rare plant surveys.

Animals

No special-status animal species were observed during the surveys performed at the site. Despite this, numerous trees are proposed to be removed, and removal of these trees may have significant impacts to protected species such as raptors or migratory birds. In order to avoid impacts to bird species, the following recommendation should be implemented:

Recommendation 5: If trees are proposed to be removed during the nesting season for birds, typically February 1 to October 31, a nesting bird survey should be performed by a qualified biologist for all trees to be removed to ensure that no active nests of protected bird species including hawks and eagles are present. The nesting bird survey should take place no more than 7 days prior to tree removal. If active nests are observed, appropriate buffers should be established by the project biologist around the tree, and no disturbance should occur inside these buffers until birds have fledged and the nests have become inactive.

Wetlands & Watercourses

There are several ephemeral watercourses in the study area, and setbacks of at least 50 feet should be observed off of all of the mapped features in Figure 2 as required by the 2017 State Water Resources Control Board *Cannabis* General Order. Due to dense vegetation present onsite, there are no visible paths for sediment to enter waters of the State or waters of the U.S. at the time of the surveys. There are also no isolated wetland features such as ponds, bogs, springs, vernal pools, or wet meadows identified during the surveys, however a protocol-level wetland delineation was not performed. During and after project implementation, as long as appropriate erosion control BMPs are implemented to the greatest extent practicable, no sediment discharge to waters of the State or waters of the U.S. is anticipated. Anywhere revegetation after disturbance is required, only native vegetation from local genotypes should be used. A list of suitable species and nurseries/vendors can be provided by PRC on request.

4.0 REGULATORY FRAMEWORK

4.1 FEDERAL

4.1.1 Endangered Species Act (ESA)

The U.S. Fish & Wildlife Service (USFWS) has jurisdiction over federally-listed threatened and endangered species under the ESA. USFWS also maintains a list of proposed and candidate species that are not legally protected under the ESA, but are often included in their review of a project as they may become listed in the near future. The ESA 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 ESA if they occur on federal lands. Pursuant to the requirements of the ESA, 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 USFWS.

4.1.2 Migratory Bird Treaty Act (MBTA)

The MTBA implements international treaties between the U.S. and other nations that were enacted to protect migratory birds, their parts, eggs, and nests from activities including hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under MTBA (16 USC §703, *et. seq*

4.1.3 Eagle Protection Acts

Both bald eagle *(Haliaeetus leucocephalus)* and golden eagle *(Aquila chrysaetos)* are additionally protected under the Eagle Protection Act (16 USC §669, *et. seq.}* and the Bald & Golden Eagle Protection Act (16 USC §668-668d).

4.1.4 Clean Water Act (CWA)

Section 404 The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. As of the date of preparation of this report, the U.S. Environmental Protection Agency (EPA) and USACE published a final rule in the Federal Resister on September 8, 2023 that took effect on the same date, amending the “Revised Definition of Waters of the United States” that was published in the Federal Register on January 18, 2023, and took effect on March 20, 2023. This final rule conforms the definition of "waters of the United States" to the U.S. Supreme Court's May 25, 2023 decision in the case of *Sackett vs. EPA.*

According to the September 8, 2023 final rule and as codified in Title 40 Code of Federal Regulations §120.2 and Title 33 Code of Federal Regulations §328.3, “waters of the United States“ have been amended to read as follows:

1. Waters which are:
    a. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    b. The territorial seas; or
    c. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (5) of this section;
3. Tributaries of waters identified in paragraph (1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
    a. Waters identified in paragraph (1) of this section; or
    b. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (2) or (3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (1) or (3) of this section.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

“Wetland” refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

<u>Section 401</u> Under Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states the discharge will comply with the applicable provisions under the Federal Clean Water Act." In this case, applicants must obtain a Section 401 Water Quality Certification from, the Regional Water Quality Control Board from the region in which the project takes place.

4.2 STATE

4.2.1 California Environmental Quality Act (CEQA)

The following CEQA guidelines are intended to determine significance thresholds when analyzing the potential impacts of a proposed project on biological resources. The following is a list of criteria for determining if impacts are considered significant:

Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plan, policies, or regulations, or by the California Department of Fish & Wildlife (CDFW) or U.S. Fish & Wildlife Service (USFWS).

1. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
2. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
3. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
4. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
5. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

4.2.2 California Endangered Species Act (CESA)

The State of California enacted CESA in 1984 and is similar to the federal ESA but pertains to State-listed threatened and endangered species. CESA requires State agencies to consult with CDFW when preparing a CDQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or results in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternative available (Fish & Game Code [FGC] §2080.) CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify reasonable and prudent alternatives to the proposed project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species of the take is incidental to carrying out an other wise lawful project thar has been approved under CEQA (FGC §2081).

4.2.3 California Fish & Game Code

Under CESA, CDFW has the responsibility for maintaining a list of threatened and endangered species (FGC §2070). Fish & Game Code §2050-2098 outline the protection provided to California’s rare, endangered, and threatened species. Fish & Game Code §2080 prohibits the taking of plants and animals listed under CESA. Fish & Game Code §2081 establishes an incidental take permit program for State-listed species. CDFW also maintains a list of candidate species that it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC §1900, *et seq.}* prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by CDFW). An exception to this prohibition in NPPA allows landowners, to take listed plant species under specified circumstances, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish & Game Code §1913 exempts from the take prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way.” Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under federal ESA and CESA, some species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a “Species of Special Concern.” CDFW maintains lists of Species of Special Concern that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA, and specific protection measures may be warranted. In addition to Species of Special Concern, CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines §15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines §15380 (Rare or Endangered Species) provides for the assessment of unlisted species as Rare or Endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, IB, and 2 would typically require evaluation under CEQA.

Fish & Game Code §3500-5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish & Game Code §3503.5, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may impact a candidate species. Project-related impacts to species on CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. Take of protected species incidental to otherwise lawful management

activities may be authorized under Fish & Game Code §206.591. Authorization from CDFW would be in the form of an Incidental Take Permit.

Fish & Game Code §1602 requires any entity to notify CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." This definition includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement (LSAA) will be required if CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

4.2.4 Porter-Cologne Water Quality Control Act

California's Regional Water Quality Control Boards (RWQCB) regulate actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the State" (Water Code §13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code §13050(e)).

4.2.5 California Native Plant Society (CNPS)

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
- Rank IB: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2A: Plants presumed extirpated in California but common elsewhere
- Rank 2B: Plants rare, threatened, or endangered in California but more common elsewhere
- Rank 3: Plants about which more information is needed
- Rank 4: Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on CNPS Lists 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, potential impacts to these species or their habitats should be analyzed during the preparation of environmental documents pursuant to CEQA, as they may meet the definition of Rare or Endangered under the CEQA Guidelines Section 15380 criteria.

4.2.6 State Water Resources Control Board *Cannabis* Cultivation General Order

In addition to the above regulations, *Cannabis* cultivation is subject to State Water Resources Control Board (SWRCB) *Cannabis* Cultivation General Order No. WQ-2019-0001-DWQ (Order). This statewide Order specifies measures that must be taken to ensure water quality based on the size of the cultivation area (Tier 1 vs Tier 2), the risk determination based on potential to affect water quality (low, medium, high), and watercourse classifications and minimum setbacks that must be followed. Currently, Class I watercourses (perennial streams, lakes, ponds) must observe 150 foot setbacks,

Class II watercourses (intermittent streams or wetlands) must observe 100 foot setbacks, and Class III watercourses (ephemeral streams) must observe 50 foot setbacks. Class IV watercourses (e.g. man-made canals) that support native aquatic species must observe a setback equal to the established riparian vegetation zone, or if the watercourse does not support aquatic species does not need to observe setbacks. Other measures that must be taken to protect water resources are also provided in the text of the statewide Order.

4.2.7 California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act requires the County to determine whether a project in their jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment, as codified in California Public Resources Code Section 21083.4. If it is determined that there may be a significant effect to oak woodlands, the County shall require one or more mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Alternatives to mitigate the significant effect of the conversion of oak woodlands include replacement of removed trees typically at a rate of 3:1, and maintenance of trees for a period of seven years after the trees are planted, although replacement typically may only comprise 50% of the required mitigation for the project, with the remainder often consisting of conservation easements or other mitigation measures developed by the County. Trees subject to the provisions of California Public Resources Code Section 21083.4 are those in the genus *Quercus* that have a diameter at breast height (DBH) of 5 inches or more.

4.3 REGIONAL & LOCAL

Natural resource use and *Cannabis* commercial development in Lake County is guided by the Lake County General Plan and regulated by Lake County Code. Below is a sample of relevant codes and ordinances that pertain to vegetation management and commercial *Cannabis* cultivation on lands within the County's jurisdiction.

4.3.1 County of Lake Municipal Code

Cannabis Cultivation (Chapter 11, Article 27)

The Ordinance Code of the County of Lake provides comprehensive guidelines on the size, location, and permitted activities for all commercial *Cannabis* facilities within the County's jurisdiction including restrictions on water sources, types of fencing, pest control measures, vegetation clearing, noise and visual impacts, storage and disposal of waste products, and grading. The Ordinance also specifies that the applicant must abide by all applicable Federal and State laws including the SWRCB *Cannabis* General Order, as discussed above.

4.3.2 Habitat Conservation Plan / Natural Communities Conservation Plan

The project site is not located in an area that is covered by any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no additional mitigation related to local or regional conservation plans is necessary.

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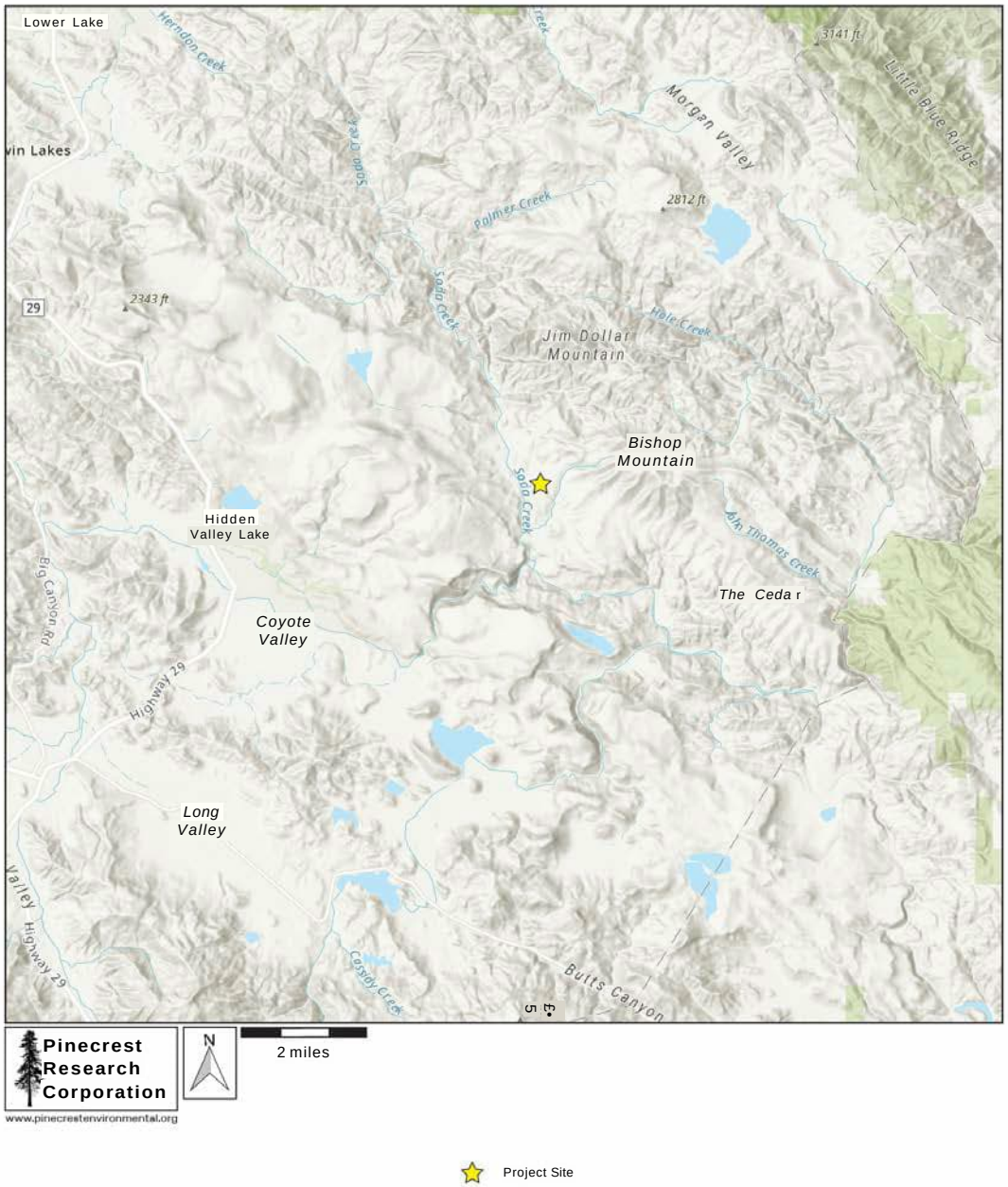
FIGURE 1: REGIONAL LOCATION



APN 013-015-36. 013-015-39. 013-015-40. 013-015-43 S 013-015-57
23071-23143 Jerusalem Grade. Lower Lake. CA 95457

SOURCES: Colifornie Dept, of Fish & Wildlife (CDFW)

