Exhibit A3

LAKE COCO FARMS
PROPERTY MANAGEMENT PLAN

APPLICANT
Lake Coco Holdings, LLC

PROJECT LOCATION
3417 & 3547 Hendricks Road
Lakeport, CA 95453

PROJECT PROPERTY/PARCELS
Lake County APNs 005-006-07 & 005-013-01

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D – Cultural Resources Study

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H – Storm Water Management Plan

I – Water Use Management Plan

PROJECT DESCRIPTION

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The Project Property has been enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (WQ-2019-0001-DWQ) since October 30th, 2020 (WDID: 5S17CC427238).

The 228-acre APZ-zoned Project Property is located approximately 2 miles northwest of the City of Lakeport, CA, within the Middle Scotts Creek Watershed (HUC12). The Project Property is accessed via a shared private gravel access road off of Hendricks Road, a paved county-maintained roadway. The proposed cultivation areas and ancillary facilities will be accessed via the shared private gravel access road and private gravel access roads off of the shared private gravel access road. Locking metal gates across the private gravel access roads will control access to the proposed cultivation operation. Historical land uses of the Project Property include intensive and extensive agriculture and rural residences.

Hendricks Creek, an intermittent Class II watercourse, flows from southwest to northeast through the Project Property. Multiple unnamed ephemeral Class III watercourses flow through the Project Property into Hendricks Creek. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody. All water for the proposed cultivation operation will come from an existing onsite groundwater (no surface water diversions associated with the proposed cultivation operation). Irrigation water from the onsite groundwater well will be stored within four 5,000-gallon heavy-duty plastic water storage tanks and delivered to the proposed canopy areas via polyvinyl chloride (PVC) piping and drip irrigation systems.

The fields where the proposed outdoor cultivation areas would be located, have been enclosed with galvanized woven wire fencing. Metal gates secured with commercial-grade locks would be used to control access to the field containing the proposed outdoor cultivation areas. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots, with drip irrigation systems.

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

at a Lake County Integrated Waste Management facility, at least once a week during the cultivation season. All agricultural chemicals (fertilizers, amendments, pesticides, and petroleum products) will be stored within the existing onsite metal barn, over 100 feet from all surface water bodies. Only pesticides approved by the California Department of Pesticide Regulation and/or the California Department of Food and Agriculture for use on cannabis would be used.

The proposed cultivation operation will adhere to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All staff will be trained in the requirements of the CCTT system, and a member of the managerial staff will be the designated track-and-trace system administrator. The designated track-and-trace system administrator will complete an initial training provided by the California Department of Cannabis Control and will participate in ongoing training as required. All cannabis transfers/movement will be reported through the CCTT system, and a track-and-trace system administrator will supervise all tasks with high potential for diversion/theft.

Self-Distribution

LCH is also seeking to obtain a Type 13 Cannabis Distributor Transport Only, Self-Distribution license, so that they may use an unmarked, registered, and insured vehicle to transport cannabis from the proposed cultivation operation to licensed cannabis processing, distribution, and manufacturing facilities throughout the State of California. The distribution vehicle would only travel from the Project Property to the premises of licensed cannabis processing/distribution/manufacturing facilities, and back to the Project Property. The vehicle will be locked and secured whenever it is not being loaded or unloaded, and it will never be left unattended while transporting cannabis. The reporting requirements of the California Cannabis Track-and-Trace system will be adhered to at all times, to record and report all cannabis transfers and movements.

SITE PLANS, MAPS, & ELEVATIONS

Sheet 1 – Location Map

Sheet 2 – Surrounding Area Aerial

Sheet 3 – Existing Conditions Site Plan

Sheet 4 – Proposed Conditions Site Plan

Sheet 5 – Canopy Site Plan

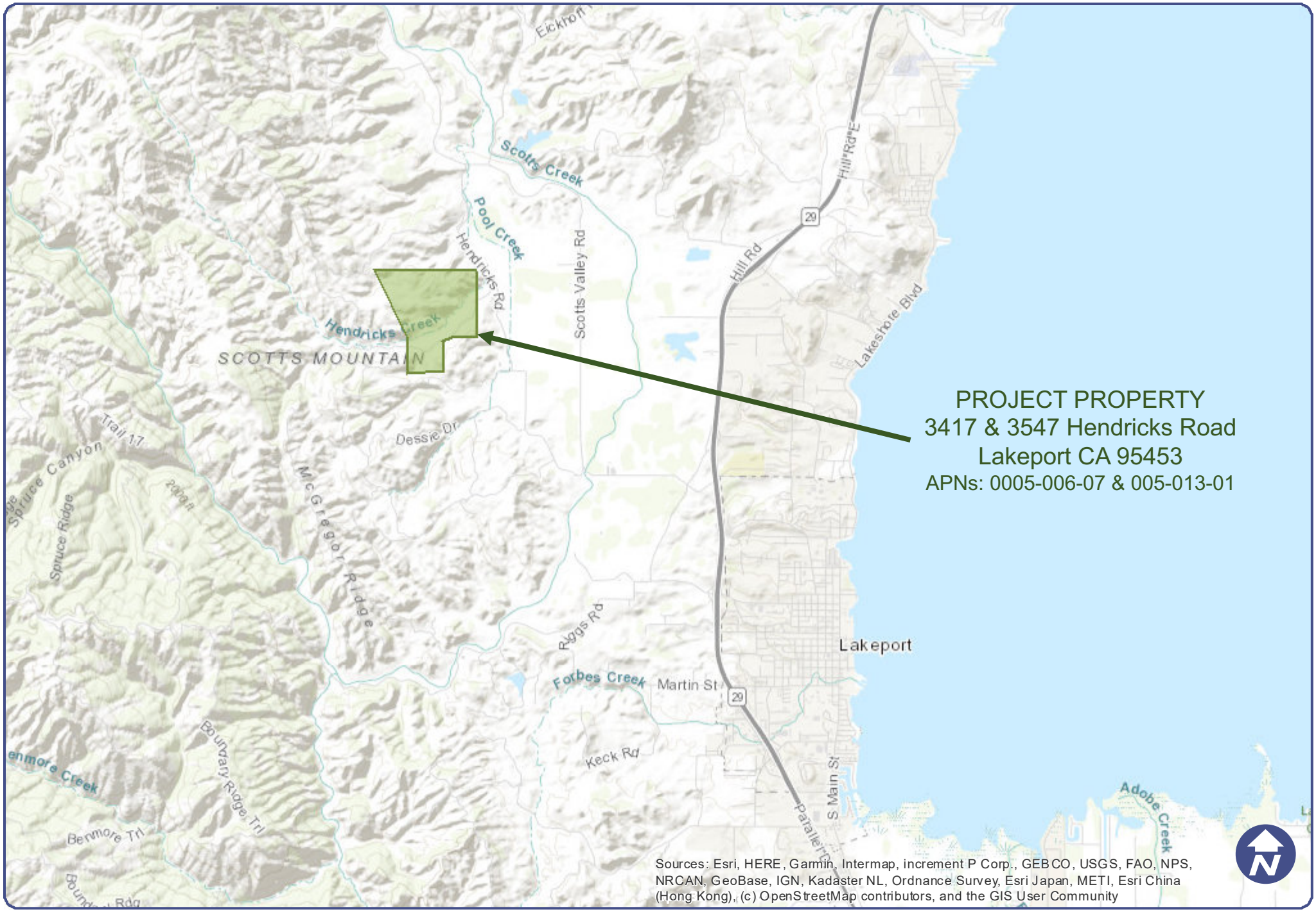
Sheet 6 – Erosion & Sediment Control Site Plan

Sheet 7 – Security Site Plan

Sheet 8 – Proposed Processing Facility Layout

Sheet 9 – Proposed Immature Plant Greenhouses Elevations

Sheet 10 – Proposed Processing Facility Elevation



Lake County, CA

LAKE COCO HOLDINGS

Web AppBuilder for ArcGIS

mi
0 1 2

Print Date: 7/31/2024

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

Lake County, CA

3417 & 3547 Hendricks Road

built with Web AppBuilder for ArcGIS

mi
0 0.1 0.2

Print Date: 7/31/2024

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

EXISTING CONDITIONS SITE PLAN

GRAPHIC SCALE

250 0 125 250

(IN FEET)
1 inch = 250 ft.

N

LEGEND:

	PROPERTY LINE
	ADJACENT PROPERTY LINE
1600'	CONTOUR ELEVATION
	(E) GATE
	(E) FENCE
	(E) 14' GRAVEL DWY
	(E) CULVERT
OHU	(E) OVERHEAD UTILITY
	CLASS II WATERCOURSE
	CLASS III WATERCOURSE
	100' WATERCOURSE SETBACK
(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:
CONTOUR INTERVAL IS 5'

(A) (E) GROUNDWATER WELL
LAT: 39.07832°
LONG: -122.96637°

(B) HERITAGE OAK (PROTECTED)

(C) (E) RESIDENCE

(D) (E) 68'x76' 5,168 SF METAL BARN

(E) (E) CHICKEN COOP

(F) (E) WOODEN SHED

(G) (E) TWO 18" CMP CULVERTS (FOUR TOTAL)

(H) (E) TWO 24" CMP CULVERTS

Revisions:

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

PLANS PREPARED UNDER THE SUPERVISION OF:

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

EXISTING CONDITIONS
LAKE COCO HOLDINGS, LLC
APNs: 005-013-01 & 005-006-07
3417 & 3547 HENDRICKS ROAD
LAKEPORT, CA 95453

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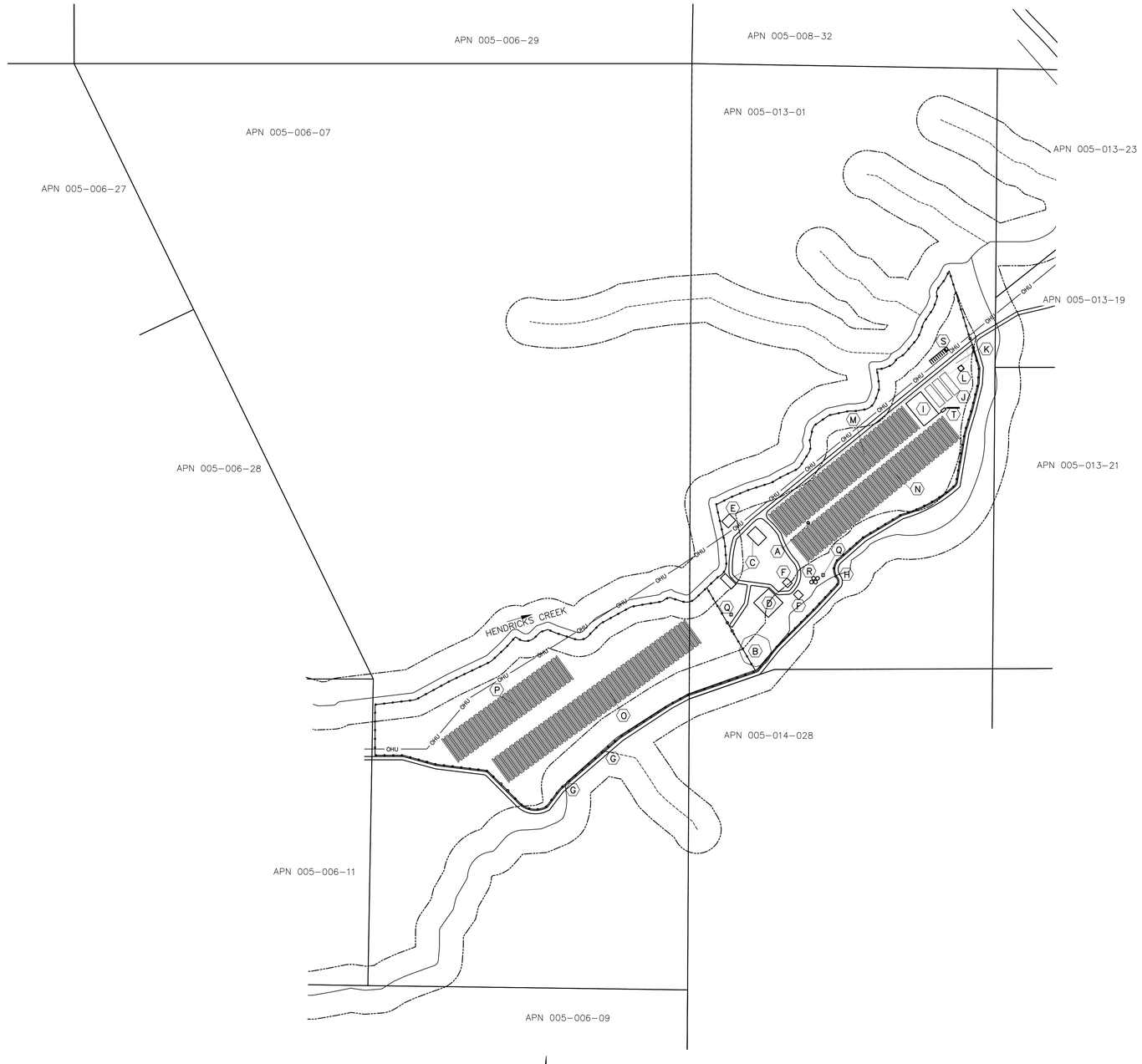

PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

250 0 125 250

(IN FEET)
1 inch = 250 ft.

N

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- (E) GATE
- (E) FENCE
- (E) 14' GRAVEL DWY
- (E) CULVERT
- (E) OVERHEAD UTILITY
- CLASS II WATERCOURSE
- CLASS III WATERCOURSE
- 100' WATERCOURSE SETBACK

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(I) (P) 120'x80' METAL PROCESSING BUILDING

(J) (P) THREE 100'x30' (3,000 SF) IMMATURE PLANT GREENHOUSES

(K) (P) FIRE DEPARTMENT TURNAROUND

(L) (P) 25,000 GALLON METAL FIRE WATER STORAGE TANK

(M) (P) 29 SETS OF CANOPY ROWS, 87 ROWS TOTAL (47,366.66 SF)

(N) (P) 33 SETS OF CANOPY ROWS, 99 ROWS TOTAL (53,899.99 SF)

(O) (P) 40 SETS OF CANOPY ROWS, 120 ROWS TOTAL (65,333.33 SF)

(P) (P) 24 SETS OF CANOPY ROWS, 72 ROWS TOTAL (39,199.99 SF)

(SEE CANOPY FOR MORE DETAILS)

(Q) (P) 10'x12' (120 SF) PEST AND & CHEMICAL STORAGE AREA

(R) (P) FOUR 5,000 GALLON WATER STORAGE TANKS

(S) (P) PARKING AREA WITH 8 STANDARD AND 1 ADA SPACES

(SEE SECURITY PLAN FOR MORE)

(T) (P) SEPTIC TANK SYSTEM

Revisions:

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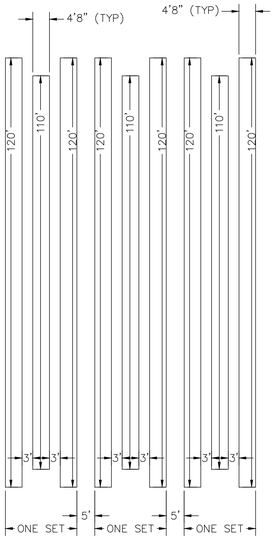


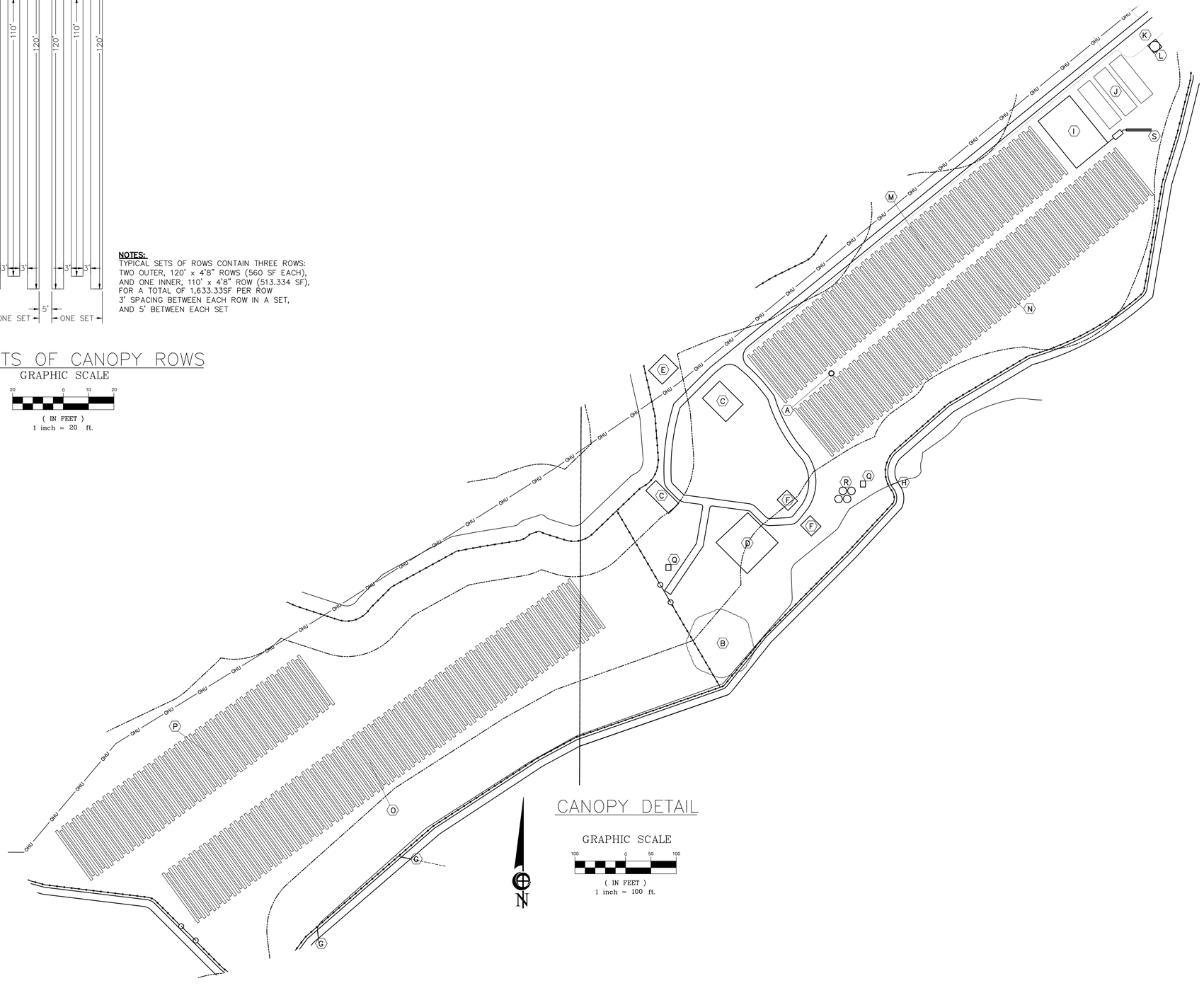
NOTES:
TYPICAL SETS OF ROWS CONTAIN THREE ROWS: TWO OUTER, 120' x 4'8" ROWS (560 SF EACH), AND ONE INNER, 110' x 4'8" ROW (513.334 SF), FOR A TOTAL OF 1,633.33SF PER ROW
3' SPACING BETWEEN EACH ROW IN A SET, AND 5' BETWEEN EACH SET

TYP. SETS OF CANOPY ROWS

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.



CANOPY DETAIL

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

N

LEGEND:

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	(E) GATE
	(E) FENCE
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TOTAL CANOPY: 205,799.99 SF

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(S) (P) SEPTIC TANK SYSTEM

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CANOPY
LAKE COCO HOLDINGS, LLC

APNs: 005-013-01 & 005-006-07
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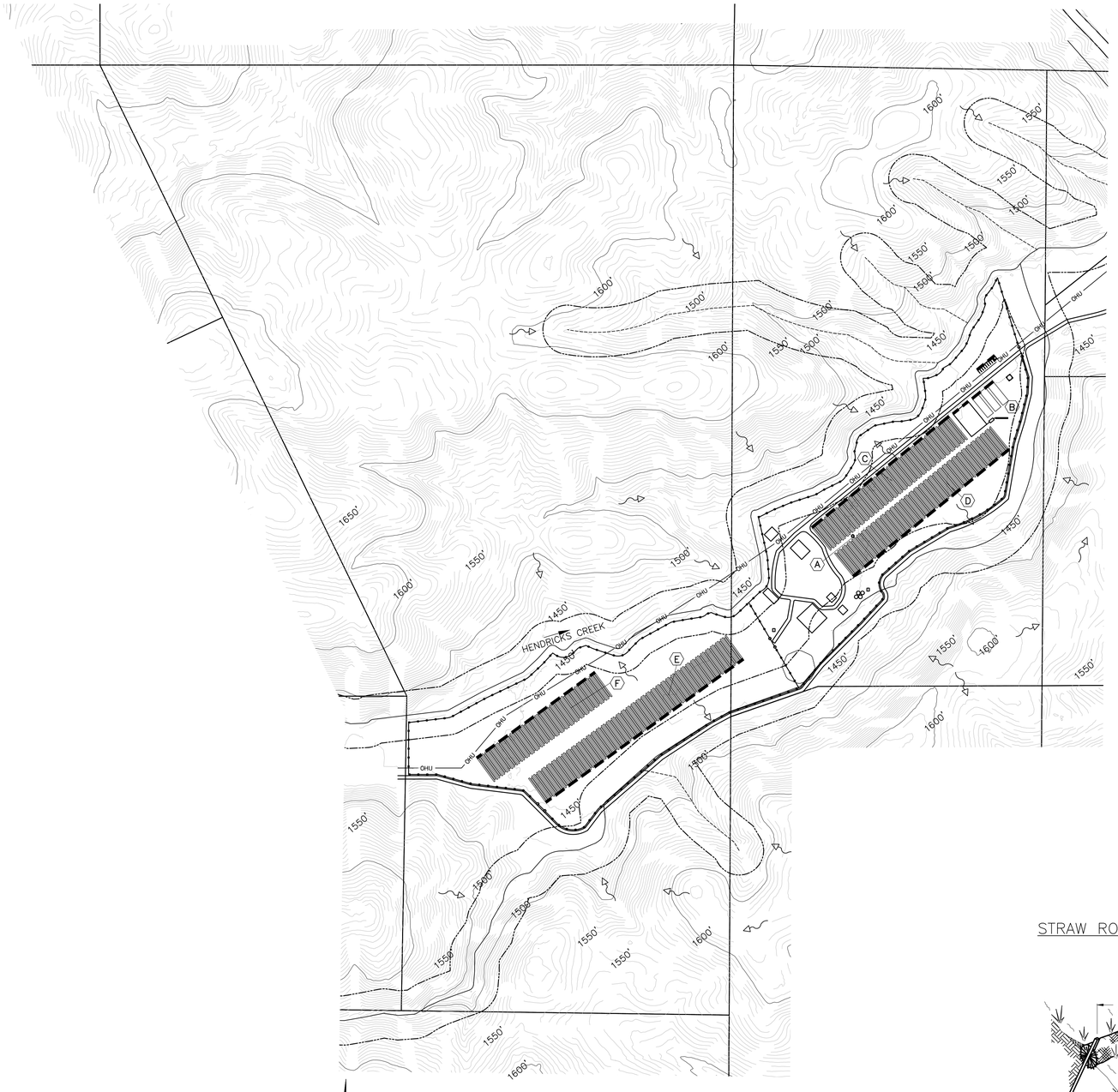

EROSION AND SEDIMENT CONTROL PLAN

GRAPHIC SCALE

250 0 125 250

(IN FEET)
1 inch = 250 ft.

