MORGAN VALLEY VENTURES, INC SILVER OAKS RANCH PROPERTY MANAGEMENT PLAN



Project Location

22800 Morgan Valley Road
Lower Lake, CA 95457

<u>Project Parcel</u> Lake County APN 012-069-600

<u>Project Property</u>
Lake County APNs 012-069-59, 012-069-60, & 012-010-82

TABLE OF CONTENTS

- A Project Description
- B Site Plans
- C Commercial Cannabis Cultivation Major Use Permit Application
- D Air Quality
- E Cultural Resources
- F Energy Usage
- G Fertilizer Usage
- H Fish and Wildlife Protection
- I Operations Manual
- J Pest Management
- K Security
- L Stormwater Management
- M Waste Management
- N Water Resources
- O Water Use
- P Site Photos

PROJECT DESCRIPTION

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

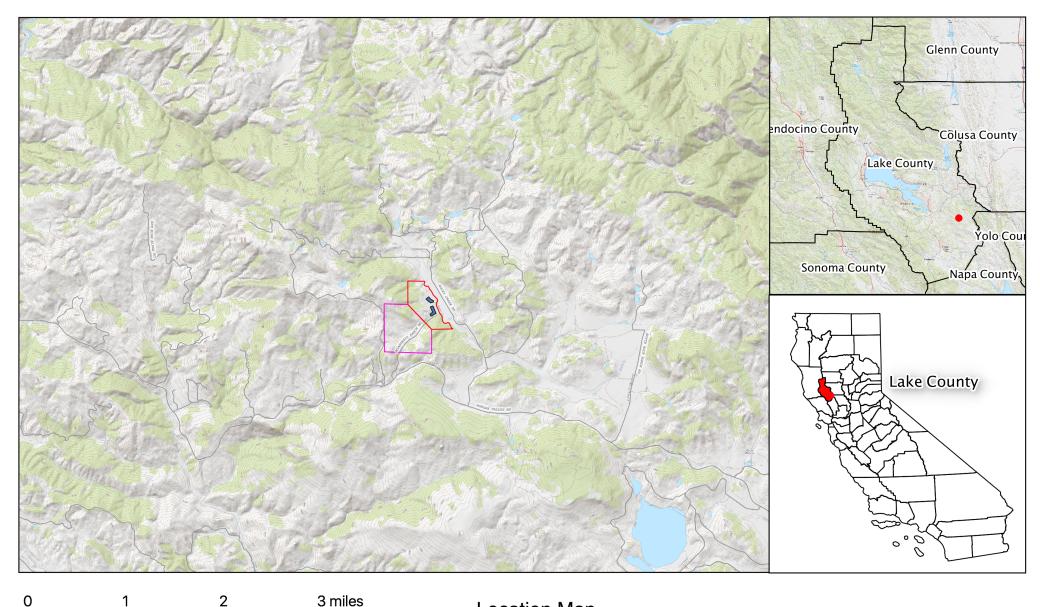
MMV is owned and operated by Bob Skalla and Chris Macleod. MVV leases the Project Property (Lake County APNs 012-010-82, 012-069-590 & 012-069-600) from CTM Venture Capital, LLC. CTM Venture Capital, LLC is owned and operated by Chris Macleod. The 279-acre Project Property currently contains a commercial cannabis cultivation operation with 91,000 ft² of total cultivation area and 83,000 ft² of total outdoor canopy area. The Project Parcel has been enrolled for coverage under the Central Valley Water Board's General Order for Cannabis Cultivation Activities since January 31st, 2017 (WDID 5A17MJ00010 and Enrollee Number R5-2015-0113-0576). The Project Property was enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. 2017-0023-DWQ) on June 8th, 2018 as a Tier 2 Low Risk discharger.

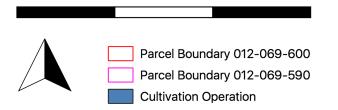
Current and past land uses for the area of the proposed commercial cannabis cultivation operation are/were intensive and extensive agriculture (including cannabis cultivation). The growing medium of the existing and proposed cultivation area(s) is/will be composed of an amended native soil mixture at or below grade, in full sun. 6-foot tall wire fences have been/will be erected around the existing/proposed cultivation area(s), with privacy mesh where necessary to screen the cultivation area(s) from public view. The existing/proposed cultivation operation utilizes/will utilize drip irrigation systems, to conserve water resources. Existing ancillary facilities include a pond/rain water catchment reservoir, two groundwater wells, a ground mounted photovoltaic solar array, a 3,000 ft² greenhouse, and a 5,000 ft² metal Processing Facility. There are also a wooden residence and shop on the Project Parcel that are not directly affiliated with the proposed cultivation operation.

MVV is seeking to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution, so that they may transport cannabis from their cultivation operation to licensed cannabis distribution and manufacturing facilities throughout California. MVV will utilize a specialty, unmarked, registered and insured vehicle for the transportation of cannabis from their cultivation operation. MVV's distribution vehicle will only travel from their property to the premises of licensed cannabis manufacturing and distribution facilities, and back. MVV will adhere to the reporting requirements of the California Cannabis Track-and-Trace system at all times, to record and report all cannabis transfers and movements.

SITE PLANS AND MAPS

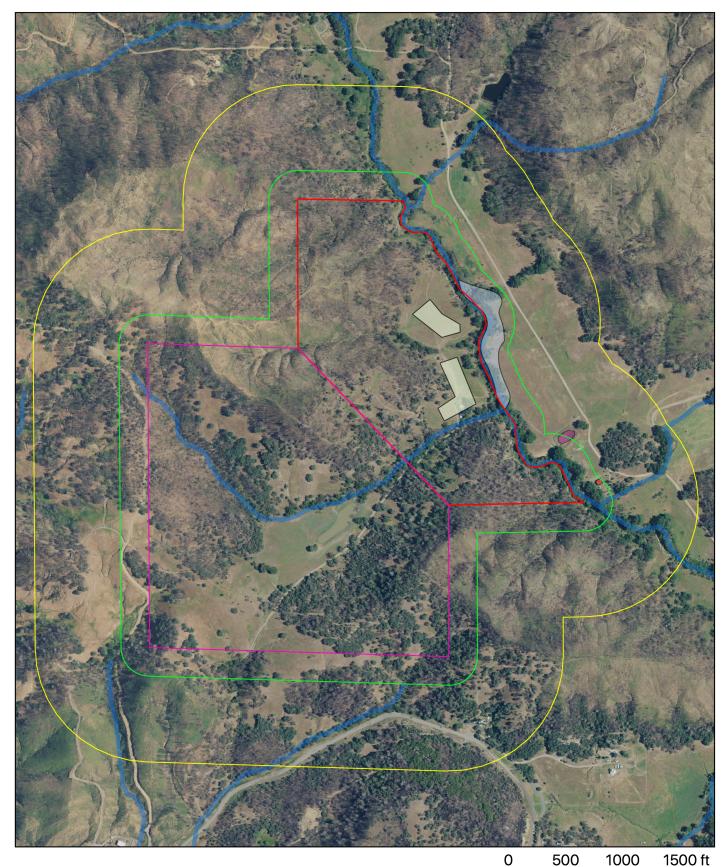
- Sheet 1 Location Map
- Sheet 2 Surrounding Area (Aerial Imagery) Map
- Sheet 3 Existing Conditions Site Plan
- Sheet 4 Proposed Conditions Site Plan
- Sheet 5 Cultivation Site Plan with Canopy
- Sheet 6 Security Site Plan
- Sheet 7 Erosion and Sediment Control Plan





Location Map

Morgan Valley Ventures, Inc. 22800 Morgan Valley Road, Lower Lake, CA 95457 Lot Size 79.13 Acres Lake County APNs 012-069-600 012-069-590 Parcel Boundary data - Lake County GIS Basemap - USGS Topo Counties - US Census Bureau Map Date 04/2018





Parcel Boundary 012-069-590

Cultivation Operation

250 ft Buffer

1000 ft Buffer

Building

Freshwater Forested/Shrub Wetland (National Wetlands Inventory)

Flowline

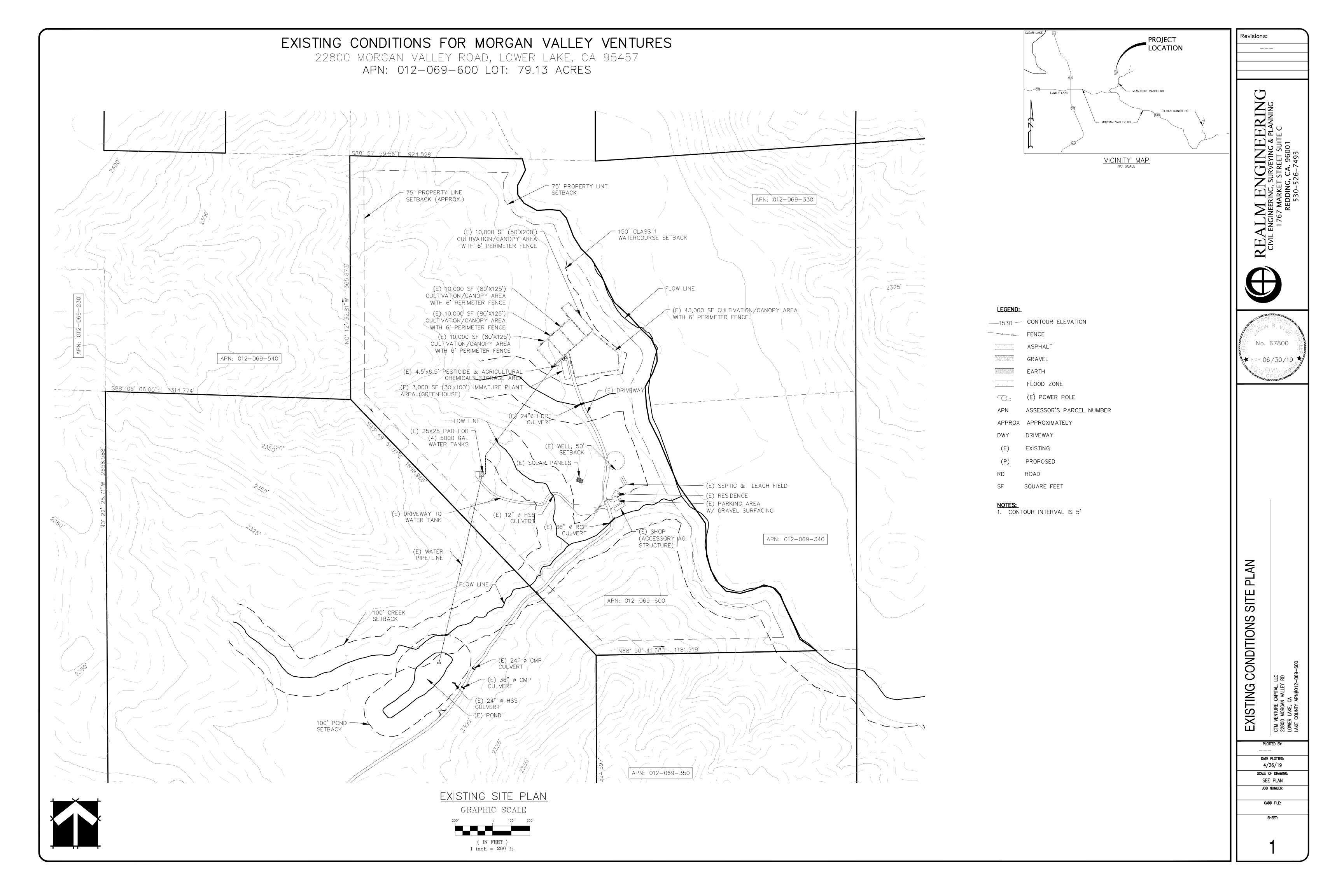
(National Wetlands Inventory)