FIGURE 2: SITE MAP

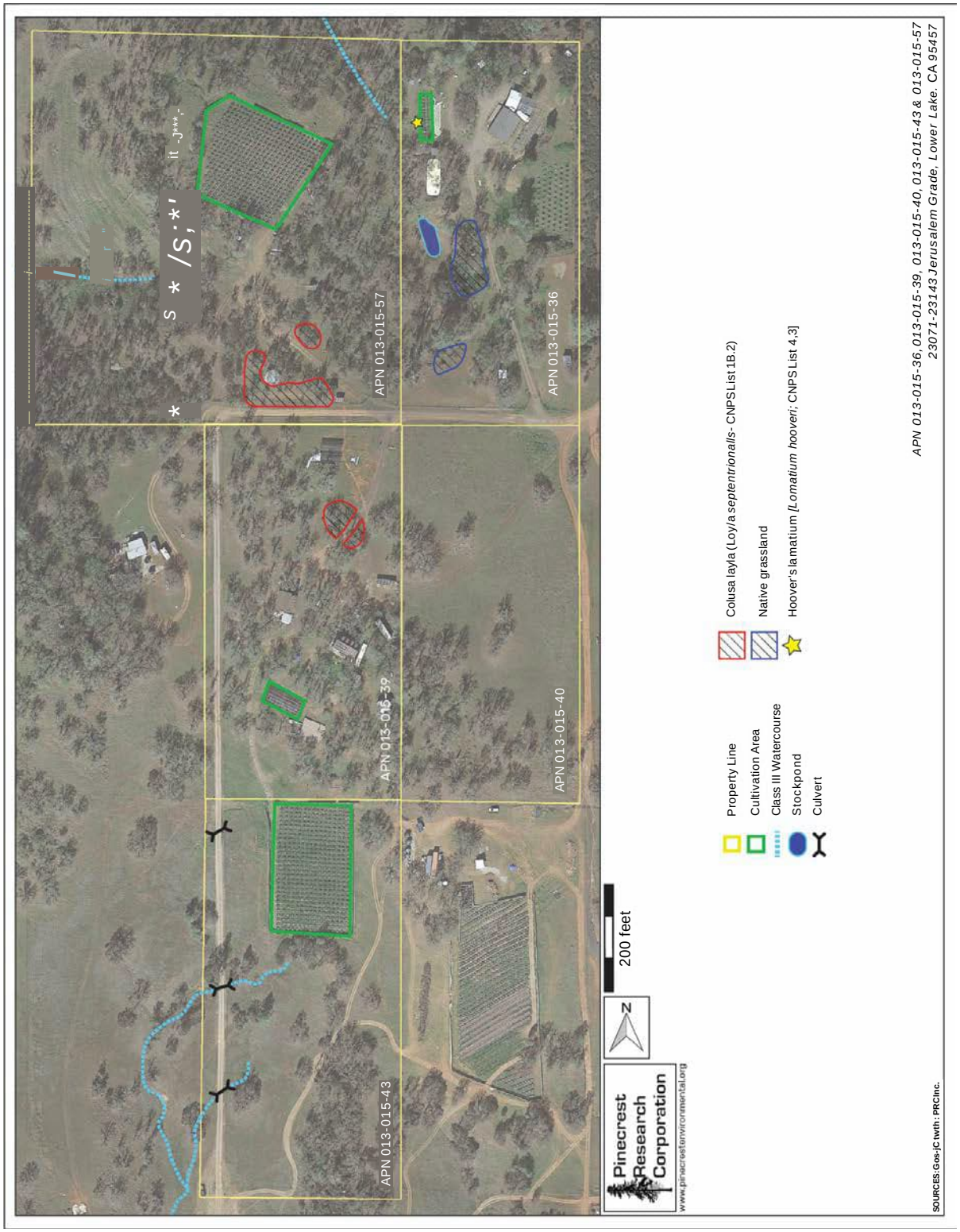


FIGURE 3: PHOTOGRAPH OF OAK SAVANNAH

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APN 013-015-34. 013-015-35. 013-015-36, 013-015-40 & 013-015-57
Jerusalem Grade, Lower Lake, CA 95457

SOURCES; PRC Inc.

FIGURE 4: PHOTOGRAPH OF COLUSA LAYIA

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APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57
Jerusalem Grade, Lower Lake, CA 95457

SOURCES; PRC Inc.

FIGURE 5: PHOTOGRAPH OF NATIVE GRASSLAND

Pinecrest
Research
Corporation
www.p»nec*eetenvironmental,oro

APN 013-015-34. 013-015-35. 013-015-36, 013-015-40 & 013-015-57
Jerusalem Grade, Lower Lake, CA 95457

SOURCES; PRC Inc.

FIGURE 6: PHOTOGRAPH OF CULTIVATION ON 013-015-36

Pinecrest
Flesearch
Corporation
www.poecr eetenvironmental,oro

APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57

SOURCES; PRC Inc. *Jerusalem Grade, Lower Lake, CA 95457*

FIGURE 7: PHOTOGRAPH OF CULTIVATION ON 013-015-40

Pinecrest Flesearch Corporation
www.ptnecreetenvironmental,oro

APN 013-015-34. 013-015-35. 013-015-36, 013-015-40 & 013-015-57
Jerusalem Grade, Lower Lake, CA 95457

SOURCES; PRC Inc.

FIGURE 8: PHOTOGRAPH OF CULTIVATION ON 013-015-43

Pinecrest Research Corporation
www.pinecrestenvironmental.org

APN 013-015-34. 013-015-35. 013-015-36, 013-015-40 & 013-015-57
Jerusalem Grade, Lower Lake, CA 95457

SOURCES; PRC Inc.

FIGURE 9: PHOTOGRAPH OF CULTIVATION ON 013-015-57

Pinecrest Flesearch Corporation
www.ptnecreetenvironmental,oro

APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57

SOURCES; PRC Inc. *Jerusalem Grade, Lower Lake, CA 95457*

FIGURE 10: PHOTOGRAPH OF NORTH CULVERT

Pinecrest
Flesearch
Corporation
www.ptnecreetenvironmental,oro

APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57

SOURCES; PRC Inc. *Jerusalem Grade, Lower Lake, CA 95457*

FIGURE 11: PHOTOGRAPH OF MIDDLE CULVERT

Pinecrest Research Corporation

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APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57

SOURCES: PRC Inc. *Jerusalem Grade. Lower Lake. CA 95457*

FIGURE 12: PHOTOGRAPH OF SOUTH CULVERT

Pinecrest Research Corporation
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APN 013-015-34. 013-015-35. 013-015-36. 013-015-40& 013-015-57
Jerusalem Grade. Lower Lake. CA 95457

SOURCES; PRC Inc.

FIGURE 13: PHOTOGRAPH OF RESERVOIR

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APN 013-015-34. 013-015-35. 013-015-36. 013-015-40 & 013-015-57
Jerusalem Grade. Lower Lake, CA 95457

SOURCES; PRC Inc.