N

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- 1600' CONTOUR ELEVATION
- (E) GATE
- (E) FENCE
- (E) 14' GRAVEL DWY
- (E) CULVERT
- OHU (E) OVERHEAD UTILITY
- CLASS II WATERCOURSE
- CLASS III WATERCOURSE
- 100' WATERCOURSE SETBACK
- DRAINAGE PATTERNS
- STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)

(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:
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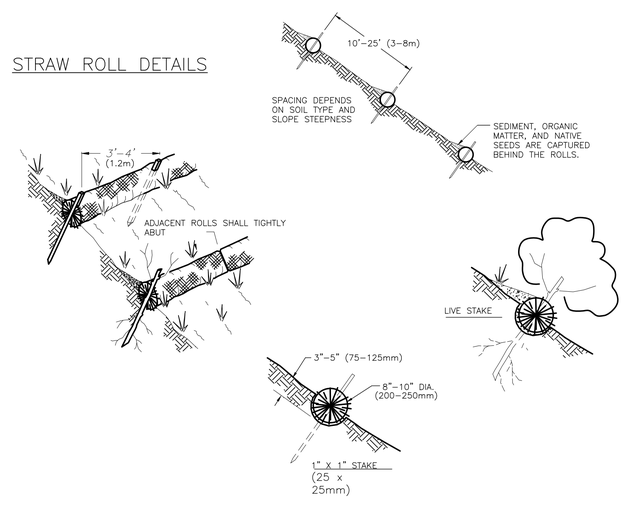
TOTAL CANOPY: 205,799.99 SF

EROSION & SEDIMENT CONTROL NOTES:

1. CONTRACTOR IS TO IMPLEMENT BEST MANAGEMENT PRACTICES (BMPS) TO CONTROL EROSION CONTROL AND REDUCE THE OFF-SITE DISCHARGE OF SEDIMENT TO THE MAXIMUM EXTENT PRACTICABLE.
2. EROSION CONTROL BMPS SHALL BE IN PLACE AND MAINTAINED ALL YEAR ROUND.
3. HE CONTRACTOR SHALL FOLLOW THE GUIDELINES FROM THE "CALIFORNIA STORMWATER BMP HANDBOOK" FOR THE MEASURES SHOWN OR STATED ON THESE PLANS.
4. CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE QUALIFIED SWPPP PRACTITIONER (QSP).
6. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO ANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF LAKE COUNTY.
7. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
8. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
9. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE.
10. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR AS NECESSARY.
11. ANY LOOSE GROUND FROM EXCAVATING GRADING OPERATIONS SHALL BE SECURED PRIOR TO ANY RAIN EVENT. STRAW OR TARP ALL DISTURBED OR EXCAVATED GROUND.
12. CONTRACTOR SHALL PLACE GRAVEL BAGS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL BAGS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
13. AS A MINIMUM, ALL GRADED AREAS AND EXPOSED SOIL WITHIN THE PROJECT SHALL BE SEEDED PER THE REQUIREMENTS OF LAKE COUNTY.
14. DUST GENERATION MUST BE MINIMIZED AND A WATER TRUCK MUST BE AVAILABLE ON-SITE FOR ADEQUATE DUST CONTROL.

STRAW ROLL DETAILS



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EROSION CONTROL
LAKE COCO HOLDINGS, LLC

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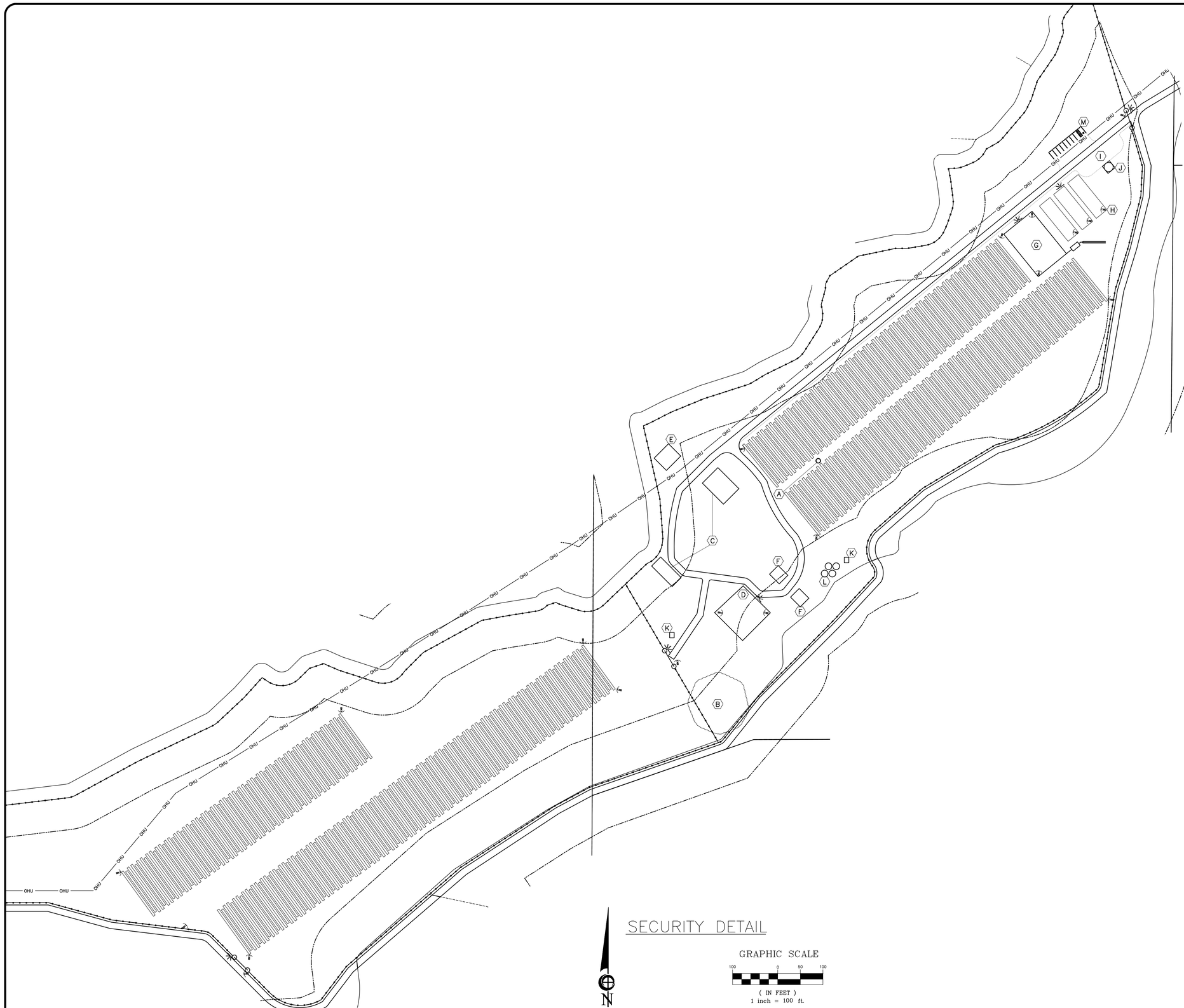

SECURITY DETAIL

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

LEGEND:

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	(E) GATE
	(E) FENCE
	(E) 14' GRAVEL DWY
	(E) CULVERT
OHU	(E) OVERHEAD UTILITY
	CLASS II WATERCOURSE
	CLASS III WATERCOURSE
	100' WATERCOURSE SETBACK
	(P) SECURITY CAMERA
	(P) SECURITY LIGHT
(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
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NOTES:

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SECURITY SITE PLAN

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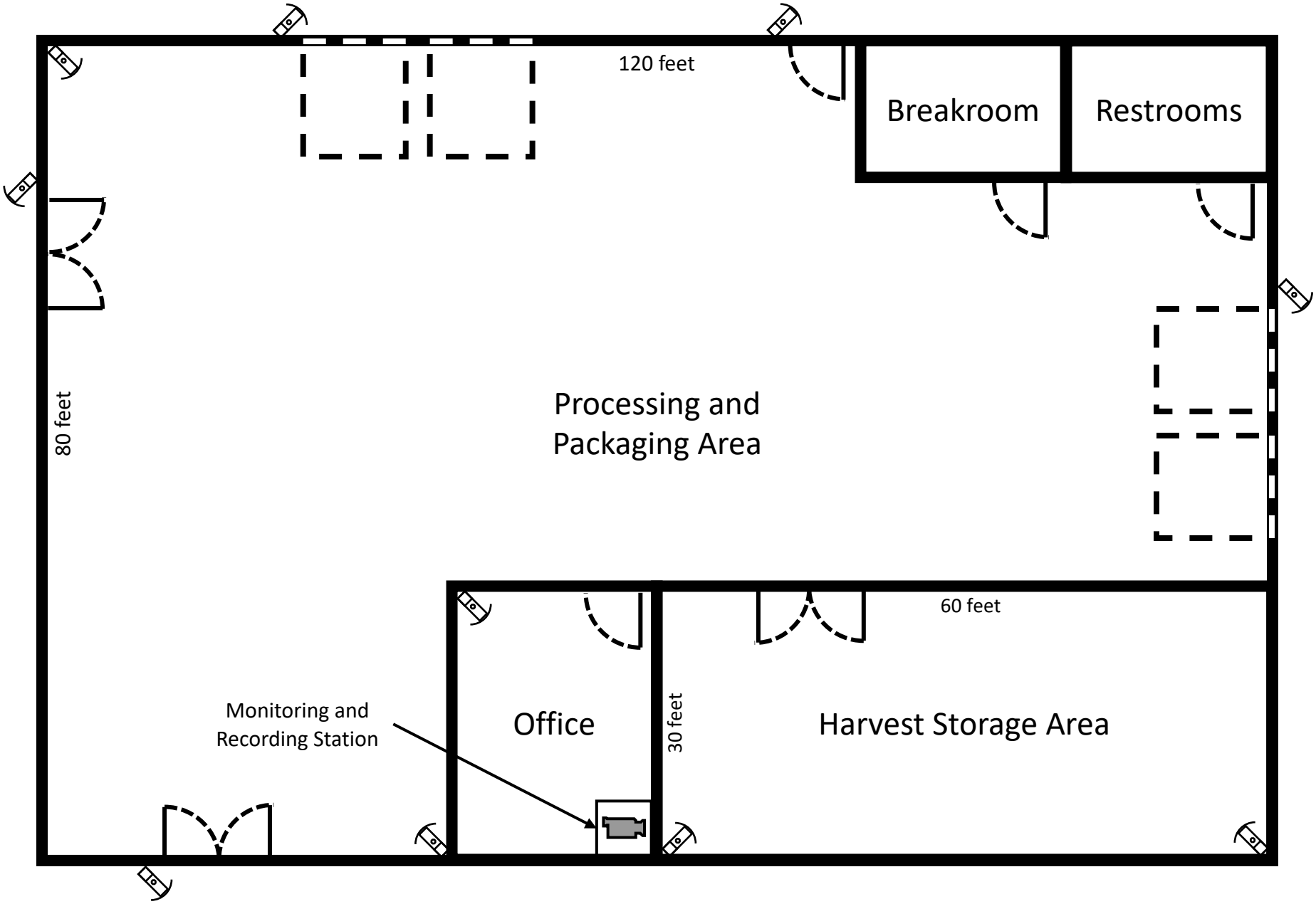
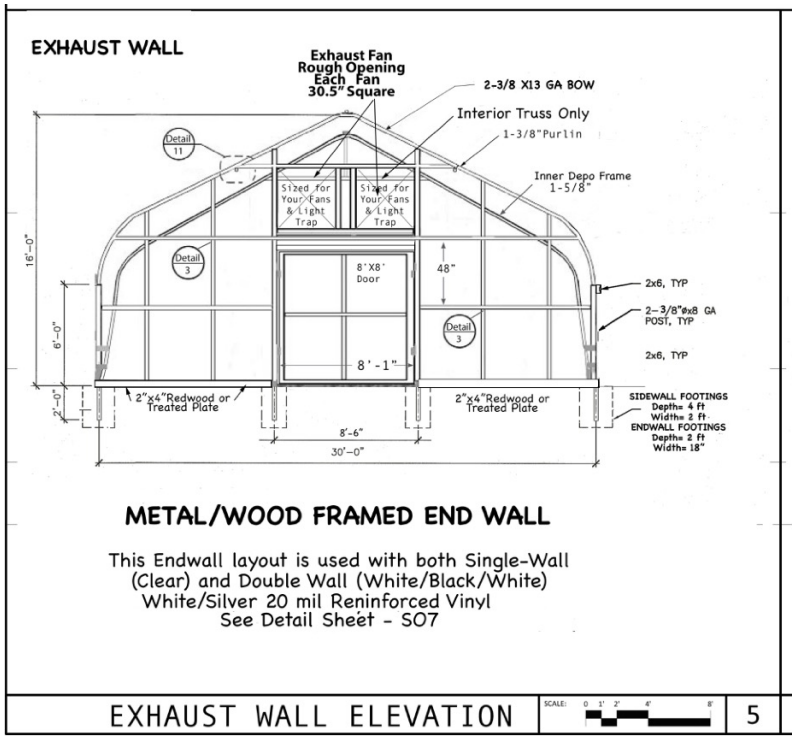
PROPOSED PROCESSING FACILITY LAYOUT



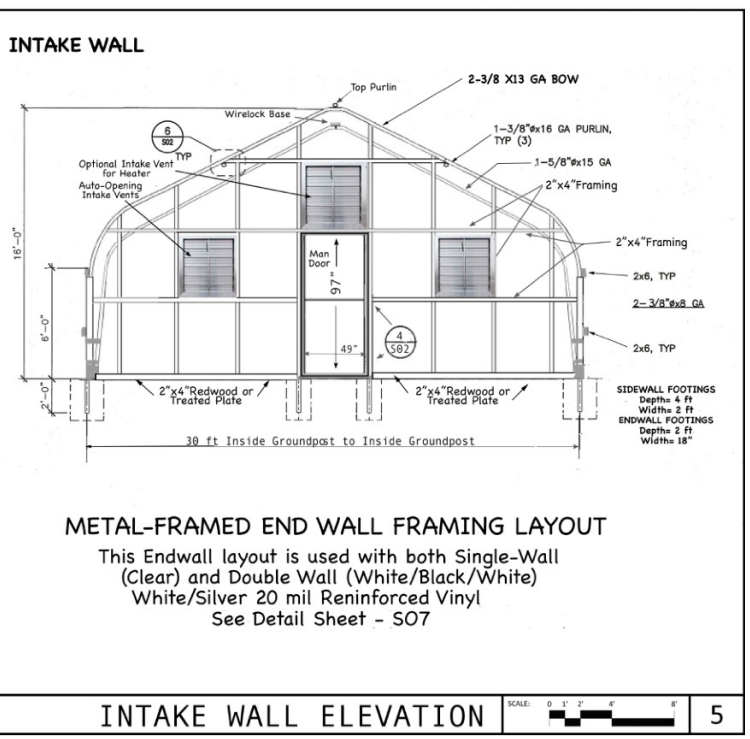
PROPOSED IMMATURE PLANT GREENHOUSES ELEVATIONS



METAL/WOOD FRAMED END WALL

This Endwall layout is used with both Single-Wall (Clear) and Double Wall (White/Black/White) White/Silver 20 mil Reninforced Vinyl
See Detail Sheet - S07

EXHAUST WALL ELEVATION | SCALE: 0 1' 2' 4' 8' | 5

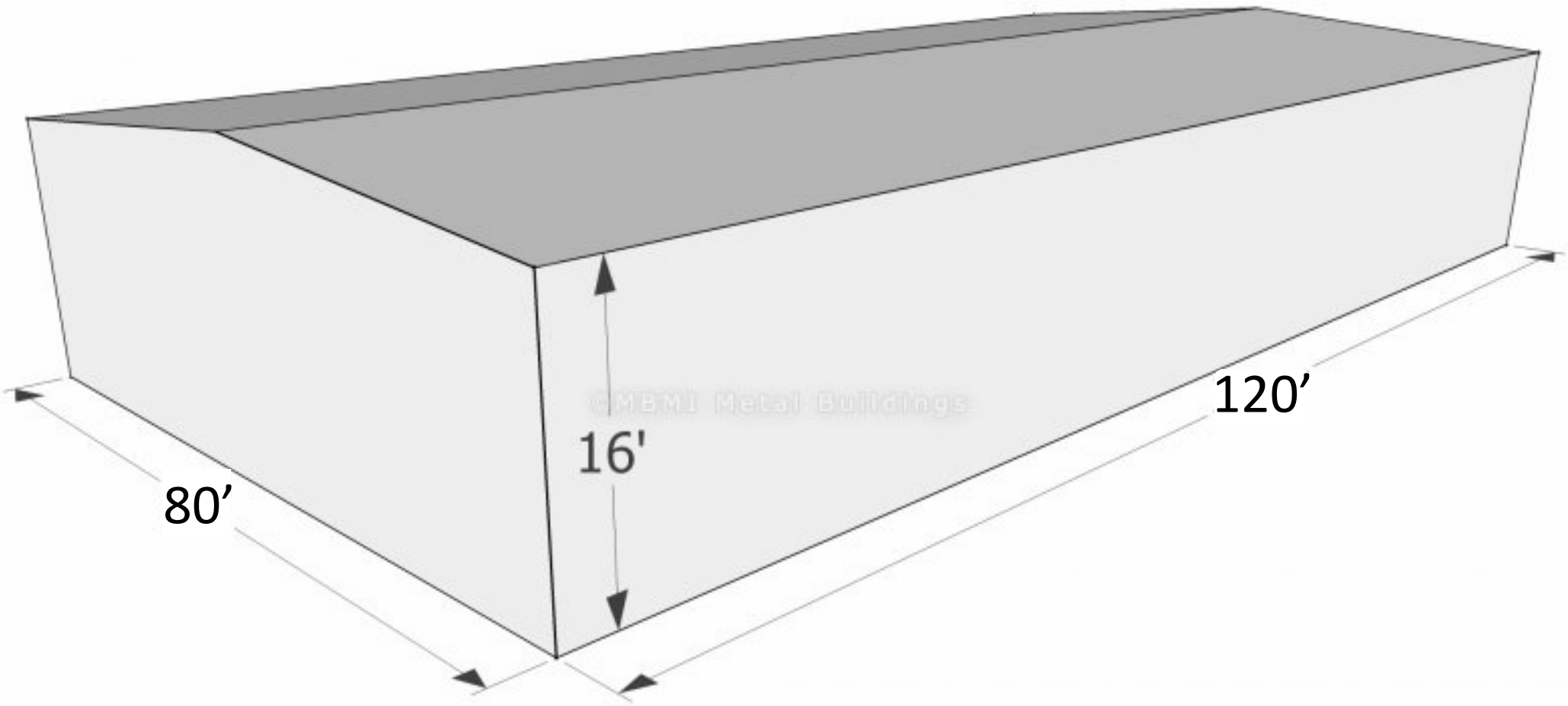


METAL-FRAMED END WALL FRAMING LAYOUT

This Endwall layout is used with both Single-Wall (Clear) and Double Wall (White/Black/White) White/Silver 20 mil Reninforced Vinyl
See Detail Sheet - S07

INTAKE WALL ELEVATION | SCALE: 0 1' 2' 4' 8' | 5

PROPOSED PROCESSING FACILITY ELEVATION
(Proposed Metal Building on Concrete Slab)



SECTION – C

AIR QUALITY MANAGEMENT PLAN

Air Quality Management Plan

Purpose and Overview

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots. Drip irrigation systems would be used to conserve water resources, and all water would come from an existing onsite groundwater well.

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 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 ventilation system of the proposed Processing Facility, in which the processing of raw cannabis plant material from the proposed cultivation areas will occur, will be equipped with carbon filters/air scrubbers to mitigate odors emanating from the building. Accurate records of repairs and replacements to the ventilation and odor mitigation system will be maintained and retained onsite for at least three years.

Odor Response Program

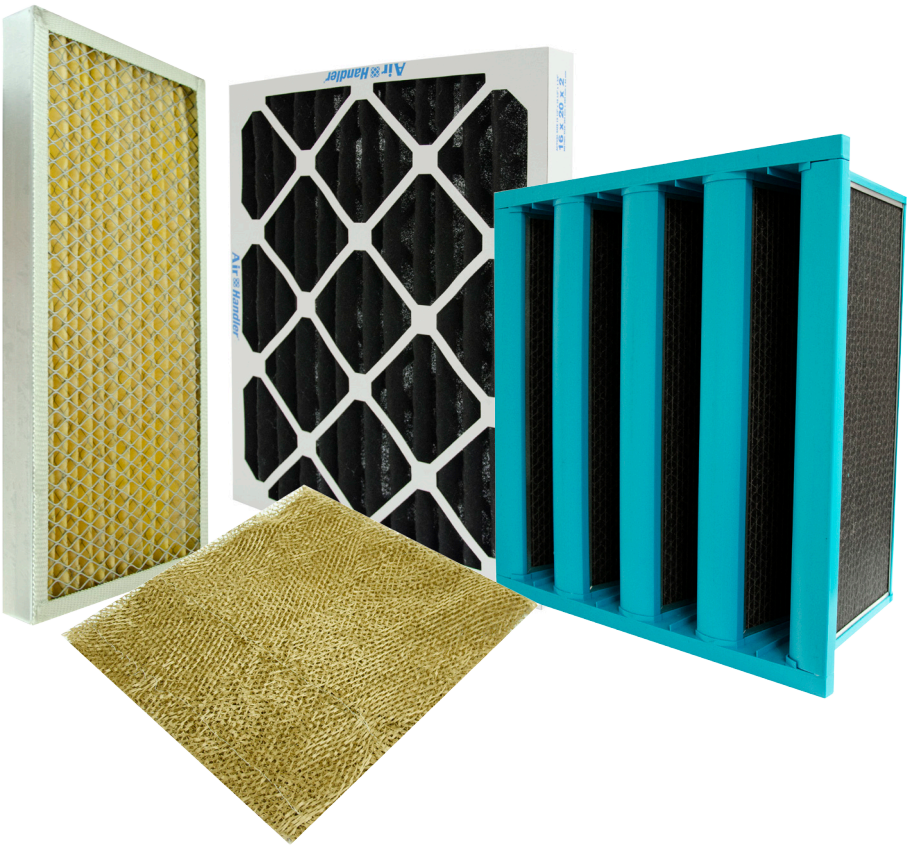
A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriff's Office at all times to address any needs or issues that may arise. The Community Liaison/Emergency Contact will be responsible for responding to odor complaints 24 hours a day, seven days a week, including holidays. 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 proposed cultivation operation is Mr. Juan Gamino. Mr. Gamino's cell phone number is (650) 444-0084, and his email address is gaminofamilyvineyards@gmail.com. The owners of all properties within 250 feet of the Project Property, will be provided with Mr. Gamino's contact information before cannabis cultivation begins.