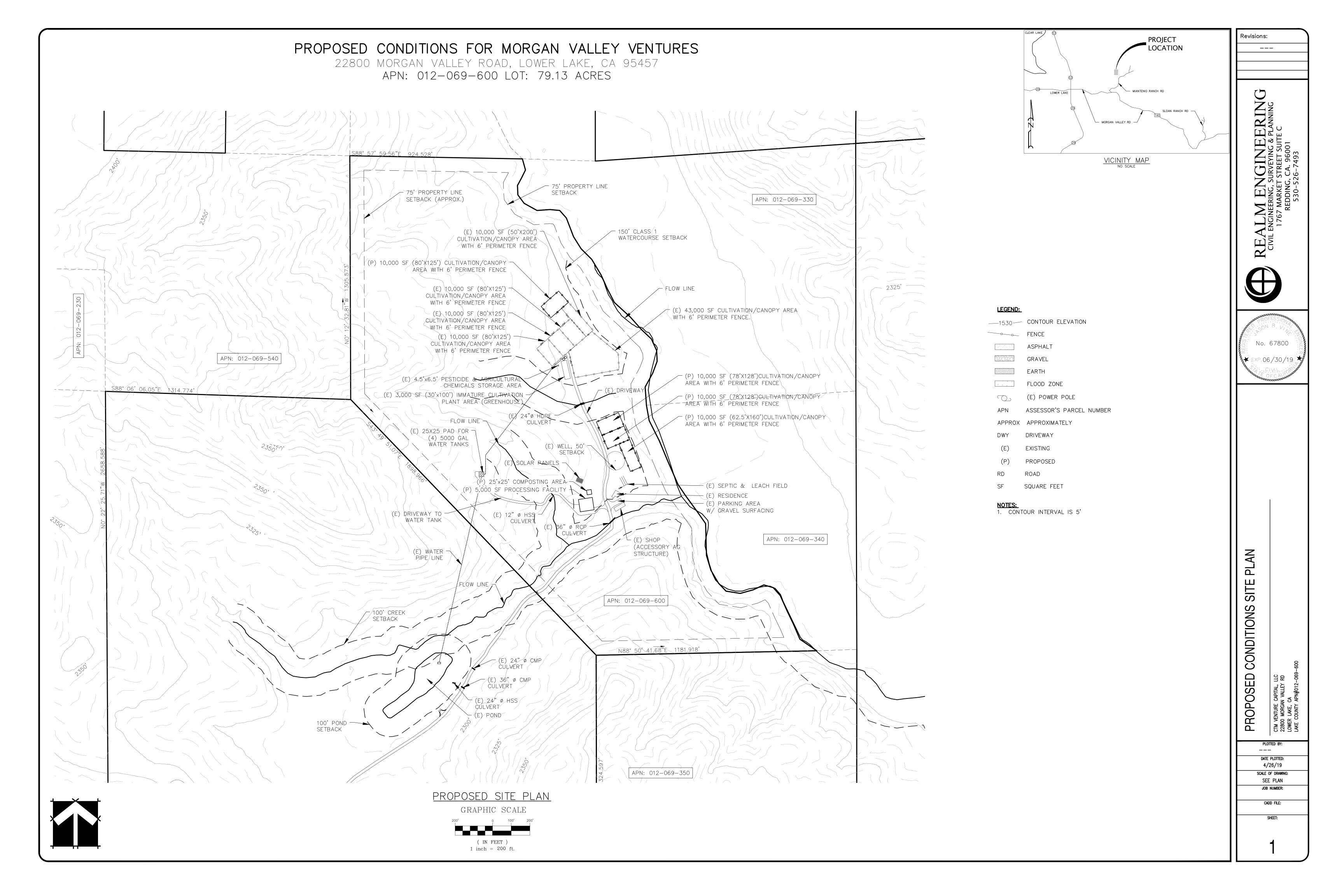
Waterbody
(National Hydrography Dataset)

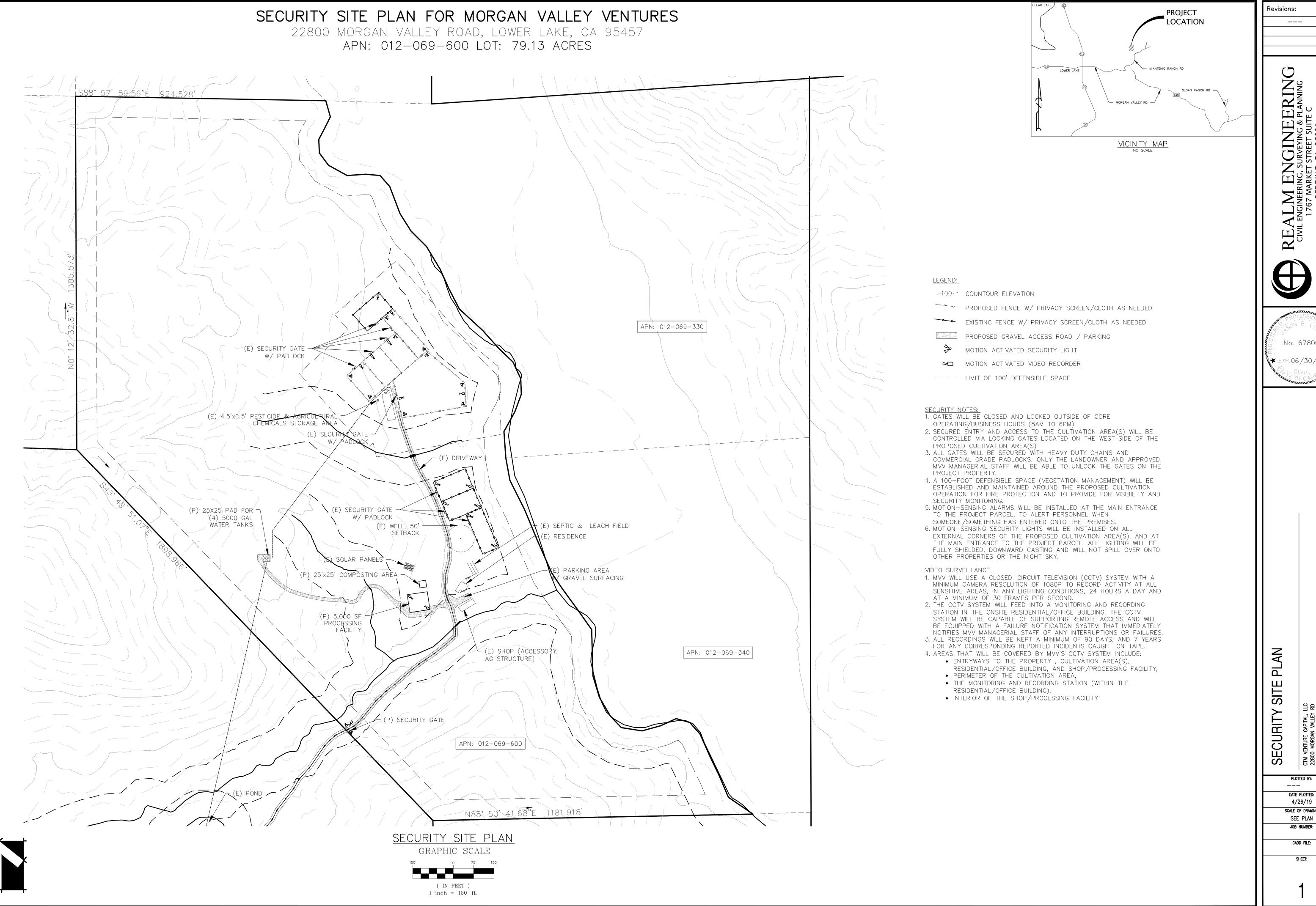
Surrounding Area Map

Morgan Valley Ventures, Inc. 22800 Morgan Valley Road, Lower Lake, CA 95457 Lake County APNs 012-069-600 012-069-590 Parcel Boundary data - Lake County GIS Imagery - USDA NAIP 2016 Digitized Building Footprint

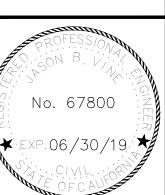
No Schools, parks, rehabilitation, child care, youth facilities, or churches within 1250 ft of parcels





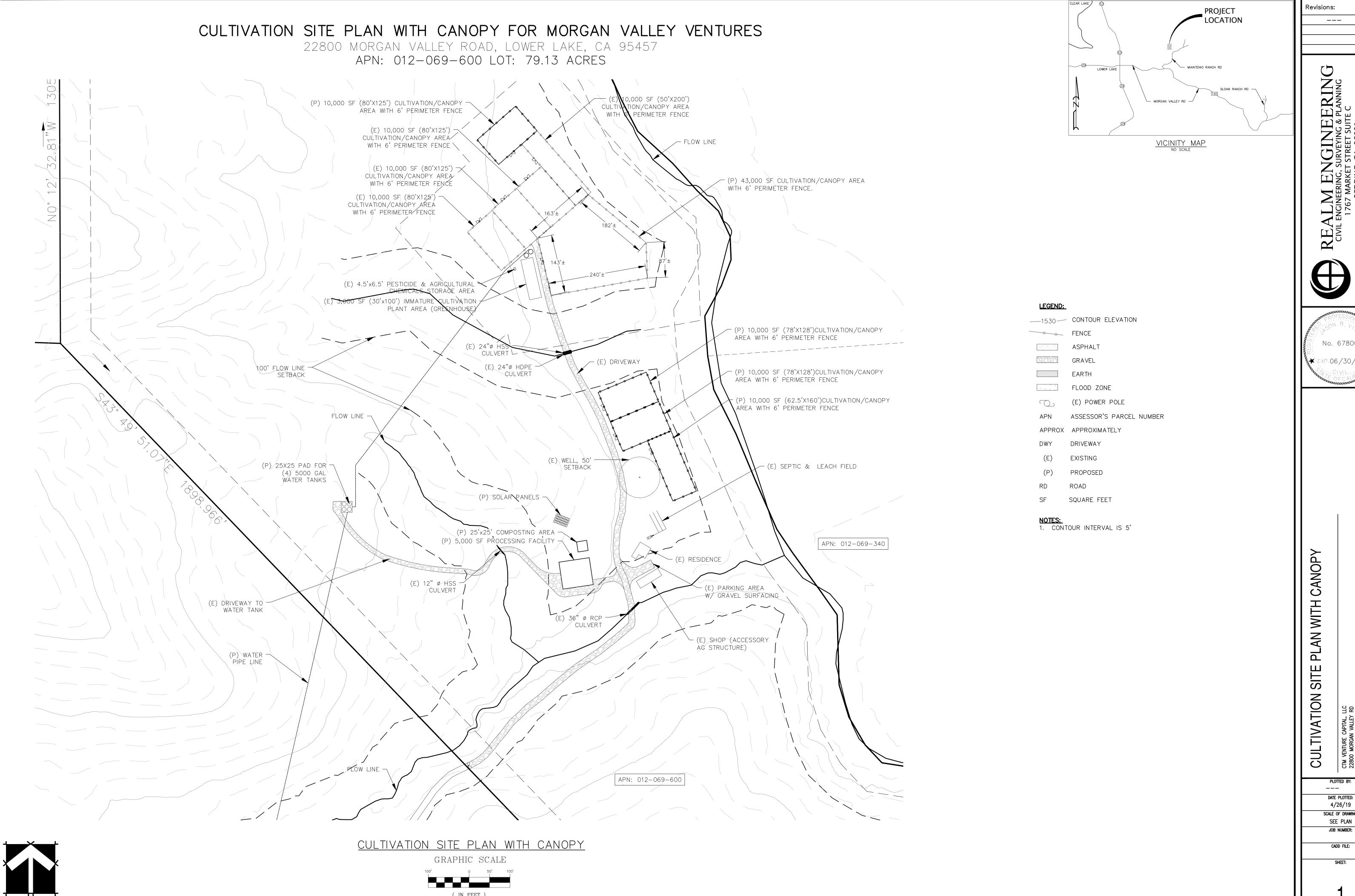






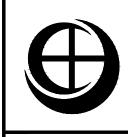
DATE PLOTTED: 4/26/19 SCALE OF DRAWING:

CADD FILE:



1 inch = 100 ft.

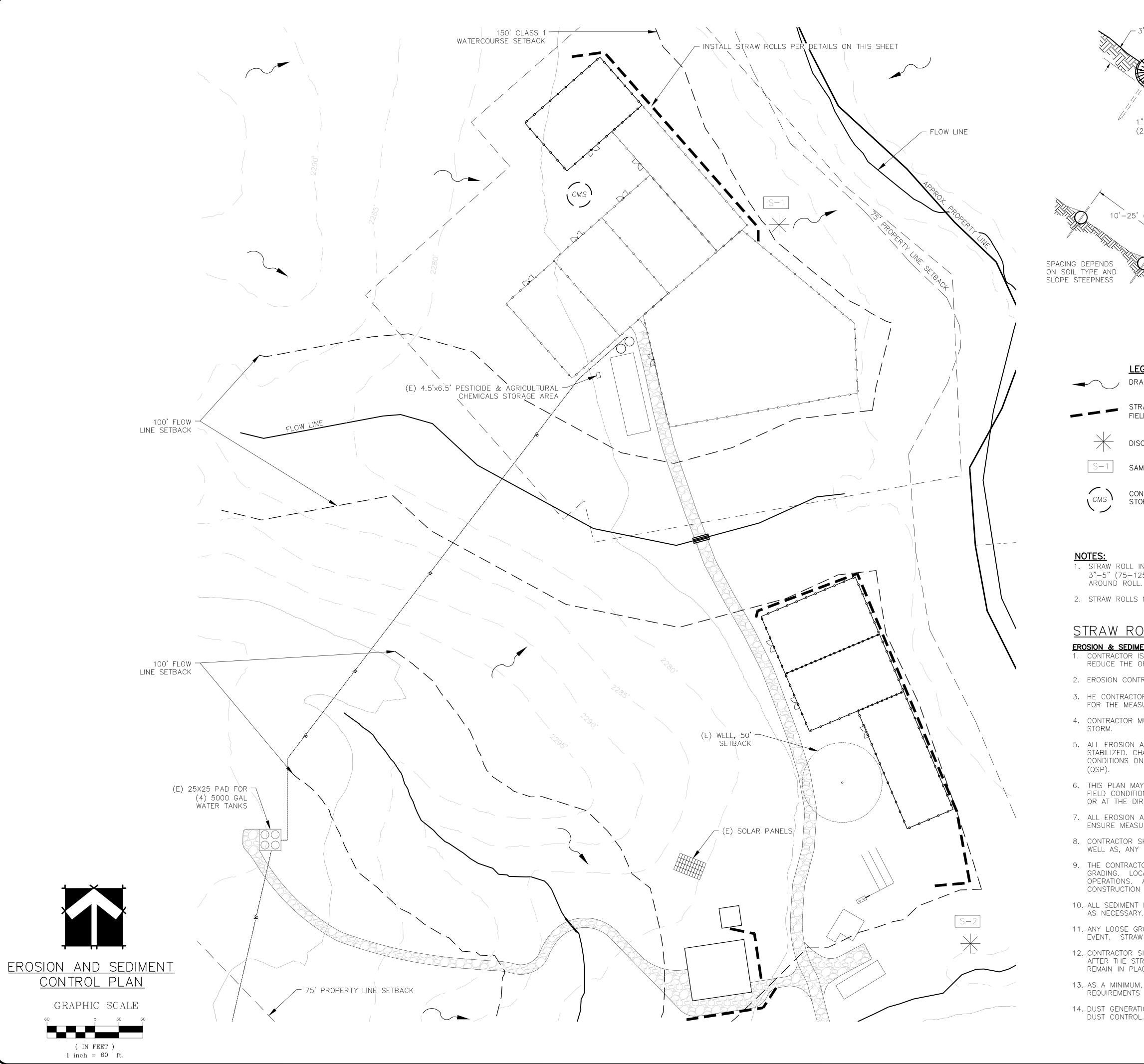
SURVEYING & PLANNING
- STREET SUITE C
-, CA. 96001
26-7493





DATE PLOTTED: 4/26/19 SCALE OF DRAWING:

CADD FILE:



__ 3"-5" (75-125mm) LIVE STAKE 1<u>" X 1" STAKE</u> (25 x 25mm) SEDIMENT, ORGANIC
MATTER, AND NATIVE
SEEDS ARE CAPTURED
BEHIND THE ROLLS.