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			
Adobe lily *(Fritillaria pluriflord)*	**—/—/1B.2**	**Valley grasslands, woodland**	**Medium: Some grassland habitat exists onsite. Nearest occurrence is 0.4 miles southeast of the project parcel in Jerusalem Valley.**
Alkalai milk-vetch *(Astragalus tener* var. *tener)*	—/—/IB.2	Valley grasslands, alkali sinks	None: No suitable alkalai habitat exists onsite.
Anthony peak lupine *(Lupinus antoninus)*	—/—/IB.2	Mixed evergreen forest	Very Low: No suitable forest habitat exists onsite.
Baker's goldfields *(Lasthenia californica* ssp. *bakeri)*	—/—/IB.2	Coastal grasslands	Low: Some grassland 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	Very Low: No vernal pools exist onsite.
Beaked tracyina *(Tracyina rostrata)*	—/—/IB.2	Valley grassland, foothill woodland	Low: Some grassland habitat exists onsite.
Bent flowered fiddleneck *(Amsinckia lunaris)*	**—/—/1B.2**	**Valley grassland, foothill woodland**	**Low: Some grassland habitat exists onsite. Nearest occurrence is 4.8 miles southwest of the parcel in Coyote Valley.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Big scale balsamroot *(Balsamorhiza macrolepis)*	—/—/IB.2	Valley grassland	Low: Some grassland habitat exists onsite.
Bogg's Lake hedge-hyssop *(Gratiola heterosepala)*	**—/—/1B.2**	**Freshwater marsh, riparian**	**None: No suitable wetland habitat exists onsite. Nearest occurrence is 4.0 miles northwest of the parcel near Stienhart Lake.**
Bolander's horkelia *(Horkelia bolanderi)*	—/—/IB.2	Forest, meadows, wetlands	Very Low: No suitable forest habitat exists onsite.
Brandegee's eriastrum *(Eriastrum brandegeeae)*	—/—/1B.1	Chaparral	Low: A small amount of 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**	**Very Low: No vernal pool habitat exists onsite. Nearest occurrence is 4.1 miles southwest of the parcel near Coyote Creek.**
California alkalai grass *(Puccinellia simplex')*	—/—/IB.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: A small amount of chaparral habitat exists onsite.
Calistoga ceanothus *(Ceanothus divergens)*	—/—/IB.2	Chaparral	Low: Some chaparral habitat exists onsite.
Caper-fruited tropidocarpum *(Tropidocarpum capparideum)*	—/—/1B.1	Valley grassland	Very Low: Some grassland habitat exists onsite.
Cascade downingia *(Downingia willamettensis)*	—/—/2B.2	Wetland, grassland	Low: Some grassland habitat exists onsite.
Clara Hunt's milk vetch *(Astragalus claranus)*	—/—/1B.1	Chaparral, grassland	Very Low: Some chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Cobb Mountain lupine *(Lupinus sericatus)*	—/—/IB.2	Chaparral, pine forest	Low: Some chaparral habitat exists onsite.
Colusa layia *(Layia septentrionalis)*	**—/—/1B.2**	**Chaparral, valley grassland**	**High: Species found onsite. Nearest occurrence offsite is on adjacent parcel to the south.**
Congested-headed hayfield tarplant *(Hemizonia congesta* ssp. *congesta)*	**—/—/1B.2**	**Grassland, coastal scrub**	**Very Low: Some grassland habitat exists onsite. Nearest occurrence is 4.4 miles west of the parcel near Coyote Valley.**
Deep scarred cryptantha *(Cryptantha excavata)*	—/—/1B.1	Foothill woodland	Very Low: Some grassland habitat exists onsite.
Dimorphic snapdragon *(Antirrhinum subcordatum)*	—/—/4.3	Serpentine, chaparral	None: No serpentine habitat exists onsite.
Drymaria-like western flax *(Hesperolinon drymarioides)*	—/—/IB.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Dwarf downingia *(Downingia pusilia)*	—/—/2B.2	Vernal pool, freshwater wetland	None: No vernal pool habitat exists onsite.
Dwarf soaproot *(Chlorogalum pomeridianum* var. *minus')*	—/—/IB.2	Serpentine chaparral	None: No serpentine chaparral habitat exists onsite.
Eel-grass pondweed *(Potamogeton zosteriformis)*	—/—/2B.2	Freshwater wetland, aquatic	None: No suitable wetlands exist onsite.
Few-flowered navari'etia *(Navarretia leucocephala* ssp. *pauciflora)*	FE/ST/1B.1	Wetlands, vernal pools	None: No vernal pool habitat exists onsite.
Franciscan onion *(Allium peninsulare* var. *franciscanum)*	—/—/IB.2	Coastal prairie	Very Low: Some grassland habitat exists onsite.
Freed's jewelflower *(Streptanthus brachiatus* ssp. *hoffmanii)*	**—/—/1B.2**	**Serpentine outcrops**	**None: No serpentine outcrop habitat exists onsite. Nearest occurrence is 3.2 miles northeast of the parcel near Hole Creek.**
Geysers panicum *(Panicum acuminatum* var. *thermale)*	—/—/IB.2	Chaparral, wetlands	Very Low: A small amount of chaparral habitat exists onsite.
Glandular western flax *(Hesperolinon adenophyllum)*	—/—/IB.2	Chaparral	Very Low: A small amount of chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Grassleaf water plantain *(Alisma gramineum)*	—/—/2B.2	Wetland, riparian	None: No suitable wetland habitat exists onsite.
Green jewelflower *(Streptanthus hesperidis)*	**—/—/1B.2**	**Serpentine outcrops**	**None: No serpentine outcrop habitat exists onsite. Nearest occurrence is 4.2 miles southwest of the parcel near Coyote Valley.**
Greene's narrow-leaved daisy *(Erigeron greenei)*	—/—/IB.2	Serpentine grassland	None: No serpentine habitat exists onsite.
Hall's harmonia *(Harmonia hallii)*	**—/—/1B.2**	**Chaparral**	**Medium: A small amount of chaparral habitat exists onsite. Nearest occurrence is 1.9 miles southeast of the project parcel near Amel Lake.**
Hoffman's bristly jewelflower *(Streptanthus glandulosus* spp. *hoffmanii)*	—/—/1B.3	Chaparral, foothill woodland	Very Low: A small amount of chaparral habitat exists onsite.
Holly-leaved ceanothus *(Ceanothus purpureus)*	—/—/IB.2	Chaparral	Very Low: A small amount of chaparral habitat exists onsite.
Hoover's lomatium *(Lomatium hooveri)*	**—/—/4.0**	**Chaparral**	**High: Species found onsite.**
Hospital Canyon larkspur *(Delphinium californicum* ssp. *interius)*	—/—/IB.2	Foothill woodland	Very Low: A small amount of woodland habitat exists onsite.
Jepson's coyote thistle *(Eryngium jepsonii)*	—/—/4.2	Wetlands and vernal pools	None: No vernal pool habitat exists onsite.
Jepson's leptosiphon *(Leptosiphon jepsonii)*	—/—/IB.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. Nearest occurrence is 4.2 miles southwest of the parcel near Hidden Valley Road.**
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	Very Low: A small amount of chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Kruckeberg's jewelflower *(Streptanthus morrisonii* ssp. *kruckebergii)*	**—/—/1B.2**	**Serpentine outcrops**	**None: No serpentine outcrop habitat exists onsite. Nearest occurrence is 4.7 miles northeast of the parcel near Round Mountain.**
Lake County stonecrop *(Sedella leiocarpa)*	—/—/1B.1	Rock outcrops	Very Low: Some rock outcrop habitat exists onsite.
Lake County western flax *(Hesperolinon didymocarpum)*	—/SE/1B.2	Serpentine grasslands	None: No suitable serpentine habitat exists onsite.
Legenere *(Legenere limosd)*	**—/—/1B.1**	**Freshwater wetland, valley grassland**	**None: No suitable wetland habitat exists onsite. Nearest occurrence is 4.0 miles northwest of the parcel near Stienhart Lake.**
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. *plieanthd)*	**FE/SE/1B.2**	**Vernal pools**	**Very Low: No vernal pool habitat exists onsite. Nearest occurrence is 4.0 miles northwest of the parcel near Stienhart Lake.**
Marsh checkerbloom *(Sidalcea oregana* ssp. *hydrophila)*	—/—/IB.2	Freshwater wetland, riparian	None: No suitable riparian habitat exists onsite.
Marsh microseris *(Microseris paludosa)*	—/—/IB.2	Northern coastal scrub	None: No marsh habitat exists onsite.
Milo Baker's lupine *(Lupintis milo-bakeri)*	—/—/1B.1	Foothill woodland, valley grassland	None: No serpentine habitat exists onsite.
Morrison's jewelflower *(Streptanthus morrisonii* ssp. *morrisonii)*	—/—/IB.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Mt. St. Helena morning-glory *(Calystegia collina* ssp. *oxyphylla)*	***—1—14.2***	**Serpentine chaparral**	**None: No serpentine habitat exists onsite. Nearest occurrence is 4.2 miles southwest of the parcel near Long Valley.**
Napa bluecurls *(Trichostema ruygtii)*	—/—/IB.2	Chaparral, grassland	Very Low: Some grassland habitat exists onsite.
Napa checkerbloom *(Sidalcea hickmanii* ssp. *napensis)*	—/—/1B.1	Chaparral	Very Low: Some woodland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Napa false indigo *(Amorpha californica* var. *napensis)*	—/—/IB.2	Forest, woodland	Very Low: Some woodland habitat exists onsite.
Narrow-anthered brodiaea *(Brodiaea leptandra)*	—/—/IB.2	Foothill woodland, grassland	Low: Some grassland 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.
Northern California black walnut *(Juglans hindsii)*	—/—/1B.1	Riparian, woodland	Very Low: No suitable riparian habitat exists onsite.
Northern meadow sedge *(Carex praticold)*	—/—/2B.2	Freshwater wetlands	None: No suitable wetland 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.
Pappose tarplant *(Centromadia parryi* ssp. *parryi)*	—/—/IB.2	Grassland, wetland	None: No wetland habitat exists onsite.
Pennell's bird's beak *(Cordylanthus tenuis* ssp. *capillaris)*	—/—/IB.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Perennial goldfields *(Lasthenia californica* ssp. *macrantha)*	—/—/IB.2	Northern coastal scrub	Very Low: Some grassland habitat exists onsite.
Peruvian dodder *(Cuscuta obtusiflora* var. *glandulosa)*	—/—/IB.2	Grassland, chaparral	Very Low: Parasitic plant, typical host plants not known from the property.
Pink creamsacs *(Castilleja rubicundula* var. *rubicundula)*	**—/—/1B.2**	**Grasslands**	**Low: Some grassland habitat exists onsite. Nearest occurrence is 6.8 miles west of the parcel near Harbin Mountain.**
Porter's navarretia *(Navarretia paradoxinota)*	**—/—/1B.3**	**Grasslands, wetlands**	**Very Low: No suitable wetland habitat exists onsite. Nearest occurrence is 4.2 miles west of the parcel near Coyote Valley.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Purple-stemmed checkerbloom *(Sidalcea malviflora spp. purpurea)*	—/—/IB.2	Wetlands	None: No suitable wetland habitat exists onsite.
Raiche's manzanita *(Arctostaphylos stanfordiana* ssp. *raichei)*	—/—/1B.1	Chaparral	Very Low: A small amount of chaparral 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.
Round-leaved filaree *(California macrophylla)*	—/—/IB.2	Foothill grassland	Very Low: Some grassland habitat exists onsite.
Saline clover *(Trifolium hydrophilum)*	—/—/IB.2	Wetland, riparian	None: No suitable wetland habitat exists onsite.
San Joaquin spearscale *(Extriplex joaquinana)*	—/—/IB.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 Rosa horkelia *(Horkelia tenuiloba)*	—/—/IB.2	Freshwater wetland, vernal pools	Low: Some 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)*	—/—/IB.2	Serpentine chaparral	None: No serpentine habitat exists onsite.
Serpentine daisy *(Erigeron serpentinus)*	—/—/1B.3	Serpentine chaparral	None: No serpentine chaparral habitat exists onsite.
Sharsmith's western flax *(Hesperolinon sharsmithiae)*	**—/—/1B.2**	**Chaparral**	**Very Low: No serpentine habitat exists onsite. Nearest occurrence is on an adjacent parcel to the south.**
Slender Orcutt grass *(Orcuttia tenuis)*	**FT/SE/1B.1**	**Grassland, freshwater wetlands**	**None: No suitable grassland habitat exists onsite. Nearest occurrence is 3.9 miles northwest of the parcel near Stienhart Lake.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Small-flowered calycadenia *(Calycadenia micrantha)*	—/—/IB.2	Foothill grassland	Low: Some suitable grassland habitat onsite.
Small groundcone *(Kopsiopsis hooker!)*	—/—/2B.3	Redwood forest	None: No redwood forest habitat exists onsite.
Snow Mountain buckwheat *(Eriogonum nervulosum)*	—/—/IB.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Socrates Mine jewelflower *(Streptanthus brachiatus* ssp. *brachiatus)*	—/—/IB.2	Serpentine outcrops	None: No serpentine habitat exists onsite.
Sonoma beardtongue *(Penstemon newberryi* var. *sonomensis)*	—/—/1B.3	Chaparral	Very Low: Some grassland habitat exists onsite.
Sonoma ceanothus *(Ceanothus sonomensis)*	—/—/IB.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Sonoma sunshine *(Blennosperma bakeri)*	FE/SE/1B.1	Valley grassland, freshwater wetland	Very Low: Some grassland habitat exists onsite, although species prefers wetlands.
Thin-lobed horkelia *(Horkelia tenuiloba)*	—/—/IB.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Three-fingered morning glory *(Calystegia collina* ssp. *tridactylosa)*	—/—/IB.2	Serpentine grassland	None: No serpentine habitat exists onsite.
Two-carpellate Western flax *(Hesperolinon bicarpellatum)*	**—/—/1B.2**	**Chaparral**	**Low: A small amount of chaparral habitat exists onsite. Nearest occurrence is 2.8 miles south of the project parcel near McCreary Lake.**
Vine Hill ceanothus *(Ceanothus foliosus* var. *vineatus)*	—/—/1B.1	Chaparral	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.
White beaked-rush *(Rhynchospora alba)*	—/—/2B.2	Wetlands, riparian	None: No suitable wetland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
White flowered rein orchid *(Piperia Candida)*	—/—/IB.2	Yellow pine forest	Very Low: No suitable forest habitat exists onsite.
Wolly meadowfoam *(Limnanthes floccosa ssp.floccosa)*	—/—/4.2	Vernal pools	None: No vernal pool habitat exists onsite.
MOSSES, LICHENS & LIVERWORTS			
Angel's hair lichen *(Ramalina thrausta)*	—/—/2B.1	Old growth conifer and hardwood forests	None: No suitable forest habitat exists onsite.
Coastal triquetrella *(Triquetrella californica)*	—/—/IB.2	Forest, woodland	Very Low: Some woodland habitat exists onsite.
Elongate copper moss *(Mielichhoferia elongata)*	—/—/4.3	Forest, woodland	Very Low: Some woodland habitat exists onsite.
Methuselah's beard lichen *(Dolichousnea longissima)*	—/—/4.2	Old growth conifer and hardwood forests	None: No forest habitat exists onsite.
Slender silver moss *(Anomobryum julaceum)*	—/—/4.2	Rocky substrates in forests	Very Low: Some woodland habitat exists onsite.
Torren's grimmia *(Grimmia torenii)*	**—/—/1B.3**	**Forest, woodland**	**Very Low: Some woodland habitat exists onsite. Nearest occurrence is 3.9 miles northeast of the parcel near Jericho Creek.**
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.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
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.
AMPHIBIANS & REPTILES			
California giant salamander *{Dicamptodon ensatus)*	—/SSC/—	Wetlands and riparian areas	None: No suitable wetland habitat exists onsite. Some poor quality estivation habitat onsite.
California red-legged frog *{Rana draytonii)*	FT/SSC/—	Vernal pools, seasonal pools, stock ponds, and associated grasslands	None: No suitable pond or wetland habitat exists onsite.
California tiger salamander *{Ambystoma californiense)*	FT/SSC/—	Ponds, streams, drainages, and associated uplands	None: No suitable pond or wetland habitat exists onsite.
Foothill yellow-legged frog *{Rana boylii)*	**—/SSC/—**	**Wetlands, riparian, streams and ponds**	**Very Low: No suitable breeding habitat onsite. Some poor quality estivation habitat onsite. Nearest occurrence is 1.9 miles north of the project parcel in Soda Creek.**
Red bellied newt *{Taricha rivularis)*	—/SSC/—	Woodland streams, riparian corridors	None: No suitable habitat exists onsite.
Western pond turtle *{Emys marmorata)*	**—/SSC/—**	**Slow-moving creeks, streams, ponds, rivers, ditches.**	**None: No pond habitat exists onsite. Nearest occurrence is 2.4 miles south of the parcel in Putah Creek.**
INVERTEBRATES			
Behren's silverspot butterfly *{Speyeria zerene behrensii)*	FE/SSC/—	Coastal prairie	None: Requires blue violet to reproduce; none onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Borax Lake cuckoo wasp *(Hedychridium milleri)*	—/SSC/—	Lakes and streams	None: No suitable lake or stream habitat exists onsite.
Brownish dubiraphian riffle beetle *(Dubiraphia brunnescens)*	—/SSC/—	Freshwater streams	None: No suitable stream habitat exists onsite.
California brackishwater snail *(Tryonia imitator)*	—/SSC/—	Brackish wetlands	None: No suitable wetland habitat exists onsite.
California floater *(Anodonta califomiensis)*	—/SSC/—	Freshwater ponds, streams	None: No suitable stream habitat exists onsite.
California freshwater shrimp *(Syncaris pacifica)*	FE/SE/—	Freshwater ponds, streams	None: No suitable stream 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 *(Bombits crotchii)*	—/SSC/—	Grassland, 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	Low: Some grassland habitat exists onsite.
Opler's longhorn moth *(Adela oplerella)*	—/SSC/—	Usually associated with *Platystemon* (creamcups)	None: 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 ricksecker)*	—/SSC/—	Freshwater ponds	None: No suitable pond habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Sonoma zerene fritillary *{Speyeria zerene sonomensis)*	—/SSC/—	Grasslands and meadows	None: Requires *Viola* for reproduction; none onsite.
Western bumblebee *{Bombus occidentalism*	—/SSC/—	Grassland	Medium: Some grassland habitat exists onsite.
Wilbur Springs shorebug *{Saldula usingeri)*	—/SSC/—	Ponds	None: No suitable pond 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. Nearest occurrence is 4.2 miles south of the parcel near McCreary Lake.**
Bank swallow *{Riparia riparia)*	FE/SE/—	Typically found near lakes and streams	None: No suitable stream habitat exists onsite.
Bald eagle *{Haliaeetus leucocephalus)*	**—/SSC/—**	**Forages over open lakes and streams**	**Very Low: No suitable foraging or nesting habitat exists onsite. Nearest occurrence is 2.7 miles south of the project parcel near McCreary Lake.**
Black swift *{Cypseloides niger)*	—/SSC/—	Cliff faces near water	None: No suitable stream habitat exists onsite.
Burrowing owl *{Athene cunicularid)*	—/SSC/—	Grasslands	None: No suitable grassland with ground squirrel burrows exists onsite.
California homed lark *{Eremophila alpestris actio)*	—/SSC/—	Herbaceous vegetation, chaparral	Very Low: A small amount of 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.
Ferruginous hawk *{Buteo regalis)*	—/SSC/—	Forages over open grassland. Nests in old-growth trees.	Low: Some suitable foraging habitat exists onsite. No suitable nesting habitat.
Golden eagle *{Aquila chrysaetos)*	**—/SSC/—**	**Forages over open grassland. Nests in old-growth trees.**	**Low: Some suitable foraging habitat. No suitable nesting habitat. Nearest occurrence is 3.7 miles west of the parcel near Hunting Creek.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Grasshopper sparrow *(Ammodramus savannarum)*	—/SSC/—	Forages over open grassland.	Low: Some suitable foraging habitat exists onsite.
Great egret *(Ardea alba)*	FE/SE/—	Nests in trees, forages in wetlands and grasslands	None: No suitable foraging or nesting habitat exists onsite.
Marbled murrelet *(Brachyramphus marmoratus)*	FT/SE/—	Old growth forest	None: No suitable forest habitat exists onsite.
Northern goshawk *(Accipiter gentilis)*	—/SSC/—	Old growth forest	Very Low: No suitable forest habitat exists onsite.
Osprey *(Pandion haliaetus)*	—/WL/—	Areas with fish	None: No suitable lake or stream habitat exists onsite.
Prairie falcon *(Falco mexicanus)*	**—/SSC/—**	**Forages over grasslands**	**Medium: Some suitable nesting and foraging habitat exists onsite. Nearest occurrence is somewhere in the Jericho Valley USGS Quad, which overlaps the project parcel.**
Purple martin *(Progne subis)*	FE/SE/—	Insectivorous, nests in cavities	Medium: Some suitable nesting habitat onsite. Some suitable foraging habitat onsite.
Sharp-shinned hawk *(Accipiter striatus)*	—/SSC/—	Forest and woodland	Very Low: Some suitable foraging habitat exists onsite. No suitable nesting habitat onsite.
Tricolored blackbird *(Agelaius tricolor)*	—/SSC/—	Forages in grasslands and nests in freshwater marshes	Low: Some suitable nesting and foraging habitat exists onsite.
Western yellow-billed cuckoo *(Coccyzus americanus occidentalis)*	—-/SET—	Woodland, riparian	Very Low: No suitable nesting habitat exists. Some suitable foraging habitat.
White-tailed kite *(Elanus leucurus)*	—/CFP/—	Prefers to nest in marshes next to deciduous forests.	Very Low: No suitable nesting habitat onsite. Some suitable foraging habitat.
Yellow breasted chat *(Icteria virens)*	—/SSC/—	Dense shrubby growth, farmland.	Low: Some suitable habitat onsite.
Yellow warbler *(Coturnicops noveboracensis)*	—/SSC/—	Riparian, shrubland, farmland.	Low: Some suitable habitat onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
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.
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 suitable 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. Nearest occurrence is 5.5 miles north of the parcel near Morgan Valley Road.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
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 onsite. Some suitable foraging habitat exists.
HABITATS			
Coastal & Valley Freshwater Marsh (CVFM)	—	—	None: No 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.
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
SSC = California Species of Special Concern
CFP = California Fully Protected Species