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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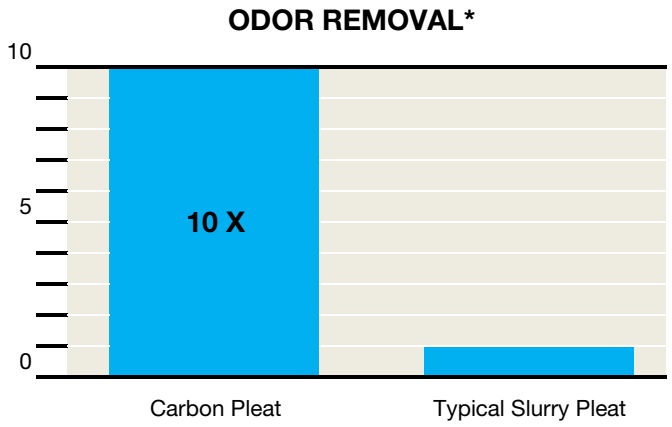
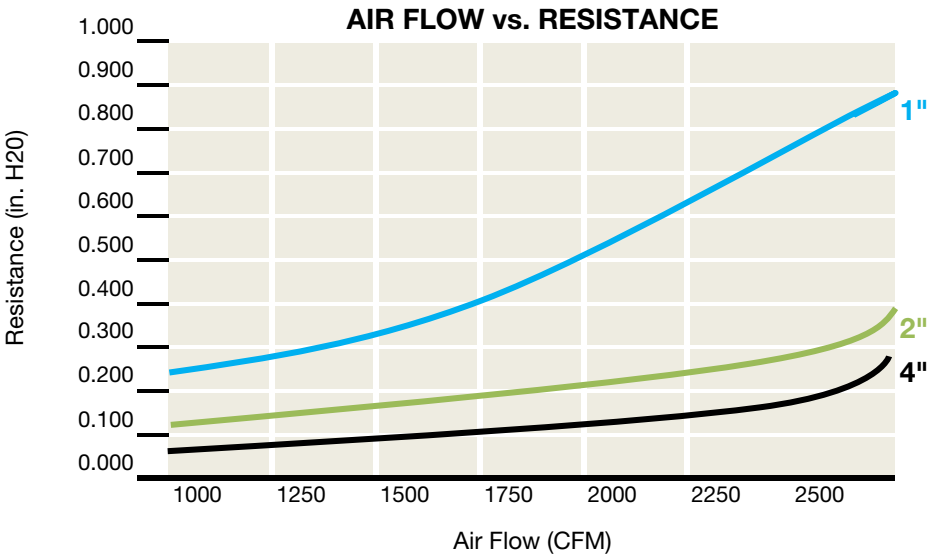
CARBON PLEAT

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 ("w.g.)	Initial Resistance @ 500 FPM ("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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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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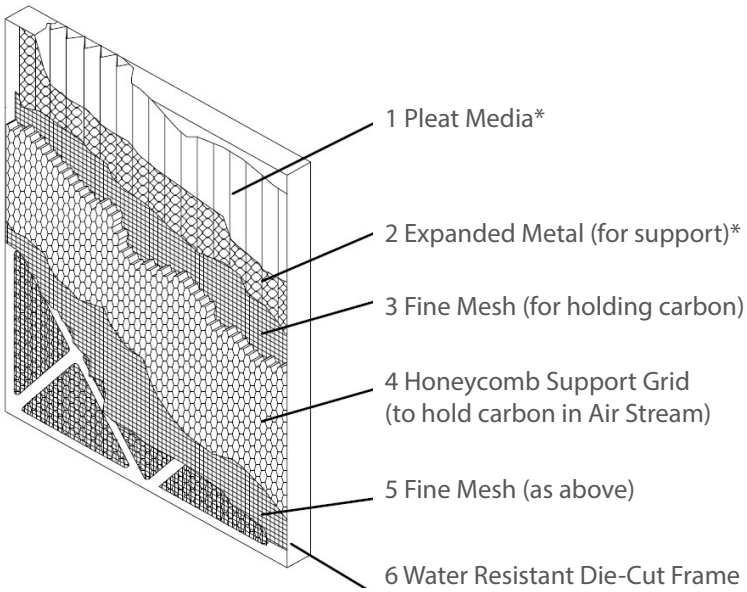
CARBON HONEYCOMB

ODORS REMOVED

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

FILTER ADVANCEMENTS



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

DIMENSIONS & PART #S

0.5" POLY PRE-FILTER

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

1" PLEATED PRE-FILTER

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

0.5" POLY PRE-FILTER

			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

1" PLEATED PREFILTER

H	W	D	Grainger #	Grainger #	Grainger #
12	24	2	2GJD9	2JUD5	2JTU5
16	20	2	2JTY9	2JUD7	2JTU7
16	25	2	2JTZ2	2JUD9	2JTU9
18	24	2	2JTZ4	2JUF2	2JTV2
20	20	2	2JTZ6	2JUF4	2JTV4
20	24	2	2JTZ8	2JUF6	2JTV6
20	25	2	2JUA1	2JUF8	2JTV8
24	24	2	2GJE4	2JTD2	2JTW1
25	25	2	2JUA3	2JUH1	2JTW3

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FP GAS PHASE

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

DESCRIPTION

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

BENEFITS

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

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

APPLICATIONS

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

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

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FP GAS PHASE

DIMENSIONS & PERFORMANCE DATA

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

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

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

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

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

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

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NESHAP / EPA METHOD 319

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

PREFERRED 1ST STAGE

PAINT FILTER PAD

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

APPROVED 2-STAGE SYSTEM

2 POCKET BAG FILTER

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

APPROVED 3-STAGE SYSTEM

5 POCKET BAG FILTER

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

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NESHAP / EPA METHOD 319

DIMENSIONS & PART #S

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

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

PERFORMANCE COMPARISON 2-STAGE FILTER

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

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

Initial dP @ 120 FPM Air Handler - 0.045”

Initial dP @ 120 FPM ATI - 0.13”

PERFORMANCE COMPARISON 3-STAGE FILTER

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

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

Initial dP @ 120 FPM Air Handler - 0.22”

Initial dP @ 120 FPM ATI - 0.28”

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

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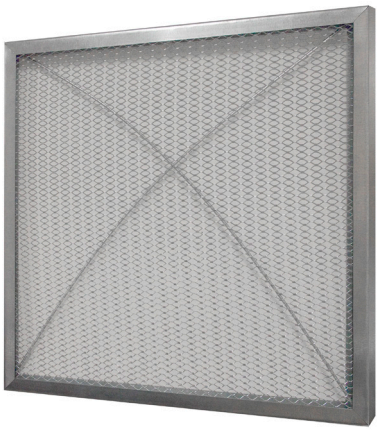
FILTER ACCESSORIES

PAD HOLDING FRAMES

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



DIMENSIONS & PART #S

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

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

AIR FILTER HOLDING FRAMES

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

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

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FILTER ACCESSORIES

GASKETING FOR AIR FILTERS

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

DIMENSIONS & PART #S

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

FILTER HOLDING CLIPS

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

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

Case quantity equals 12

DIMENSIONS & PART #S

Clip Style	To Hold	No. Required	Grainger #
1" Pigtail	1" Header	4	5E904
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SECTION – D

CULTURAL RESOURCES STUDY (REDACTED)

SECTION – E

BIOLOGICAL RESOURCES ASSESSMENT

BIOLOGICAL ASSESSMENT

3417 & 3547 HENDRICKS ROAD [APN 005-013-01 & 005-006-07]
LAKE COUNTY, CALIFORNIA

SUBMITTED TO:

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Environmental
Consulting

MAY 27, 2020

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this reconnaissance-level Biological Assessment (BA) 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 BA 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 in Appendix F is a set of recommended Best Management Practices (BMPs) that are adapted from a variety of sources, some of which are enforceable conditions under State Water Resources Control Board *Cannabis* General Order No. WQ 2019-0001-DWQ.

1.2 LOCATION

1.2.1 Site Overview

The project site is located at 3417 & 3547 Hendricks Road in unincorporated Lake County, to the west of Scotts Valley, near the town of Lakeport (Figure 1). The parcel is located in Sections 9 & 10, Township 14 North, Range 10 West, on the USGS Lakeport 7.5 minute quad (Figure 2). The approximate latitude and longitude of the centroid of the parcel is 39.0777 (N), -122.9672 (W). The parcels are designated Assessor's Parcel Numbers 005-013-01 & 005-006-07, are deeded 74.14 & 154.63 acres, are zoned “APZ”, and are under the jurisdiction of the Central Valley (Region 1) Regional Water Quality Control Board (RWQCB), and the Northern Region (District 1) of the California Department of Fish & Wildlife (CDFW). The parcels are not located in a medium- or high-priority groundwater basin as designated by the California Department of Water Resources (DWR).

1.2.2 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 (Appendix D). The nearest FCH is located 9 miles to the west in the Russian River for Chinook salmon (*Oncorhynchus tshawytscha*). The next nearest FCH is located 13 miles to the northeast for Northern Spotted Owl (*Strix occidentalis*; NSO), near Elk Mountain (Appendix D). There is no FCH for any other species within 15 miles of the project parcel (Appendix D).

1.2.3 Special-Status Species 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 is provided in Appendix A based the CNDDB database, published scientific literature, and the expertise of PEC staff, with all SSS known from a 5 mile radius around the project parcel highlighted. Additionally, map-based representation of all of the SSS within a 2 mile radius around the project site is provided in Appendix C.

1.2.3.1 *Animals*

There are a total of 12 special-status animal species within 5 miles of the project parcel (Appendices A & C). There are no special status species whose CNDDB polygons overlap with the project parcel. The nearest known special-status animal species to the project parcel is Tricolored blackbird (*Agelaius tricolor*) located approximately 1.9 miles east of the project parcel near Hill Road. The next nearest known occurrence of special-status animal species is American badger (*Taxidea taxus*) located approximately 2.7 miles southeast of the project parcel near Lakeport. The next nearest known occurrences of special-status animal species are Brownish dubiraphian riffle beetle (*Dubiraphia brunnescens*), Clear Lake hitch (*Lavinia exilicauda chi*), Clear Lake tule perch (*Hysterocarpus traskii lagunae*), and Sacramento perch (*Archoplites interruptus*) located approximately 3.0 miles east of the project parcel in Clear Lake. The localities of the nearest occurrences of the rest of the species are listed in Appendix A and shown in Appendix C.

1.2.3.2 *Plants*

There are a total of 8 special-status animal species within 5 miles of the project parcel (Appendices A & C). Most of the species on this list are specialists on serpentine soils or vernal pools, both soil types that do not exist onsite. The nearest known occurrence of special-status plant species is Beaked tracyina (*Tracyina rostrata*), that has a polygon that overlaps with the project parcel, and has a centroid located 0.9 miles northeast of the project parcel near Hendricks Road. The next nearest known occurrences of special-status plant species are Serpentine cryptantha (*Cryptantha dissita*) and Glandular Western flax (*Hesperolinon adenophyllum*) located approximately 1.1 miles north of the project parcel near Scotts Creek. The next nearest known occurrences of special-status plant species are Bent-flowered fiddleneck (*Amsinckia lunaris*), Colusa layia (*Layia septentrionalis*), Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*), Mayacamas popcornflower (*Plagiobothrys lithocaryus*), and Watershield (*Brasenia schreberi*) located approximately 3.8 miles southeast of the project parcel near Lakeport. There are no other known occurrences of special-status plant species within 5 miles of the project parcel.

1.2.4 Landforms & Hydrology

The parcels encompass approximately 75 and 155 acres of partially burned chaparral and pine hillside that transitions into cultivated valley grassland in the center of the valley, surrounding a Class II reach of Hendricks Creek (Figure 3). The maximum elevation of the parcel is 1,723 feet above sea level along the northwestern parcel line, and the minimum elevation is 1,428 feet above sea level near northwest corner of the parcel where Hendricks Creek exits the parcel. Most of the parcel is steeply sloped with slopes between 20% and 40%, except for the valley floor that has slopes between 1% and 5%, as measured by Suunto PM5 handheld clinometer.

The hilly portions of the site are drained by several Class III watercourses, that coalesce into a Class II reach of Hendricks Creek (Figure 9) that flows offsite to the west before turning north and flowing for 1 mile through Scotts Valley before the confluence with Scotts Creek. From the confluence, Scotts Creek flows north for 5 before joining the outflow from the Blue Lakes, and then turning east and south, passing through Tule Lake, before entering Rodman Slough after 10 miles. From the spillway of the Cache Creek Dam, Cache Creek flows east through the inner Coast Ranges for 51 miles before emerging into the Central Valley near Esparto. From there Cache Creek continues east for 28 miles before entering the Yolo Bypass west of the City of Sacramento. From there water flows south into the Sacramento River which flows south for approximately 40 miles before emptying into Suisun Bay and the Pacific Ocean.

1.2.5 Existing Structures

Access to the parcel is provided to the west off of Hendricks Road, via improved dirt driveway (Figure 7). Onsite structures include several residences, and numerous barns and outbuildings for ranch purposes (Figure 7). There are no existing *Cannabis* cultivation facilities onsite. Several gates provide access at the west and east ends of the access road, and there is also an aboveground power utility easement running east-west through the center of the property (Figure 8).

1.2.6 Regional Land Uses

Land uses in the vicinity of the project parcel are private property, much of which was on the western edge of the Mendocino Complex Fire that burned between July and October 2018. Most of the area to the west of the site burned with high intensity, while most of the area to the east including Scotts Valley did not burn. Further to the southeast is the County seat of Lakeport. To the north and south are primarily undeveloped chaparral foothills.

1.3 METHODS

1.3.1 Records Search & Literature Review

Based on a review of the literature and all relevant databases, we compiled a list of special-status plant and animal species that are known to occur within 5 miles of the project site, or that occupy habitats that are known to be present on or near the project site (Appendix A). Sources of information referenced include the California Natural Diversity Database (CNDDB 2020), U.S. Fish and Wildlife Service Environmental Conservation Online System (USFWS 2020), the California Native Plants Society Inventory of Rare and Endangered Vascular Plants of California (CNPS 2020), 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 2020), and County of Lake Geographic Information System Portal (Lake Co. 2020). Plant species included here are State or Federally Endangered or Threatened, and/or considered Rare by CDFW, and/or are recognized as special-status species by the CNPS or CDFW. Animal species included here are designated as State or Federally Endangered or Threatened, and/or California Species of Special Concern, and/or Fully Protected species by the CDFW. In addition, nests of most native bird species, regardless of their regulatory status, are protected from take or harassment under the Migratory Bird Treaty Act (MBTA) and California Fish and Wildlife Code.

1.3.2 Field Surveys

A wildlife and botanical survey was conducted at the site on May 13, 2020. The weather was mild and rainy. There was a light rain falling throughout the day, and approximately 2" of rain had fallen in the previous month. Relative humidity was approximately 75% as measured by Kestrel handheld weather station. Starting with the central residential area, the entire project site was surveyed on foot by Dr. Christopher T. DiVittorio, recording the location and identity of all plant and animal species encountered. Plant voucher specimens were taken of any species that were not identifiable in the field, and that were not likely to be special-status. The vast majority of species were identifiable at the time of the survey, although some had to be identified based on green vegetative flowering parts. Photographs and voucher specimens were taken of any plants that were identified solely based on vegetative characters. The field survey was conducted by dividing the outdoor portions of the parcel into zones and cataloging all of the species found in each zone. Each zone was surveyed by walking in parallel lines until the whole zone was covered. Notes were also taken in each zone documenting the general site characteristics and current land uses, as well as any surface erosional features that may require remediation. Botanical specimens were taken back to the laboratory for identification if identification was not possible in the field. If species were not flowering at the time of the survey and morphological characteristics indicated that the species may be special-status, notes were made for a follow-up visit. Birds and nests were identified by call and with binoculars. Vocalizations, scat, tracks, feathers, burrows, nests, and molts were used for identification of animals present onsite. Any onsite aquatic habitats were observed for a minimum of ten minutes without movement in order to observe animals that may hide when approached.

2.0 RESULTS

2.1 NATURAL COMMUNITIES IN THE EVALUATION AREA

Using field surveys, a review of published literature, and the knowledge of PEC staff, all of the natural communities present on and around the project site were assessed. Regionally, the dominant vegetation type is burned mixed oak and conifer woodland and chaparral. Outcrops of serpentine are frequent in the region towards the north and west, however the project site itself is in a separate non-serpentinite derived soil type (see §2.6, below). Towards the north, east, and west the terrain becomes increasingly mountainous while to the southeast is the town of Lakeport (Figure 1).

2.2 NATURAL COMMUNITIES WITHIN THE PROJECT SITE

Most of the parcel consists of patchily burned chaparral and mixed oak woodland. However, the entirety of the project is located on the flat valley floor that consists of annual and ruderal species characteristic of hayfield production and disking for many years. There is also a Class II reach of Hendricks Creek that flows east across the center of the parcels (Figure 3) that is fed by a series of smaller unnamed Class III watercourses. Most of the west portion of the parcel was burned severely to moderately during the Mendocino Complex Fire in 2018, while the eastern portion did not burn at all. The specific community descriptions below are organized based on the zones that were surveyed, and the floristic results presented in Appendix B. We used as guidance the *Manual of California Vegetation* (Sawyer et al. 2009) to guide community classification. Overall, the parcels consists of approximately 70% chaparral, 20% formerly cultivated valley floor grassland, and 10% riparian forest.

2.2.1 Partially Burned Oak & Conifer Foothill Chaparral

The hillsides surrounding the valley floor comprise the highest percentage of the parcel however none of these areas are slated for disturbance or development. Nonetheless a floristic inventory of the slopes and chaparral hillslopes was made. Much of this habitat was burned in the Mendocino Complex Fire. Tree and woody species in these hilly habitats include Blue oak (*Quercus douglasii*) to 16" diameter-at-breast-height (DBH), Black oak (*Quercus kelloggii*) to 20" DBH, Gray pine (*Pinus sabiniana*) to 20" DBH, Ponderosa pine (*Pinus ponderosa*) to 12" DBH, California bay (*Umbellularia californica*) to 16" DBH, Madroño (*Arbutus menziesii*) to 16" DBH, leather oak (*Quercus durata*), mountain mahogany (*Cercocarpus betuloides*), coyote brush (*Baccharis pilularis*), common manzanita (*Arctostaphylos manzanita*), hoary manzanita (*Arctostaphylos canescens*), whiteleaf manzanita (*Arctostaphylos viscida*), buck brush (*Ceanothus cuneatus*), deerbrush (*Ceanothus integerrimus*), coyote brush (*Baccharis pilularis*), silver bush lupine (*Lupinus albifrons*), and Yerba Santa (*Eriodictyon californicum*).

The burned chaparral hillslopes also contained a high diversity of native wildflowers not found on the rest of the parcel including small tarweed (*Madia exigua*), shooting stars (*Primula hendersonii*), California poppy (*Eschscholzia californica*), blue dicks (*Dichelostemma capitata*), blow wives (*Achyrachaena mollis*), large-flowered Collinsia (*Collinsia grandiflora*), purple sanicle (*Sanicula bipinnatifida*), woolly goat chicory (*Agoseris hirsuta*), Fremont's calycadenia (*Calycadenia fremontii*), Ithuriel's spear (*Triteleia laxa*), wild hyacinth (*Triteleia hyacinthina*), gumweed (*Madia gracilis*), Douglas' iris (*Iris douglasii*), and narrow-leaved mule ears (*Wyethia angustifolia*).

2.2.2 Disked Grassland

The east and west hayfields are the proposed location for the cultivation facilities, and have been disked annually by the current landowner who has been managing the property for many decades. The species composition and topography is reflective of this high intensity cultivation over many years, and is dominated by forage crops. The east field was recently disked while the west field was not disked this year but did have evidence of a fenceline where the fence and invasive grass had been removed the year prior at the request of the County, as part of invasive species abatement measures.

The only tree species in this area are Valley oak (*Quercus lobata*) to 40" DBH, and Black walnut (*Juglans hindsii*) to 30" DBH. Both of these tree species provide habitat for wildlife and stability to river banks and should not be removed, even as juveniles. In general, we do not advise removing any species of oak trees greater than 24” DBH, and no Valley oaks of any size should be removed.

Herbaceous species in the grassland areas of the parcel include soft chess (*Bromus hordeaceous*), ripgut brome (*Bromus diandrus*), wild oats (*Avena barbata*), medusahead (*Elymus caput-medusae*), Zorro fescue (*Festuca myuros*), little rattlesnake grass (*Briza minor*), hairgrass (*Aira caryophyllea*), foxtail barley (*Hordeum murinum*), dogstail grass (*Cynosurus echinatus*), blue wildrye (*Elymus glaucus*), squirreltail grass (*Elymus elymoides*), slender popcorn flower (*Plagiobothrys tenellus*), common fiddleneck (*Amsinckia intermedia*), farewell-to-spring (*Clarkia amoena*), lowland cudweed (*Gnaphalium palustre*), woolly mullein (*Verbascum thapsus*), Western verbena (*Verbena lasiostachys*), common yarrow (*Achillea millefolium*), yellow star thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), woolly mullein (*Verbascum thapsus*), annual lupine (*Lupinus bicolor*), Italian thistle (*Carduus pycnocephalus*), Queen Anne's lace (*Daucus carota*), bur clover (*Medicago polymorpha*), fringepod (*Thysanocarpus curvipes*), prickly lettuce (*Lactuca serriola*), smooth cat's ear (*Hypochaeris glabra*), turkey mullein (*Croton setiger*), field bindweed (*Convolvulus arvensis*), Queen Anne's lace (*Daucus carota*), hairy bitter cress (*Cardamine hirsuta*), sweet pea (*Lathyrus latifolius*), English plantain (*Plantago lanceolata*), soap plant (*Chlorogalum pomeridianum*), milk thistle (*Silybum marianum*), Western buttercup (*Ranunculus occidentalis*), lowland cudweed (*Gnaphalium palustre*), slender dwarf flax (*Hesperolinon spergulinum*), Klamathweed (*Hypericum perforatum*), Pacific sanicle (*Sanicula crassicaulis*), flax-leaved horseweed (*Erigeron bonariensis*), big heron bill (*Erodium botrys*), spring vetch (*Vicia sativa*), field parsley (*Torilis arvensis*), chickweed (*Stellaria media*), sheep sorrel (*Rumex acetocella*), eggleaf spurge (*Euphorbia oblongata*), hairy vetch (*Vicia villosa*), wild geranium (*Geranium molle*), rose clover (*Trifolium hirtum*), and sweet clover (*Melilotus albus*).

2.2.3 Riparian Corridor

The vegetation surrounding the Class II reach of Hendricks Creek is mostly undifferentiated from adjacent upland vegetation, however there is an increase of trees as well as some unique species associated with the riverbed. Unique species in the area surrounding the Class II watercourse includes California buckeye (*Aesculus californica*) to 30" DBH, Arroyo willow (*Salix lasiolepis*), Oregon ash (*Fraxinus latifolia*), Fremont cottonwood (*Populus fremontii*), Bigleaf maple (*Acer macrophyllum*), Himalayan blackberry (*Rubus armeniacus*), California rose (*Rosa californica*), pennyroyal (*Mentha pulegium*), common horsetail (*Equisetum arvense*), bog rush (*Juncus patens*), slender rush (*Juncus tenuis*), bluehead gilia (*Gilia capitata*),nut sedge (*Cyperus eragrostis*), houndstongue (*Cynoglossum occidentale*)rabbitsfoot grass (*Polypogon monspeliensis*), and wooly sunflower (*Eriophyllum lanatum*).