<u>LEGEND</u>

DRAINAGE PATTERNS

STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)

DISCHARGE POINT

SAMPLING LOCATION

CONSTRUCTION MATERIALS STORAGE AREA

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

STRAW ROLL DETAILS

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
- 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
- 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
- 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.

Revisions:

CINERRING & PLANNING
STREET SUITE C
CA. 96001



No. 67800

PLAN CONTROL SEDIMENT S **EROSION AND**

DATE PLOTTED: 4/26/19 SCALE OF DRAWING: SEE PLAN

CADD FILE:

JOB NUMBER:



COUNTY OF LAKE COMMUNITY DEVELOPMENT DEPARTMENT PLANNING DIVISION

Courthouse - 255 N. Forbes Street Lakeport, California 95453 Phone (707) 263-2221 FAX (707) 263-2225

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

Project name: <u>Si</u>	lver Oa	.ks Ra	nch	
Assessors Parcel #:	012 _	069	_60	
	012 -	069	 - 59	

012 - 010 - 82

\$2,721.00
\$1,425.00
\$190.00
\$75.00
\$20.00
\$4,160.00
\$8,591.00
\$86.72
\$50.00
\$8,727.72

Zoning:	A-WW	&	RL-WW	

General Plan: A & RL

Receipt #____

Initial:

|--|

NAME: Bob Skall

MAILING ADDRESS: P.O. Box 402

CITY: Cobb

STATE: <u>C</u>A **ZIP:** 95426

PRIMARY PHONE: (____) 707-477-7606 **SECONDARY PHONE:** () 530-410-2868 EMAIL: bobbyskalla@gmail.com

PROPERTY OWNER (IF NOT APPLICANT)

NAME: CTM Venture Capital, LLC

MAILING ADDRESS: P.O. Box 1051

CITY: Calistoga

STATE: CA **ZIP:** 94515

PRIMARY PHONE: ()707-900-1099

SECONDARY PHONE: () EMAIL: ctmacleod@gmail.com

PROJECT LOCATION

22800 Morgan Valley Road

ADDRESS: Lower Lake, CA 95457

PRESENT USE OF LAND:

Rural Residential, Agriculture,

and Cannabis Cultivation

DESCRIPTION OF PROJECT:

Commercial Cannabis Cultivation

(Outdoor) and Distributor Transport

Only, Self Distribution

SURROUNDING LAND USES:

North: Zoning: A / Use: Residential (Single Family)

South: Zoning: RL / Use: Residential Zoning: A / Use: Residential

West: Zoning: APZ / Use: Residential (Multiple Family)

PARCEL SIZE(S):

Project Parcel: 79.1 Acres Existing: Project Property: 279 Acres Proposed:

Existing/Proposed Water Supply: Wells (existing) & Rainwater Catchment Reservoir

Existing/Proposed Sewage Disposal: Septic (existing)

Fire Protection District: South Lake County Fire Protection District

School District: Konocti Unified School District

(Resolution No. 2017-19, February 7, 2017)

At-Cost Project Reimbursement

I, Bob Skalla (Morgan Valley Ventures, Inc.), the undersigned, hereby authorize the County of Lake to process the above referenced permit request in accordance with the County of Lake Code. I am paying an initial fee of \$8,727.72 as an estimated cost for County staff review, coordination and processing costs related to my permit (Resolution No. 2017-19. February 7, 2017). In making this initial fee, I acknowledge and understand that the initial fee may only cover a portion of the total processing costs. Actual costs for staff time are based on hourly rates adopted by the Board of Supervisors in the most current County fee schedule. I also understand and agree that I am responsible for paying these costs even if the application is withdrawn or not approved.

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

- 1. Time spent by County of Lake staff in processing my application and any direct costs will be billed against the available initial fee. "Staff time" includes, but is not limited to, time spent reviewing application materials, site visits, responding by phone or correspondence to inquiries from the applicant, the applicant's representatives, neighbors and/or interested parties, attendance and participation at meetings and public hearings, preparation of staff reports and other correspondence, processing of any appeals, responding to public records act requests or responding to any legal challenges related to the application. "Staff" includes any employee of the Community Development Department.
- 2. If processing costs exceed the available initial fee, I will receive invoices payable within 30 days of billing.
- 3. As the owner of the project location, I have the authority to authorize and I hereby do authorize the County of Lake or authorized representative(s) to make inspections at any reasonable time as deemed necessary for the purpose of review and processing this application.
- 4. If I fail to pay any invoices within 30 days, the County will stop processing my permit application. All invoices must be paid in full prior to issuance of the applied for permit.
- 5. If the County determines that any study submitted by the applicant requires a County-contracted consultant peer review, I will pay the actual cost of the consultant review. This cost may vary depending on the complexity of the analysis. Selection of any consultant for a peer review shall be at the sole discretion of the Community Development Director or his designee.

- 6. I agree to pay the actual cost of any public notices for the project as required by State Law and the Lake County Zoning Ordinance.
- 7. I may, in writing, request a further breakdown or itemization of invoices, but such a request does not alter my obligation to pay any invoices in accordance with the terms of this agreement.
- 8. I agree to pay all costs related to permit condition compliance as specified in any conditions of approval for my permit/entitlement including compliance monitoring.
- 9. I agree not to alter the physical condition of the property during the processing of this application by removing trees, demolishing structures, altering streams, and/or grading or filling. I understand that such alteration of the property may result in the imposition of criminal, civil or administrative fines or penalties, or delay or denial of the project.
- 10. Applicant shall defend, indemnify and hold harmless the County and its agents, including consultants, officers and employees from any claim, action or proceeding against the County or its agents, including consultants, officers or employees to attack, set aside, void, or annul the approval of this application or adoption of the environmental document which accompanies it. This indemnification obligation shall include, but not be limited to, damages, costs, expenses, attorney's fees, or expert witness costs that may be asserted by any person or entity, including the applicant, arising out of or in connection with the approval of this application, including any claim for private attorney general fees claimed by or awarded to any party against the County, and shall also include the County's costs incurred in preparing the administrative record which are not paid by the petitioner. The County shall promptly notify the applicant of any claim, action or proceeding. Notwithstanding the foregoing, the County shall control the defense of any such claim, action or proceeding unless the settlement is approved by the applicant and that the applicant may act in its own stead as the real party in interest in any such claim, action or proceeding.
- 11. I have checked the current Hazardous Waste and Substances Sites List pursuant to Government Code Section 65962.5(f). www.envirostor.dtsc.ca.gov/public/ The proposed project site **is** \square or **is not** \square included on the most recent list.
- 12. I understand that pursuant to State Fish and Games Code Section 711.4, a filing fee is required for all projects processed with a Negative Declaration or Environmental Impact Report unless it has been determined by the California Department of Fish (CDFW) that the project will have no effect on fish and wildlife. The fees are collected by the County Community Development Department, Planning and Environmental review Division (PER) for payment to the State. I understand that I will be notified of the fee amount upon release of the environmental document for the project.

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

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

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

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

Ownership	Contract to Purchase*	Letter of Authorization*	Power of Attorney*
*Must Attach Eviden	ce		
Name of Property Owner or Fees:	Corporate Principal Responsible or	Appointed Designee for Payment of all	At-Cost Project Reimbursement
Bob Skalla			
(Please Print)			
Name of Company or Corpo	pration (if applicable):		
Morgan Valley V	Mentures, Inc.		
(Please Print)			
	list of the names and titles of Corporate office	responsible for paying processing feesers authorized to act on behalf of the Corporation Date:	n)
Email address: <u>bobbys</u>	skalla@gmail.com	Phone Number: (707) 4	//-/606
	t* Name	 Date	
Signature of Applicant		Date	-

(Resolution No. 2017-19, February 7, 2017)

Supplemental Data for Initial Study

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

Description of objective of project and its oper	rational characteristics:
Type of Business: Commercial Cannabis Cu	ultivation w/ Self-Distribution
Product or service provided: Sustainably g	rown organic cannabis
Hours of operation: 8 am to 6 pm	Daily April 1st - Days of operation: November 15th
Number of shifts (normal):	Number of shifts (peak): 3
Employees per shift (normal):4	Employees per shift (peak):10
Number of deliveries per day:Max 1	Number of customer per day: Max 1
Number of pick-ups per day: <u>Max 1</u>	Lot size: 79.13 Acres
Number and type of company Vehicles: 2 (Pick-up Truck and Secure Distribution Vehicle Floor area of existing structures: 11,000 sq. ft.	
Number of existing parking spaces: 7	Number of proposed parking spaces: 2
Number of floors: 1	
Additional relevant information: Morgan Val	ley Ventures (MVV) is a permitted an
licensed commercial cannabis cultivation	on company that is currently operating
in Lake County. This application is for Type 13 Cannabis Distributor Transport Self-Distribution will only allow MVV cultivation operation to licensed canna	Only, Self-Distribution. to transport cannabis from their

Description of site prep/construction activities

When do you anticipate starting construction?
July 2019
How long will construction take?
1 week
What days/times will construction occur?
8am to 6pm, Monday through Saturday
What type of construction equipment will be used?
Medium Tractor, pickup truck, and hand tools
How many truck/vehicle trips will be necessary for construction?
14 to 28
Will equipment be idling during construction?
No, periods of equipment use will be limited due to their high cost
to operate and the small scale of the proposed project.
Where will construction equipment be staged/stored?
Existing roads and work areas.
Will any trees or vegetation be removed? If yes, please provide type and amounts.
No trees will be removed. 40,000 sq. ft. of ruderal annual grasses/
grassland vegetation will be plowed to develop proposed cultivation

110	uu maaala ayaadiga is agatisigaatad ta aaguu agad uubaya?
но	w much grading is anticipated to occur and where?
_No	grading. Fields will be plowed.
Wi	ll soil be imported or exported to/from the site? If so from where and what amour
_N	0
ls t	renching required? If yes, please provide location, dimensions and cubic yards.
Y	es. Approximately 500 feet (18.5 cubic yards) of trenching for irrigati
	upply lines.
Но	w much water will be used for construction, operation and maintenance? What is
wa	ter source?
00 c	allons per day for construction of proposed cultivation area and ~9000
lons	per day for operation and maintenance of existing and proposed cultiv
lons	
lons	per day for operation and maintenance of existing and proposed cultiva
lons as. r qu	per day for operation and maintenance of existing and proposed cultivative Two groundwater wells and rainwater catchment reservoir.
r qu	per day for operation and maintenance of existing and proposed cultivative of the second cultiva
r qu De:	per day for operation and maintenance of existing and proposed cultivative two groundwater wells and rainwater catchment reservoir. estions and information needed for the Initial Study scribe how scenic views or vistas are impacted by the cultivation site.
r qu December 6-f	per day for operation and maintenance of existing and proposed cultivative of groundwater wells and rainwater catchment reservoir. estions and information needed for the Initial Study scribe how scenic views or vistas are impacted by the cultivation site. oot wire fences with privacy mesh will be erected around the proposed cultivation.
r qu December 1 are Wh	per day for operation and maintenance of existing and proposed cultivative groundwater wells and rainwater catchment reservoir. estions and information needed for the Initial Study scribe how scenic views or vistas are impacted by the cultivation site. oot wire fences with privacy mesh will be erected around the proposed cultivation.
r qu Decomposition 6-f are Wh	per day for operation and maintenance of existing and proposed cultivative groundwater wells and rainwater catchment reservoir. estions and information needed for the Initial Study scribe how scenic views or vistas are impacted by the cultivation site. oot wire fences with privacy mesh will be erected around the proposed cultivate a(s). nat lighting is proposed for the project? Will areas be lit at night?
r qu De. 6-f are Wh Mot	estions and information needed for the Initial Study scribe how scenic views or vistas are impacted by the cultivation site. cot wire fences with privacy mesh will be erected around the proposed cultivation. nat lighting is proposed for the project? Will areas be lit at night? ion-sensing security lights around proposed cultivation area(s).
Des def Mot All	restions and information needed for the Initial Study Scribe how scenic views or vistas are impacted by the cultivation site. Soot wire fences with privacy mesh will be erected around the proposed cultivation. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation site. The initial Study Scribe how scenic views or vistas are impacted by the cultivation

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

	No
	How will dust, ash, smoke, fumes or odors generated by the cultivation site be managed?
	Fugitive Dust - Water truck/soil moisture and seed, mulch, and/or cover bare soil
.01	r - carbon filters & fragrant flowering and herbs plants (plus Odor Response Progr
	Are there any water features (drainages, streams, creeks, lakes, rivers, vernal pools, wetlands, etc.) on-site or immediately adjacent to the project? If yes, will any work tak place in or near them?
	Yes. No work will take place within 100 feet of any surface water features
	except for access road/watercourse crossing maintenance.
	Will there be a loss of any wetland or streamside vegetation? If yes, describe where, total area, and type of vegetation lost. $$^{ m No}$$
	Describe and site or buildings have any archaeological or historical significance.
	No buildings or sites of archaeological or historical significance
	What are the slopes on the cultivation site?
	5% or less

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

Still loam on nearly flat land. Not susceptible to landslides, lateral spreading, subsidence, liquefaction, or collapse. Describe methods to be taken to reduce greenhouse gases. Existing cultivation operation uses a photovoltaic solar array as its primary power source. Will solid waste be produced? If yes, how will it be disposed of? Yes. Hauled to a Lake County Integrated Waste Management Facilty Will hazardous waste be produced? If yes, how will it be disposed of? No How will vegetative waste be managed? Onsite composting of vegetative cannabis waste. How will growth medium waste be managed? The amended native soil mixture (growth medium) will be analyzed, amended and reused each year/cultivation season. Will any material be taken to a landfill? If yes, which one and how much material is anticipated? Yes. It is estimated that approximately 600 pounds of waste from the existing/

proposed cultivation operation will be taken to Eastlake Landfill annually.