CNPS (applies to plants only)
List IB = plants considered rare, threatened, or endangered in California and elsewhere
List 2B = plants rare, threatened or endangered in California, but more common elsewhere
List 3 = plant is likely rare but more information is required
List 4 = plants of limited distribution

[2] USFWS

APPENDIX B: SPECIES ENCOUNTERED

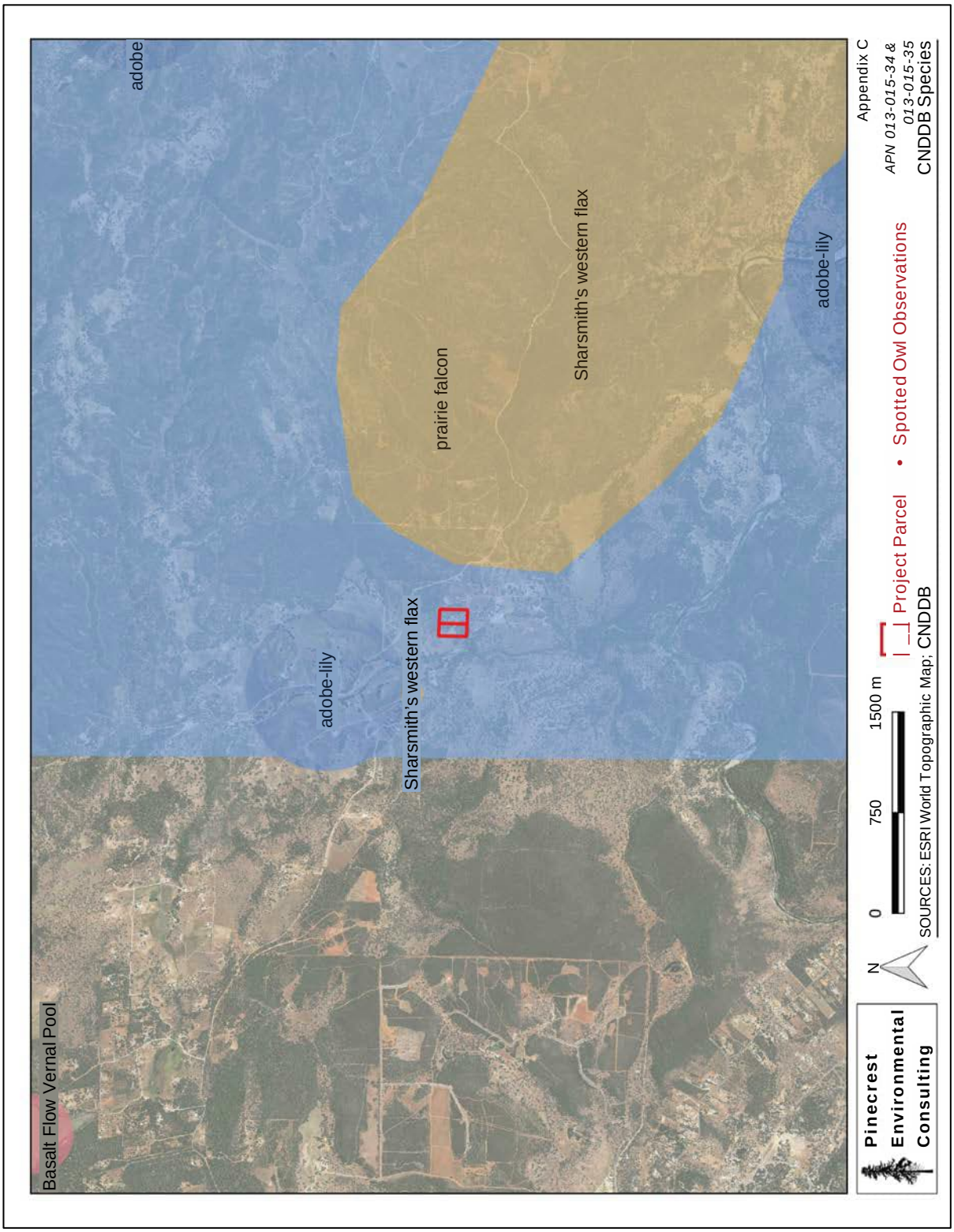
This list contains a list of all of the plants observed on the study parcels during the five site visits. Special-status species (SSS) are denoted in bold.

Scientific name	**Common name**	**Native**
Achyrachaena mollis	blow wives	yes
Acmispon brachycarpus	short-podded lotus	yes
Agoseris grandiflora	giant mountain dandelion	yes
Airci caryophyllea	hairgrass	no
Amaranthus californicus	California pigweed	yes
Amsinckia menziesii	Menzies' fiddleneck	yes
Arctostaphylos manzanita	common manzanita	yes
Arctostaphylos viscida	whiteleaf manzanita	yes
Astragalus gambelianus	Gamble's dwarf milkvetch	yes
Athysanus pusillus	common sandweed	yes
Avena barbata	wild oatgrass	no
Baccharis pilularis	coyote brush	yes
Brachypodium distachyon	false brome	no
Briza maxima	rattlesnake grass	no
Briza minor	little rattlesnake grass	no
Brodiaea elegans	harvest brodiaea	yes
Bromus diandrus	ripgut brome	no
Bromus hordeaceus	woft chess	no
Bromus madritensis	red brome	no
Bromus sterilis	poverty brome	no
Capsella bursa-pastoris	shepherd's purse	no
Carduus pycnocephalus	Italian thistle	no
Castilleja attenuate	narrow-leaf owl's clover	yes
Centaurea melitensis	tocalote	no
Cerastium glomeratum	mouse-ear chickweed	no
Chenopodium berlandieri	pit seed goosefoot	no
Chlorogalum pomeridianum var. *pomeridianum*	soap plant	yes
Clarkia purpurea ssp. *quadrivulnera*	purple clarkia	yes
Claytonia parviflora ssp. *parviflora*	miner's lettuce	yes
Collinsia heterophylla var. *heterophylla*	purple Chinese houses	yes
Croton setiger	turkey-mullein	yes
Cynara cardunculus ssp. *cardunculus*	wild artichoke	no
Cynoglossum grande	houndstongue	yes
Cynosurus echinatus	dogstail grass	no
Daucus carota	Queen Anne's lace	no

Delphinium variegatum ssp. *variegatum*	royal larkspur	yes
Diplacus aurantiacus	sticky monkeyflower	yes
Dipterostemon capitatum	blue dicks	yes
Elymus caput-medusae	medusahead	no
Elymus glaucus	blue wildrye	yes
Elymus multisetus	big squirreltail grass	yes
Epilobium densiflorum	denseflower willowherb	yes
Eriodictyon californicum	Yerba Santa	yes
Eriophyllum lanatum	woolly sunflower	yes
Erodium botrys	big heron bill	no
Erodium cicutarium	redstem filaree	no
Festuca microstachys	eastwood fescue	yes
Festuca myuros	Zorro fescue	no
Festuca perennis	Italian ryegrass	no
Galium andrewsii	phlox leaved bedstraw	yes
Galium parisiense	wall bedstraw	no
Galium porrigens	climbing bedstraw	yes
Gastridium phleoides	nit grass	no
Geranium dissectum	wild geranium	no
Geranium mode	woodland geranium	no
Gilia tricolor	bird's eyes	yes
Helianthella californica	California helianthella	yes
Hesperevax acaulis	dwarf hesperevax	yes
Hesperolinon spergulinum	slender western flax	yes
Heteromeles arbutifolia	toyon	yes
Hirschfeldia incana	shortpod mustard	no
Holocarpha virgata	narrow tarplant	yes
Hordeum murinum	foxtail barley	no
Hypericum perforatum	klamathweed	no
Hypochaeris glabra	smooth cat’s ears	no
Juncus bufonius	toad rush	yes
Lactuca serriola	prickly lettuce	no
Lamium amplexicaule	henbit	no
Lasthenia californica	California goldfield	yes
Lasthenia gracilis	needle goldfields	yes
***Layia septentrionalis* (CNPS List 1B.2)**	**Colusa tidy-tips**	**yes**
Lepidium didymum	lesser swine cress	no
Leptosiphon bicolor	true baby stars	yes
Lessingia ramulosa	Sonoma lessingia	yes
Logfia filaginoides	California cottonrose	no
Lomatium utriculatum	hog fennel	yes
***Lomatium hooveri* (CNPS List 4.3)**	**Hoover’s lomatium**	**yes**
Lonicera interrupta	chaparral honeysuckle	yes
Lupinus bicolor	miniature lupine	yes
Lysimachia arvensis	scarlet pimpernel	no
Navarretia atractyloides	holly-leaf navarretia	yes
Navarretia pubescens	purple navarretia	yes

Madia gracilis	slender tarweed	yes
Marah fabacea	manroot	yes
Matricaria discoidea	pineapple weed	no
Medicago polymorpha	bur clover	no
Melica californica	California melicgrass	yes
Melilotus indicus	annual yellow sweetclover	no
Micranthes californica	Greene's saxifrage	yes
Micropus californicus	q-tips	yes
Microseris douglasii	Douglas' silverpuffs	yes
Pedicularis densiflora	indian warrior	yes
Pentagramma triangularis	goldback fem	yes
Petrorhagia dubia	windmill pink	no
Plagiobothrys stipitatus	vernal pool allocarya	yes
Plantago erecta	hill plantain	yes
Plantago major	common plantain	no
Plectritis macrocera	longhorn plectritis	yes
Poa annua	annual blue grass	no
Poa secunda	pine bluegrass	yes
Polypogon monspeliensis	rabbitsfoot grass	no
Pinus sabiniana	gray pine	yes
Primula hendersonii	Henderson's shooting star	yes
Quercus douglasii	blue oak	yes
Ranunculus hebecarpus	pubescent fruited buttercup	yes
Raphanus sativa	wild radish	no
Sanicula bipinnatifida	purple sanicle	yes
Sanicula crassicaulis	gamble weed	yes
Senecio vulgaris	common groundsel	no
Silene gallica	common catchfly	no
Silybum marianum	milk thistle	no
Sisyrinchium bellum	blue eyes grass	yes
Stellaria media	chickweed	no
Stipa pulchra	purple needle grass	yes
Symphoricarpos albus var. *laevigatas*	snowberry	yes
Thysanocarpus curvipes	fringe pod	yes
Torilis arvensis	hedge nettle	no
Toxicodendron diversilobum	poison oak	yes
Trifolium bifidum	notch-leaf clover	yes
Trifolium depauperatum var. *depauperatum*	dwarf sack clover	yes
Triphysaria eriantha ssp. *eriantha*	butter'n'eggs	yes
Triteleia laxa	Ithuriefs spear	yes
Uropappus lindleyi	silver puffs	yes
Urtica dioica	stinging nettle	yes
Vicia villosa	hairy vetch	no
Zeltnera muehlenbergii	Muehlenberg's centaury	yes

APPENDIX C: CNDDB OCCURRENCES MAP



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 State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

D.l 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 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 and demarcated with appropriate flagging.
- The removal of vegetation is prohibited within riparian 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 permits from the local City or County planning department where required.
- 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 of growth medium 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, mulch, wattles, silt fencing, erosion control fabrics, sand bags, or other materials adequate to cover areas of disturbed soil or incipient erosion events.
- In the event of a forecast storm event likely to produce runoff, apply mulch, wattles, or other erosion prevention measures to the disturbed areas prior to rain event.
- Any grading or drainage conducted as part of site preparation shall have permits from local County or City agencies if required.