2.3 WILDLIFE

Wildlife activity was high due to the time of year and the weather. Wildlife species were observed both directly and indirectly include Indian peacock (*Pavo cristatus*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), acorn woodpecker (*Melanerpes formicivorus*), turkey vulture (*Cathartes aura*), crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), Western scrub jay (*Aphelocoma californica*), savannah sparrow (*Passerculus sandwichensis*), black-eyed junco (*Junco hyemalis*), excavation mounds of Botta's pocket gopher (*Thomomys bottae*), Western grey squirrel (*Sciurus griseus*), scat of black-tailed jackrabbit (*Lepus californicus*), scat of coyote (*Canis latrans*), tracks of Mule deer (*Odocoileus hemionus*), and Western fence lizard (*Sceloporous occidentalis*).

2.4 WATERCOURSES

Jurisdictional 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. All onsite jurisdictional streamcourses in the vicinity of the project areas are mapped in Figure 3. According to these criteria, there is one Class II reach of Hendricks Creek (Figure 9), as well as several unnamed Class III watercourses that contribute flow to Hendricks Creek. There is one culvert crossing over a Class III/IV watercourse that is conveyed by two 24" corrugated metal pipes (Figure 6).

2.5 POTENTIAL WETLANDS

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). According to these criteria, there are no locations that appear to qualify as jurisdictional wetland outside of the active channel of the Class II and Class III watercourses, however there may be some fringing wetland surrounding these features (Figure 3). Although a protocol-level wetland delineation

was not performed, any onsite wetlands should be protected within the setbacks required by State Water Resources Control Board *Cannabis* General Order. Additionally, there are no vernal pools or other water or drainage features in the central grassland portions of the site, likely due to the extended history of hay production and disking onsite (e.g. Figure 4).

2.6 SOILS & GEOMORPHOLOGY

Soil formations on the central flat grassland portions of the parcel are mapped as Still loams (#233) and Still-Talmage complex (#235) with slopes of 2% to 8%, with lesser proportions of Cole (2%), Kelsey (2%) and Lupoyoma (2%) deposits (USDA 1985). The #235 soil is classified as not prime farmland, while the #233 soil is classified as prime farmland if irrigated. Soils are well-drained and not prone to flooding. The hillsides that comprise most of the southern and northern portions of the site are mapped as well-drained Maymen-Millsholm-Bressa complex, 30% to 50% percent slopes (#175). The soil is classified as not prime farmland. There are no ultramafic or other serpentine outcrops onsite. There are no vernal pools or other isolated wetlands onsite.

3.0 SUMMARY & CONCLUSIONS

No special-status plant species were observed during the surveys performed at the site in May 2020. No impacts are predicted for any of the special-status plant species discussed in Appendix A based on lack of actual sightings, and lack of suitable habitat in the proposed project areas. The majority of the special-status plant species in Appendix A are either vernal pool species or endemic to serpentine outcrops and soils. No serpentine soils are present in the project areas, and there are no vernal pools or other seasonal wetlands in the grassland portions of the site due to extended period of disking and hay cultivation that continues to the present-day.

No special-status animal species were observed during the surveys performed at the site in May 2020. No impacts are predicted for any of the special-status animal species discussed in Appendix A due to the lack of actual observations and lack of suitable habitat in the proposed project areas. There is no suitable estivation habitat for FYLF due to the lack of cracks or small mammal burrows due to the decades-long history of disking and hay cultivation onsite. Any suitable breeding habitat or high-quality estivation habitat for FYLF or any other species in Appendix A are in the setbacks of the riparian zones that are protected from development, or the hillslope and draws that are likewise not proposed for development.

No discharges of sediment or fill are predicted to any watercourses or other waters of the State. There is one culvert crossing that does not appear to be actively eroding. As long as 100-foot setbacks are observed off the other mapped drainages there should be no impacts to downstream water quality. There are no wetlands observed in the center of the grassland areas in the proposed cultivation areas, however there may be some wetland vegetation surrounding some of the Class II and III watercourses onsite. As long as appropriate setbacks are observed off of all watercourses as required by State Water Resources Control Board *Cannabis* General Order, any wetlands onsite should be protected within these setbacks and no wetland delineation is required.

If revegetation is required such as after grading or for fire erosion prevention, contractors should only use native species from local genotypes propagated from local nurseries, or sterile wheat if no suitable native species are available. A list of appropriate species and nurseries for restoration and revegetation is available from PEC on request.

4.0 REGULATORY FRAMEWORK

4.1 FEDERAL ENDANGERED SPECIES ACT

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

4.2 CALIFORNIA ENDANGERED SPECIES ACT

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

4.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT

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

4.4 CLEAN WATER ACT

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

4.5 CALIFORNIA WATER QUALITY REGULATORY PROGRAMS

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB sometimes asserts jurisdiction over wetlands that the Corps does not (e.g. certain isolated wetlands) and may impose mitigation requirements even if the Corps does not. The CDFW also exerts jurisdiction over the bed and banks of watercourses and water bodies according to provisions of Section 1601 to 1603 of the Fish and Wildlife Code. The Fish and Wildlife Code requires a Stream Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body.

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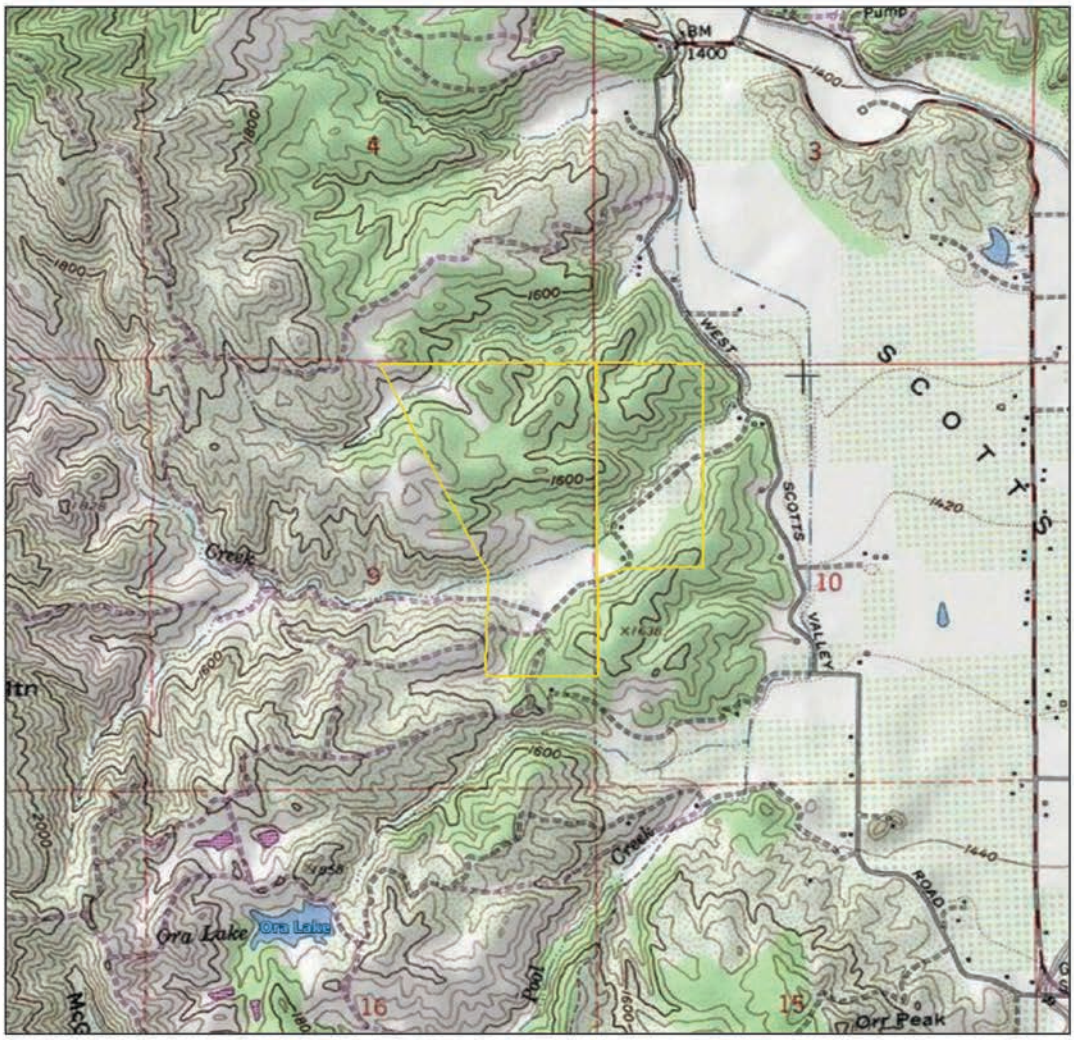
FIGURE 1: REGIONAL LOCATION

SOURCES: California Dept. of Fish & Wildlife (CDFW)

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 2: 40 FOOT CONTOURS



Pinecrest Environmental Consulting

(510) 881-3039 info@pinecrestenvironmental.org
5627 Telegraph Ave. Ste. 420 | 105 Morris St. Suite 184
Oakland, CA 94609 | Sebastopol, CA 95472

N

0.2 miles

Project parcel

SOURCES: Pinecrest Environmental

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 3: WATERCOURSES

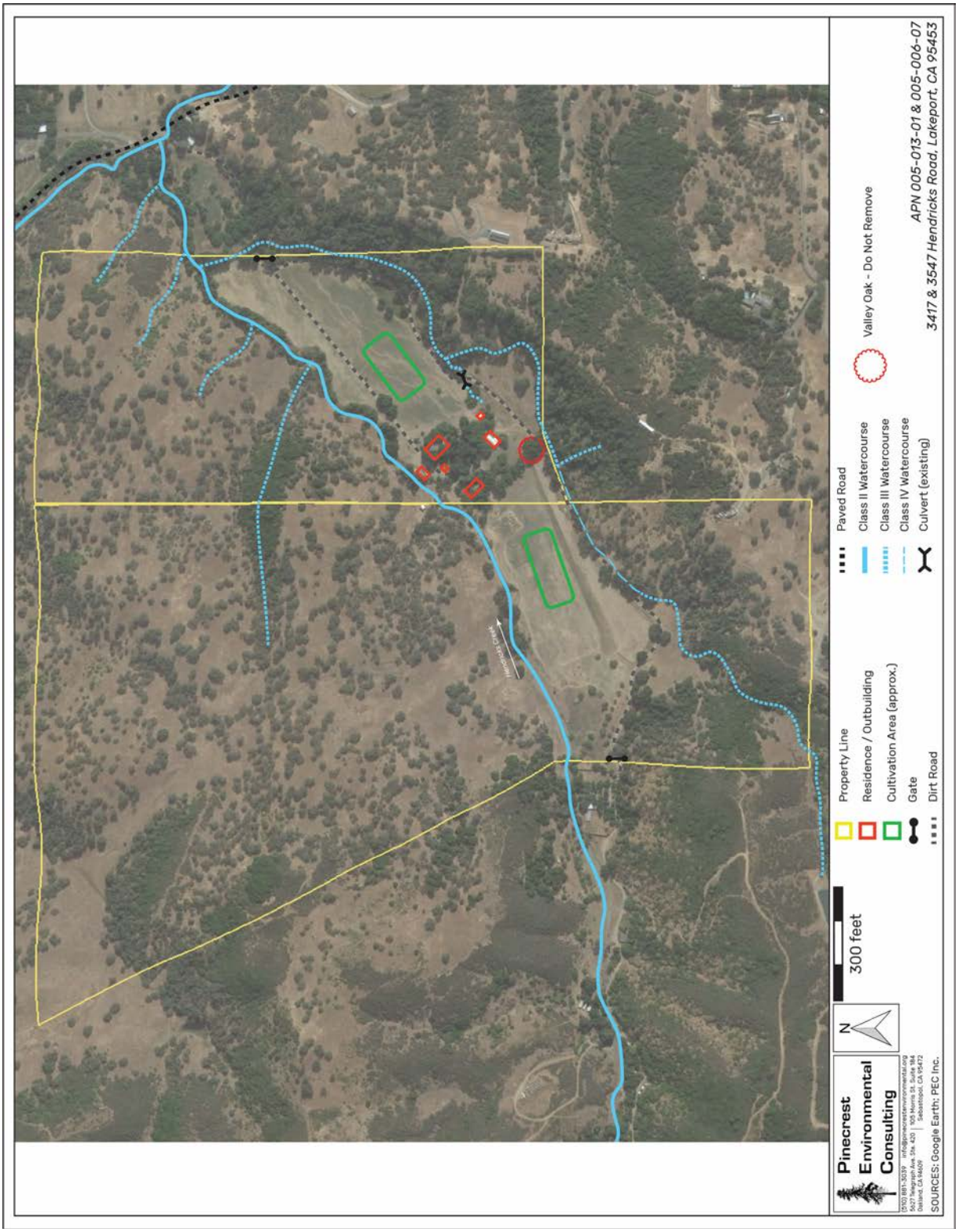


FIGURE 4: PHOTOGRAPH OF EAST CULTIVATION AREA

Pinecrest Environmental Consulting

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SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 5: PHOTOGRAPH OF WEST CULTIVATION AREA

Pinecrest Environmental Consulting

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Oakland, CA 94609 | Sebastopol, CA 95472

SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 6: PHOTOGRAPH OF CULVERT

Pinecrest Environmental Consulting
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SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 7: PHOTOGRAPH OF RESIDENCE & ACCESS ROAD

Pinecrest Environmental Consulting

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Oakland, CA 94609 | Sebastopol, CA 95472

SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 8: PHOTOGRAPH OF UTILITY EASEMENT

Pinecrest Environmental Consulting

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SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

FIGURE 9: PHOTOGRAPH OF HENDRICKS CREEK (CLASS II)

Pinecrest Environmental Consulting
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Oakland, CA 94609 | Sebastopol, CA 95472

SOURCES: PEC Inc.

APN 005-013-01 & 005-006-07
3417 & 3547 Hendricks Road, Lakeport, CA 95453

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 pluriflora*)	—/—/1B.2	Valley grasslands, foothill woodland	Low: Some grassland habitat exists onsite.
Anthony peak lupine (*Lupinus antoninus*)	—/—/1B.2	Montane forest	None: No suitable montane habitat exists onsite.
Baker's manzanita (*Arctostaphylos bakeri* ssp. *bakeri*)	—/—/1B.1	Serpentine chaparral	None: No serpentine habitat exists onsite.
Baker's meadowfoam (*Limnanthes bakeri*)	—/ST/1B.1	Vernal pools, freshwater wetland	None: No suitable wetland habitat exists onsite.
Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*)	—/—/1B.1	Vernal pools	Very Low: No vernal pool habitat exists onsite.
Beaked tracyina (*Tracyina rostrata*)	**—/—/1B.2**	**Valley grassland, foothill woodland**	**Low: Some grassland habitat exists onsite. Nearest known occurrence has a polygon that overlaps with the project parcel, and has a centroid located 0.9 miles NE of the parcel in Scotts Valley.**
Bent flowered fiddleneck (*Amsinckia lunaris*)	**—/—/1B.2**	**Valley grassland, foothill woodland**	**Low: Some grassland habitat exists onsite. Nearest known occurrence is 3.9 miles SE of the parcel near Lakeport.**
Big scale balsamroot (*Balsamorhiza macrolepis*)	—/—/1B.2	Valley grassland, foothill woodland	Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Bogg's Lake hedge-hyssop (*Gratiola heterosepala*)	—/—/1B.2	Vernal pools, lake margins	Very Low: No suitable wetland habitat exists onsite.
Bolander's horkelia (*Horkelia bolanderi*)	—/—/1B.2	Yellow pine forest, grassland	Low: No suitable forest habitat exists onsite.
Brandegee's eriastrum (*Eriastrum brandegeeae*)	—/—/1B.1	Clearings in chaparral	Low: Some suitable chaparral habitat exists onsite.
Bristly sedge (*Carex comosa*)	—/—/2B.1	Freshwater marsh, riparian	Very Low: No suitable wetland habitat exists onsite.
Brownish beaked-rush (*Rhynchospora capitellata*)	—/—/2B.2	Freshwater marsh, riparian	Very Low: No suitable wetland habitat exists onsite.
Burke's goldfields (*Lasthenia burkei*)	FE/SE/1B.1	Vernal pools	Very Low: No suitable vernal pool habitat exists onsite.
California alkalai grass (*Puccinellia simplex*)	—/—/1B.2	Alkalai sink	None: No alkalai wetland habitat exists onsite.
California satintail (*Imperata brevifolia*)	—/—/2B.1	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Calistoga ceanothus (*Ceanothus divergens*)	—/—/1B.2	Chaparral	Very Low: Some chaparral habitat exists onsite.
Cascade downingia (*Downingia willamettensis*)	—/—/2B.2	Vernal pool	None: No vernal pool habitat exists onsite.
Clara Hunt's milk vetch (*Astragalus claranus*)	—/—/1B.1	Chaparral, grassland	Very Low: Some chaparral habitat exists onsite.
Cobb Mountain lupine (*Lupinus sericatus*)	—/—/1B.2	Chaparral, pine forest	Very Low: Some chaparral habitat exists onsite.
Colusa layia (*Layia septentrionalis*)	**—/—/1B.2**	**Chaparral, valley grassland**	**Medium: Some suitable grassland habitat exists onsite. Low: Some grassland habitat exists onsite; no chaparral habitat onsite. Nearest known occurrence is 3.9 miles SE of the parcel near Lakeport.**
Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	—/—/1B.2	Grassland, coastal scrub	Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Deep scarred cryptantha (*Cryptantha excavata*)	—/—/1B.1	Foothill woodland	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*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Dwarf downingia (*Downingia pusilla*)	—/—/2B.2	Vernal pools, freshwater wetland	None: No vernal pool habitat exists onsite.
Dwarf soaproot (*Chlorogalum pomeridianum* var. *minus*)	—/—/1B.2	Serpentine chaparral	None: No serpentine chaparral habitat exists onsite.
Early jewelflower (*Streptanthus vernalis*)	—/—/1B.2	Serpentine outcrops	None: No suitable serpentine outcrop habitat exists onsite.
Eel-grass pondweed (*Potamogeton zosteriformis*)	—/—/2B.2	Freshwater lakes, ponds	Very Low: No suitable pond habitat exists onsite.
Few-flowered navarretia (*Navarretia leucocephala* ssp. *pauciflora*)	FE/ST/1B.1	Vernal pools	Very Low: No suitable vernal pool habitat exists onsite.
Franciscan onion (*Allium peninsulare* var. *franciscanum*)	—/—/1B.2	Grassland	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.
Geysers panicum (*Panicum acuminatum* var. *thermale*)	—/—/1B.2	Chaparral, wetlands	Very Low: No chaparral seep habitat exists onsite.
Glandular western flax (*Hesperolinon adenophyllum*)	**—/—/1B.2**	**Chaparral**	**Low: No suitable chaparral habitat exists onsite. None: No suitable chaparral habitat exists onsite. Nearest known occurrence is 1.1 miles N of the parcel near Scotts Creek.**
Grassleaf water plantain (*Alisma gramineum*)	—/—/2B.2	Wetland, riparian	Very Low: No suitable riparian habitat exists onsite.
Green jewelflower (*Streptanthus hesperidis*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Greene's narrow-leaved daisy (*Erigeron greenei*)	—/—/1B.2	Serpentine grassland	None: No serpentine habitat exists onsite.
Hall's harmonia (*Harmonia hallii*)	—/—/1B.2	Chaparral, grassland	Medium: Some grassland habitat exists onsite.
Hoffman's bristly jewelflower (*Streptanthus glandulosus* spp. *hoffmanii*)	—/—/1B.3	Chaparral, foothill woodland	Very Low: Some suitable chaparral habitat exists onsite.
Holly-leaved ceanothus (*Ceanothus purpureus*)	—/—/1B.2	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*)	—/—/1B.2	Foothill woodland	Low: Some woodland habitat exists onsite.
Indian Valley brodiaea (*Brodiaea rosea*)	—/SE/3.1	Serpentine chaparral	Very Low: No serpentine habitat exists onsite.
Jepson's coyote thistle (*Eryngium jepsonii*)	—/—/4.2	Wetlands and vernal pools	None: No vernal pool habitat exists onsite.
Jepson's dodder (*Cuscuta jepsonii*)	—/—/1B.2	Chaparral, grassland	Low: Some chaparral habitat exists onsite.
Jepson's leptosiphon (*Leptosiphon jepsonii*)	—/—/1B.2	Chaparral, serpentine grassland	None: No serpentine chaparral habitat exists onsite.
Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*)	—/—/1B.2	Chaparral, serpentine grassland	Low: Some suitable chaparral habitat exists onsite.
Keck's checkerbloom (*Sidalcea keckii*)	FE/—/1B.1	Valley grassland, serpentine	None: No suitable wetland habitat exists onsite.
Kenwood marsh checkerbloom (*Sidalcea oregana* ssp. *valida*)	FE/SE/1B.1	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Konocti manzanita (*Arctostaphylos manzanita* ssp. *elegans*)	**—/—/1B.3**	**Chaparral, foothill woodland**	**Low: No suitable chaparral habitat exists onsite. Very Low: No suitable chaparral habitat exists onsite. Nearest known occurrence is 3.9 miles NE of the parcel near Hill Rd.**
Kruckeberg's jewelflower (*Streptanthus morrisonii* ssp. *kruckebergii*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Lake County stonecrop (*Sedella leiocarpa*)	—/—/1B.1	Rock outcrops	Very Low: No rock outcrop habitat exists onsite.
Lake County western flax (*Hesperolinon didymocarpum*)	—/SE/1B.2	Serpentine grasslands	None: No suitable serpentine habitat exists onsite.
Lake Pillsbury checkerbloom (*Sidalcea hickmanii* spp. *pillsburiensis*)	—/—/1B.2	Chaparral	None: Some suitable chaparral habitat exists onsite.
Legenere (*Legenere limosa*)	—/—/1B.1	Vernal pool, freshwater wetland	None: No suitable vernal pool habitat exists onsite.
Loch Lomond button-celery (*Eryngium constancei*)	FE/SE/1B.1	Vernal pool, freshwater wetland	None: No suitable vernal pool habitat exists onsite.
Many-flowered navarretia (*Navarretia leucocephala* spp. *plieantha*)	FE/SE/1B.2	Vernal pools	Very Low: No vernal pool habitat exists onsite.
Marsh checkerbloom (*Sidalcea oregana* ssp. *hydrophila*)	—/—/1B.2	Freshwater wetland, riparian	Low: No suitable riparian habitat exists onsite.
Mayacamas popcornflower (*Plagiobothrys lithocaryus*)	**—/—/A1**	**Foothill woodland, valley grassland**	**Very Low: Presumed extinct. Last observed in 1884 near present-day Lakeport.**
Milo Baker's lupine (*Lupinus milo-bakeri*)	—/—/1B.1	Foothill woodland	None: No suitable woodland habitat exists onsite.
Morrison's jewelflower (*Streptanthus morrisonii* ssp. *morrisonii*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Mt. St. Helena morning-glory (*Calystegia collina* ssp. *oxyphylla*)	—/—/4.2	Serpentine chaparral	None: No serpentine habitat exists onsite.
Napa bluecurls (*Trichostema ruygtii*)	—/—/1B.2	Chaparral, grassland	Low: Some grassland habitat exists onsite.
Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*)	—/—/1B.1	Chaparral	Low: Some woodland habitat exists onsite.
Napa false indigo (*Amorpha californica* var. *napensis*)	—/—/1B.2	Forest, woodland	Very Low: Some woodland habitat exists onsite.
Narrow-anthered brodiaea (*Brodiaea leptandra*)	—/—/1B.2	Foothill woodland, grassland	Very Low: Some grassland habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
North Coast semaphore grass (*Pleuropogon hooverianus*)	—/—/1B.1	Freshwater wetland, vernal pools	None: No suitable vernal pool habitat exists onsite.
Northern California black walnut (*Juglans hindsii*)	—/—/1B.1	Riparian	Low: No suitable riparian habitat exists onsite.
Northern meadow sedge (*Carex praticola*)	—/—/2B.2	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*)	—/—/2B.2	Ponds and lakes	None: No suitable pond habitat exists onsite.
Oregon polemonium (*Polemonium carneum*)	—/—/2B.2	Coastal scrub, yellow pine forest	None: No suitable habitat exists onsite.
Oval-leaved viburnum (*Viburnum ellipticum*)	—/—/2B.3	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Pappose tarplant (*Centromadia parryi* ssp. *parryi*)	—/—/1B.2	Grassland, wetland	Medium: Some grassland habitat exists onsite.
Pennell's bird's beak (*Cordylanthus tenuis* ssp. *capillaris*)	FE/SR/1B.2	Chaparral	Very Low: No suitable chaparral habitat exists onsite.
Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*)	—/—/1B.2	Grassland, chaparral	Very Low: Parasitic plant, typical host plants not known from the property.
Pink creamsacs (*Castilleja rubicundula* var. *rubicundula*)	—/—/1B.2	Grasslands	Low: Some grassland habitat exists onsite.
Porter's navarretia (*Navarretia paradoxinota*)	—/—/1B.3	Grasslands, wetlands	Low: Some grassland habitat exists onsite.
Raiche's manzanita (*Arctostaphylos stanfordiana* ssp. *raichei*)	—/—/1B.1	Serpentine chaparral	None: No serpentine chaparral habitat exists onsite.
Rincon Ridge ceanothus (*Ceanothus confusus*)	—/—/1B.1	Chaparral, foothill grassland	Very Low: Some suitable chaparral habitat exists onsite.
Rincon Ridge manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*)	—/—/1B.1	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Round-leaved filaree (*California macrophylla*)	—/—/1B.2	Foothill grassland	Low: Some grassland habitat exists onsite.
Saline clover (*Trifolium hydrophilum*)	—/—/1B.2	Wetland, riparian	None: No suitable wetland habitat exists onsite.
San Joaquin spearscale (*Extriplex joaquinana*)	—/—/1B.2	Shadscale scrub, valley grassland	None: No alkalai scrub habitat exists.
Santa Rosa horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	Low: No suitable chaparral habitat exists onsite.
Sebastopol meadowfoam (*Limnanthes vinculans*)	FE/SE/1B.1	Freshwater wetland, vernal pools	None: No suitable vernal pool habitat exists onsite.
Serpentine cryptantha (*Cryptantha dissita*)	**—/—/1B.2**	**Serpentine chaparral**	**Very Low: No serpentine habitat exists onsite. Nearest known occurrence is 1.1 miles N of the parcel near Scotts Creek.**
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 suitable chaparral habitat exists onsite.
Shining navarretia (*Navarretia nigelliformis* ssp. *radians*)	—/—/1B.2	Vernal pools	Very Low: No suitable vernal pool habitat exists onsite.
Slender Orcutt grass (*Orcuttia tenuis*)	FT/SE/1B.1	Grassland, freshwater wetlands	Very Low: No suitable wet meadow habitat exists onsite.
Small-flowered calycadenia (*Calycadenia micrantha*)	—/—/1B.2	Foothill grassland	Medium: Some suitable grassland habitat onsite.
Small groundcone (*Kopsiopsis hookeri*)	—/—/2B.3	Redwood forest	None: No suitable forest habitat exists onsite.
Small pincushion navarretia (*Navarretia meyersii* ssp. *deminuta*)	—/—/1B.1	Wetlands	Very Low: No suitable wetland habitat exists onsite.
Snow Mountain buckwheat (*Eriogonum nervulosum*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Socrates Mine jewelflower (*Streptanthus brachiatus* ssp. *brachiatus*)	—/—/1B.2	Serpentine outcrops	None: No serpentine habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*)	—/—/1B.3	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Sonoma ceanothus (*Ceanothus sonomensis*)	—/—/1B.2	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Thin-lobed horkelia (*Horkelia tenuiloba*)	—/—/1B.2	Chaparral	Very Low: Some suitable chaparral habitat exists onsite.
Three-fingered morning glory (*Calystegia collina* ssp. *tridactylosa*)	—/—/1B.2	Serpentine grassland	Very Low: No serpentine habitat exists onsite.
Three Peaks jewelflower (*Streptanthus morrisonii* spp. *elatus*)	—/—/1B.2	Serpentine outcrops	None: No serpentine outcrop habitat exists onsite.
Tracy's eriastrum (*Eriastrum tracyi*)	—/SR/3.2	Chaparral	Low: Some suitable chaparral habitat exists onsite.
Two-carpellate Western flax (*Hesperolinon bicarpellatum*)	—/—/1B.2	Chaparral	Low: Some suitable chaparral habitat exists onsite.
Vine Hill ceanothus (*Ceanothus foliosus* var. *vineatus*)	—/—/1B.1	Chaparral	Very Low: Some suitable 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**	**Very Low: No suitable pond habitat exists in the project area. Nearest known occurrence is 3.9 miles SE of the parcel near Lakeport.**
White beaked-rush (*Rhynchospora alba*)	—/—/2B.2	Wetlands, freshwater marsh	None: No suitable wetland 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.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Coastal triquetrella (*Triquetrella californica*)	—/—/1B.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 suitable forest habitat exists onsite.
Slender silver moss (*Anomobryum julaceum*)	—/—/4.2	Rocky substrates in forests, riparian	Very Low: Some marginally suitable riparian habitat exists onsite.
Torren's grimmia (*Grimmia torenii*)	—/—/1B.3	Forest, woodland	Very Low: Some woodland habitat exists onsite.
FISH			
Chinook Salmon Coastal California DPS (*Oncorhynchus kisutch*)	FT/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.
Clear Lake Drainage Resident Rainbow trout (*Oncorhynchus mykiss*)	FE/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable habitat exists in the project area.
Clear Lake hitch (*Lavinia exilicauda chi*)	**FE/SE/—**	**Freshwater lakes and streams**	**None: No suitable habitat exists in the project area. Nearest known occurrence is 3.0 miles E of the parcel in Clear Lake.**
Clear Lake tule perch (*Hysterocarpus traskii lagunae*)	**—/SSC/—**	**Freshwater lakes and streams**	**None: No suitable habitat exists in the project area. Nearest known occurrence is 3.0 miles E of the parcel in Clear Lake.**
Coho Salmon Central California Coast ESU (*Oncorhynchus kisutch*)	FE/SE/—	Freshwater streams, open ocean and estuaries	None: No suitable streams exist onsite.
Sacramento perch (*Archoplites interruptus*)	**—/SSC/—**	**Low gradient sloughs and lakes**	**None: No suitable habitat exists in the project area. Nearest known occurrence is 3.0 miles E of the parcel in Clear Lake.**
Sacramento splittail (*Pogonichthys macrolepidotus*)	—/SSC/—	Low gradient freshwater streams	None: No suitable streams exist onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
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.
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 known occurrence is 3.5 miles NW of the parcel near Willow Creek.**
Red bellied newt (*Taricha rivularis*)	—/SSC/—	Woodland streams, riparian corridors	Very Low: No suitable stream habitat exists onsite.
Western pond turtle (*Emys marmorata*)	**—/SSC/—**	**Slow-moving creeks, streams, ponds, rivers, ditches.**	**None: No suitable pond habitat exists onsite. Nearest known occurrence is 3.6 miles N of the parcel near Dorr Creek.**
INVERTEBRATES			
Behren's silverspot butterfly (*Speyeria zerene behrensii*)	FE/SSC/—	Coastal prairie	None: Requires blue violet to reproduce; none onsite.
Blennosperma vernal pool andrenid bee (*Andrena blennospermatis*)	**—/SSC/—**	**Upland areas near vernal pools**	**None: No suitable vernal pool habitat exists onsite although there is some grassland habitat. Nearest known occurrence is 3.7 miles NE of the parcel near Nice-Lucene Cutoff.**
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 lakes and streams**	**None: No suitable stream habitat exists onsite. Nearest known occurrence is 3.0 miles E of the parcel in Clear Lake.**