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

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

Do portions of the cultivation site periodically flood?

No

Describe the existing drainage natterns on the site and how they may be alternated and

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

Rocky Creek flows approximately 160 feet to the east of the proposed cultivation area and

two seasonal watercourses flow through the proposed cultivation operation. No watercourse will be altered as a result of the proposed cultivation operation.

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

Erosion and sediment control measures outlined in Erosion & Sediment Control Plan

(straw wattles, seeding, mulching, and generous riparian buffers).

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

Yes. Domestic wastewater from restrooms of Processing Facility. Will discharge to a permitted septic system designed to treat the anticipated volume of wastewater created by the existing/proposed cultivation operation.

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

The proposed cultivation operation will be located on an Agricultural zoned property.

Chapter 21, Article 27 of the Lake County Code allows commercial cannabis cultivation on Agricultural zoned properties.

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

Low levels of noise or vibration from a low noise, compact, and fuel efficient generator,

only to be used as a backup power supply for the photovoltaic solar array/battery bank.

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

Access road has a minimum unobstructed width of 14 feet, with multiple "pullouts" available

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

How is the site accessed?

Using a private gravel access road off of Morgan Valley Road, approximately 6.5 miles

east of Lower Lake, CA.

Describe the amount of traffic the project will generate.

12 to 16 vehicle trips per day during cultivation season (April 1 - November 15)

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

General road maintenance only (smoothing/shaping road surface and periodic applications of gravel).

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

The small increase in daily vehicle trips on Morgan Valley Road should not increase traffic hazards to motor vehicles, bicyclists, or pedestrians.

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

No.		

What sources of energy will be used?

Photovoltaic solar array with gasoline powered generator as a backup power supply.

Supplemental Data for Cannabis Cultivation

The legal business name of the applicant entity: Morgan Valley Ventures, Inc.

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

Four A-Type 2 "Small Outdoor" cultivation licenses in addition to MVV's currently cultivation licenses.

A list of all the types, including the license numbers of valid licenses, from the department and other cannabis licensing authorities that the applicant already holds: $\underline{\text{A-Type 3 "Medium Outdoor": TML18-0003098}}$

<u>A-Type 2 "Small Outdoor": TAL18-0005403, TAL18-0005406, TAL18-0010232</u> TAL18-0010244

DESIGNATED RESPONSIBLE PARTY

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

Full legal name: Robert Jeffrey Skalla

Title: Secretary

Mailing Address: 371 Lakeport Blvd., #400

City: Lakeport

State: California Zip: 95453

Primary contact phone number: (<u>707</u>) <u>477</u> - <u>7606</u>

Email address: bobbyskalla@gmail.com+

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

<u>AGENT</u>

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

Full legal name: _____

Mailing Address:

City: _____

State: _____ Zip: ____

Primary contact phone number: (_____) ____-

Email address: _____+

Owner

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

- (1) A person with an aggregate ownership interest of 20 percent or more in the person applying for a license or a licensee, unless the interest is solely a security, lien, or encumbrance.
- (2) The chief executive officer of a nonprofit or other entity.
- (3) A member of the board of directors of a nonprofit.
- (4) An individual who will be participating in the direction, control, or management of the person applying for a license.

Each individual owner named shall submit the following information:

Full legal name: Robert Jeffrey Skalla

Title: Chief Executive Officer

Mailing Address: 371 Lakeport Blvd., #400

City: Lakeport

State: California Zip: 95453

Primary contact phone number: (707) 477 - 7606

Email address: bobbyskalla@gmail.com +

Date ownership interest in the applicant entity was acquired: 08/30/2018

Percentage of the ownership interest held in the applicant entity by the owner: 15%

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

Cultivation "Medium Outdoor": TML18-0003098

Cultivation "Small Outdoor": TAL18-0005403, TAL18-0005406, TAL18-0010232

TAL18-0010244

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

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

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

Owner

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

- (1) A person with an aggregate ownership interest of 20 percent or more in the person applying for a license or a licensee, unless the interest is solely a security, lien, or encumbrance.
- (2) The chief executive officer of a nonprofit or other entity.
- (3) A member of the board of directors of a nonprofit.
- (4) An individual who will be participating in the direction, control, or management of the person applying for a license.

Each individual owner named shall submit the following information:

Full legal name: Christopher T. Macleod

Title: Chief Executive Officer

Mailing Address: 371 Lakeport Blvd., #400

City: Lakeport

State: California Zip: 95453

Primary contact phone number: (707) 900 - 1099

Email address: ctmacleod@gmail.com +

Date ownership interest in the applicant entity was acquired: 08/30/2018

Percentage of the ownership interest held in the applicant entity by the owner: 85%

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

Cultivation "Medium Outdoor": TML18-0003098

Cultivation "Small Outdoor": TAL18-0005403, TAL18-0005406, TAL18-0010232

TAL18-0010244

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

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

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

AIR QUALITY

- (a) Intent: All cannabis permittees shall not degrade the County's air quality as determined by the Lake County Air Quality Management District (LCAQMD).
- (b) In this section, permittees shall identify any equipment or activity that which may cause, or potentially cause the issuance of air contaminants including odors, and shall identify measures to be taken to reduce, control or eliminate the issuance of air contaminants, including odors.
- (c) All cannabis permittees shall obtain an Authority to Construct permit pursuant to LCAQMD Rules and Regulations, prior to the construction of the facility described in the Property Management Plan.
- (d) All cannabis permittees shall obtain Authority to Construct Permit pursuant to LCAQMD Rules and Regulations, if applicable, to operate any article, machine, equipment or other contrivance which causes or may cause the issuance of an air contaminant.
- (e) All permittees shall maintain an Authority to Construct or Permit to Operate for the life of the project, until the operation is closed and equipment is removed.
- (f) The applicant shall prepare an odor response program that includes (but is not limited to):
 - a. Designating an individual(s) who is/are responsible for responding to odor complaints 24 hours per day/seven (7) days a week, including holidays.
 - b. Providing property owners and residents of property within a 1,000 foot radius of the cannabis facility, with the contact information of the individual responsible for responding to odor complaints.
 - c. Policies and procedures describing the actions to be taken when an odor complaint is received, including the training provided to the responsible party on how to respond to an odor complaint.
 - d. The description of potential mitigation methods to be implemented for reducing odors, including add-on air pollution control equipment.
 - e. Contingency measures to mitigate/curtail odor and other emissions in the event the methods described above are inadequate to fully prevent offsite nuisance conditions.

Air Quality Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

<u>Equipment or Activities that May or Potentially Cause the Issuance of Air Contaminants</u>

Gasoline Powered Generator: MVV's existing/proposed cannabis cultivation operation is not be connected to the electrical grid. All power comes from a battery bank connected to a photovoltaic solar array (primary power source) with a gasoline powered generator backup. MVV uses a lightweight, low noise, compact, and fuel efficient Honda EU6500is Generator as their backup power source, to supply power when it is not available from the photovoltaic solar array/battery bank.

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...), a utility tractor (diesel engine), and from vehicular traffic associated with staff commuting and self-distribution activities. The generation of carbon dioxide is partially offset by the cultivation of plants, which remove carbon dioxide in the air for photosynthesis.

Fugitive Dust: The existing/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 will be controlled by wetting soils with a mobile water tank and hose, or by delaying ground disturbing activities until site conditions are not windy, and by eliminating soil stockpiles.

Odors: Cannabis cultivation can generate objectionable odors, particularly when the plants are mature/flowering. MVV plans to cultivate mostly "Autoflowering" cannabis plants (cannabis plants that switch from vegetative growth to the flowering stage with age, as opposed to being photoperiod dependent), and to implement a cyclical planting and harvesting schedule. Cyclical planting and harvesting with autoflowering cannabis plants means that only a portion of the entire cultivation area will be composed of mature/flowering cannabis plants at any given time, significantly reducing the volume of odors generated by the cultivation area as a whole. No significant odor impacts are anticipated from the proposed cultivation operation, due to cyclical flowering and harvesting, the limited population in the area, and the generous setbacks from public roads, property lines, and neighboring residences/outdoor activity areas. The ventilation system of the Processing Facility, in which the processing of raw cannabis plant material from the existing/proposed cultivation area(s) occurs, are equipped with carbon filters/air scrubbers to mitigate odors emanating from the building.

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. MVV will provide the name, cell phone number, and email address of the Community Liaison/Emergency Contact to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. MVV will encourage neighboring residents to contact the Community Liaison/Emergency Contact to resolve any operating problems before contacting County Officials/Staff.

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

Community Liaison/Emergency Contact Information

The Community Liaison/Emergency Contact for MVV's cultivation operation is Mr. Bob Skalla. Mr Skalla's cell phone number is (707) 477-7606, and his email address is bobbyskalla@gmail.com. There is one residence within 1,000 feet of the Project Parcel, at 10540 Rocky Creek Road, Lower Lake, CA 95457 (Lake County APN 012-069-340). This residence is located approximately 1,250 feet from the proposed cultivation operation and more than 1,500 feet from the proposed cultivation area(s).

SPECIALTY FILTRATION





Carbon Honeycomb (p. 4-5)

FP Gas Phase (p. 6-7)







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) diecut frame that will not crack, warp or distort under normal operating conditions.

BENEFITS

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

APPLICATIONS

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

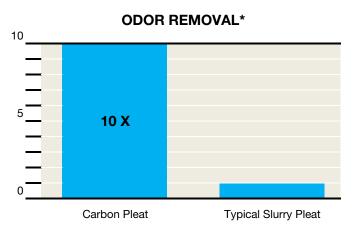
These filters are well suited for use in air make-up systems and re-circulation applications in office buildings, hospitals, airports, food courts and manufacturing facilities.