D.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.

D.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.

D.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.

D.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.

D.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.

APPENDIX E: STREAM CLASSIFICATION CRITERIA

The following stream classification criteria were copied form the California Department of Forestry & Fire Protection *Forest Practice Rules* (CALFIRE 2017) and is widely used by many state and local agencies. Most state and local jurisdictions require setbacks of 50, 100, and 150 feet from Class III, II, and I streams, respectively, although greater setbacks may be required in some jurisdictions.

Wattrccum*- a natural or artificial channel through which waler flows.

- Perennial watercourse (Class I'J:
  1 In the absence ol diversions. water is flowing for more than nine months durnga typical year,
  2. Fish always or seasonally present onsite or includes habitat to sustan fan migration and spawning, and-or
  3 Spring an area where Ihere is concent rated discharge of ground waler that flows al tlw ground surface. A spring may flow any part of tho year. For tho purpose of this Policy a spring does net have a defined bed arid banks.

* In1eiiTiitten1watercoirse iClass II"):
  1 In the absence erf diversions. water is flowing for three to nine mcnlhs during a typical year.
  2 Provides aquetic habust for nont-fch aquatic species,
  3 Fish always or seasonally present within 1i.DOO feet downslreem, ard'or
  4. Water is flowing less than thrao months during a typical year and the stream supports ripcrian vegetation.

* Ephemeral 'watercourse (Class IIP) In the absence of diversion, water 15 flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life Ephemeral watercourses typicaly have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable o' sediment transport

- Other watercourses (Class IV"i. Class IV watercourses do not support native aquatic species and are man-made provide estab Ished domestic, agricultural, hydroelectric supply, or other beneficial use.

"Except where more nesiridive. stream class designations are eqpiualent to the Forest Praehee Rules Water Course and Lake Protection Zone definitions (Cahtomia Code of Regulations, title 14, Chapter 4 FcxcsI PracIKe Rules, Subchapters 4. S, and 6 FfxesI District Rules, Article 6 Water Course and Lake Protection).

SECTION - F

GROUNDS MANAGEMENT PLAN

Grounds Management Plan

Purpose and Overview

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). ESF currently operates an existing A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616. The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden bam for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip irrigation systems. All water for the existing and proposed cultivation operation is/will be supplied from two existing onsite groundwater wells. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within an existing onsite wooden shed, and all cannabis waste is/will be chipped and composted onsite.

This Grounds Management Plan is intended to ensure that the Project Property is well maintained in order to protect the public health, safety and welfare, as well as the natural environment of Lake County. This Grounds Management Plan outlines how employees will properly store agricultural chemicals and equipment, manage solid waste, maintain roads and defensible space, and prevent the attraction, harborage, and proliferation of pests and diseases due to unsanitary conditions.

Chemicals Storage and Effluent

Chemicals stored and used at/by the existing and proposed cultivation operation include fertilizers/nutrients, pesticides, and petroleum products (Agricultural Chemicals). All fertilizers/nutrients and pesticides, when not in use, are/will be stored in their manufacturer's original containers/packaging, undercover, and at least 100 feet from surface water bodies, inside the secure Pesticides & Agricultural Chemicals Storage Area/Shed. Petroleum products are/will be stored under cover, in State of California-approved containers with secondary containment, and

separate from pesticides and fertilizers within the proposed Pesticides & Agricultural Chemicals Storage Area/Shed. Spill containment and cleanup equipment is/will be maintained within the Pesticides and Agricultural Chemicals Storage Area/Shed, as well as Materials Safety Data Sheets (MSDS/SDS) for all potentially hazardous materials used onsite. No effluent is expected to be produced by the proposed cultivation operation.

All fertilizers/nutrients will be mixed/prepared on an impermeable surface that is at least 100 feet from surface water bodies. Personnel are/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 used by staff include safety glasses, gloves, dust masks, boots, pants, and long-sleeved shirts.

Solid Waste Management

The types of solid waste that are/will be generated from the existing and proposed cultivation operation include gardening materials and wastes (such as used fertilizer/pesticide containers) and general litter from personnel. All solid waste is/will be stored in bins with secure fitting lids, located directly adjacent to the existing and proposed cultivation areas. At no time are/will the bins be filled to a point that their lids cannot fit securely. Solid waste from the bins are/will be deposited into a trailer ("dump trailer"), and hauled away to a Lake County Integrated Waste Management facility weekly. The closest Lake County Integrated Waste Management facility to the existing/proposed cultivation operation is the Eastlake Landfill. Most, if not all, of the solid waste and recyclables generated by existing and proposed commercial cannabis cultivation operation can and is/will be deposited there.

Site Maintenance

When not in use, all equipment is/will be stored in its proper designated area upon completion of the task for which the equipment was needed. Any refuse created during the work day is/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 is/will be disposed of immediately. 100 feet of defensible space will be established and maintained around the proposed cultivation operation for fire protection and to ensure safe and sanitary working conditions. Areas of defensible space are/will be mowed and trimmed regularly around the cultivation operation to provide for visibility and security monitoring. Access roads and parking areas have been graveled to prevent the generation of fugitive dust, and vegetative ground cover will continue to be preserved throughout the entire site to filter and infiltrate stormwater runoff from access roads, parking areas, and the existing/proposed cultivation operation. Portable restroom facilities are/will be made available for staff to use, and regularly serviced to ensure a safe and sanitary working environment, throughout the cultivation season.

Compliance with SRA Fire Safe Regulations

The Project Property is located within the South Lake County Fire Protection District and the California Board of Forestry and Fire Protection (CALFIRE) State Responsibility Area (SRA). As such, the proposed cultivation operation must comply with SRA Fire Safe Regulations.

Emergency Access and Egress

The Project Property is accessed via a shared private gravel access road off of Jerusalem Grade. The existing and proposed cultivation areas are/will be accessed via private gravel access roads off of the shared private gravel access road. The shared private gravel access road is 20 feet wide, with less than 16 percent grade, and has an aggregate surface capable of supporting fire apparatus weighing at least 75,000 pounds. The proposed private gravel access road used to access the area of the proposed Processing Building will be flat, and have a 20-foot wide aggregate surface capable of supporting fire apparatus weighing at least 75,000 pounds. The proposed private gravell access road will connect to existing private gravel access roads so as to provide circulation for emergency vehicle access and egress.

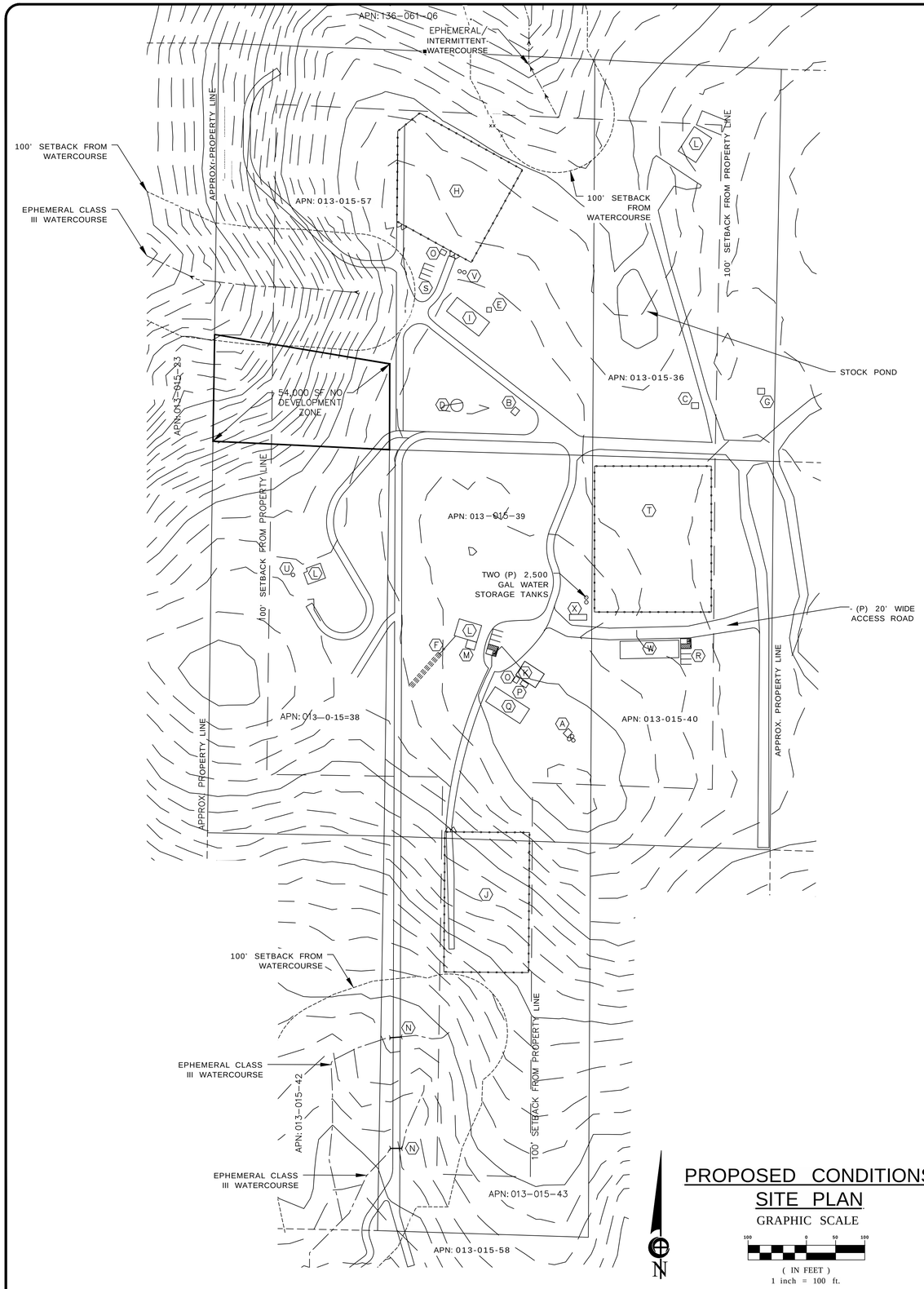
Signing and Building Numbering

The addresses of the Project Property (and the existing/proposed cultivation operation) are displayed on metal rectangles mounted to a metal post in a location that is visible and legible from at least 100 feet in both directions from the shared private gravel access road. The numbers of the address are reflectorized, of a contrasting color (to the color of the metal rectangle), and have a height of at least 4 inches with 0.5 stroke.

Emergency Water Supply & Defensible Space

A 30,000-gallon metal fire water storage tank has been established on the Project Property directly adjacent to the shared private gravel access road, and within 600 feet of the existing and proposed buildings of the Project Property. The metal fire water storage tank is connected to a 2-foot high hydrant/fire valve equipped with 2.5-inch National Hose male thread and cap. The location of the hydrant/fire valve is identified with a +3” reflectorized blue marker mounted to a 4-foot tall/high metal post.

ESF will remove all flammable vegetation within 30 feet of the buildings, cultivation areas, and metal fire water storage tank and hydrant/fire valve of the Project Property. 100 feet of defensible space is/will be maintained around the proposed cultivation operation, by regularly mowing grasses to a maximum height of 4 inches, creating and maintaining space between shrubs and trees, and by removing all tree branches and other ladder fuels within 6 feet of the ground surface.



PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

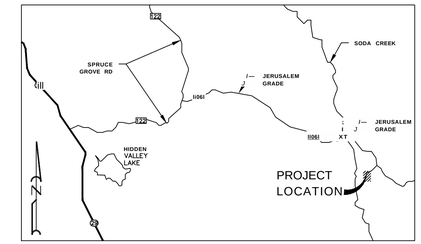
100 0 50 100

(IN FEET)
1 inch = 100 ft.

LEGEND:

1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	(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 5'



VICINITY MAP
NO SCALE

EAST SIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95461 - LAKE COUNTY
APNS:013-015-36, 38, 39, 40, 43 & 57

<A> (E) GROUNDWATER WELL & THREE 2,500 GAL WATER STORAGE TANKS:
LAT: 38.809398°
LONG: -122.488449°

(B) (E) GROUNDWATER WELL & 10'x12' WELL HOUSE
LAT: 38.810926°
LONG: -122.488773°

<C> (E) GROUNDWATER WELL & 10'X12' WELL HOUSE
LAT: 38.81094°
LONG: -122.48775°

(D) (E) 30,000 GAL. METAL FIRE WATER STORAGE TANK

(E) (E) 8'x8' PESTICIDES AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) SEPTIC AREA

(G) (E) 10'x12' SHED

(H) (E) 34,346 SF OUTDOOR CULTIVATION AREA

(I) (E) 30'X70' (2,100 SF) METAL AGRICULTURE STORAGE BUILDING /
(P) 30'x70' (2,100 SF) DRYING BUILDING

(J) (E) 34,800 SF OUTDOOR CULTIVATION AREA

(K) (E) 28'x40' CANNABIS STORAGE BUILDING

(L) (E) RESIDENCE

(M) (E) 14'x16' WOODEN SHED

(N) (E) 12" CMP CULVERT

(O) (E) DESIGNATED REFUSE AREAS

(P) (E) COMPOST AREA

(Q) (P) 30'x70' GREENHOUSE / IMMATURE PLANT AREA

(R) (P) EMPLOYEE PARKING / A.D.A.