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
California brackishwater snail (*Tryonia imitator*)	—/SSC/—	Brackish wetlands	None: No suitable wetland habitat exists onsite.
California floater (*Anodonta californiensis*)	—/SSC/—	Freshwater ponds, streams	None: No suitable stream habitat exists onsite.
California freshwater shrimp (*Syncaris pacifica*)	FE/SE/—	Freshwater ponds	None: No suitable pond habitat exists onsite.
California linderiella (*Linderiella occidentalis*)	—/SSC/—	Vernal pools	None: No vernal pool habitat exists onsite.
Clear Lake pyrg (*Pyrgulopsis ventricosa*)	—/SSC/—	Freshwater streams	None: No suitable stream habitat exists onsite.
Crotch bumble bee (*Bombus crotchii*)	—/SSC/—	Grassland, chaparral	Medium: 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.	Low: Some suitable trees for roosting onsite.
Obscure bumble bee (*Bombus caliginosus*)	—/SSC/—	Grassland, foothill woodland, chaparral	Medium: 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/—	Large freshwater streams	None: No suitable stream habitat exists onsite.
Ricksecker's water scavenger beetle (*Hydrochara ricksecker*i)	—/SSC/—	Freshwater lakes and ponds	None: No suitable pond habitat exists onsite.
Serpentine cypress wood-boring beetle (*Trachykele hartmani*)	—/SSC/—	Requires cypress trees in serpentine outcrops	None: No suitable host plants known from the project site.
Sonoma zerene fritillary (*Speyeria zerene sonomensis*)	—/SSC/—	Grasslands and meadows with *Viola* plants	None: Requires *Viola* for reproduction; none onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Unnamed isopod (*Calasellus californicus*)	—/SSC/—	Freshwater wetlands	None: No suitable wetland habitat exists onsite.
Western bumblebee (*Bombus occidentalis*)	—/SSC/—	Grassland	Medium: Some grassland habitat exists onsite.
Wilbur Springs minute moss beetle (*Ochthebius recticulus*)	—/SSC/—	Shorelines of hot springs	None: No suitable hot spring habitat exists onsite.
Wilbur Springs shorebug (*Saldula usingeri*)	—/SSC/—	Ponds	None: No suitable pond habitat exists onsite.
Wilbur Springs shore fly (*Paracoenia calida*)	—/SSC/—	Hot sulphur springs	None: No suitable hot spring habitat exists onsite.
BIRDS			
American perigrine falcon (*Falco peregrinus anatum*)	—/SSC/—	Forages in open grasslands, nests in trees	Low: Some suitable nesting and foraging habitat exists.
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.
Bell's sage sparrow (*Artemisiospiza belli belli*)	—/SSC/—	Chaparral	Low: Some suitable chaparral habitat exists onsite.
Black swift (*Cypseloides niger*)	—/SSC/—	Cliff faces near water	None: No suitable stream habitat exists onsite.
Burrowing owl (*Athene cunicularia*)	—/SSC/—	Grasslands with ground squirrel burrows	Very Low: No suitable grassland habitat exists onsite due to lack of ground squirrel or other burrows.
California black rail (*Laterallus jamaicensis coturniculus*)	FE/SE/—	Coastal salt marshes and mudflats	None: No suitable salt marsh habitat exists onsite.
California horned lark (*Eremophila alpestris actia*)	—/SSC/—	Herbaceous vegetation, chaparral	Low: Some suitable foraging and nesting habitat exists onsite.
Cooper's hawk (*Accipiter cooperii*)	—/WL/—	Forages over open grassland	Low: Some suitable foraging and nesting habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Double-crested cormorant (*Phalacrocorax auritus*)	**—/SSC/—**	**Forages in open water. Nests in trees and cliffs.**	**None: No suitable foraging or nesting habitat exists onsite. Nearest known occurrence is 3.7 miles NE of the parcel near Nice-Lucerne Cutoff.**
Ferruginous hawk (*Buteo regalis*)	—/SSC/—	Forages over open grassland. Nests in old-growth trees	Low: Some suitable foraging and nesting habitat exists onsite.
Golden eagle (*Aquila chrysaetos*)	—/SSC/—	Forages over open grassland. Nests in old-growth trees	Medium: Some suitable foraging habitat. Some suitable nesting habitat.
Grasshopper sparrow (*Ammodramus savannarum*)	—/SSC/—	Forages over open grassland	Low: Some suitable foraging and nesting habitat exists onsite.
Great blue heron (*Ardea herodias*)	**—/SSC/—**	**Nests in trees, forages in wetlands and grasslands**	**None: No suitable foraging or nesting habitat exists onsite. Nearest known occurrence is 3.7 miles NE of the parcel near Nice-Lucene Cutoff.**
Great egret (*Ardea alba*)	—/SSC/—	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 coniferous forest	None: No suitable old-growth forest habitat exists onsite.
Northern goshawk (*Accipiter gentilis*)	—/SSC/—	Coniferous forest	None: No suitable forest habitat exists onsite.
Northern spotted owl (*Strix occidentalis*)	**FT/ST/—**	**Nests primarily in old growth forests**	**Very Low: No suitable nesting or foraging habitat onsite. Nearest occurrence is 10.0 miles to the NE near Bartlett Mountain.**
Osprey (*Pandion haliaetus*)	**—/WL/—**	**Areas with fish**	**Very Low: No suitable foraging habitat onsite. Some poor quality nesting habitat onsite. Nearest known occurrence is 3.7 miles NE of the parcel near Nice-Lucerne Cutoff.**
Prairie falcon (*Falco mexicanus*)	—/SSC/—	Forages over grasslands	Medium: Some suitable nesting and foraging habitat exists onsite.
Purple martin (*Progne subis*)	FE/SE/—	Insectivorous, nests in cavities	Low: Some suitable nesting habitat onsite. Some suitable foraging habitat onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Sharp-shinned hawk (*Accipiter striatus*)	—/SSC/—	Forest and woodland	Very Low: Some suitable nesting and foraging habitat exists onsite.
Tricolored blackbird (*Agelaius tricolor*)	**—/SSC/—**	**Forages in grasslands and nests in freshwater marshes**	**Low: Some marginal nesting habitat exists onsite. Some marginal foraging habitat. Nearest known occurrence is 1.9 miles E of the parcel near Hill Rd.**
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	—/SE/—	Woodland, riparian	Low: Some suitable nesting and foraging habitat exists onsite.
White-tailed kite (*Elanus leucurus*)	—/CFP/—	Prefers to nest in marshes next to deciduous forests.	Low: Some suitable nesting and foraging habitat exists onsite.
Yellow breasted chat (*Icteria virens*)	—/SSC/—	Dense shrubby growth, grasslands	Low: Some suitable grassland habitat exists onsite.
Yellow rail (*Coturnicops noveboracensis*)	—/SSC/—	Breeds in marshes, forages in wet meadows	None: No suitable marsh habitat exists onsite.
Yellow warbler (*Coturnicops noveboracensis*)	—/SSC/—	Riparian, shrubland, farmland	Low: Some suitable scrub habitat exists onsite.
MAMMALS			
American badger (*Taxidea taxus*)	**—/SSC/—**	**Open grassland habitats with plenty of prey**	**Low: Some suitable den habitat exists onsite. Nearest known occurrence is 2.7 miles SE of the parcel near Lakeport.**
Big free-tailed bat (*Nyctinomops macrotis*)	—/SSC/—	Forages over open areas, roots in trees or caves	Low: Some suitable foraging habitat. Few suitable roosts in project area.
Fisher (*Pekania pennanti*)	—/SSC/—	Forages and breeds primarily in forests	Very Low: No suitable forest habitat exists onsite.
Fringed myotis (*Myotis thysanodes*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Very Low: Some suitable foraging habitat. Few suitable roosts in project area.
Hoary bat (*Lasiurus cinereus*)	—/SSC/—	Forages over open areas, roots in trees or caves at high altitude	Very Low: Few suitable roosts in the project area. Primarily forages at high altitude.
Humboldt marten (*Martes caurina humboldtensis*)	—/SSC/—	Forages and breeds in forests near streams	Very Low: Some suitable den and foraging habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
Long-eared myotis (*Myotis evotis*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Low: Some suitable foraging habitat. Few suitable roosts in project area.
Long-legged myotis (*Myotis volans*)	—/SSC/—	Roosts in caves or buildings and forages in open habitats	Very Low: Some foraging habitat. Few suitable roosts in project area.
North American porcupine (*Erethizon dorsatum*)	—/SSC/—	Require rocky areas or trees for dens, abundant open space for foraging	Very Low: Some suitable foraging and den habitat exists onsite.
Pallid bat (*Antrozous pallidus*)	—/SSC/—	Common in open dry habitats with rocky areas for roosting	Low: Some foraging habitat exists. Few 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	Medium: Few man-made structures exist suitable for roosting. Some habitat for foraging.
Western red bat (*Lasiurus blossevillii*)	—/SSC/—	Forages over open areas, roots in trees or caves	Very Low: Little suitable roosting habitat. Some suitable foraging habitat.
Yuma myotis (*Myotis yumanensis*)	—/SSC/—	Forages over open areas, roots in trees or caves	Very Low: No suitable nesting habitat exists onsite. Some suitable foraging habitat exists onsite.
HABITATS			
Coastal & Valley Freshwater Marsh (CVFM)	—	—	None: No marsh habitat exists onsite.
Northern Basalt Flow Vernal Pool (NBFVP)	—	—	None: No basalt flow vernal pool habitat exists onsite.
Northern Hardpan Vernal Pool (NHVP)	—	—	None: No hardpan vernal pool habitat exists onsite.

Taxon	Status[1] Fed/State/CNPS	Habitat	Potential to Occur Within the Project Area
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
SR = State Rare (applies to plants only)
SSC = California Species of Special Concern
CFP = California Fully Protected Species

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

[2] USFWS

APPENDIX B: SPECIES ENCOUNTERED

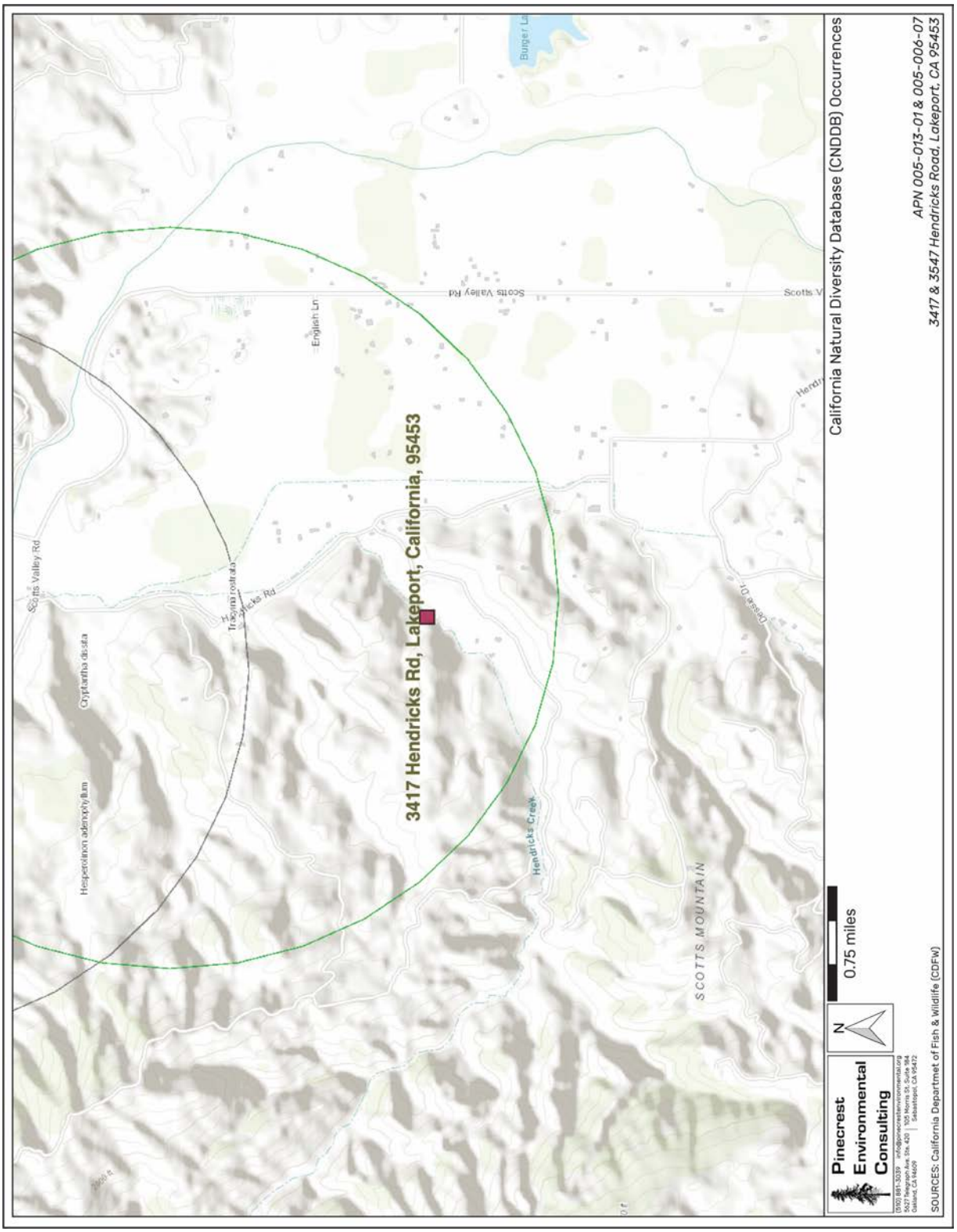
PLANTS
Acer macrophyllum
Achillea millefolium
Achyrachaena mollis
Aesculus californica
Agoseris hirsuta
Aira caryophyllea
Amsinckia intermedia
Arbutus menziesii
Arctostaphylos canescens
Arctostaphylos manzanita
Arctostaphylos viscida
Avena barbata
Baccharis pilularis
Briza minor
Bromus diandrus
Bromus hordeaceous
Calycadenia fremontii
Cardamine hirsuta
Carduus pycnocephalus
Ceanothus cuneatus
Ceanothus integerrimus
Centaurea solstitialis
Cercocarpus betuloides
Chlorogalum pomeridianum
Cirsium vulgare
Clarkia amoena
Collinsia grandiflora
Convolvulus arvensis
Croton setiger
Cynoglossum occidentale
Cynosurus echinatus
Cyperus eragrostis
Daucus carota
Dichelostemma capitata
Elymus caput-medusae
Elymus elymoides
Elymus glaucus
Equisetum arvense
Erigeron bonariensis