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

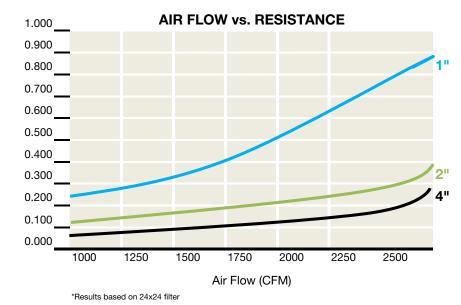


CARBON PLEAT

ODOR REMOVAL



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



DIMENSIONS & PART #S

Nominal Size (in.)						
H W D ("w.g.)				Initial	Initial	
H W D ("w.g.) ("w.g.) ("w.g.) 10 10 10 1 1 0.23 0.63 68915 112 12 1 1 0.23 0.63 68911 112 24 1 0.23 0.63 68910 114 20 1 0.23 0.63 68907 114 24 1 0.23 0.63 68905 114 25 1 0.23 0.63 68905 114 25 1 0.23 0.63 68900 115 20 1 0.23 0.63 68900 116 16 1 0.23 0.63 68900 116 20 1 0.23 0.63 68900 116 20 1 0.23 0.63 68900 116 20 1 0.23 0.63 68990 116 24 1 0.23 0.63 68990 118 20 1 0.23 0.63 68991 118 24 1 0.23 0.63 68991 118 24 1 0.23 0.63 68991 118 24 1 0.23 0.63 68991 118 24 1 0.23 0.63 68991 118 24 1 0.23 0.63 68991 118 25 1 0.23 0.63 68991 118 26 1 0.23 0.63 68891 118 27 0 0.23 0.63 68891 118 28 1 0.23 0.63 68891 118 29 0 1 0.23 0.63 68891 118 20 1 0.23 0.63 68891 118 20 1 0.23 0.63 68891 118 24 1 0.23 0.63 68891 118 25 1 0.23 0.63 68891 118 26 1 0.23 0.63 68886 118 27 0 0.23 0.63 68886 118 29 0 0 0.23 0.63 68887 118 20 0 0.23 0.63 68886 118 20 0 0.23 0.63 68887 118 25 0 0.23 0.63 68886 118 26 0 0.23 0.63 68887 118 27 0.23 0.63 68886 118 29 0 0.23 0.63 68886 118 20 0 0.23 0.63 68886 118 20 0 0.23 0.63 68887 118 25 0 0.23 0.63 68887 118 26 0 0.23 0.63 68887 118 27 0 0.23 0.63 68886 118 28 0 0.3 0.3 0.3 68876 118 0 0.3 0.3 0.3 0.3 68876 118 0 0.3 0.3 0.3 0.3 68876 118 0 0.3 0.3 0.3 0.3 68876 118 0 0 0.3 0.3 0.3 68876 118 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Nom	inal Siz	e (in.)			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 6B910 14 20 1 0.23 0.63 6B907 14 24 1 0.23 0.63 6B907 14 24 1 0.23 0.63 6B907 14 25 1 0.23 0.63 6B905 14 25 1 0.23 0.63 6B902 16 16 1 0.23 0.63 6B902 16 20 1 0.23 0.63 6B890 16 24 1 0.23 0.63 6B896 16 25 1 0.23 0.63 6B891 18 20 1 0.23 0.63 6B891						Grainger ii
10 20 1 0.23 0.63 6B914 12 12 1 0.23 0.63 6B912 12 20 1 0.23 0.63 6B910 14 24 1 0.23 0.63 6B907 14 24 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 6B892 16 20 1 0.23 0.63 6B899 16 24 1 0.23 0.63 6B896 16 25 1 0.23 0.63 6B896 18 25 1 0.23 0.63 6B891 18 24 1 0.23 0.63 6B887	Н	W	D			
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 6B899 16 24 1 0.23 0.63 6B896 16 25 1 0.23 0.63 6B896 18 24 1 0.23 0.63 6B891 18 24 1 0.23 0.63 6B887	10	10	1	0.23	0.63	6B915
12 20 1 0.23 0.63 6B910 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 6B890 16 24 1 0.23 0.63 6B899 16 24 1 0.23 0.63 6B896 16 25 1 0.23 0.63 6B891 18 20 1 0.23 0.63 6B891 18 24 1 0.23 0.63 6B887 20 20 1 0.23 0.63 6B886	10	20	1	0.23	0.63	6B914
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 6B902 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 6B896 16 25 1 0.23 0.63 6B891 18 20 1 0.23 0.63 6B891 18 24 1 0.23 0.63 6B891 18 25 1 0.23 0.63 6B886 20 20 1 0.23 0.63 6B886	12	12	1	0.23	0.63	6B912
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 6B896 16 25 1 0.23 0.63 6B891 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	12	20	1	0.23	0.63	6B911
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 6B896 18 20 1 0.23 0.63 6B891 18 24 1 0.23 0.63 6B891 18 25 1 0.23 0.63 6B890 18 25 1 0.23 0.63 6B886 20 20 1 0.23 0.63 6B886 20 24 1 0.23 0.63 6B883 20 25 1 0.23 0.63 6B876	12	24	1	0.23	0.63	6B910
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 6B896 18 20 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 6B870 20 20 1 0.23 0.63 6B887 20 24 1 0.23 0.63 6B880 22 22 1 0.23 0.63 6B877 24 24 1 0.23 0.63 6B877	14	20	1	0.23	0.63	6B907
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 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 6B876 22 22 1 0.23 0.63 6B876 25 25 1 0.23 0.63 6B876	14	24	1	0.23	0.63	6B905
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 6B886 20 24 1 0.23 0.63 6B883 20 25 1 0.23 0.63 6B880 22 22 1 0.23 0.63 6B876 25 25 1 0.23 0.63 6B873 10 20 2 0.13 0.34 6B913	14	25	1	0.23	0.63	
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 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	15	20	1		0.63	6B902
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 6B873 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 6B903 14 25 2 0.13 0.34 6B903	16	16	1	0.23	0.63	6B900
16 25 1 0.23 0.63 6B894 18 20 1 0.23 0.63 6B890 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 6B876 25 25 1 0.23 0.63 6B873 10 20 2 0.13 0.34 6B903	16	20	1	0.23	0.63	6B899
18 20 1 0.23 0.63 6B890 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 6B876 25 25 1 0.23 0.63 6B873 10 20 2 0.13 0.34 6B901	16	24	1	0.23	0.63	6B896
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 6B870 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 6B903 14 20 2 0.13 0.34 6B909 14 25 2 0.13 0.34 6B903 15 20 2 0.13 0.34 6B903 16 24 2 0.13 0.34 6B898	16	25	1	0.23	0.63	6B894
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 6B870 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 6B909 14 25 2 0.13 0.34 6B903 15 20 2 0.13 0.34 6B903 16 24 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898	18	20	1	0.23	0.63	6B891
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 6B909 14 25 2 0.13 0.34 6B903 15 20 2 0.13 0.34 6B903 16 20 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898 16 25 2 0.13 0.34 6B893	18	24	1	0.23	0.63	6B890
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 6B909 14 25 2 0.13 0.34 6B903 15 20 2 0.13 0.34 6B903 16 20 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898 16 25 2 0.13 0.34 6B893 18 24 2 0.13 0.34 6B889	18	25	1	0.23	0.63	6B887
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 6B906 14 25 2 0.13 0.34 6B903 15 20 2 0.13 0.34 6B903 16 20 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898 18 24 2 0.13 0.34 6B893 18 24 2 0.13 0.34 6B889	20	20	1	0.23	0.63	6B886
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 6B903 16 20 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898 16 25 2 0.13 0.34 6B895 16 25 2 0.13 0.34 6B895 20 20 2 0.13 0.34 6B893 20 20 2 0.13 0.34 6B889	20	24	1	0.23	0.63	6B883
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 6B898 16 25 2 0.13 0.34 6B895 16 25 2 0.13 0.34 6B893 18 24 2 0.13 0.34 6B893 20 20 2 0.13 0.34 6B889 20 24 2 0.13 0.34 6B885	20	25	1	0.23	0.63	6B880
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 6B903 16 20 2 0.13 0.34 6B898 16 24 2 0.13 0.34 6B898 16 25 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 6B889 20 24 2 0.13 0.34 6B885 20 24 2 0.13 0.34 6B882	22	22	1	0.23	0.63	6B877
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 6B895 16 25 2 0.13 0.34 6B893 18 24 2 0.13 0.34 6B889 20 20 2 0.13 0.34 6B889 20 24 2 0.13 0.34 6B885 20 24 2 0.13 0.34 6B882 20 25 2 0.13 0.34 6B872	24	24	1	0.23	0.63	6B876
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 6B889 20 24 2 0.13 0.34 6B889 20 24 2 0.13 0.34 6B882 20 25 2 0.13 0.34 6B882 20 25 2 0.13 0.34 6B879 24 25 2 0.13 0.34 6B875	25	25	1	0.23	0.63	6B873
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 6B889 20 24 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 6B898	10	20	2	0.13	0.34	6B913
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 6B879 24 25 2 0.13 0.34 6B875 25 25 2 0.13 0.34 6B875 12 24 4 0.07 0.23 6B908 16 25 4 0.07 0.23 6B892	12	24	2	0.13	0.34	6B909
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 6B879 24 25 2 0.13 0.34 6B875 25 25 2 0.13 0.34 6B875 12 24 4 0.07 0.23 6B908 16 25 4 0.07 0.23 6B892 20 20 4 0.07 0.23 6B884	14	20	2	0.13	0.34	6B906
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 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	14	25	2	0.13	0.34	6B903
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 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	15	20	2	0.13	0.34	6B901
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	16	20	2	0.13	0.34	6B898
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	16	24	2	0.13	0.34	6B895
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	16	25	2	0.13	0.34	6B893
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	18	24	2	0.13	0.34	6B889
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	20	20		0.13	0.34	6B885
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			2			
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	20	25	2	0.13	0.34	6B879
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	25	2	0.13	0.34	6B875
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	25	25	2	0.13	0.34	6B872
20 20 4 0.07 0.23 6B884 20 24 4 0.07 0.23 6B881 20 25 4 0.07 0.23 6B878	12	24	4	0.07	0.23	6B908
20 24 4 0.07 0.23 6B881 20 25 4 0.07 0.23 6B878	16	25	4	0.07	0.23	6B892
20 25 4 0.07 0.23 6B878	20	20	4	0.07	0.23	6B884
	20	24	4	0.07	0.23	6B881
24 24 4 0.07 0.23 6B874	20	25	4	0.07	0.23	6B878
0.07	24	24	4	0.07	0.23	6B874

Resistance (in. H20)

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" prefilter 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.

CARBON HONEYCOMB

ODORS REMOVED

Cooking Odors

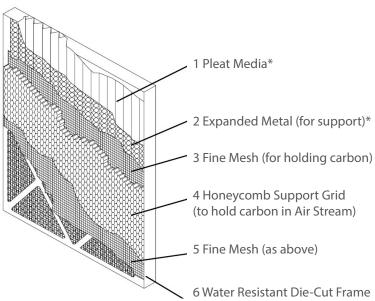
Sewer Odors

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

50% Carbon Fill (with Pre-Filter)				
Н	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	TLD
14	25	1	6B861	
15	20	1	6B859	DOLV DOF FIL
16	16	1	6B857	
16	20	1	6W736	>
16	24	1	6B856	5
16	25	1	6W737	- L
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	

(with Pre-Filter)				
Н	W	D	Grainger #	l
10	20	2	6B867	l
12	24	2	6W741	l
14	20	2	6B863	l
14	25	2	6B860	l
15	20	2	6B858	
16	20	2	6W742	l
16	24	2	6B855	
16	25	2	6W743	l
18	24	2	6B852	
20	20	2	6W744	ı
20	24	2	6B849	I
20	25	2	6W754	l
24	24	2	6W746	l
25	25	2	6B846	l

50% Carbon Fill

			50% Carbon Fill (No Pre-Filter)	100% Carbon Fill (No Pre-Filter)	100% Carbon Fill (with Pre-Filter)	
Н	W	D	Grainger #	Grainger #	Grainger #	
10	20	1	2JTW5	2JUA5	2JTR1	04
12	24	1	2JTW7	2JTR3	2JUT6	PRE-FILTER
14	20	1	2JTW9	2JUA7	2JTR5	-
14	25	1	2JTX2	2JUA9	2JTR7	E-F
15	20	1	2JTX4	2JUC2	2JTR9	
16	20	1	2JTX6	2JUC4	2JTT2	POLY
16	25	1	2JTX8	2JUC6	2JTT4	
20	20	1	2JTY7	2JUC8	2JTT6	.5.
20	25	1	2JTY1	2JUD1	2JTT8	0.
24	24	1	2JTY3	2GJD5	2JTU1	
25	25	1	2JTY5	2JUD3	2JTU3	
12	24	2	2GJD9	2JUD5	2JTU5	~
16	20	2	2JTY9	2JUD7	2JTU7	PREFILTE
16	25	2	2JTZ2	2JUD9	2JTU9	FIL
18	24	2	2JTZ4	2JUF2	2JTV2	PRE
20	20	2	2JTZ6	2JUF4	2JTV4	
20	24	2	2JTZ8	2JUF6	2JTV6	PLEATED
20	25	2	2JUA1	2JUF8	2JTV8	LEA
24	24	2	2GJE4	2JTD2	2JTW1	Id
25	25	2	2JUA3	2JUH1	2JTW3	1

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

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.

6

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.

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			

Н	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				

Н	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 / PO	TASSIUM PERMA	NGANATE BLEND (100%)
Contaminan	ts Removed by Ac	tivated Carbon / Po	tassium 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		

н	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

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

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.

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





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 - KCI				
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 - KCI				
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.

Air Handler ® Clear the air. Ease your mind.

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

Η	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

Τ	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.

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



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

Air W Handler®

FILTER ACCESSORIES

GASKETING FOR AIR FILTERS

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

DIMENSIONS & PART #S

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

FILTER HOLDING CLIPS

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

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

Case quantity equals 12



DIMENSIONS & PART #S

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

14





Spring Clip

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



CULTURAL RESOURCES

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

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

The Department will consult with the appropriate Tribe regarding the potential of such resources being located on the lot of record. Based on that consultation, the Department may require a cultural resource study of the property to determine the extent such resources exist on the lot of record. The applicant will be responsible for paying the cost of such a study.

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

Cultural Resources Protection Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Cultural Resources Evaluation

On July 17th and 25th, 2017, a Cultural Resources Investigation/Study was performed for the area of the existing/proposed cultivation operation by Registered Professional Archaeologist and Ph.D in Archaeology Dr. John Parker and his assistant Cheyanne Parker. The purpose of the investigation was to locate, describe, and evaluate any archaeological or historical resources that may be present in the area. Additionally, the Archaeologist was to assess the impact that might occur as a result of ground disturbing activities associated with cannabis production. Background research conducted prior to the field inspection, indicated that no cultural sites had been recorded within ¼ mile of the project area. No "significant" cultural resources, as defined in the California Public Resources Code, were discovered/detected during the field inspection. However, an isolated historic artifact and a historic feature were discovered and recorded on the Project Property (see Cultural Resource Evaluation, attached). "As no 'significant' historic resources were discovered within the project area, it is recommended that the proposed project be approved as planned."

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

If any cultural, historical, archaeological, or paleontological resources are discovered, MVV will halt all activity in the vicinity of the "find", and will immediately notify the Middletown Rancheria Tribe and/or any other affected Tribe. Then a qualified archaeologist will be retained to evaluate the "find". If necessary, mitigation measures/procedures will be implemented as prescribed by the qualified archaeologist. Should any human remains be encountered, they will be treated in accordance with Public Resources Code Section 5097.98.