(S) (E) EMPLOYEE PARKING

(T) (P) 200' X 250' (50,000 SF) OUTDOOR CULTIVATION AREA

Zjj\ (E) GROUNDWATER WELL & 10'X12' WELL HOUSE
LAT: 38.81013°
LONG: -122.49016°

<V> (E) TWO 2,500 GAL WATER STORAGE TANKS

<W> (P) 30'x100' (3,000 SF) PROCESSING BUILDING

<X> (E) GROUND-MOUNTED SOLAR ARRAY

Revisions:

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

REGISTERED PROFESSIONAL ENGINEER
JASON B. VINE
No. 67800
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

PROPOSED CONDITIONS SITE PLAN

EASTSIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95819
LAKE COUNTY APNS:013-015-34, 013-015-35, 013-015-39 & 013-015-43

PLOTTED BY:
DATE PLOTTED:
SCALE OF DRAWING:
JOB NUMBER:
CADD FILE:
SHEET:

2

SECTION – G

SECURITY MANAGEMENT PLAN

Security Management Plan

Purpose and Overview

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). ESF currently operates an existing A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616. The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden bam for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip irrigation systems. All water for the existing and proposed cultivation operation is/will be supplied from two existing onsite groundwater wells. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within an existing onsite wooden shed, and all cannabis waste is/will be chipped and composted onsite.

The purpose 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 are/will be implemented at/by the existing and proposed cultivation operation to prevent unauthorized access and theft or diversion of cannabis, a description of the proposed video surveillance system, and protocols that are/will be followed to ensure overall site security. This SMP is also designed to be compliant with the regulations for cannabis cultivation established by the California Department of Cannabis Control for state-licensed cannabis businesses.

Secured Entry and Access

The Project Property is accessed via a shared private gravel access road off of Jerusalem Grade. The existing and proposed cultivation areas and ancillary facilities are/will be accessed via private gravel roads off of the shared private gravel access road. Locking metal gates across the private gravel access roads control access to the existing and proposed cultivation areas and ancillary facilities. These gates are/will be closed and locked outside of core operating/business hours (8am to 6pm) and whenever managerial personnel are not present.

6-foot woven wire fences have been / will be erected around the existing and proposed cultivation areas. Privacy Screen/Cloth will be installed on the fences where necessary to screen the cultivation area from public view. Posts have been / will be set into the ground at not more than 10-foot intervals, and terminal posts have been / will be set into concrete footings. Secured entry and access to the cultivation areas is/will be controlled via locking gates that will be locked whenever managerial personnel are not present. All gates are/will be secured with heavy duty chains and commercial grade padlocks. Only approved managerial staff are/will be able to unlock the gates of the cultivation operation.

100 feet of defensible space (vegetation management) has been / will be established and maintained around the existing and proposed cultivation areas and associated facilities for fire protection and to provide for visibility and security monitoring. Motion-sensing alarms and security lights have been / will be installed at the metal gates controlling access to the existing/proposed cultivation operation, to alert personnel when someone/something has entered onto the premises. Motion-sensing security lights have been / will be installed on all external comers of the existing and proposed cultivation areas. All lighting is/will be fully shielded, downward casting and does not / will not spill over onto other properties or the night sky.

Staff are/will be instructed to notify managerial personnel immediately if/when suspicious activity is detected. Upon notification, managerial staff will investigate the suspicious activity for potential threats, issues, or concerns. Managerial staff will contact the Lake County Sheriffs Office immediately if/when a threat is detected. When a visitor arrives at the existing/proposed cultivation operation via the main entrance during core operating/business hours, they are/will be immediately greeted by a member of ESF's staff. The staff member verifies the visitor's identification and appropriate documentation/credentials. They are then assigned an escort to show the visitor to the appropriate area(s), in accordance to their approved itinerary. No visitors are/will ever be left unattended.

Video Surveillance

ESF uses/will use a color capable closed-circuit television (CCTV) systems with a minimum camera resolution of 1080p at a minimum of 30 frames per second to record activity in all sensitive areas. All cameras are/will be equipped with motion sensing technology to activate the cameras when motion is detected, and all cameras (exterior and interior) are/will be waterproof. The CCTV system feeds into a Monitoring and Recording Station inside the wooden barn, where video from the CCTV systems is/will be digitally recorded. Video recordings display the current date and

time, and all recordings are/will be kept a minimum of 90 days, and 7 years for any corresponding reported incidents caught on tape. Video management software of the Monitoring and Recording Station is/will be capable of supporting remote access, and will be equipped with a failure notification systems that immediately notify managerial staff of any interruptions or failures. All sensitive areas covered by the video surveillance systems will have adequate lighting to illuminate the camera's field of vision.

Proposed camera placements can be found on the accompanying Security Site Plan. Areas that will be covered by the CCTV system include:

- [REDACTED]

Diversion/Theft Prevention

All personnel are/will be required to undergo a criminal background check with the Lake County Sheriffs Office. Visitors and personnel are/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 are/will be required to store personal items (except for food, water, and drinks) in their vehicles throughout their shift.

ESF adheres to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All personnel are/will be trained in the requirements of the CCTT system, and all cannabis transfers/movement are/will be reported through the CCTT system. ESF's site manager is the designated track-and-trace system administrator. The site manager/track-and-trace system administrator supervises all tasks with high potential for diversion/theft. 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 Sheriffs Office at all times to address any needs or issues that may arise. The Community Liaison/Emergency Contact will provide their name, cell phone number, and email address to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. The Community Liaison/Emergency Contact 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 operation's annual Performance Review Report.

The Community Liaison/Emergency Contact for the existing/proposed cultivation operation is Mr. Isaac Cohen. Mr. Cohen's cell phone number is (707) 264-9298, and his email address is pinball28@gmail.com. There are three residences within 250 feet of the Project Property. The residents and owners of all properties within 250 feet of the Project Property, have already been provided with Mr. Cohen's contact information.

SECTION - H

STORM WATER MANAGEMENT PLAN

Storm Water Management Plan

Purpose and Overview

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). ESF currently operates an existing A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616. The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden bam for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip irrigation systems. All water for the existing and proposed cultivation operation is/will be supplied from two existing onsite groundwater wells. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within an existing onsite wooden shed, and all cannabis waste is/will be chipped and composted onsite.

The intent/purpose of this Storm Water Management Plan is to protect the water quality of the surface and stormwater management systems managed by Lake County, and to evaluate the impact on downstream property owners. The proposed cultivation operation will increase the impervious surface area of the Project Property by approximately 3,200 ft^2 , or approximately 0.2% of the Project Property, through the installation of the proposed 3,000 ft^2 Processing Building and two 2,500-gallon water storage tanks. The proposed outdoor cultivation/canopy areas would not increase the impervious surface area of the Project Property and should not increase the volume of runoff from the Project Site. The proposed parking lot will have a permeable gravel surface, and the proposed ADA parking space will be constructed of permeable pavers.

Receiving Water Bodies and Infrastructure

The Project Property is located within the Upper Putah Creek Watershed (HUC10) and the Soda Creek Sub-watershed (HUC 12). Soda Creek flows from north to south approximately 250 feet west of the Project Property, and more than 500 feet west of ESF's existing and proposed cultivation areas. Soda Creek flows into Putah Creek approximately 0.8 miles south of the Project Property. Putah Creek flows southeast into Lake Berryessa approximately 15 miles southeast of the Project Property. Three unnamed ephemeral Class III watercourses form on the Project Property, and flow north, west, and south off of the Project Property and into Soda Creek. All of the existing/proposed cultivation and agricultural chemical storage areas are/will be located more than 100 feet from any surface water body.

The Project Property is accessed via a shared gravel access road that connects to Jerusalem Grade approximately 400 feet east of the Project Property. The existing and proposed cultivation areas are accessed via private native soil surfaced access roads off of the previously mentioned shared gravel access road. There are no watercourse crossings on the private native soil surfaced access roads of the Project Property, nor any Lake County maintained bridges/watercourse crossings or stormwater management infrastructure downstream of the existing/proposed cultivation operation. There is an Ephemeral Class III Watercourse Crossing on the shared gravel access road along the western parcel boundary of APN 013-015-43, composed of a 12" CMP culvert with native fill. This watercourse crossing is not used to access the Project Property nor the existing/proposed cultivation operation.

Ground Disturbance and Grading

Soils of the Project Parcels are identified as the Bally-Phipps and Phipps complex by the NRCS Web Soil Survey (attached), and characterized as well-drained gravelly sandy clay loams from a parent material of alluvium. The proposed cultivation operation will increase the impervious surface area of the Project Property by approximately 3,200 ft^2 , or approximately 0.2% of the Project Property, through the installation of the proposed 3,000 ft^2 Processing Building and two 2,500-gallon water storage tanks. The existing and proposed outdoor cultivation areas have not / will not increase the impervious surface area of the Project Property and should not increase the volume of runoff from the Project Site. The proposed parking lot will have a permeable gravel surface, and the proposed ADA parking space will be constructed of permeable pavers. A small amount of grading (less than 500 cubic yards) will be necessary to create level pads on which the proposed Processing Building and Immature Plant Area/Greenhouse are to be constructed.

Erosion and Sediment Control Measures

Established vegetation within and around the existing/proposed cultivation operation will be maintained/protected to the extent possible, as a permanent erosion and sediment control measure. All structures and cultivation areas are/will be located more than 100 feet from the nearest surface water bodies, and stormwater runoff from the structures and cultivation areas is/will be discharged to the well-vegetated buffers surrounding the existing/proposed cultivation operation to filter

and/or remove any sediment, nutrients, and/or pesticides mobilized by stormwater runoff, and prevent those pollutants from reaching nearby surface water bodies.

A native grass seed mixture and certified weed-free straw mulch will be applied at a rate of two tons per acre to all areas of exposed soil outside of the proposed cultivation areas, prior to November 15th of each year, until permanent stabilization has been achieved. Straw wattles / fiber rolls will be installed and maintained throughout the proposed cultivation operation per the attached Erosion & Sediment Control Site Plan following site development, until permanent stabilization has been achieved. 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. The Applicant will conduct monthly monitoring inspections to confirm that this operation is in compliance with California Water Code/SWRCB's Cannabis General Order.

Regulatory Compliance (Stormwater)

The Project Parcels have been enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (WQ-2019-0001-DWQ) since September 3rd, 2019 (WDID: 5S17CC420586). Site Management and Nitrogen Management Plans have been developed for the existing cultivation operation, and approved by the Central Valley Regional Water Quality Control Board (CVRWQCB). The Site Management and Nitrogen Management Plans will be updated and submitted to the CVRWQCB for review, upon approval of the proposed cultivation operation. Each year, prior to March 1st, an Annual Monitoring Report has been/will be prepared and submitted to the CVRWQCB, demonstrating measures taken over the course of the previous year to comply with the Cannabis General Order. The stormwater management measures outlined above meet or exceed the requirements of the Lake County Storm Water Management Ordinance (Chapter 29 of the Lake County Ordinance Code). Development of the proposed cultivation operation, with implementation of the erosion and sediment control measures outlined above, should not increase the volume of stormwater discharges from the Project Property onto adjacent properties or flood elevations downstream.

Storm Water Management Monitoring and Reporting

The following are the Monitoring and Reporting Requirements for the existing/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 State 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."

The Applicant has and will adhere to these monitoring requirements to maintain compliance with the Cannabis General Order, and would be happy to provide a copy of his Annual Monitoring Report to Lake County Officials if requested.

Cannabis Vegetative Material Waste Management

Cannabis Waste

"Cannabis waste" is an organic waste, as defined in Section 42649.8(c) of the Public Resources Code. Cannabis waste generated from the existing/proposed cannabis cultivation operation is be limited to cannabis plant leaves and stems. All other parts of cannabis plants cultivated at this site are/will be transferred to State of California-licensed Distributors and Manufacturers. The proposed cannabis cultivation operation should generate approximately 500 pounds of dried cannabis waste each year. All cannabis waste is/will be composted onsite.

Cannabis Waste Composting

All cannabis waste generated from the existing/proposed cultivation operation is/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 is/will be ripped/shredded and placed in the designated composting areas. In the designated composting areas, cannabis waste is/will be composted until it is incorporated into the soils of the proposed outdoor cultivation/canopy areas as a soil amendment.

Cannabis Waste Records/Documentation

Cannabis waste generated from the existing/proposed cannabis cultivation operation is/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. ESF 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.