Eriodictyon californicum
Eriophyllum lanatum
Erodium botrys
Eschscholzia californica
Euphorbia oblongata
Festuca myuros
Fraxinus latifolia
Geranium molle
Gilia capitata
Gnaphalium palustre
Hesperolinon spergulinum
Hordeum murinum
Hypericum perforatum
Hypochaeris glabra
Iris douglasii
Juglans hindsii
Juncus patens
Juncus tenuis
Lactuca serriola
Lathyrus latifolius
Lupinus albifrons
Lupinus bicolor
Madia exigua
Madia gracilis
Medicago polymorpha
Melilotus albus
Mentha pulegium
Pinus ponderosa
Pinus sabiniana
Plagiobothrys tenellus
Plantago lanceolata
Polypogon monspeliensis
Populus fremontii
Primula hendersonii
Quercus douglasii
Quercus durata
Quercus kelloggii
Quercus lobata
Ranunculus occidentalis
Rosa californica
Rubus armeniacus
Rumex acetocella
Salix lasiolepis
Sanicula bipinnatifida
Sanicula crassicaulis
Silybum marianum
Stellaria media

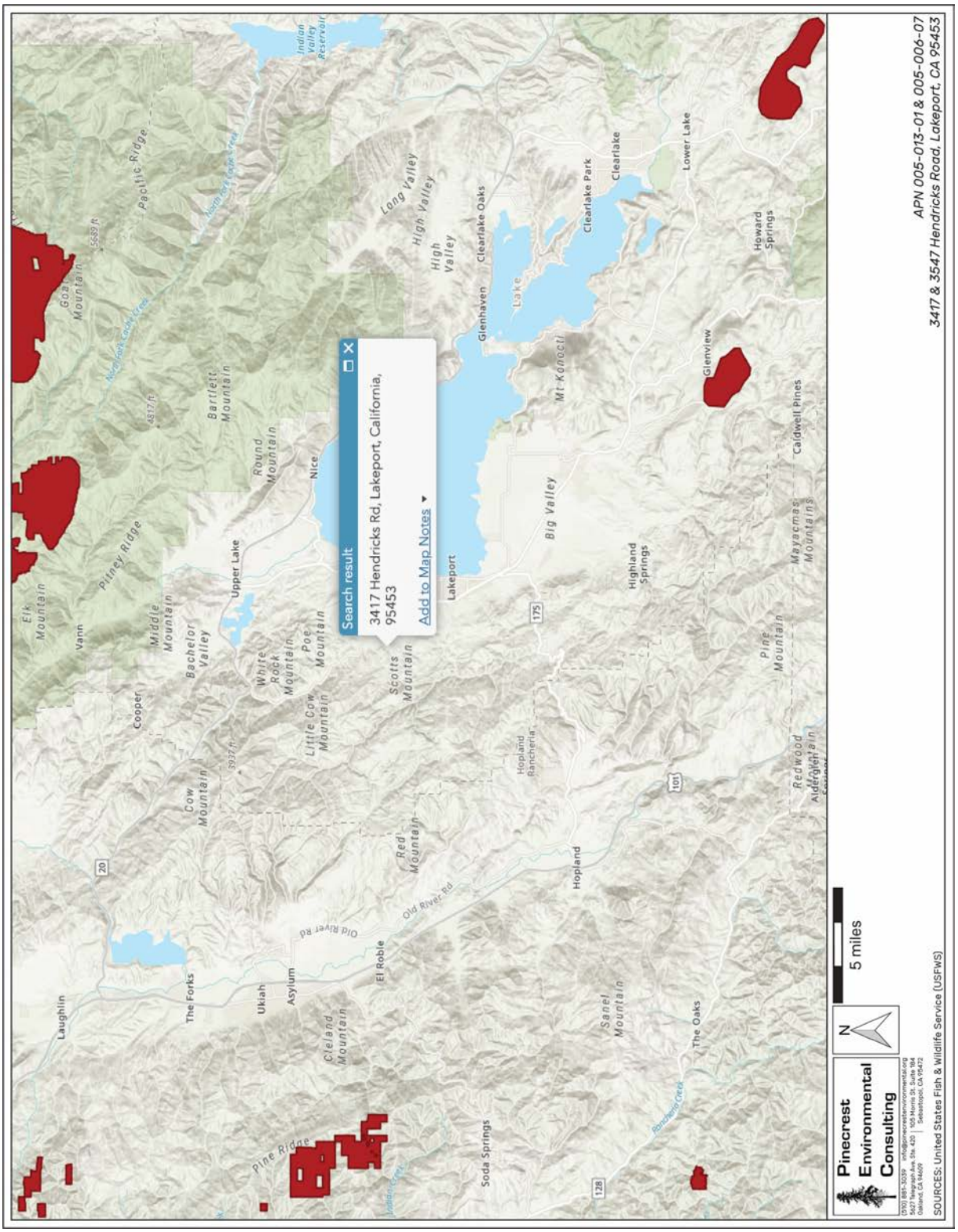
Thysanocarpus curvipes
Torilis arvensis
Trifolium hirtum
Triteleia hyacinthina
Triteleia laxa
Umbellularia californica
Verbascum thapsus
Verbena lasiostachys
Vicia sativa
Vicia villosa
Wyethia angustifolia

ANIMALS
Aphelocoma californica
Callipepla californica
Canis latrans
Cathartes aura
Corvus brachyrhynchos
Euphagus cyanocephalus
Junco hyemalis
Lepus californicus
Melanerpes formicivorus
Odocoileus hemionus
Passerculus sandwichensis
Pavo cristatus
Sceloporous occidentalis
Sciurus griseus
Thomomys bottae
Zenaida macroura

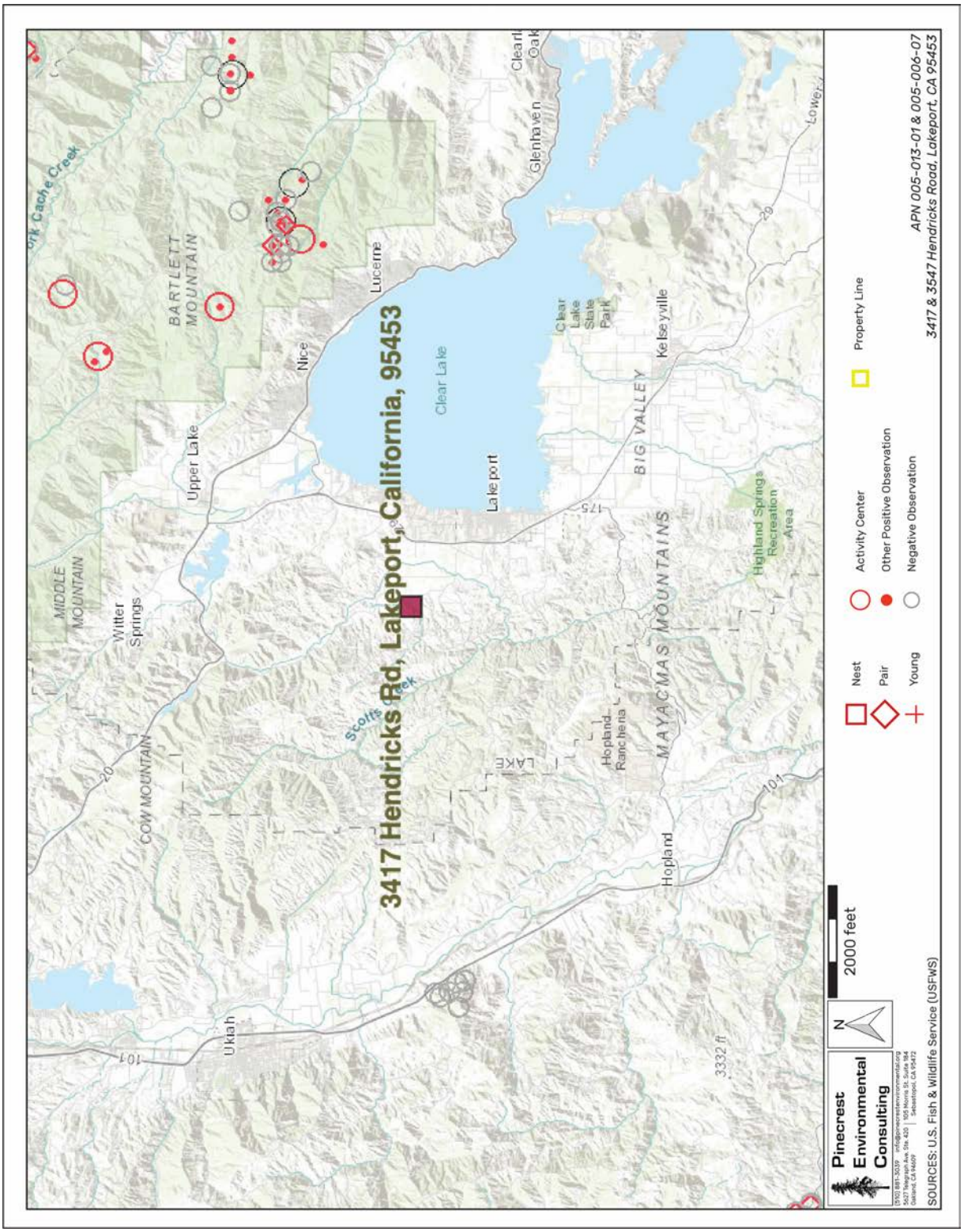
APPENDIX C: CNDDB OCCURRENCES MAP



APPENDIX D: FEDERAL CRITICAL HABITAT MAP



APPENDIX E: REGIONAL NSO OCCURRENCES MAP



APPENDIX F: 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 2019-0001-DWQ.

F.1 CANNABIS CULTIVATION

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

- Prior to applying fertilizers, evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over fertilization.
- Apply fertilizers at label rates and no higher.
- Do not apply fertilizers in a way that will result in runoff that may contaminate ground or surface water or escape via airborne drift or fugitive dust.
- Observe riparian corridor setbacks for agricultural cultivation as applicable. These shall be maintained as “no touch” areas. The removal of vegetation is prohibited within these setback areas.
- No equipment, vehicles, or other materials shall be stored in the riparian setback areas.
- Composting areas shall not be located in the riparian setback areas.
- Irrigation must be conducted in a manner that does not result in runoff from the cultivated area.
- Any water tanks or storage facilities must obtain all necessary permits from the Sonoma County Permit and Resource Management Department (PRMD).
- The use of membrane based water bladders is prohibited.
- If using an irrigation system, inspect for and repair leaks prior to planting each year and continuously during the season.
- Irrigation systems shall be equipped with a backflow prevention devices and shutoff valves.
- Recycle or properly dispose of all plastic bags, containers, and irrigation materials.
- Properly dispose of green waste in a manner that does not discharge pollutants to a watercourse. This may be accomplished by composting, chipping, and/or shredding. The method of green waste disposal must be documented.
- Used growth medium (soil and other organic medium) shall be handled to minimize or prevent discharge of soil and residual nutrients and chemicals to watercourses. Proper disposal could include incorporating into garden beds, spreading on a stable surface and re-vegetating, storage in watertight dumpsters, or covering with tarps or plastic sheeting prior to proper disposal. The method of disposal must be documented.
- Compost piles are to be located outside of riparian setbacks for agricultural cultivation and in a manner that will not discharge pollutants to a watercourse. If necessary, construct a berm or install fiber roll around compost area to prevent runoff or use straw wattles around perimeter.
- Cover compost piles with tarp or impermeable surface prior to fall rains and continuously throughout the rainy season.
- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Avoid soil disturbance between November 1 and April 15 and during times of active precipitation.
- All exposed and disturbed soil must be covered with a minimum of 2 inches of mulch, such as straw, bark, wood chips, etc., by November 15. Alternatively, establish a thick cover crop over disturbed areas composed of native species.

- Erosion control materials shall be available on site at all times in the form of straw or appropriate mulch adequate to cover area of disturbed soil.
- In the event of a forecast storm event likely to produce runoff, apply mulch to disturbed areas prior to rain event.
- Any grading or drainage conducted as part of site preparation shall have the appropriate permits from the Sonoma County PRMD.

F.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.

F.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.

F.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.

F.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.

F.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.

F.7 SPECIAL-STATUS SPECIES AVOIDANCE MEASURES

- All employees and contractors including one-time contractors and day-laborers shall be distributed cards with visual identifications of all of the aforementioned special-status species, including both male and female, and juvenile and adult forms, and be briefed on all of the following AMMs contained herein. Species cards may be obtained from PEC on request.
- Observation of any of the aforementioned SSS onsite shall result in immediate stoppage of all work and notification of PEC and/or CDFW.
- All animals observed onsite shall be allowed to leave the premises voluntarily without being harassed.
- Vehicle speeds should be limited to 5 mph all year, with 3 mph limit during amphibian breeding and migration season from October 1 to June 1, and for breeding bird season from February 1 to September 1.
- No loud noises including unmuffled or non-street legal vehicles, heavy machinery, hammering, discharge of firearms, or unmuffled generators are allowed during the breeding and nesting window to avoid impacts to NSO and which is generally February 1 to September 1.
- Avoid ground disturbance including trenching, grading, or road scraping to a depth of greater than 10" without first clearing the site from a qualified biologist to avoid disturbing estivating amphibians.

- Access within 100 feet of nesting migratory bird should not be allowed, and a sign should be placed stating there is a sensitive habitat ahead and no entry is permitted.
- All roadways and culverts should be inspected once before major rain events and once after to ensure that all erosion control materials are effective and not discharging sediment to any jurisdictional watercourses.
- All containers and other vessels left outside unattended should be checked before use to ensure that no animals are inside.
- Vessels including buckets should be turned over on their sides to allow animals to escape.
- No holes greater than 6" deep should be left exposed and uncovered to avoid making "pitfall traps" into which animals can enter but cannot escape. If holes such as post holes must be left for more than 24 hours they should be checked daily to ensure no animals are inside.
- Clear areas within 100 feet of any watercourse by a biological monitor prior to disturbing the ground more than 6".
- Only native woody species should be planted wherever revegetation is required such as along the sides of roadcuts and bridge abutments.
- Preconstruction breeding bird surveys for NSO and other migratory birds should be performed if tree removal is to take place.
- No tree or vegetation removal should be conducted during breeding bird season from February 1 to September 1.
- No aerial wires or lines should be permitted that may impede the flight path of nesting birds.
- No upward pointed lights should be permitted during anytime during the year, and ambient outdoor night time lights should be prohibited during the breeding bird period from February 1 to September 1.
- Use of rodenticides should not be used under any circumstances due to the hazard of secondary ingestion by raptors.

APPENDIX G: 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 (as shown in Figure 4) although greater setbacks may be required in some jurisdictions.

Watercourse – a natural or artificial channel through which water flows.

- Perennial watercourse (Class I*):
  1. In the absence of diversions, water is flowing for more than nine months during a typical year,
  2. Fish always or seasonally present onsite or includes habitat to sustain fish migration and spawning, and/or
  3. Spring: an area where there is concentrated discharge of ground water that flows at the ground surface. A spring may flow any part of the year. For the purpose of this Policy, a spring does not have a defined bed and banks.
- Intermittent watercourse (Class II*):
  1. In the absence of diversions, water is flowing for three to nine months during a typical year,
  2. Provides aquatic habitat for non-fish aquatic species,
  3. Fish always or seasonally present within 1,000 feet downstream, and/or
  4. Water is flowing less than three months during a typical year and the stream supports riparian vegetation.
- Ephemeral watercourse (Class III*): In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport.
- Other watercourses (Class IV*): Class IV watercourses do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use.

*Except where more restrictive, stream class designations are equivalent to the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulations, title 14, Chapter 4. Forest Practice Rules, Subchapters 4, 5, and 6 Forest District Rules, Article 6 Water Course and Lake Protection).

SECTION – F

GROUNDS MANAGEMENT PLAN

Grounds Management Plan

Purpose and Overview

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots. Drip irrigation systems would be used to conserve water resources, and all water would come from an existing onsite groundwater well.

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 proposed cultivation operation include fertilizers/nutrients, pesticides, and petroleum products (Agricultural Chemicals). All fertilizers/nutrients and pesticides, when not in use, 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 Areas (proposed wooden sheds). Petroleum products 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 Areas. Spill containment and cleanup equipment will be maintained within the proposed Pesticides and Agricultural Chemicals Storage Areas, 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 will be trained how to appropriately prepare and apply fertilizers/nutrients before being allowed to use them. When using/preparing fertilizers and other chemicals, personnel will be required to use personal protective equipment (PPE) consistent with

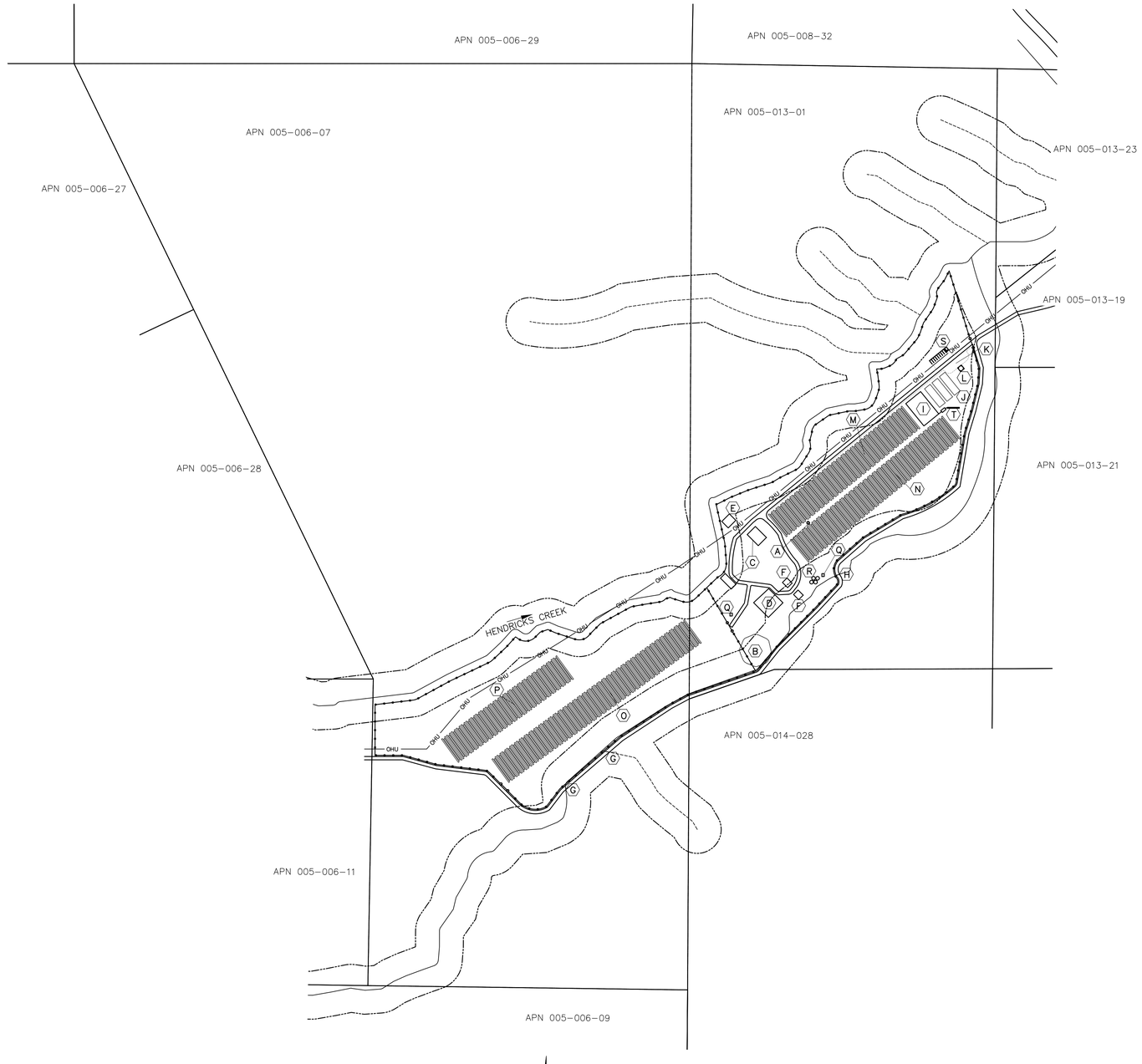
the MSDS/SDS recommendations for the product they're using/preparing. PPE to be used by staff include safety glasses, gloves, dust masks, boots, pants, and long-sleeved shirts.

Solid Waste Management

The types of solid waste that will be generated from the proposed cultivation operation include gardening materials and wastes (such as used fertilizer/pesticide containers) and general litter from staff/personnel. All solid waste will be stored in bins with secure fitting lids, located directly adjacent to the proposed cultivation/canopy areas. At no time will the bins be filled to a point that their lids cannot fit securely. Solid waste from the bins will be deposited into a trailer ("dump trailer"), and hauled away to a Lake County Integrated Waste Management facility, at least every seven (7) days/weekly. The closest Lake County Integrated Waste Management facility to the proposed cultivation operation is the Lake County Transfer Station & Recycling Center. Most, if not all, of the solid waste and recyclables generated by proposed commercial cannabis cultivation operation can and will be deposited there.

Site Maintenance

When not in use, all equipment 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 will be placed in the proper waste disposal receptacle at the end of each shift, or at a minimum upon completion of the task assigned. Any refuse which poses a risk for contamination or personal injury will be disposed of immediately. 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 will be mowed and trimmed regularly around the cultivation operation to provide for visibility and security monitoring. Access roads and parking areas will be graveled to prevent the generation of fugitive dust, and vegetative ground cover will be preserved throughout the entire site to filter and infiltrate stormwater runoff from access roads, parking areas, and the proposed cultivation operation. Portable restroom facilities will be made available for staff to use, and regularly serviced to ensure a safe and sanitary working environment, throughout the cultivation season. The proposed Processing Facility will be equipped with restrooms/washrooms that discharge to a permitted septic system. Staff will have access to the restrooms/washrooms of the proposed Processing Facility whenever they are onsite.



PROPOSED CONDITIONS SITE PLAN

GRAPHIC SCALE

250 0 125 250

(IN FEET)
1 inch = 250 ft.