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

CULTURAL RESOURCE EVALUATION OF PORTIONS OF APNS 012-069-59 AND 60 22800 MORGAN VALLEY ROAD, LOWER LAKE



Prepared at the request of:
Robert Skalla
for
Morgan Valley Ventures, Inc.
371 Lakeport Blvd., #400
Lakeport, CA 95453

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

> USGS Quad: Wilson Valley 7.5'

August 7, 2017

FIELD AND RESEARCH ARCHAEOLOGICAL STUDIES

CONTENTS

Summary	1
Introduction and Background	2
Natural Setting	3
Prehistoric Background	3
Historic Background	4
Field Inspection	5
Background Research	
Fieldwork	6
Study Results and Resource significance	6
Prehistoric Cultural Materials	6
Historic Cultural Materials	6
Recommendations	7
Bibliography	7

SUMMARY

On July 1, Mr. Skalla requested that the author conduct a cultural resource investigation of two areas totaling 25-acres on 2 parcels north of Morgan Valley Road and west of Rocky Creek. The purpose of the investigation was to locate, describe, and evaluate any archaeological or historical resources that may be present in the area. In addition, the author was to assess the impact that might occur as a result of ground disturbance activities associated with medical cannabis production.

The background research indicated that no cultural sites had been recorded within 1/4 mile of the project area.

During the field inspection, no prehistoric cultural materials were discovered. However, isolated historic materials were discovered and recorded.

Although isolated artifacts do provide information about historic activities in an area, and can often give a time period for when those activities took place, the

isolated historic materials are not considered "significant" cultural resources as defined in the California Public Resources Code¹.

As no significant historic or prehistoric cultural materials were observed, it is recommended that the project be approved as planned.

In the unlikely event that undiscovered cultural sites are encountered during the ground disturbance process, it is recommended that work in the immediate vicinity of the find be suspended and a Registered Professional Archaeologist called in to evaluate the find according to California Environmental Quality Act (CEQA) guidelines².

INTRODUCTION AND BACKGROUND

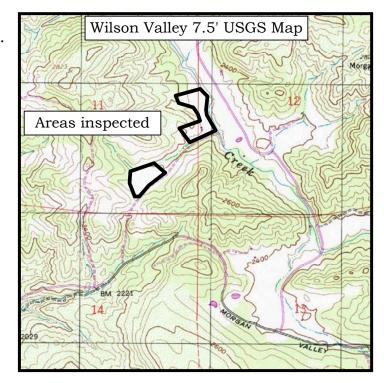
The fieldwork carried out as part of this study was conducted by John and Cheyanne Parker. Dr. Parker holds a Ph.D. in Archaeology, and is a Registered Professional Archaeologist. Cheyanne has 20 years of archaeological field and lab experience. The fieldwork took place July 17th and 25th, 2017.

The proposed project will require a local discretionary permit indicating that the California Environmental Quality Act applies to the project. Therefore, this

cultural resource evaluation was written to comply with the requirements set forth in CEQA (sec. 21083.2). This report follows the outline for identification of cultural resources as presented in the "Archaeological Resource Management Reports (ARMR): Recommended Contents and Format" (State of California 1990).

The parcel consisted of mostly level terrain making up portions of Sections 11 and 12, T12N, R6W.

The parcels are listed as 22800 and 22520 Morgan Valley Road, Lower Lake.



John Parker Page 2 8/7/2017

¹ Sec. 5024.1

² CEQA sec. 21083.2

Natural Setting

The project areas consisted of light tan alluvial soils derived from Rocky Creek and its tributaries. These soils supported a blue-oak grassland environment.

All of the project area was open pasture land. A single family residence and outbuildings existed in the southeastern portion of the project area.

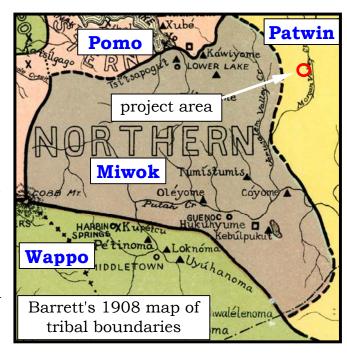


Prehistoric Background

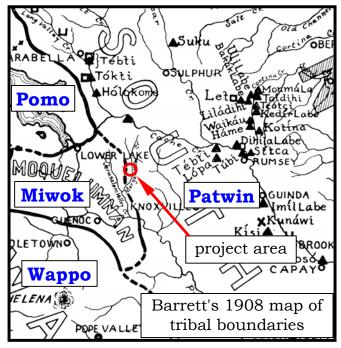
Prior to European arrival, the project area was located within the Southern Patwin tribal territory, just east of the ridge that made up the boundary between the Patwin and Lake Miwok (Moquelumnan) tribes (Barrett 1908).

It is likely that the project area was controlled by the Patwin village of Tebti. The Patwin language belongs to the Penutian language family.

In the distant past (20,000+ years ago) this part of California was inhabited by Yukian speaking people (represented by the Wappo tribe today). It is hypothesized that about 14,500 years ago, people speaking a Hokan language



moved into the Clear Lake Basin (represented by the Pomo people today). They most likely displaced or married into the Yukian speaking groups. Representatives of both language families occupied most of North America during the last Ice Age (Moratto 1984:551). Researchers have long suspected that Yukian and Hokan are the two oldest language families in the New World (Shipley 1978:81) and have recently established that these are "the oldest linguistic relationships among Western North American languages that can be established by normal comparative linguistic methods" (Golla 2004).



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

The Patwin and Lake Miwok are relative new-comers to the area. The Penutian speaking Patwin and Miwok moved into the area ~2,000 years ago (Moratto 1984).

Historic Background

Recently known as the Silver Oaks Ranch, the earliest historical documentation of use of the area is on the 1876 Plat map. This map shows the Deering House

and fields, situated west of Morgan Valley Creek (now called Rocky Creek) and north of the wagon road between Lower Lake and Knoxville.

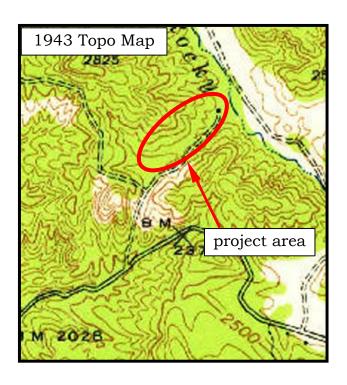
There is no mention of the Deering family in either the 1881, 1885, or 1914 Histories of Napa and Lake Counties (Slocum, Bowen & Co 1881, Carpenter 1914, Elliot 1885).

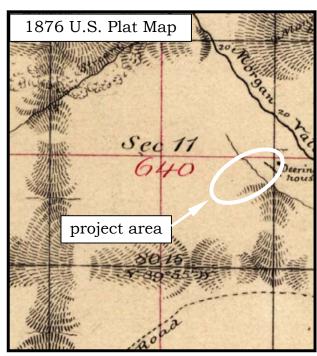


The project area was included in a land patent issued to Charles Runnels in 1884 (see patent at end of this report). There is no mention of Charles Runnels in the

above referenced county histories.

The 1943 USGS map of the area shows a dirt road extending northward from Morgan Valley Road to a structure within the project area. The current owner reports that the property use to be the Thousand Oaks Alfalfa Farm for many years.





FIELD INSPECTION

Background Research

Prior to the field inspection, a record search was conducted at the Sonoma State University office of the California Historical Resource Information System. This record search indicated that the project area had not been previously inspected for cultural resources. This background research indicated that no historic sites had been recorded within 1/4 mile of the project area.

A request was sent to the California Native American Heritage Commission (NAHC) for a review of the Sacred Lands File concerning the project area. Their response indicated that no resources had been recorded on the Sacred Lands File

for this area. In an effort to determine if there were any cultural concerns within the project area, contact was made with James Kinter (Tribal Historic Preservation Officer) of the Yocha Dehe Wintun community.

At the time of this writing, there has been no response from Mr. Kinter.

Fieldwork

The field inspection involved a complete reconnaissance of the project areas.

The project areas were walked using a transect sweep method with transects spaced 3 to 5 meters apart. The ground surface was examined for historic and prehistoric cultural materials.

The eastern area had sparse grass allowing a complete inspection of the mineral soil. The western area had denser grass that hampered the surface inspection. Both areas were being used as pasture for horses.

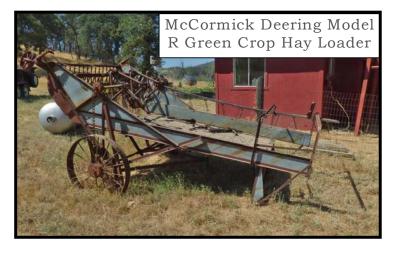
STUDY RESULTS AND RESOURCE SIGNIFICANCE

Prehistoric Cultural Materials

No prehistoric cultural materials were observed.

Historic Cultural Materials

A concrete slab and old piece of farm equipment were observed in the area where a structure was depicted on the 1943 Topo map. The slab may have been related to the 1943 structure, however, no identifiable artifacts were observed to verify the association. The piece of farm equipment was a McCormick Deering Model R Hay Loader. Although invented in 1890, these machines were not mass-produced until 1938 and were replaced with better systems in 1948.





John Parker Page 6 8/7/2017





The hay loader can be seen in operation at this web address:

https://www.youtube.com/watch?v=FgI88qQAbrw

No other historic artifacts or features were discovered.

Though there were existing residential and storage related structures in the area, these were all of recent origin and are not considered significant historic resources.

RECOMMENDATIONS

Though 1 isolated historic artifact and historic feature were discovered during the field inspection, these do not meet the criteria necessary to be considered "significant" historic resources for the purpose of the California Environmental Quality Act (CEQA).

As no "significant" historic resources were discovered within the project area, it is recommended that the proposed project be approved as planned.

Though it is unlikely that undiscovered historic or prehistoric resources may exist, in the event that undiscovered cultural sites are encountered during the ground clearing process, these should be evaluated for significance by a qualified archaeologist and either preserved or mitigated as outlined in CEQA (sec. 21083.2 [b] or 15126.4c).

BIBLIOGRAPHY

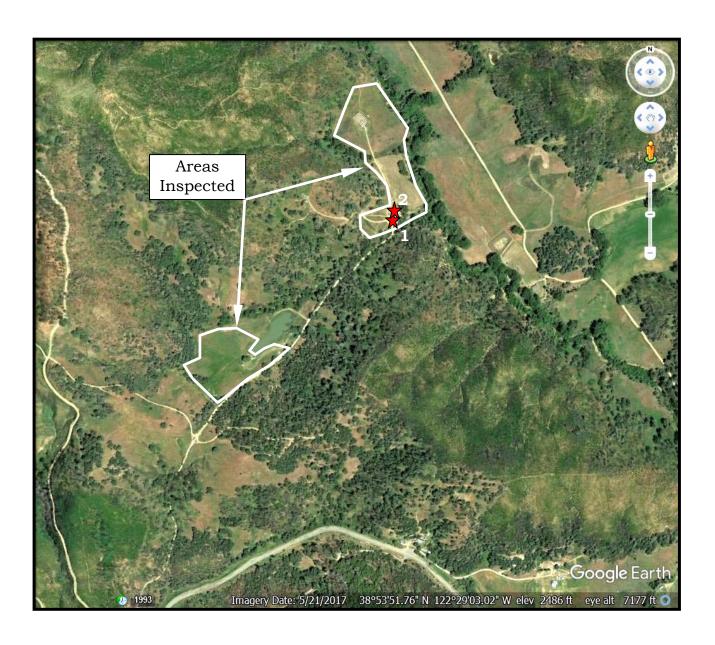
Barrett, S.A.

1908 *The Ethno-geography of the Pomo and Neighboring Indians*, University of California Publications in American Archaeology and

Carpenter, Aurelius O. and Percy H. Millberry 1914 *History of Mendocino and Lake Counties*, Historic Record Co. Los Angeles.

- Elliot, William W. 1885 *Lake County, California*, W.W. Elliot Lithographer and Publisher, Oakland, CA.
- Golla, Victor
 2004 *Linguistic Prehistory of California*, Unpublished paper presented at the annual meetings of the Society for California Archaeology, Riverside.
- Moratto, Michael J. 1984 *California Archaeology*, Academic Press Inc. Orlando, FL.
- Parker, John W.
 1994 Dots on a Map: Using cultural resource management data to reconstruct prehistoric settlement patterns in the Clear Lake Basin, California, Doctoral Dissertation prepared for Archaeology Program, UCLA, Published by UMI, Ann Arbor, MI.
 - 2008 Archaeological Monitoring of EPA Mine Waste Removal at the Elem Indian Colony; Archaeological Sites CA-LAK-76, 82, 2044, Report published online at https://ucla.academia.edu/JohnParkerPhD
- Shipley, William F.
 1978 "Native Languages of California," in **Handbook of North American Indians**, Vol. 8, California, Smithsonian Institution, Washington D.C.
- Slocum, Bowen & Company 1881 *History of Napa and Lake Counties*, *California*, republished in 1995 by Word Dancer Press, Fresno, CA
- State of California
 1990 Archaeological Resource Management Reports (ARMR): Recommended
 Contents and Format, **Preservation Planning Bulletin No. 4** (a), Office of
 Historic Preservation, Sacramento, CA.
- White, Gregory
 2002 Cultural Diversity and Culture Change in Prehistoric Clear Lake
 Basin; Final Report of the Anderson Flat Project, Center for
 Archaeological Research at Davis, No 13.