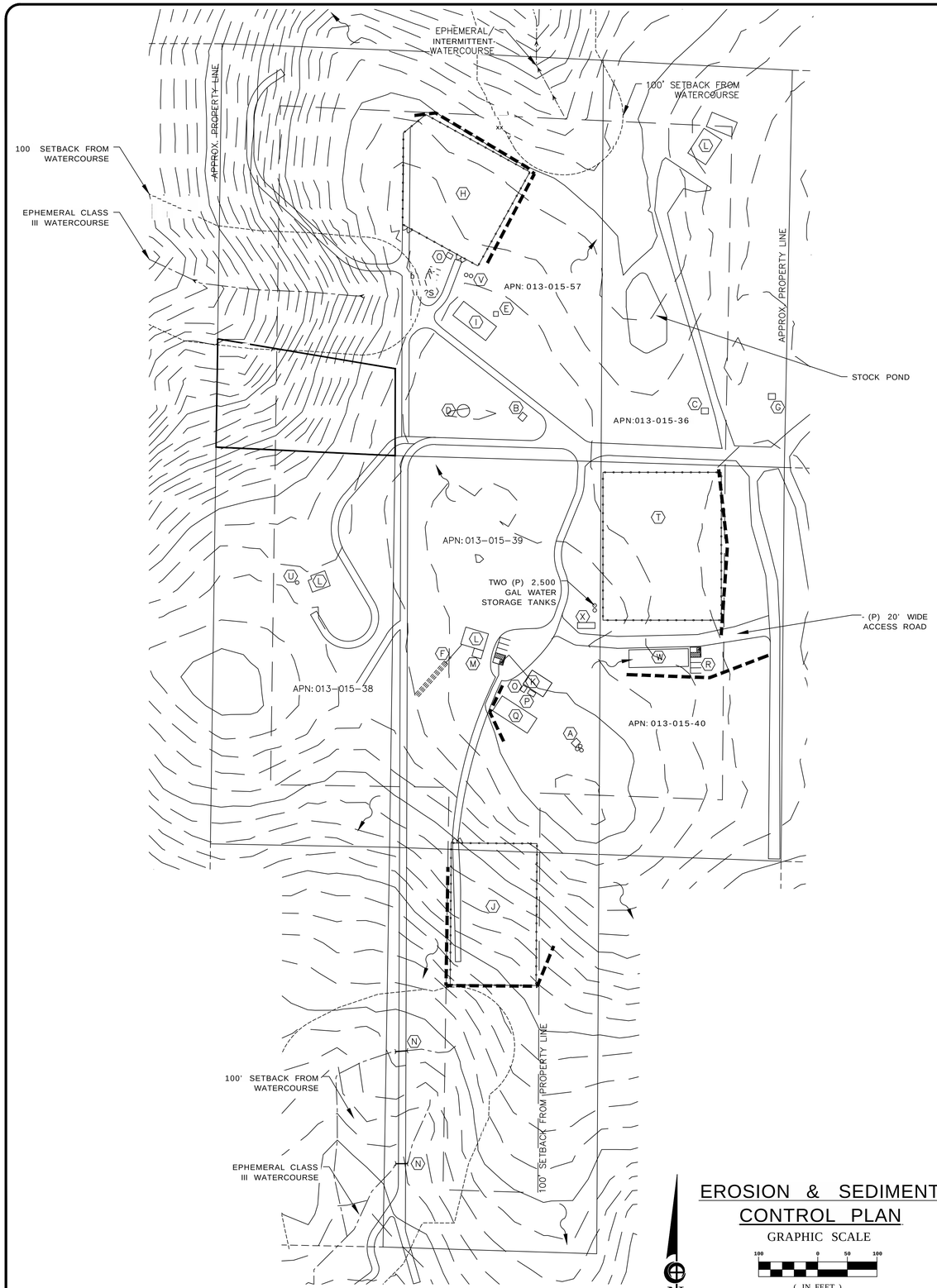
Growing Medium Management

Growing Medium Overview

The growing medium of the existing and proposed outdoor cultivation areas will be native soil amened with compost, composted manure, and worm castings. Each year the growing medium of the existing/proposed cultivation areas will be amended and reused. Each spring, the native soil of the existing/proposed cultivation areas will be plowed/disced and harrowed to create planting beds for the cultivation of cannabis. Each fall , the native soil of the existing/proposed cultivation areas will be plowed/disced and planted with a nitrogen-fixing cover crop, to stabilize the site(s) for the winter wet weather period. Only low salt fertilizers are/will be used, so that salts do not accumulate within the growing medium of the existing/proposed cultivation areas, rendering it unusable.

Growing Medium Waste

Ideally, the growing medium of the cultivation areas would be amended and reused each year/cultivation season. In the event of a root and/or soil borne pest infestation, the infested soil will be 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. The treated soil will be returned to production after treatment. No growing medium waste should be generated from the proposed cannabis cultivation operation (all growing medium should be recycled/reused).



EROSION & SEDIMENT CONTROL PLAN

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

(A) (E) GROUNDWATER WELL & THREE 2,500 GAL WATER STORAGE TANKS:
LAT: 38.809398°
LONG: -122.488449°

(§) (E) GROUNDWATER WELL & 1O'x12' WELL HOUSE
LAT: 38.810926°
LONG: -122.488773°

<C> (E) GROUNDWATER WELL & 1O'X12' WELL HOUSE
LAT: 38.81094°
LONG: -122.48775°

(D) (E) 30,000 GAL. METAL FIRE WATER STORAGE TANK

(E) (E) 8'x8' PESTICIDES AND AGRICULTURAL CHEMICALS STORAGE AREA

(F) (E) SEPTIC AREA

(G) (E) 1O'x12' SHED

(H) (E) 34,346 SF OUTDOOR CULTIVATION AREA

(I) (E) 3O'X7O' (2,100 SF) METAL AGRICULTURE STORAGE BUILDING /
(P) 30'x70' (2,100 SF) DRYING BUILDING

(J) (E) 34,800 SF OUTDOOR CULTIVATION AREA

(K) (E) 28'x40' CANNABIS STORAGE BUILDING

(L) (E) RESIDENCE

(M) (E) 14'x16' WOODEN SHED

(N) (E) 12" CMP CULVERT

(O) (E) DESIGNATED REFUSE AREAS

(P) (E) COMPOST AREA

(Q) (P) 30'x70' GREENHOUSE / IMMATURE PLANT AREA

(R) (P) EMPLOYEE PARKING / A.D.A.

(S) (E) EMPLOYEE PARKING

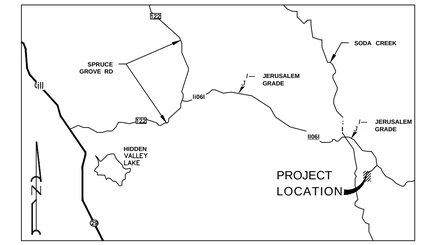
(T) (P) 200' X 250' (50,000 SF) OUTDOOR CULTIVATION AREA

(jj) (E) GROUNDWATER WELL & 10'X12' WELL HOUSE
LAT: 38.81013°
LONG: -122.49016°

<V> (E) TWO 2,500 GAL WATER STORAGE TANKS

(W) (P) 30'x100' (3,000 SF) PROCESSING BUILDING

<X> (E) GROUND-MOUNTED SOLAR ARRAY



VICINITY MAP
NO SCALE

EAST SIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95461 - LAKE COUNTY
APNS:013-015-36, 38, 39, 40, 43 & 57

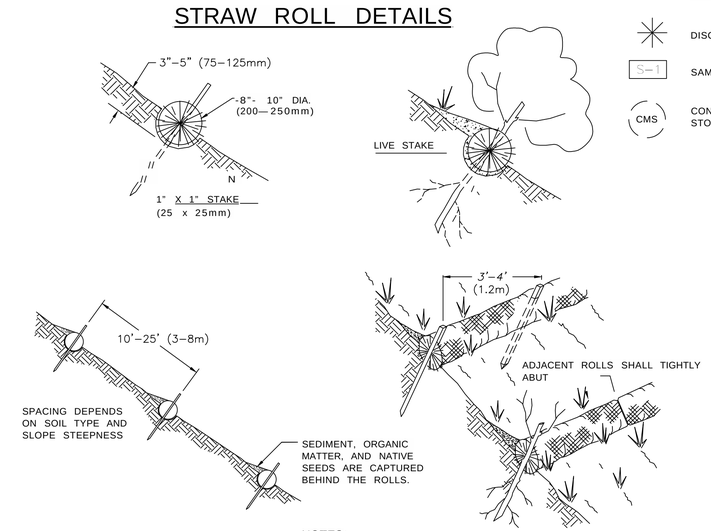
LEGEND:

-----1530	CONTOUR ELEVATION
	FENCE
	ASPHALT
	GRAVEL
	EARTH
	(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 5'

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

STRAW ROLL DETAILS



NOTES:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. STRAW ROLLS MUST BE PLACED ALONG SLOPE CONTOURS

Revisions:

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

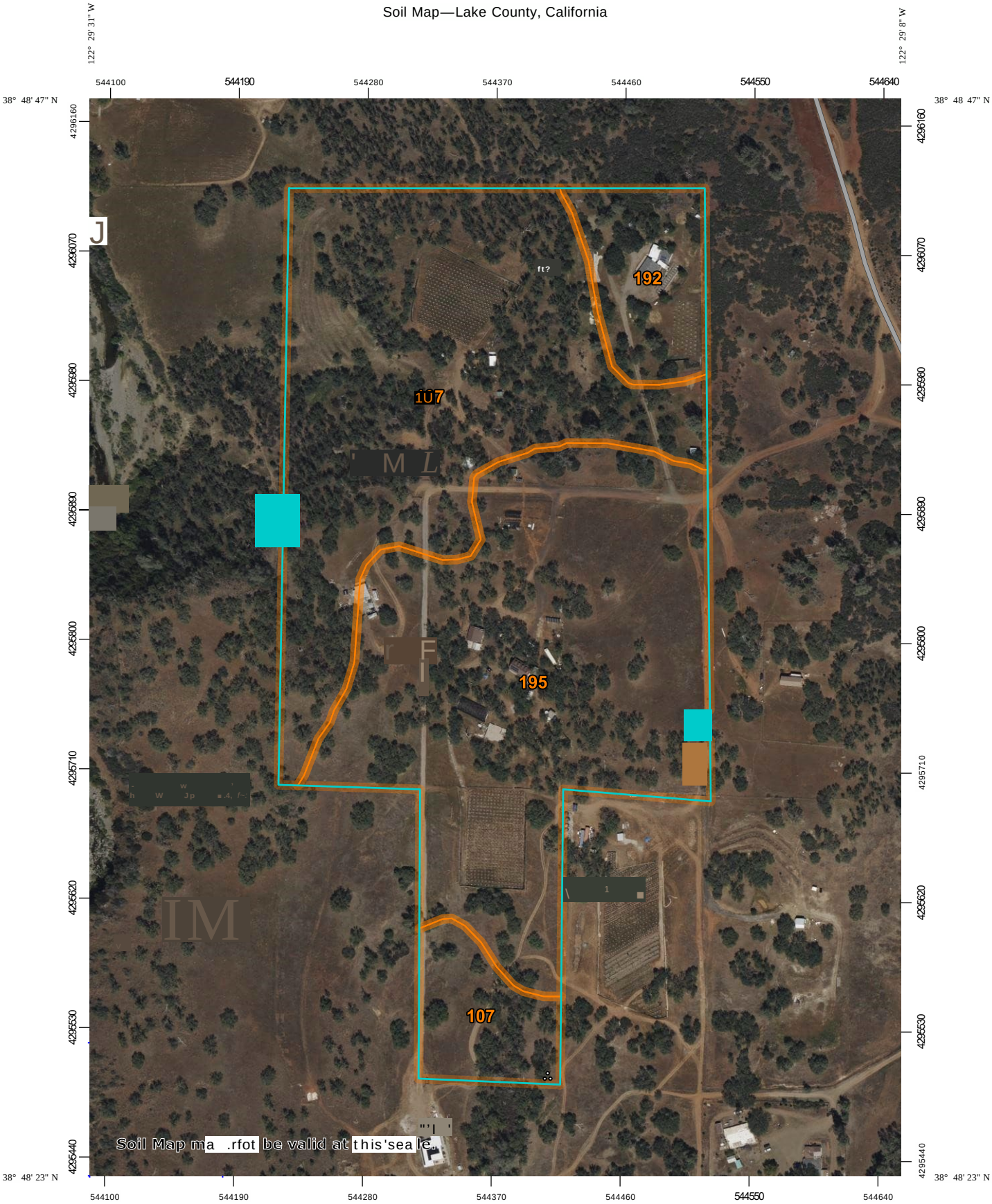
LICENSED PROFESSIONAL ENGINEER
JASON B. VINE
No. 67800
Exp. 6/30/25
CIVIL
STATE OF CALIFORNIA

EROSION & SEDIMENT CONTROL PLAN

EASTSIDE FARMS
23131 JERUSALEM GRADE
MIDDLETOWN, CA 95819
LAKE COUNTY APNS:013-015-34, 013-015-35, 013-015-39 & 013-015-43

PLOTTED BY:
DATE PLOTTED:
SCALE OF DRAWING:
JOB NUMBER:
CADD FILE:
SHEET:
5

Soil Map—Lake County, California



Map Scale: 1:3,650 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

feet: 0 150 300 600 900

Map projection: Web Mercator Comer coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

W Blowout

El Borrow Pit

X Clay Spot

0 Closed Depression

X Gravel Pit

A Gravelly Spot

© Landfill

A. Lava Flow

Marsh or swamp

ft Mine or Quarry

o Miscellaneous Water

o Perennial Water

V Rock Outcrop

+ Saline Spot

Sandy Spot

Severely Eroded Spot

0 Sinkhole

Slide or Slip

Sodic Spot

§ Spoil Area

a Stony Spot

£5 Very Stony Spot

ft Wet Spot

& Other

Special Line Features

Water Features

Streams and Canals

Transportation

1-4-1 Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 21, Aug 28, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
107	Bally-Phipps complex, 15 to 30 percent slopes	16.9	47.2%
192	Okiota-Henneke complex, 5 to 30 percent slopes	2.7	7.4%
195	Phipps complex, 5 to 15 percent slopes	16.2	45.3%
Totals for Area of Interest		**35.8**	**100.0%**

SECTION - I

WATER USE MANAGEMENT PLAN

Water Use Management Plan

Purpose and Overview

East Side Farms, Inc. (ESF) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 23131 Jerusalem Grade near Middletown, CA on APNs 013-015-39, 40, 43 & 57 (Project Parcels). ESF currently operates an existing A-Type 3 "Medium Outdoor" Cultivation on the Project Parcels under Major Use Permit UP 19-43 and Commercial Cannabis Cultivation License CCL20-0001616. The proposed commercial cannabis cultivation operation would be composed of an A-Type 3 and three A-Type 1C Lake County License Types, with a total combined aggregate cannabis canopy of 50,560 ft^2. The proposed cannabis canopy areas would be located within an existing 34,346 ft^2 fenced outdoor cultivation area on APN 013-015-57, an existing 34,800 ft^2 fenced outdoor cultivation area on APN 013-015-43, and a proposed 50,000 ft^2 fenced outdoor cultivation area on APN 013-015-40. ESF proposes to use the existing onsite 30' X 70' (2,100 ft^2) metal building for cannabis drying, and the existing onsite 28' X 40' (1,120 ft^2) wooden bam for harvest storage. Additionally, ESF proposes to add a 30' X 70' (2,100 ft^2) greenhouse for immature plant cultivation and a 30' X 100' (3,000 ft^2) metal building for cannabis processing.