N

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- (E) GATE
- (E) FENCE
- (E) 14' GRAVEL DWY
- (E) CULVERT
- (E) OVERHEAD UTILITY
- CLASS II WATERCOURSE
- CLASS III WATERCOURSE
- 100' WATERCOURSE SETBACK

(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:
CONTOUR INTERVAL IS 5'

(A) (E) GROUNDWATER WELL
LAT: 39.07832°
LONG: -122.96637°

(B) HERITAGE OAK (PROTECTED)

(C) (E) RESIDENCE

(D) (E) 68'x76' 5,168 SF METAL BARN

(E) (E) CHICKEN COOP

(F) (E) WOODEN SHED

(G) (E) TWO 18" CMP CULVERTS (FOUR TOTAL)

(H) (E) TWO 24" CMP CULVERTS

(I) (P) 120'x80' METAL PROCESSING BUILDING

(J) (P) THREE 100'x30' (3,000 SF) IMMATURE PLANT GREENHOUSES

(K) (P) FIRE DEPARTMENT TURNAROUND

(L) (P) 25,000 GALLON METAL FIRE WATER STORAGE TANK

(M) (P) 29 SETS OF CANOPY ROWS, 87 ROWS TOTAL (47,366.66 SF)

(N) (P) 33 SETS OF CANOPY ROWS, 99 ROWS TOTAL (53,899.99 SF)

(O) (P) 40 SETS OF CANOPY ROWS, 120 ROWS TOTAL (65,333.33 SF)

(P) (P) 24 SETS OF CANOPY ROWS, 72 ROWS TOTAL (39,199.99 SF)

(SEE CANOPY FOR MORE DETAILS)

(Q) (P) 10'x12' (120 SF) PEST AND & CHEMICAL STORAGE AREA

(R) (P) FOUR 5,000 GALLON WATER STORAGE TANKS

(S) (P) PARKING AREA WITH 8 STANDARD AND 1 ADA SPACES

(SEE SECURITY PLAN FOR MORE)

(T) (P) SEPTIC TANK SYSTEM

Revisions:

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

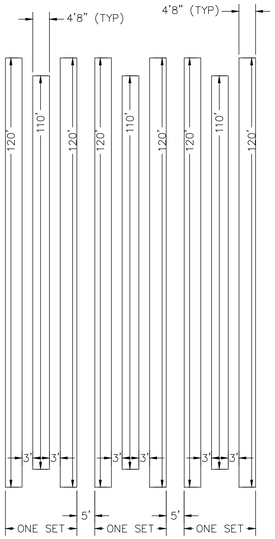
PLANS PREPARED UNDER THE SUPERVISION OF:

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

PROPOSED CONDITIONS
LAKE COCO HOLDINGS, LLC

APNs: 005-013-01 & 005-006-07
3417 & 3547 HENDRICKS ROAD
LAKEPORT, CA 95453

PLOTTED BY:	
DATE PLOTTED:	05/15/2024
SCALE OF DRAWING:	SEE PLAN
JOB NUMBER:	
CADD FILE:	
SHEET:	2



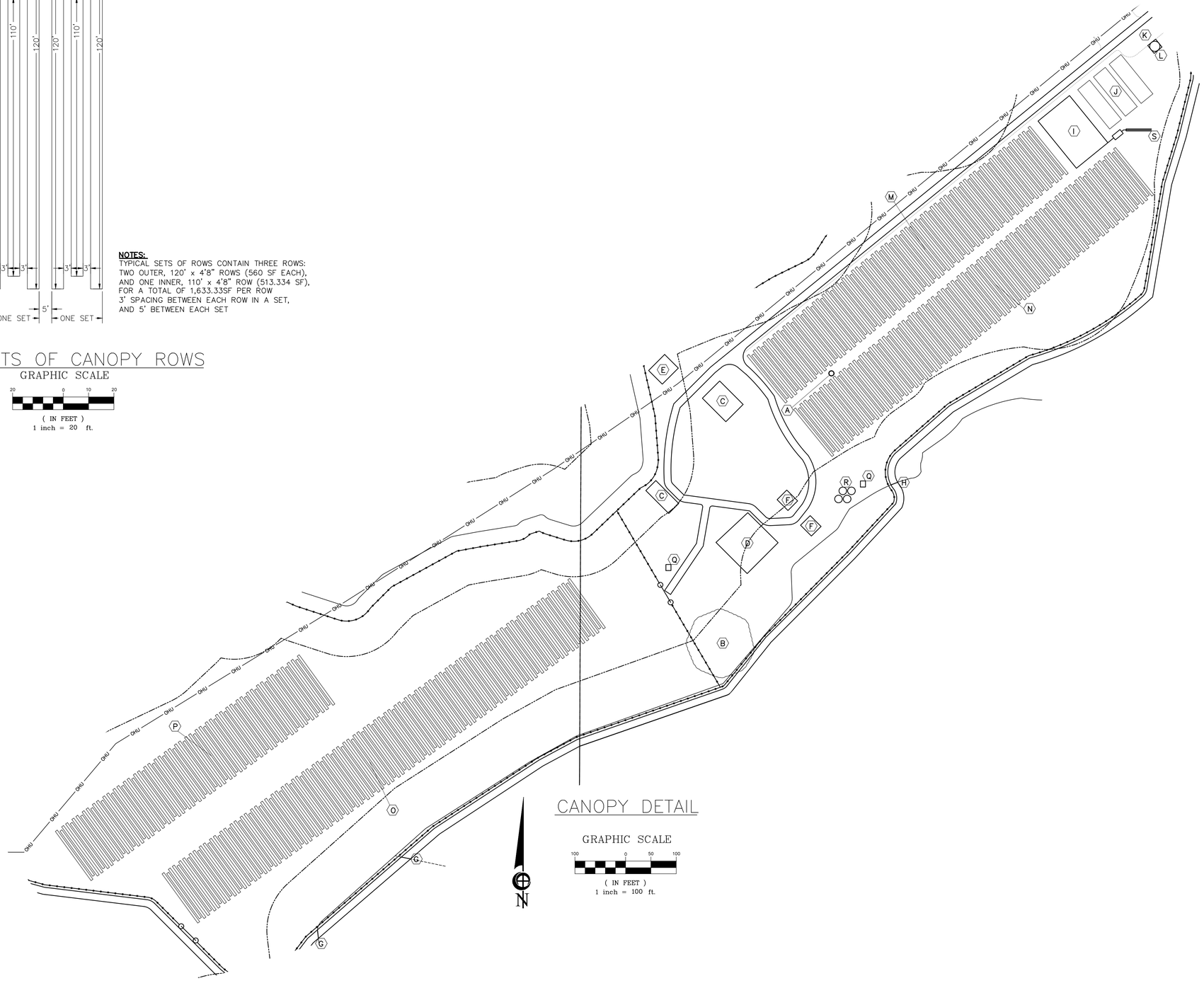
NOTES:
TYPICAL SETS OF ROWS CONTAIN THREE ROWS: TWO OUTER, 120' x 4'8" ROWS (560 SF EACH), AND ONE INNER, 110' x 4'8" ROW (513.334 SF), FOR A TOTAL OF 1,633.33SF PER ROW
3' SPACING BETWEEN EACH ROW IN A SET, AND 5' BETWEEN EACH SET

TYP. SETS OF CANOPY ROWS

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.



CANOPY DETAIL

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

N

LEGEND:

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	(E) GATE
	(E) FENCE
	(E) 14' GRAVEL DWY
	(E) CULVERT
OHU	(E) OVERHEAD UTILITY
	CLASS II WATERCOURSE
	CLASS III WATERCOURSE
	100' WATERCOURSE SETBACK
(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:
CONTOUR INTERVAL IS 5'

(A) (E) GROUNDWATER WELL
LAT: 39.07832°
LONG: -122.96637°

(B) HERITAGE OAK (PROTECTED)

(C) (E) RESIDENCE

(D) (E) 68'x76' 5,168SF METAL BARN

(E) (E) CHICKEN COOP

(F) (E) WOODEN SHED

(G) (E) TWO 18" CMP CULVERTS (FOUR TOTAL)

(H) (E) TWO 24" CMP CULVERTS

(I) (P) 120x'80' METAL PROCESSING BUILDING

(J) (P) THREE 100'x30' (3,000 SF) IMMATURE PLANT GREENHOUSES

(K) (P) FIRE DEPARTMENT TURNAROUND

(L) (P) 25,000 GALLON METAL FIRE WATER STORAGE TANK

(M) (P) 29 SETS OF CANOPY ROWS, 87 ROWS TOTAL (47,366.66 SF)

(N) (P) 33 SETS OF CANOPY ROWS, 99 ROWS TOTAL (53,899.99 SF)

(O) (P) 40 SETS OF CANOPY ROWS, 120 ROWS TOTAL (65,333.33 SF)

(P) (P) 24 SETS OF CANOPY ROWS, 72 ROWS TOTAL (39,199.99 SF)

TOTAL CANOPY: 205,799.99 SF

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(R) (P) FOUR 5,000 GALLON WATER STORAGE TANKS

(S) (P) SEPTIC TANK SYSTEM

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STATE OF CALIFORNIA

CANOPY
LAKE COCO HOLDINGS, LLC

APNs: 005-013-01 & 005-006-07
3417 & 3547 HENDRICKS ROAD
LAKEPORT, CA 95453

PLOTTED BY:

DATE PLOTTED: 05/15/2024

SCALE OF DRAWING: SEE PLAN

JOB NUMBER:

CADD FILE:

SHEET: 3

SECTION – G

SECURITY MANAGEMENT PLAN

Security Management Plan

Purpose and Overview

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots. Drip irrigation systems would be used to conserve water resources, and all water would come from an existing onsite groundwater well.

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 will be implemented at/by the proposed cultivation operation to prevent unauthorized access and theft or diversion of cannabis, a description of the proposed video surveillance system, and protocols that will be followed to ensure overall site security. This SMP is also designed to be compliant with the regulations for cannabis cultivation authored by the CDFA's CalCannabis Licensing program, as well as the regulations established by the California Bureau 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 Hendricks Road. The proposed cultivation areas and ancillary facilities will be accessed via private gravel roads off of the shared private gravel access road. Locking metal gates across the private gravel access roads will control access to the proposed cultivation operation. These gates will be closed and locked outside of core operating/business hours (8am to 6pm) and whenever managerial personnel are not present.

The fields where the proposed outdoor cultivation areas would be located, have been enclosed with galvanized woven wire fencing. Secured entry and access to the cultivation areas will be controlled via locking gates that will be locked whenever managerial personnel are not present. All gates will be secured with heavy duty chains and commercial grade padlocks. Only approved managerial staff will be able to unlock the gates of the cultivation operation.

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

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

Video Surveillance

LCH will use 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 will be equipped with motion sensing technology to activate the cameras when motion is detected, and all cameras (exterior and interior) will be waterproof. The CCTV system will feed into a Monitoring and Recording Station inside the proposed Processing Facility, where video from the CCTV systems will be digitally recorded. Video recordings will display the current date and time, and all recordings 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 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 and Security Shed Layout. Areas that will be covered by the CCTV system include:

- Entrances to the property and cultivation areas;
- Perimeter of the cultivation areas;
- Interior and exterior of all entryways and exits to the proposed Processing Facility and Harvest Storage Area; and
- Interior of each room of the proposed Processing Facility (including the room containing the Monitoring and Recording Station).

Diversion/Theft Prevention

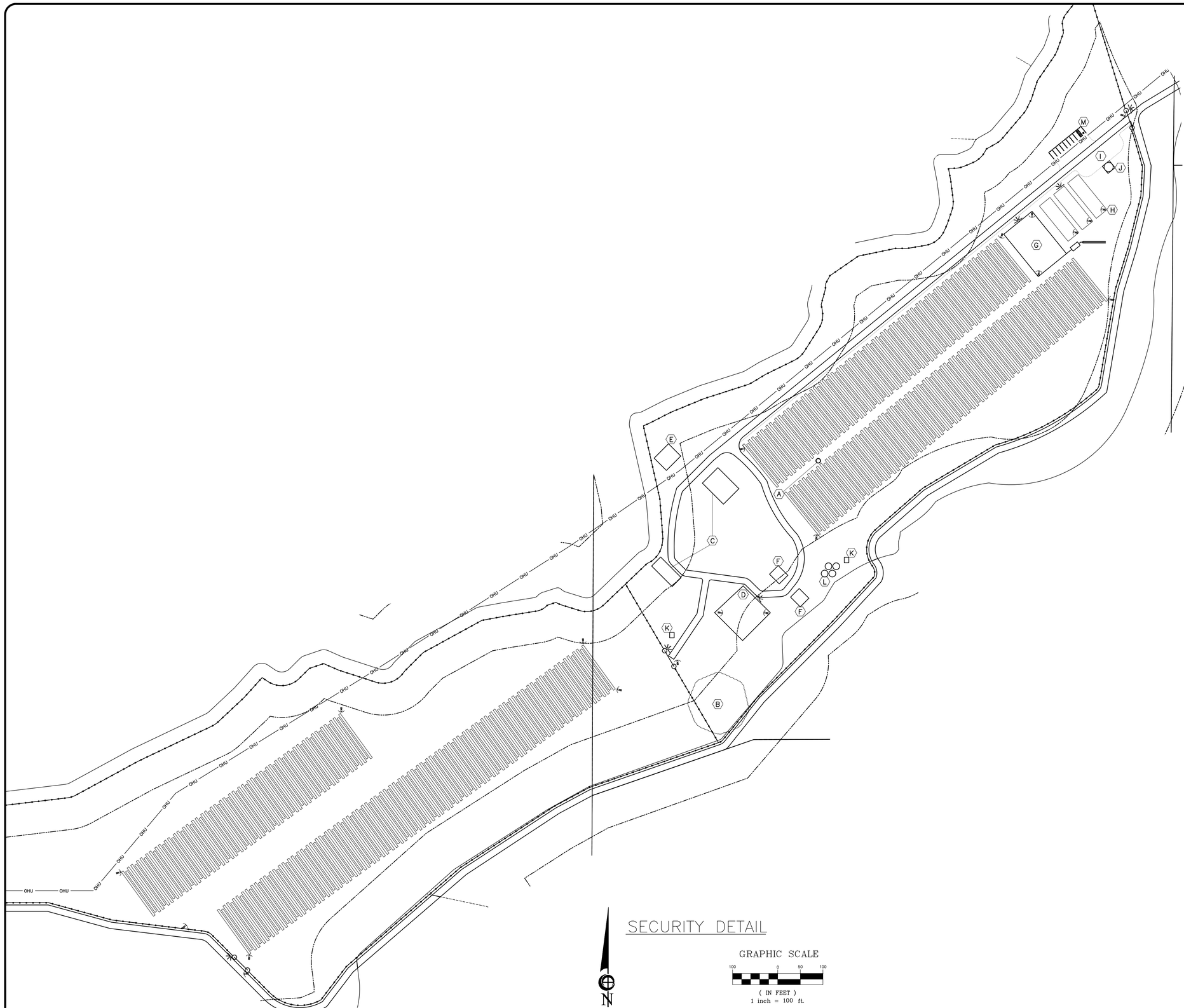
All personnel will be required to undergo a criminal background check with the Lake County Sheriff's Office. Visitors and personnel will be required to sign-in and sign-out each day, and record the areas in which they worked and the tasks they were assigned. Personnel will be required to store personal items (except for food, water, and drinks) in their vehicles throughout their shift.

LCH will adhere to the inventory tracking and recording requirements of the California Cannabis Track-and-Trace (CCTT) system. All personnel will be trained in the requirements of the CCTT system, and all cannabis transfers/movement will be reported through the CCTT system. At least one member of LCH's managerial staff will be a designated track-and-trace system administrator. A track-and-trace system administrator will supervise all tasks with high potential for diversion/theft, and will document which personnel took part in the task(s). In the event of any diversion/theft, law enforcement and the appropriate licensing authority will be notified within 24 hours of discovery.

Community Liaison and Emergency Contact

A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriff's Office at all times to address any needs or issues that may arise. 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 proposed cultivation operation is Mr. Juan Gamino. Mr. Gamino's cell phone number is (650) 444-0084, and his email address is gaminofamilyvineyards@gmail.com. The owners of all properties within 250 feet of the Project Property, will be provided with Mr. Gamino's contact information before cannabis cultivation begins.



SECURITY DETAIL

GRAPHIC SCALE

100 0 50 100

(IN FEET)
1 inch = 100 ft.

LEGEND:

	PROPERTY LINE
	ADJACENT PROPERTY LINE
	(E) GATE
	(E) FENCE
	(E) 14' GRAVEL DWY
	(E) CULVERT
OHU	(E) OVERHEAD UTILITY
	CLASS II WATERCOURSE
	CLASS III WATERCOURSE
	100' WATERCOURSE SETBACK
	(P) SECURITY CAMERA
	(P) SECURITY LIGHT
(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:

CONTOUR INTERVAL IS 5'

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LONG: -122.96637°

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(C) (E) RESIDENCE

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(J) (P) 25,000 GALLON METAL FIRE WATER STORAGE TANK

(K) (P) 10'x12' (120 SF) PEST AND & CHEMICAL STORAGE AREA

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PLANS PREPARED UNDER THE SUPERVISION OF:

REGISTERED PROFESSIONAL ENGINEER
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No. 67800
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STATE OF CALIFORNIA

SECURITY SITE PLAN

LAKE COCO HOLDINGS, LLC

APNs: 005-013-01 & 005-006-07
3417 & 3547 HENDRICKS ROAD
LAKEPORT, CA 95453

PLOTTED BY:	
DATE PLOTTED:	05/15/2024
SCALE OF DRAWING:	SEE PLAN
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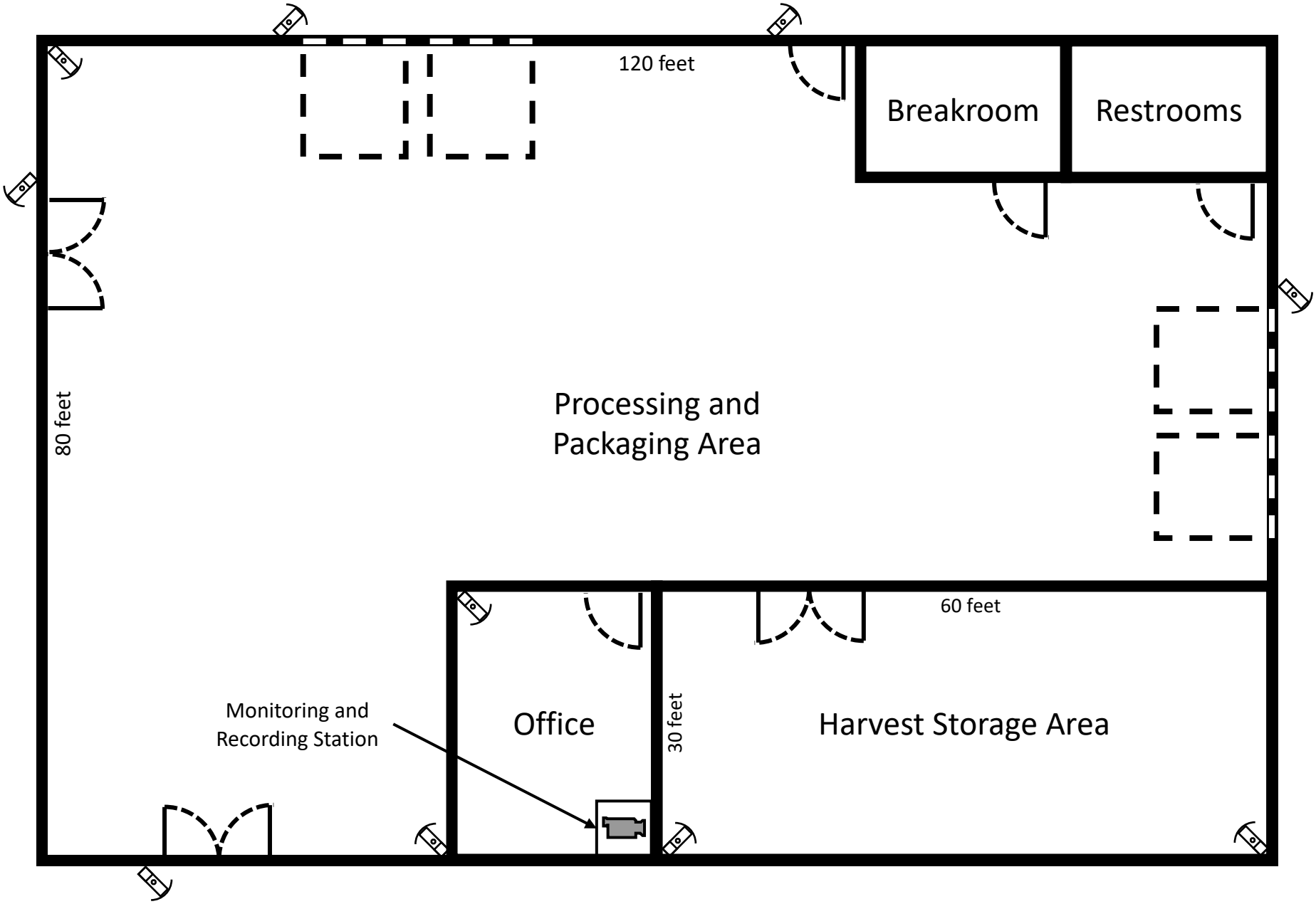
CADD FILE:	
SHEET:	5

PROPOSED PROCESSING FACILITY LAYOUT



SECTION – H

STORM WATER MANAGEMENT PLAN

Storm Water Management Plan

Purpose and Overview

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots. Drip irrigation systems would be used to conserve water resources, and all water would come from an existing onsite groundwater well.

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 20,000 ft^2, or approximately than 0.2% of the Project Property, through the construction/installation of a 9,600 ft^2 metal building, two 120 ft^2 wooden buildings, three 3,000 ft^2 greenhouses, a 25,000-gallon fire water storage tank, and four 5,000-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

Hendricks Creek, an intermittent Class II watercourse, flows from southwest to northeast through the Project Property. Multiple unnamed ephemeral Class III watercourses flow through the Project Property into Hendricks Creek. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody. There are three existing culverted ephemeral Class III watercourse crossing on the Project Property. All three watercourse crossings are on the shared private gravel access road used to access the Project Property and another property/residence immediately west of the Project Property. Two of the existing watercourse crossings are each composed of two 18" CMP culverts with native fill. The other existing watercourse crossing is composed of two 24" CMP culverts with native fill. All three watercourse crossings are functioning and in good condition, and no alterations are proposed to the shared private gravel access road or watercourse crossings.

Ground Disturbance and Grading

Soils of the Project Property are identified as the Maymen-Millsholm-Bressa complex, Maymen-Etsel-Snook complex, Still-Talmage complex and Still loam by the NRCS Web Soil Survey. The proposed cultivation areas and ancillary facilities would be located on soils identified as the Still-Talmage complex and Still loam, characterized as stratified gravelly clay loams with a parent material of alluvium and residuum weathered from sedimentary rock. The proposed cultivation operation will increase the impervious surface area of the Project Property by approximately 20,000 ft^2, or approximately than 0.2% of the Project Property, through the construction/installation of a 9,600 ft^2 metal building, two 120 ft^2 wooden buildings, three 3,000 ft^2 greenhouses, a 25,000-gallon fire water storage tank, and four 5,000-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. The field(s) in which the proposed cultivation/canopy areas and ancillary facilities would be constructed/established is completely flat. Therefore, minimal site preparation and grading would be needed to establish the proposed cultivation operation.

Erosion and Sediment Control Measures

Established vegetation within and around the proposed cultivation operation will be maintained/protected to the extent possible, as a permanent erosion and sediment control measure. The proposed structures and cultivation areas will be located more than 100 feet from the nearest surface water bodies, and stormwater runoff from the structures and cultivation areas will be discharged to the well-vegetated buffers surrounding the 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 Cannabis Cultivation Site Plans 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 Property has been enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (WQ-2019-0001-DWQ) since October 30th, 2020 (WDID: 5S17CC427238). Site Management and Nitrogen Management Plans will be developed for the proposed cultivation operation, and submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) for review, prior to planting. Each year, prior to March 1st, an Annual Monitoring Report 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 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 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 proposed cannabis cultivation operation would be limited to cannabis plant leaves and stems. All other parts of cannabis plants cultivated at this site 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 will be composted onsite.