PROJECT IMAGE



- 1) McCormick Deering Model R Hay Loader
- 2) Concrete slab

	409
- Brief william name	The United States of America,
MESS	(%)
- Walter	Fo all to whom these Presents shall come, Greeting:
Homestead Certificate No. 2384 Application 3504 United States a Certificate	of the Begister of the Land Office at AN INANCIACO,
(1) NV MITAMAN)	, whereby it appears that, pursuant to the Act of Congress ?, "To secure Momesteads to actual Lettlers on the Public Domain,"
approved 20th May, 1862	ereto, the claim of Oharles W. Prinnels
and the acis suppliemental th	has been established and dury consummated, in
eleven her	north half of the southeast quarter of section with mest quarter of the south west quarter of the north rest quarter with mest quarter of the north rest quarter elve in township melve north of cange
decenor m.	Mount diable Mendian in California
centaining o	ne hundred and sixty seres.
	lat of the Survey of said Land, returned to the General Land Office by the Surveyo:
General.	
W. Runnel	t there is, therefore, granted by the United States unto the said O Larles
the tract of Land above a	lescribed: To have and to hold the said tract of Land, with the appartenances thereof, and to Ties
heirs and assigns forever;	subject to any vested and accrued water rights for mining, agricultural, manufacturing, or
other purposes, and rights to	ditches and reservoirs used in connection with such water rights as may be ecognized and
acknowledged by the local of	ustoms, laws, and decisions of courts, and also subject to the right of the proprietor of a vein
	ove his ore therefrom, should the same be found to penetrate or intersect the premises hereby
granted, as provided by lar	
Nu t	estimony whereof, I Cherter & Amer, PRESIDENT OF THE
	UNITED STATES OF AMERICA, have caused these letters to be made Fatent, and the Seal of the General Land Office to be hereunte affixed
	Given under my hand, at the City of Washington, the 22 VA
L.S.	day of May pin the year of our Lord one
L.S.	day of May in the year of our Lord one thousand eight hundred and lightly force, and of the Independence of the United States the Bullinghill reflection
	o la fait de la serie de la contra de la contraction de la contrac
	p the President: Chester N. Sathur
	By M. H. Oporte - , Secretary. M. Curk - , Recorder of the General Land Office.
	2. 1. MOUNT, Recorder of the General Land Office.

NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department 1550 Harbor Blvd., ROOM 100 West SACRAMENTO, CA 95691 (916) 373-3710 Fax (916) 373-5471



August 2, 2017

John Parker Wolf Creek Archaeology

Email to: dr.john@wolfcreekarcheology.com

RE: 17-16 Medicinal Cannabis Agricultural Activity, Lake County

Dear Mr. Parker,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at steven.quinn@nahc.ca.gov.

Sincerely.

Steven Quinn

Program Analyst

Native American Heritage Commission Native American Contacts 8/2/2017

Big Valley Band of Pomo Indians Anthony Jack, Chairperson

2726 Mission Rancheria Rd.

Sherry Treppa, Chairperson P.O. Box 516

Pomo

Lakeport

95453

ajack@big-valley.net

(707) 263-3924 Ext. 103

Upper Lake

, CA 95485

Habematolel Pomo of Upper Lake

(707) 275-0734 (707) 275-0757

(707) 263-3977 Fax

Middletown Rancheria

Jose Simon III, Chairperson

P.O. Box 1035

Middletown

Pomo

Pomo

, CA 95461 Lake Miwok

(707) 987-3670 Office (707) 987-9091 Fax

Koi Nation of Northern California (Lower Lake Rancheria)

Darin Beltran, Chairperson

P.O. Box 3162

Pomo

Santa Rosa

, CA 95402

kn@koination.com (707) 575-5586

(707) 575-5506 Fax

Robinson Rancheria Band of Pomo Indians

Eddie J. Crandall, Chairperson

P.O. Box 4015

Pomo

Nice , CA 95464 tavilabasket@yahoo.com

(707) 275-0527

Mishewal-Wappo Tribe of Alexander Valley

Scott Gabaldon, Chairperson

2275 Silk Road

Wappo

Windsor

, CA 95492

scottg@mishewalwappotribe.com

(707) 494-9159

(707) 275-0235 Fax

Scotts Valley Band of Pomo Indians

Gabriel Ray, Chairperson

1005 Parallel Drive

Pomo

Lakeport

, CA 95453

,CA 95457

Wailaki

(707) 263-4220

(707) 263-4345 Fax

Elem Indian Colony Pomo Tribe Agustin Garcia, Chairperson

16170 Main Street

Southeasterm Pomo

(707) 994-3400

Lower Lake

(707) 994-3408

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessments for the proposed 17-16 Medicinal Cannabis Agricultural Activity, Lake County.

ENERGY USAGE

Intent: Permittees shall minimize energy usage.

In this section permittees shall:

- a) Provide energy calculations as required by the California Building Code.
- b) Identify energy conservation measures to be taken and maintained including providing proof of compliance with CCR Title 3, Division 8, Chapter 8305 the Renewable Energy Requirements.
- c) If alternative energy sources are to be used, describe those sources and the amount of electricity that will be provided.
- d) For indoor cannabis cultivation licensees, ensure that electrical power used for commercial cannabis activity shall be provided by any combination of the following:
 - 1) On-grid power with 42 percent renewable source.
 - 2) Onsite zero net energy renewable source providing 42 percent of power.
 - 3) Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources.
 - 4) Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.
- e) Describe what parameters will be monitored and the methodology of the monitoring program.

Energy Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Energy Sources

MVV's existing/proposed outdoor cannabis cultivation operation is not connected to the electrical grid. All power comes from a battery bank connected to a photovoltaic solar array and gasoline powered generator backup. Each panel is capable of producing 290 to 300 watts of power when in full sun. The photovoltaic solar array and battery bank are able to supply ample power to the onsite Processing Facility, including the monitoring and recording station with its associated closed-circuit television system, throughout most of the generally sunny cultivation season. MVV uses a lightweight, low noise, compact, and fuel efficient Honda EU6500is Generator as their backup power source, to supply power when it is not available from the photovoltaic solar array/battery bank. The motion-sensing alarms and security lights of the existing/proposed cultivation operation are equipped with their own batteries and photovoltaic solar panels.

Energy Usage

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

Appliance	Number in Use	Watts per Unit	Hours per Day	Total Watts per Day
Computer	2	120	8	1920
Security System	1	450	24	10,800
Water Pump	3	2000	3	18,000
Refrigerator	1	70	24	1680
Security Lights	8	60	1	480
Interior Lights (LED)	16	20	8	2560
Fans	2	100	4	800
Stereo	2	60	4	480
Printer	1	45	0.5	22.5
Coffee Maker	1	1500	1	1500
Phone Charger	2	5	10	100
Climate Control	1	8000	8	64,000
System (Proposed Processing Facility)				
Dehumidifier	1	600	12	7200

Total Watts per Day: 109,542.5

KWh/Day: 109.5425

KWh/Month: 3286.2

KWh per 8-month Cultivation Season: 26289.6

It is conceivable that all of the above appliances could be in use at the same time. Therefore, the Farm Load for MVV's existing/proposed cultivation operation is 13.03 KWh (100% Demand Factor). As previously mentioned, the vast majority of power for MVV's existing/proposed cultivation operation comes from a battery bank connected to a photovoltaic solar array, which is able to adequately supply all of MVV's power/electrical demands during the generally sunny cultivation season.

Energy Conservation

MVV will implement the following Energy Conservation Measures/Practices:

- Turn off lights and unnecessary electronics when possible
- Reduce "plug" load by removing personal equipment such as desk lamps and space heaters or installing smart power strips
- Use energy efficiency features in all technology including computers, data storage, processing machinery, or other devices which consume excess energy

- Schedule pumps, motors, and other energy intensive machinery for operation during off-peak use hours
- Replace and recycle old electronics
- Conduct an on-farm energy efficiency assessment/energy audit
- Conduct annual employee energy efficiency training to review conservation practices

MVV's existing/proposed outdoor cannabis cultivation operation is not subject to requirements of CCR Title 3, Division 8, Chapter 8305, which only applies to Indoor cultivation operations.

Monitoring and Reporting

In order to monitor the existing/proposed cultivation operation's energy consumption, and to provide Lake County officials with accurate energy use records, MVV will:

- Log and maintain monthly fuel consumption records,
- Maintain accurate recordkeeping as to the cultivation/production performance of the existing/proposed cultivation operation,
- Make records and all data available to Lake County officials, and
- Adjust strategies as needed to meet energy conservation goals

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

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

FERTILIZER USAGE

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

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

- a. Complying with all fertilizer label directions;
- b. Storing fertilizers in a secure building or shed;
- c. Containing any fertilizer spills and immediately clean up any spills'
- d. Applying the minimum amount of product necessary;
- e. Preventing offsite drift;
- f. Not spraying directly to surface water or allow fertilizer product to drift to surface water. Spray only when wind is blowing away from surface water bodies;
- g. Not applying fertilizer when they may reach surface water or groundwater; and
- h. Nor using fertilizer within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level of 7.79 feet on the Rumsey Gauge.

This section shall include a map of the parcel where the cultivation site is located showing any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record of land or within 100 feet of the lot of record and a 100-foot setback from any identified spring, top of bank or any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. This map shall include the location of where fertilizers will be stored and used.

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

Fertilizer Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Fertilizer/Nutrient Sources & Protocols for Use

MVV applies irrigation water and nutrients at a rate not more than that which is necessary to satisfy the plants' evapotranspiration requirements and growth needs (Agronomic Rate). The agronomic rate considers allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, nutrients present in irrigation water, leaching requirement, and plant available nitrogen. The planting medium of the existing/proposed cannabis cultivation operation is/will be an amended native soil mixture, at or below grade and composed of native soil, compost, composted chicken manure, perlite, and earthworm castings.

Compost teas and/or liquid worm castings solutions with nitrogen (N), phosphorus (P), and potassium (K) values/percentages less than 1-1-1, are brewed onsite and applied on an "as needed" basis for vegetative growth and overall plant health. Biologic Systems Liquid Bloom fertilizer, with NPK values/percentages of 0-4-0, are applied during the blooming phase of the cannabis plants' life cycle to promote healthy flower development and growth. Application rates and methods for all compost teas and fertilizers used by MVV are consistent with product labeling. All fertilizers/nutrients will be mixed/prepared on an impermeable surface at least 150 feet from surface water resources and neighboring properties, and are never applied or allowed to drift offsite or within riparian setbacks (minimum 100 feet). At no time will

fertilizers/nutrients be applied at a rate greater than 319 pounds of nitrogen per acre per year (requirement of the State Water Resource Control Board's Cannabis General Order);

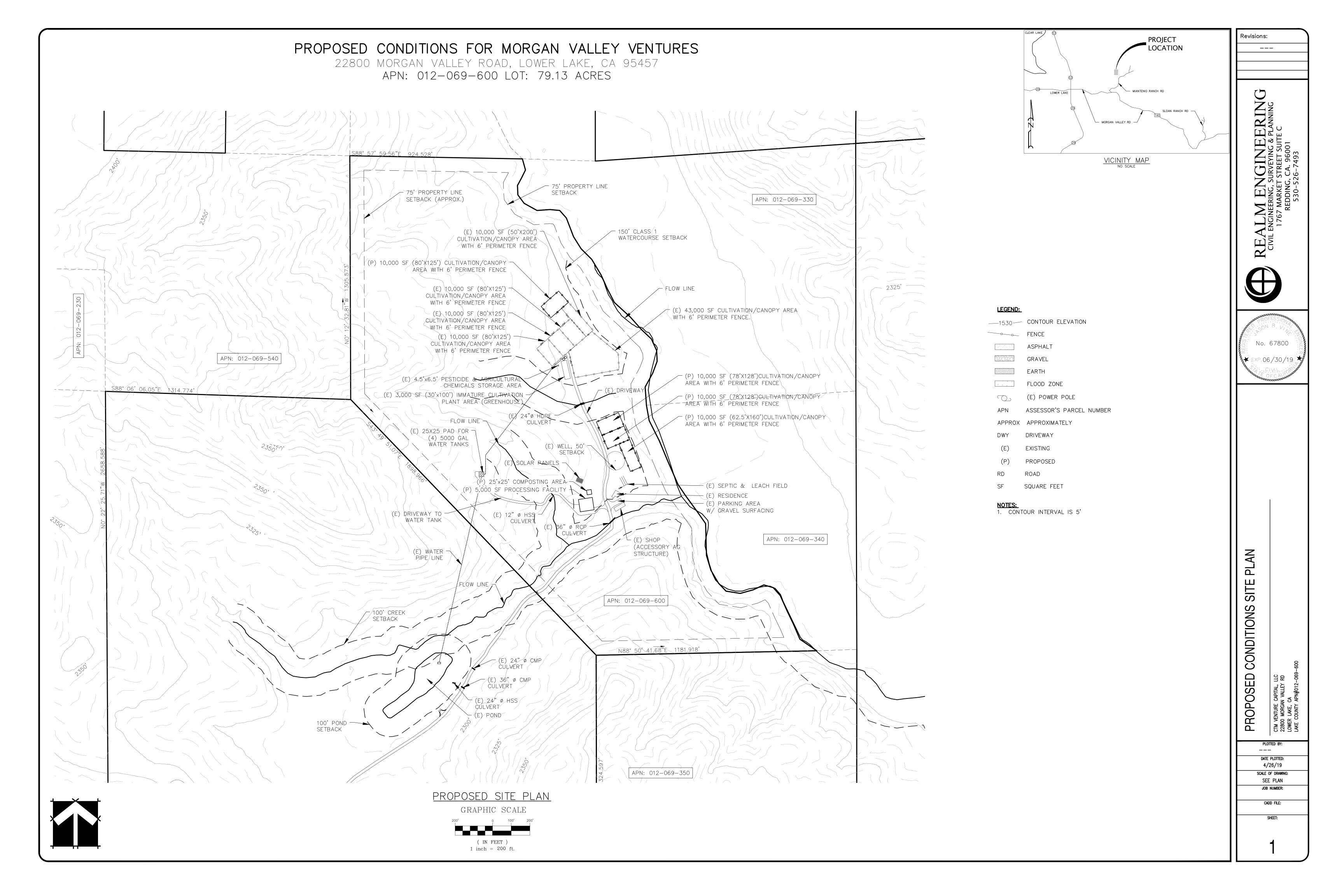
Fertilizer Storage and Spill Containment