The existing and proposed outdoor cultivation areas are/will be enclosed with 6-foot tall galvanized woven wire fences, covered with privacy screen where necessary to screen the cultivation area from public view. Metal gates secured with commercial-grade locks are/will be used to control access to the existing and proposed outdoor cultivation areas. The growing medium of the existing and proposed outdoor cultivation areas will be an amended native soil mixture at or below grade, with drip irrigation systems. All water for the existing and proposed cultivation operation is/will be supplied from two existing onsite groundwater wells. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) are/will be stored within an existing onsite wooden shed, and all cannabis waste is/will be chipped and composted onsite.

This Water Use Management Plan (WUMP) 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 WUMP focuses on designing a water efficient delivery system and irrigation practices, and the appropriate and accurate monitoring and reporting of water use practices. Also included in this WUMP is a description of the Water Resources of the Project Property and a Water Availability Analysis.

Description of Water Resources

Surface Water

The Project Property is located within the Upper Putah Creek Watershed (HUC10) and the Soda Creek Sub-watershed (HUC 12). Soda Creek follows from north to south approximately 250 feet west of the Project Property, and more than 500 feet west of ESF's existing. And proposed cultivation areas. Soda Creek flows into Putah Creek approximately 0.8 miles south of the Project Property. Three unnamed ephemeral Class III watercourses form on the Project Property, and flow north, west, and south off of the Project Property and into Soda Creek. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody.

Groundwater

The Project Property is located in the Jerusalem Valley and is not within any of the Groundwater Management Plan Areas/Basins outlined in the 2006 Lake County Groundwater Management Plan. Soils of the Project Parcels are identified as the Bally-Phipps and Phipps complex by the NRCS Web Soil Survey, and characterized as well-drained gravelly sandy clay loams from a parent material of alluvium. The United States Geological Survey Geologic Map of the Santa Rosa Quadrangle defines the area in the vicinity of the Project Property as the as the Lower Cretaceous and Lower Cretaceous-Upper Jurassic Great Valley Sequence, composed of marine mudstone, siltstone, sandstone, and conglomerate rocks.

Water Resources Protection

Naturally occurring riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas will be protected 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 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. Personnel will have access to portable restroom facilities at all times when onsite, and those restroom facilities will be established in a location that is at least 100 feet from any surface water body, and serviced regularly.

The Project Parcels have been enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (WQ-2019-0001-DWQ) since September 3rd, 2019 (WDID: 5S17CC420586). Site Management and Nitrogen Management Plans have been developed for the existing cultivation operation, and approved by the Central Valley Regional Water Quality Control Board (CVRWQCB). The Site Management and Nitrogen Management Plans will be updated and submitted to the CVRWQCB for review, upon approval of the proposed cultivation operation. Each year, prior to March 1st, an Annual Monitoring Report has been/will be prepared and submitted to the CVRWQCB, demonstrating measures taken over the course of the previous year to comply with the Cannabis General Order. ESF has and will maintain compliance with the

Cannabis General Order for the protection of water resources for as long as the existing/proposed cultivation operation is operating.

Water Sources, Storage, & Irrigation

All water for the proposed cultivation operation would come from two existing onsite groundwater wells (Project Wells A & B), with two additional onsite groundwater wells available for use if needed:

- Project Well A, located at Latitude 38.809398° and Longitude -122.488449° on APN 013-015-39, was drilled in 2004 through clay and greenstone with quartz, to a depth of 280 feet below ground surface. This well was screened between 220 and 280 feet below ground surface and had an estimated yield of 80 gallons per minute at the time it was drilled (Well Completion Report 824940, attached). A pump test performed on this well in June of 2023, shows that this well can produce at least 22 gallons per minute (Well Test Report, attached).
- Project Well B, located at Latitude 38.810926° and Longitude -122.488773° on APN 013-015-57, was drilled in 2004 through sandy clay and sandstone to a depth of 220 feet below ground surface. This well was screened between 180 and 220 feet below ground surface and had an estimated yield of 60 gallons per minute at the time it was drilled (Well Completion Report 824952, attached). A pump test performed on this well in June of 2023, shows that this well can produce at least 11 gallons per minute (Well Test Report, attached).
- The other onsite groundwater wells provide water for domestic uses on APNs 013-015-36 and 013-015-38. ESF does not plan to use these wells for cannabis cultivation, however they would be available for use as a backup water supply source for the proposed cultivation operation should it be needed.

Irrigation water for the existing/proposed cultivation operation is/will be stored within 2,500-gallon heavy-duty plastic water storage tanks (five existing and two proposed). The water storage tanks are / will be equipped with float valves to shut off the flow of water from the wells and prevent the overflow and runoff of irrigation water when full. PVC water supply lines have been / will be run from the water storage tanks to the irrigation systems of the existing and proposed cultivation areas. The water supply lines have been / will be equipped with 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, and inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7. ESF will maintain 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. The irrigation systems of the existing and proposed cultivation areas is / will be composed of black poly tubing and drip tapes/lines.

Water Conservation

Per the Water Conservation and Use requirements outlined in the SWRCB's Cannabis General Order, the following Best Practical Treatment and Control (BPTC) measures will be implemented to conserve water resources:

- Regularly inspect the entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.
- Apply weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.
- Implement water conserving irrigation methods (drip or trickle and micro-spray irrigation).
- Maintain daily records of all water used for irrigation of cannabis. Daily records will be calculated by using a measuring device (inline water meter) installed on the main irrigation supply line between the water storage area and cultivation areas.
- Install float valves on all water storage tanks to keep them from overflowing onto the ground.

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."

To estimate the annual water use requirement for the proposed cultivation operation, we used Permit Sonoma's 8-2-1 Water Supply, Use and Conservation Assessment Guidelines, which indicates that outdoor cannabis cultivation requires 2 acre-feet per acre of canopy. Cultivation within the existing and proposed canopy areas begins / will begin in June and end in November of each year. Cultivation within the proposed greenhouse / immature plant area would occur from March through July, and is estimated to have a water use requirement less than half of the outdoor canopy areas. The existing and proposed outdoor cultivation areas, with a total combined aggregate cannabis canopy of up to 50,560 ft^2, have an estimated annual water use requirement of 2.32 acre-feet (755,975 gallons) per year/cultivation season. The proposed 2,100 ft^2 greenhouse / immature plant area has an estimated annual water use requirement of less than 0.048 acre-feet (15,705 gallons). The following table presents the expected water use of the proposed cultivation operation by month each year in gallons.

March	April	May	June	July	August	September	October	November
1,000	2,000	4,000	80,500	154,705	188,750	226,500	75,500	38,725

Water Availability Analysis

All water for the proposed cultivation operation would come from two existing onsite groundwater wells located at Latitude 38.809398° and Longitude -122.488449° on APN 013-015-39 (Project Well A), and Latitude 38.810926° and Longitude -122.488773° on APN 013-015-57 (Project Well B). The proposed cultivation operation has an estimated peak daily water use requirement of approximately 7,550 gallons, and an estimated average water demand of approximately 2,858 gallons per day throughout the cultivation season. The two Project Wells have a combined yield of at least 33 gallons per minute. At 33 gallons per minute, the two Project Wells could produce the maximum estimated daily demand for water of the proposed cultivation operation in less than 3 hours and 49 minutes. Additionally, ESF proposes to establish two additional 2,500-gallon water storage tanks, increasing their current water storage capacity to 17,500 gallons, which is more than twice the peak anticipated daily water demand of the proposed cultivation operation. As such, the existing Project Wells are a sufficient water supply source for the proposed cannabis cultivation operation.

Monitoring and Reporting

Inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7 have been / will be installed on the main irrigation water supply lines running between the Project Wells and the water storage tanks of the existing/proposed cultivation operation. Water level meters equipped with data logging capabilities, have already been installed on the Project Wells. The Applicant will continue to record daily water meter readings, and will maintain those records onsite for a minimum of five years. Those records will be made available to Water Boards, CDFW, and Lake County staff upon request.

Date: **6/16/2023** Technician: **Kharom Hellwege**

Client Name: **Ross Cunningham**

Site Address: **23131 Jerusalem Grade Road** APN: **013-015-39**

Well Pump Info (size, type, brand, etc.): **Solar pump**

Power Source (hardwired, generator, solar only, solar with generator back up): **Hardwii Generator**

Total Depth of Well? **210-Feet** Static Water Level? **131.0-Feet**

Diameter of Well? **4.5-inches** Casing Type? **PVC**

Last time the water was pumped from the well? **6/14/2023**

Was the pumping level measured from ground surface or top of casing? **Top of Casing**

Interval	Time	Flow Rate*	Pumping Level
5	6:30	24.0	137.00
5	6:35	24.0	141.00
5	6:40	23.5	141.50
5	6:45	23.5	141.50
5	6:50	23.0	141.70
5	6:55	22.5	141.70
10	7:05	22.5	142.00
10	7:15	22.0	143.00
10	7:25	22.0	146.00
10	7:35	22.0	146.00
10	7:45	22.0	146.00
10	7:55	22.0	146.00
30	8:25	22.0	146.00
30	8:55	22.0	146.00
30	9:25	22.0	146.00
30			
30			
30			
30			
30			
30			
STOP			
10	9:35	RECHARGE	133.0
30	10:05	RECHARGE	131.6

*Flow Rate Measured via ~~Bucket~~ or **Meter**

Meter Start: 1146480

Meter Stop: 1150460

Total Gallons Produced: 3980

Average GPM: **22.74**

Recharge Rate: **99.00%**

NOTES: The solar pump was temporarily wired to generator power for the test.

pH: **7.4**

TDS: **N/A**

Hardness: **24 grains per gallon**

Iron: **0.7 ppm**

GPS: **38.81092°, -122.48877°**

DISCLAIMER

Observations made of the well(s) are strictly limited to the date and time that the test(s) was conducted and are in no way a guarantee of future conditions, including but not limited to the quantity and/or quality of the water produced by this well.

Date: **6/16/2023** Technician: **Ken Feola**

Client Name: **Ross Cunningham**

Site Address: **23119 Jerusalem Grade Road** APN: **013-015-57**

Well Pump Info (size, type, brand, etc.): **Grundfos solar pump**

Power Source (hardwired, generator, solar only, solar with generator back up): **Hardwii Generator**

Total Depth of Well? **224-Feet** Static Water Level? **143.0-Feet**

Diameter of Well? **4.5-inches** Casing Type? **PVC**

Last time the water was pumped from the well? **6/14/2023**

Was the pumping level measured from ground surface or top of casing? **Top of Casing**

Interval	Time	Flow Rate*	Pumping Level
5	6:15	12.5	144.20
5	6:20	12.3	144.10
5	6:25	12.0	144.20
5	6:30	11.8	144.70
5	6:35	11.6	144.80
5	6:40	11.5	144.90
10	6:50	11.5	145.00
10	7:00	11.2	145.30
10	7:10	11.1	145.50
10	7:20	11.0	145.60
10	7:30	11.0	146.00
10	7:40	11.0	146.00
30	8:10	11.0	146.00
30	8:40	11.0	146.00
30	9:10	11.0	146.00
30	9:40	11.0	146.00
30	10:10	11.0	146.00
30			
30			
30			
30			
STOP			
10	10:20	RECHARGE	145.0
30	10:50	RECHARGE	144.0

*Flow Rate Measured via ~~Bucket~~ or **Meter**

Meter Start: 570040

Meter Stop: 572640

Total Gallons Produced: 2600

Average GPM: **11.06**

NOTES: The solar pump was temporarily wired to generator power for the test.

Recharge Rate: **98.80%**

Well should be fully recharged <1hour of pumping.

pH: **7.8**

TDS: **N/A**

Hardness: **27 grains per gallon**

Iron: **1 ppm**

GPS: **38.4842°, -122.2921°**

DISCLAIMER

Observations made of the well(s) are strictly limited to the date and time that the test(s) was conducted and are in no way a guarantee of future conditions, including but not limited to the quantity and/or quality of the water produced by this well.