Cannabis Waste Composting

All cannabis waste generated from the proposed cultivation operation will be composted on-site and in compliance with Title 14 of the California Code of Regulations at Division 7, Chapter 3.1. Cannabis waste will be ripped/shredded and placed in the designated composting areas. In the designated composting areas, cannabis waste 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 proposed cannabis cultivation operation will be identified, weighed, and tracked while onsite. All required information pertaining to cannabis waste will be entered into the State of California Cannabis Track-and-Trace (CCTT) system. LCH will maintain accurate and comprehensive records regarding cannabis waste generation that will account for, reconcile, and evidence all activity related to the generation or disposition of cannabis waste. All records will be kept on-site for seven (7) years and will be made available during inspections.

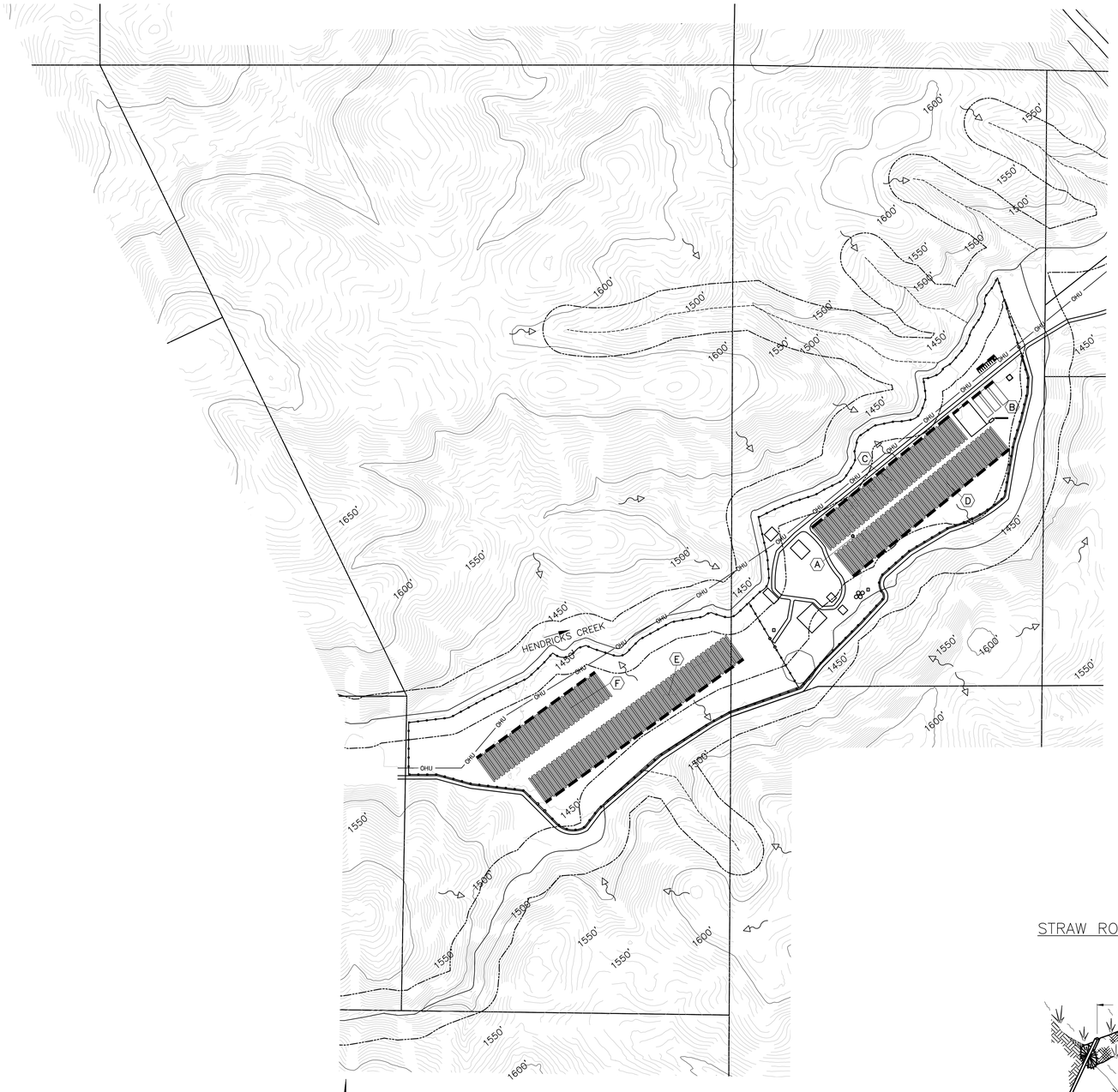
Growing Medium Management

Growing Medium Overview

The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture (composed mostly of composted forest material) in above ground garden beds and nursery pots. The organic soilless growing medium of each garden bed will be amended with compost, composted manure, worm castings, and vermiculite (only when needed to achieve the desired soil density), and reused annually. Only low salt fertilizers will be used, so that salts do not accumulate within the growing medium of the 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 would 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 AND SEDIMENT CONTROL PLAN

GRAPHIC SCALE

250 0 125 250

(IN FEET)
1 inch = 250 ft.

N

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- 1600' CONTOUR ELEVATION
- (E) GATE
- (E) FENCE
- (E) 14' GRAVEL DWY
- (E) CULVERT
- OHU (E) OVERHEAD UTILITY
- CLASS II WATERCOURSE
- CLASS III WATERCOURSE
- 100' WATERCOURSE SETBACK
- DRAINAGE PATTERNS
- STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)

(E)	EXISTING
(P)	PROPOSED
APPROX	APPROXIMATELY
DWY	DRIVEWAY
SF	SQUARE FEET
TYP	TYPICAL

NOTES:
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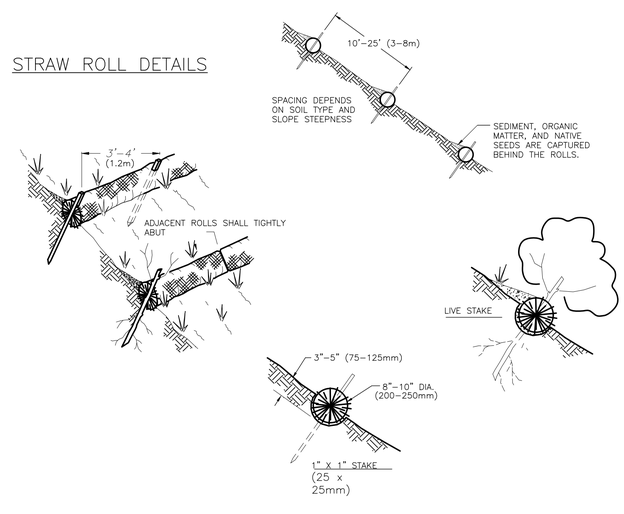
(F) (P) 24 SETS OF CANOPY ROWS, 72 ROWS TOTAL (39,199.99 SF)

TOTAL CANOPY: 205,799.99 SF

EROSION & SEDIMENT CONTROL NOTES:

1. CONTRACTOR IS TO IMPLEMENT BEST MANAGEMENT PRACTICES (BMPS) TO CONTROL EROSION CONTROL AND REDUCE THE OFF-SITE DISCHARGE OF SEDIMENT TO THE MAXIMUM EXTENT PRACTICABLE.
2. EROSION CONTROL BMPS SHALL BE IN PLACE AND MAINTAINED ALL YEAR ROUND.
3. HE CONTRACTOR SHALL FOLLOW THE GUIDELINES FROM THE "CALIFORNIA STORMWATER BMP HANDBOOK" FOR THE MEASURES SHOWN OR STATED ON THESE PLANS.
4. CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE QUALIFIED SWPPP PRACTITIONER (QSP).
6. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO ANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF LAKE COUNTY.
7. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
8. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
9. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE.
10. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR AS NECESSARY.
11. ANY LOOSE GROUND FROM EXCAVATING GRADING OPERATIONS SHALL BE SECURED PRIOR TO ANY RAIN EVENT. STRAW OR TARP ALL DISTURBED OR EXCAVATED GROUND.
12. CONTRACTOR SHALL PLACE GRAVEL BAGS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL BAGS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
13. AS A MINIMUM, ALL GRADED AREAS AND EXPOSED SOIL WITHIN THE PROJECT SHALL BE SEEDED PER THE REQUIREMENTS OF LAKE COUNTY.
14. DUST GENERATION MUST BE MINIMIZED AND A WATER TRUCK MUST BE AVAILABLE ON-SITE FOR ADEQUATE DUST CONTROL.

STRAW ROLL DETAILS



Revisions:

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

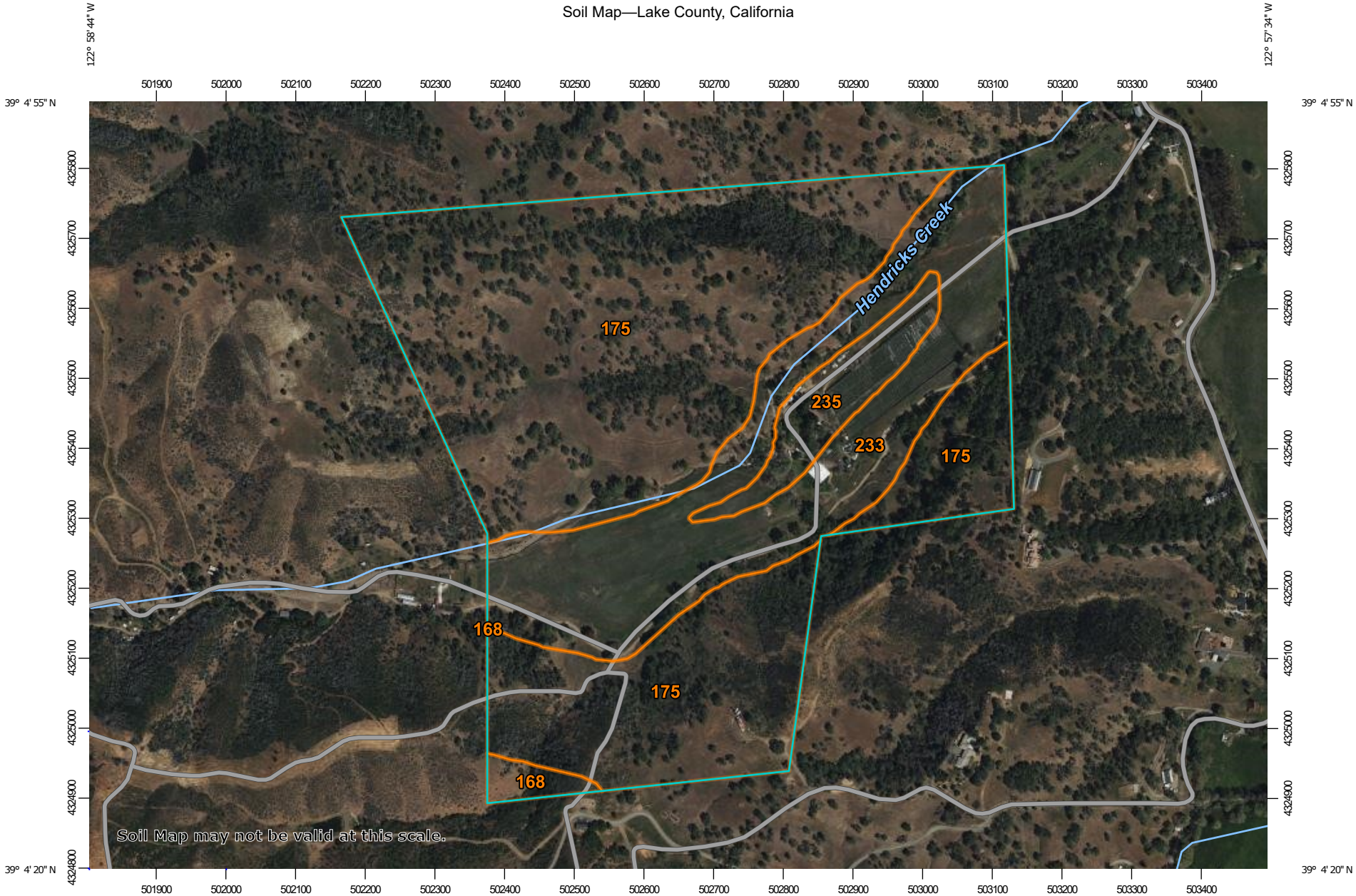
PLANS PREPARED UNDER THE SUPERVISION OF:

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

EROSION CONTROL
LAKE COCO HOLDINGS, LLC

APNs: 005-013-01 & 005-006-07
3417 & 3547 HENDRICKS ROAD
LAKEPORT, CA 95453

PLOTTED BY:	
DATE PLOTTED:	5/15/2024
SCALE OF DRAWING:	SEE PLAN
JOB NUMBER:	
CADD FILE:	
SHEET:	4



Map Scale: 1:7,730 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner 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

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

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 20, Aug 28, 2023

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

Date(s) aerial images were photographed: Apr 7, 2022—May 31, 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
168	Maymen-Etsel-Snook complex, 15 to 30 percent slopes	1.7	1.2%
175	Maymen-Millsholm-Bressa complex, 30 to 50 percent slopes	98.0	67.7%
233	Still loam, stratified substratum	37.8	26.2%
235	Still-Talmage complex, 2 to 8 percent slopes	7.1	4.9%
Totals for Area of Interest		**144.6**	**100.0%**

SECTION – I

WATER USE MANAGEMENT PLAN

Water Use Management Plan

Purpose and Overview

Lake Coco Holdings, LLC (LCH) is seeking a Major Use Permit from the County of Lake for a proposed commercial cannabis cultivation operation at 3417 & 3547 Hendricks Road near Lakeport, California on Lake County APNs 005-006-07 & 005-013-01 (Project Parcels/Property). The proposed commercial cannabis cultivation operation would be composed of five A-Type 3 "Medium Outdoor" Lake County License Types, with up to 205,800 ft^2 of combined cannabis canopy. Proposed ancillary facilities include a 9,600 ft^2 Processing Facility (proposed metal building), three 3,000 ft^2 immature plant areas (proposed greenhouses), two 120 ft^2 Pesticides & Agricultural Chemicals Storage Areas (proposed wooden sheds), a 25,000-gallon fire water storage tank, and four 5,000-gallon water storage tanks. Additionally, an existing onsite 5,168 ft^2 metal barn will be used as a Harvest Storage Area. The growing medium of the proposed outdoor cultivation areas would be an imported organic soil mixture in above ground garden beds and nursery pots. Drip irrigation systems would be used to conserve water resources, and all water would come from an existing onsite groundwater well.

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, Water Use Estimates, and a Water Availability Analysis.

Description of Water Resources

Surface Water

Hendricks Creek, an intermittent Class II watercourse, flows from southwest to northeast through the Project Property. Multiple unnamed ephemeral Class III watercourses flow through the Project Property into Hendricks Creek. No cannabis cultivation activities nor agricultural chemicals storage would occur within 100 feet of any surface waterbody. All water for the proposed cultivation operation will come from an existing onsite groundwater (no surface water diversions associated with the proposed cultivation operation).

Groundwater

Soils of the Project Property are identified as the Maymen-Millsholm-Bressa complex, Maymen-Etsel-Snook complex, Still-Talmage complex and Still loam by the NRCS Web Soil Survey. The proposed cultivation areas and ancillary facilities would be located on soils identified as the Still-

Talmage complex and Still loam, characterized as stratified gravelly clay loams with a parent material of alluvium and residuum weathered from sedimentary rock. The Geologic Map of California Ukiah Sheet identifies the area of the Project Property as alluvium and the Franciscan Formation. The Project Property is located along the western edge of the Scotts Valley Groundwater Basin as identified in the 2006 Lake County Groundwater Management Plan. The Scotts Valley Groundwater Basin contains three water-bearing formations: Quaternary Alluvium, Quaternary Lake and Floodplain Deposits, and Quaternary Terrace Deposits. The southern portion of Scotts Valley is underlain by deposits of silt and sand (Quaternary Alluvium), while the northern portion of Scotts Valley is underlain by deposits of clay (Quaternary Lake and Floodplain Deposits) over Quaternary Alluvium. Quaternary Terrace Deposits form the ridge that separates Scotts Valley from Clear Lake, and are the exposed foothills in the western and southern portions of the Scotts Valley Basin. The Quaternary Terrace Deposits also underlie the alluvium and lake deposits in Scotts Valley. According to the 2006 Lake County Groundwater Management Plan, groundwater levels in the basin seem to completely recover each wet season, and overall there does not appear to be any increasing, or decreasing trend in long term groundwater levels. The existing onsite groundwater well is located within Quaternary Alluvium.

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. Additionally, the proposed Processing Facility will have restroom facilities that discharge to a permitted septic system. Personnel will have access to the restroom facilities of the proposed Processing Facility at all times once construction of the building is completed.

The Project Property has been enrolled for coverage under the State Water Resources Control Board's (SWRCB) Cannabis General Order since October 30th, 2020 (WDID: 5S17CC427238). Site Management and Nitrogen Management Plans will be developed for the proposed cultivation operation, and submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) for review, prior to planting. Each year, prior to March 1st, an Annual Monitoring Report 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. LCH will maintain compliance with the Cannabis General Order for the protection of water resources for as long as the proposed cultivation operation is operating.

Water Sources, Storage, & Irrigation

All water for the proposed cultivation operation would come from an existing onsite groundwater well located at Latitude 39.07832° and Longitude -122.96637° on APN 005-013-01. This well was drilled in August of 1967, through multiple layers of clay and gravel to a depth of 52 feet below ground surface. This well was screened between 40 and 52 feet below ground surface and had an estimated yield of 120 gallons per minute at the time it was drilled (Water Well Drillers Report, attached).

Irrigation water for the proposed cultivation operation will be stored within four 5,000-gallon heavy-duty plastic water storage tanks. The water storage tanks 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 will be run from the water storage tanks to the irrigation systems of each proposed cultivation area. The water supply lines 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. LCH will maintain daily water meter reading 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 proposed canopy areas 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."

The proposed outdoor canopy areas are expected to have an annual water use requirement of 24 inches per year (2 acre-feet per acre per year). The total proposed combined outdoor canopy area is 205,800 ft^2 (~4.7 acres) with an estimated annual water use requirement of approximately 9.45 acre-feet (3,079,291 gallons). An additional 86,575 gallons per year would be needed for the proposed Processing Facility and immature plant areas/greenhouses. The cultivation season for the proposed cultivation operation would begin in April and end in November of each year, with immature plant cultivation occurring year-round. The following table presents the expected water use of the proposed cultivation operation by month in gallons:

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
7,215	7,215	7,215	177,772	309,682	441,592	573,502	573,502	573,502	309,682	177,772	7,215

Water Availability Analysis

All water for the proposed cultivation operation would come from an existing onsite groundwater well located at Latitude 39.07832° and Longitude -122.96637° on APN 005-013-01. The proposed cultivation operation has an estimated peak daily water use requirement of approximately 19,117 gallons, and an estimated average water demand of approximately 8,674 gallons per day. A Well Yield Test performed by Cramer Enterprises on April 2nd, 2020 (attached) indicates that the existing onsite groundwater well can produce 102 gallons per minute. At 102 gallons per minute, the onsite groundwater well could produce the maximum estimated daily demand for water of the proposed cultivation operation in less than 3 hours and 8 minutes. Additionally, LCH proposes to establish 20,000 gallons of water storage capacity on the Project Property for irrigation, which is more than the peak anticipated daily water demand of the proposed cultivation operation. As such, the existing onsite groundwater well is a sufficient water supply source for the proposed cannabis cultivation operation.

Monitoring and Reporting

Prior to cultivation, an inline water meter compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7 will be installed on the main irrigation water supply line running between the existing onsite groundwater well and the water storage tanks of the proposed cultivation operation. Prior to cultivation, a water level meter equipped with data logging capabilities, will be

installed on the existing onsite groundwater well. The Applicant will 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.

ORIGINAL
File Original, Duplicate and Triplicate with the
REGIONAL WATER POLLUTION
CONTROL BOARD No. 5
(Insert appropriate number)

WATER WELL DRILLERS REPORT

(Sections 7076, 7077, 7078, Water Code)

THE RESOURCES AGENCY OF CALIFORNIA

Do Not Fill In
Nº 107967

State Well No.
Other Well No. 14/10-10

(2) LOCATION OF WELL:

County LAKE Owner's number, if any—
R. F. D. or Street No. T14N, R10W, SEC 10
EAST OF MARSCHALL RANCH HOME

(3) TYPE OF WORK (check):

New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐
Cable ☒
Dug Well ☐

(6) CASING INSTALLED:

SINGLE ☒ DOUBLE ☐
From 0 ft. to 53 ft. 12 Diam. .188 Gage or Wall

If gravel packed

Diameter of Bore	from ft.	to ft.

Type and size of shoe or well ring 3/8 X 12
Size of gravel:
Describe joint BUTT WELD

(7) PERFORATIONS:

Type of perforator used FACTORY
Size of perforations 3 in., length, by 1/8 in.
From 40 ft. to 52 ft. 6 Perf. per row 4 Rows per ft.

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☐ Yes ☒ No To what depth ft.
Were any strata sealed against pollution? ☐ Yes ☐ No If yes, note depth of strata
From ft. to ft.
Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found 28 ft.
Standing level before perforating — ft.
Standing level after perforating 15 ft.

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom? BAIL TEST
Yield: 120 gal./min. with 2 ft. draw down after 1/2 hrs.
Temperature of water COLD Was a chemical analysis made? ☐ Yes ☒ No
Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:

Total depth 52 ft. Depth of completed well 52 ft.
Formation: *Describe by color, character, size of material, and structure.*

ft.	to ft.	
0	5	SOIL
5	24	BROWN CLAY / SOME ROCKS
24	28	SOFT BROWN CLAY
28	32	BROWN HARD PAN
32	38	BROWN CLAY
38	39	BROWN HARD PAN
39	52	CEMENTED GRAVEL

CONFIDENTAL LOG
Water Code Sec. 7080

Work started 8/14/67, Completed 8/14 1967

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME J.W. HUTTON (Person, firm, or corporation) (Typed or printed)
Address LAKEPORT

[SIGNED] J.W. Hutton
Well Driller
License No. 153912 Dated 8/15, 1967

87649 5-63 25M QUIN ① △ SPO DWR 188 (REV. 3-54)

DRINKING WATER SECTION

WELL YIELD TEST LOG

Name of PWS: Jolene Strange/Michael Sebour/ Lake Coco Holdings LLC

Well Name: Ag Well 3547 Hendricks Rd

Depth to Pump[1] (ft): 88

Static Water Level[1] (ft): 7

Date	Time	Elapsed Time (Hrs.;Min.)	Pumping Rate (gpm)	Water Level[1] (feet)	Drawdown[2] (feet)	Comments
04/02/20	13:15	1 min	102		7	Brown iron color
	13:16	1 min	102		9'	
	13:17	1 min	102		9.7	
	13:18	1 min	102		9.9	
	13:19	1 min	102		9.9	
	13:20	5 Min	102		9.9	
	13:25	5 min	102		9.9	Clearing
	13:30	5 min	102		10	
	13:35	5 min	102		10	Clear
	13:40	5 min	102		10	
	13:45	5 min	102		10	
	13:50	10 min	102		10	
	14:00	5 min	102		10	
	14:05	5 min	102		10	
	14:10	5 min	102		10	
	14:15	5 min	102		10	
	14:20	10 min	102		10	
	14:30	10 min	102		10	
	14:40	10 min	102		10	
	Recovered fully to 7' in 8 seconds					

[1] Measured from the established ground surface. [2] Water level minus static level.

Estimated well yield @ 102 GPM on this date 04/02/2020. Well yield subject to change at anytime