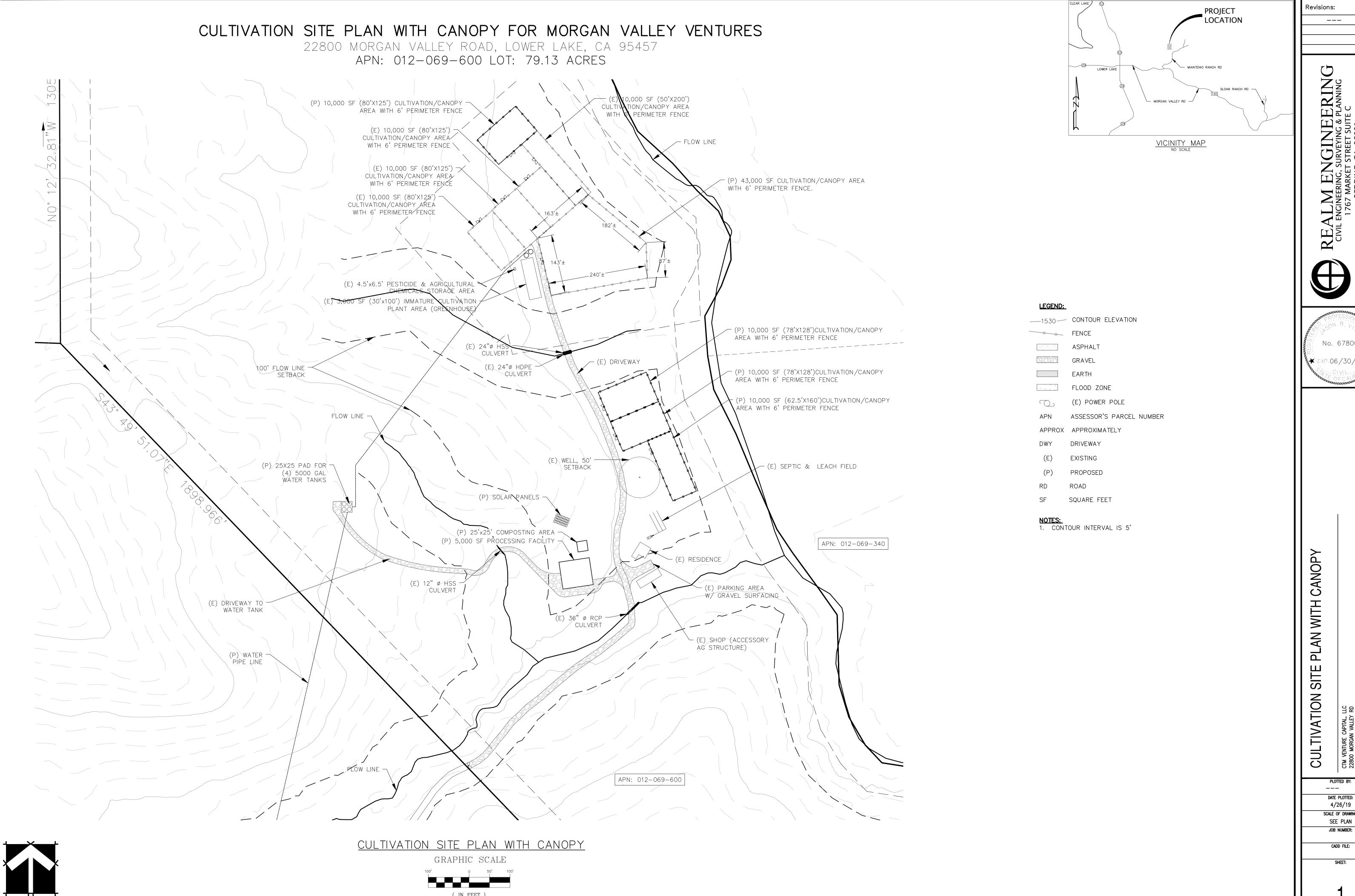
When not in use, all fertilizers/nutrients are stored under cover and in compliance with label instructions, within a secure wooden shed (Pesticides & Agricultural Chemicals Storage Area) located adjacent to the existing cultivation areas and more than 150 feet from the nearest surface water body. All fertilizers/nutrients are stored in their manufacturer's original containers/packaging, within secondary containment structures to prevent possible exposure to the environment. Absorbent materials designed for spill containment and spill cleanup equipment are maintained within the Pesticides & Agricultural Chemicals Storage Area, for use in the event of an accidental spill.

Materials Safety Data Sheets (MSDS/SDS) for all fertilizers used by MVV are stored within the Pesticides & Agricultural Chemicals Storage Area and available for personnel to reference at any time. Personnel are trained how to appropriately prepare and apply fertilizers/nutrients before being allowed to use them. When using/preparing fertilizers and other chemicals, personnel are required to use personal protective equipment (PPE) consistent with the MSDS/SDS recommendations for the product they're using/preparing. PPE used by staff include safety glasses, gloves, dust masks, boots, pants, and long-sleeved shirts.

Monitoring and Reporting

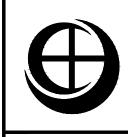
MVV will maintain an accurate log of all fertilizer/nutrient usage of the proposed cultivation operation. The log will detail the date, fertilizer type, amounts applied, method, the operator applying, and any additional inputs or amendments. This log will be kept within the Pesticides & Agricultural Chemicals Storage Area, and will be made available to State and County officials upon request.





1 inch = 100 ft.

SURVEYING & PLANNING
- STREET SUITE C
-, CA. 96001
26-7493





DATE PLOTTED: 4/26/19 SCALE OF DRAWING:

CADD FILE:

FISH AND WILDLIFE PROTECTION

Intent: To minimize adverse impacts to fish and wildlife.

In this section permittees shall include:

- a. A description of the fish and wildlife that are located on or utilize on a seasonal basis the lot of record where the permitted activity is located;
- b. A description of the habitats found on the lot of record. These habitats shall be located on a map;
- c. A description of the watershed in which the permitted activity is located. A map shall be provided showing the full watershed;
- d. Describe how the permittee will minimize adverse impacts on the fish and wildlife; and
- e. A map showing the location of any conservation easements or wildlife corridors proposed.

Fish and Wildlife Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

This Fish and Wildlife Management Plan (FWMP) is designed to minimize any adverse impacts to fish and wildlife, and to ensure that the cultivation operation is in no way destructive to important and/or sensitive habitat. This FWMP includes a description of fish and wildlife that live on, or seasonally inhabit the Project Property, a description of the habitats found on the Project Property, the watershed in which the Project Property is located, and avoidance and protection measures to minimize adverse impacts to fish and wildlife. Wildlife and botanical surveys were conducted on the Project Property in the Spring of 2017 by Crystal Keesey of Eastside Environmental, and a Biological Site Assessment (attached) was prepared to inform this FWMP. The purpose of the Biological Site Assessment was to evaluate the existence of special-status species and/or habitats, as well as assess the potential for special-status species to occur on or near the site of the proposed cultivation operation.

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

Habitat

The dominant habitat type on the two parcel 279-acre Project Property is Blue Oak Woodland, consisting of open to dense woodlands with grassy to partially open shrubby understories. Major plant components of Blue Oak habitat include Blue Oak, Valley Oak, California Foothill/Gray Pine, and Black Oak in addition to a shrub story of Wild Lilac, Manzanita, and Poison Oak. There is some Riparian Forest habitat that closely parallels Rocky Creek within its bankfull width along the Project Parcel's eastern boundary, and a Freshwater Forested/Shrub Wetland with Riparian Forest habitat on the opposite side of Rocky Creek from the Project Property (neighboring property/parcel). Major plant components of the Riparian Forest habitat include Fremont's Cottonwood, California Foothill/Gray Pine, Black Oak, Willow, and Poison

Oak. The habitat type located within the existing/proposed cultivation operation area are Nonnative Grassland and Agricultural Field. Major plant components of non-native grassland include Wild Oat species, Bromes, Lupines, Owl's Clover, and various other non-native annual grasses. The agricultural field in which the existing/proposed cultivation areas are/will be located was annually plowed and planted with alfalfa hay prior to cannabis cultivation. No special status habitats were identified as occurring within 5 miles of the Project Property in the California Natural Diversity Database (CNDDB) and U.S. Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) reports generated for this site's Biological Site Assessment. The location of the exisgting/proposed cultivation operation is not located in any wildlife corridors or native nursery sites.

Fish and Wildlife Species

The attached Biological Site Assessment provides a list of the species that have been observed on the Project Property (Appendix A), a list of State and Federal special status plant and wildlife species with potential to occur on the Project Property (Tables 1 and 2), a list of CNDDB Occurrences within a 5-mile radius (Appendix C), a California Native Plant Society list of rare and endangered plants that occur within the nine quads that encompass and surround the Project Property (Appendix D), and a USFWS list of threatened and endangered species that may occur on the Project Property (Appendix E). During focused field surveys for the Biological Site Assessment, no special status plant or wildlife species nor migratory birds were observed on the Project Property. The proposed cultivation operation will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Watershed

The Project Parcel is located within the Upper Cache Creek Watershed (HUC 8), and the Rocky Creek - Cache Creek Sub-watershed (HUC 12). Rocky Creek, a perennial Class I watercourse, flows along the eastern boundary of the Project Parcel and more than 150 feet from the proposed cultivation area. The headwaters of Rocky Creek are formed by springs and ephemeral drainages in the Morgan Valley basin, and from Chandans Creek, the only named tributary to Rocky Creek. A map of the Rocky Creek watershed is attached to the Water Resources section of this Property Management Plan.

There is a potentially-jurisdictional intermittent Class II/III watercourse and two potentially-jurisdictional ephemeral Class III watercourses, that begin on the Project Property and are tributaries to Rocky Creek. Rocky Creek (DFG/NHD Water ID 116962516) and the unnamed intermittent Class II/III watercourse (DFG/NHD Water ID 116962318) are indicated on the National Hydrography Dataset (NHD) map layer utilized by California resource agencies via the CNDDB and on the USFWS National Wetlands Inventory (NWI) map layer. The NHD and NWI maps are attached to the Water Resources section of this Property Management Plan. There is an USFWS NWI-identified Freshwater Forested/Shrub Wetland within 200 feet of the Project

Parcel, on the opposite side of Rocky Creek from the proposed cultivation operation. There is a seasonal pond/rain water catchment reservoir on the Project Property, that intercepts and stores overland flow and discharges excess flow to the potentially-jurisdictional intermittent Class II/III watercourse via an engineered spillway, when the capacity of the pond has been exceeded. The seasonal pond/rain water catchment reservoir and ephemeral Class III watercourses are not indicated on the NHD or NWI map layers.

Avoidance and Protection Measures

The following activities or preventative measures were recommended in the Biological Site Assessment and will be implemented to minimize adverse impacts to fish and wildlife resources:

- Implement a noxious weed management program;
- Closely monitor the cannabis cultivation operation and adjacent areas for wildlife presence, especially during rain events. Do not attempt to move or otherwise relocate any wildlife species should they appear on site. Allow all wildlife to return to their habitat without assistance;
- Avoid impacting areas with large gopher activity or ground squirrel dens;
- Avoid allowing pesticide to drift into areas beyond the cannabis cultivation operations;
- Maintain installed erosion control measures;
- Maintain well vegetated riparian buffers;
- All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in trash containers with an adequate lid or cover to contain trash.
 All food waste should be placed in a securely-covered bin and removed from the site on a weekly basis to avoid attracting animals;
- Vehicles and equipment will be parked on pavement, existing roads and/or developed areas, or approved work areas. Vehicles will be confined to public roadways and preapproved access routes (e.g., private paved and unpaved roads, and overland routes), previously disturbed and unvegetated roadsides, and work areas. Access routes and construction work areas will be limited to the minimum necessary to achieve the project goals.

Biological Site Assessment



For a
California Commercial Medical Cannabis Cultivation Facility
22800 Morgan Valley Road, Lower Lake, California 95457
Lake County APNs 012-069-590 & 012-069-600

Submitted to:

California Regional Water Quality Control Board — Central Valley Region 365 Knollcrest Drive, Suite 205 Redding, California 96002

Prepared by:

Prepared for:

Eastside Environmental, Inc. 315 Wall Street, Suite 14 Chico, CA 95928 Morgan Valley Ventures
Bob Skalla
371 Lakeport Boulevard, #400
Lakeport, CA 95453

TABLE OF CONTENTS

Executive Summary	4
Introduction	6
Purpose and Scope of the BSA	6
Regulatory Setting	6
Environmental Setting	12
Methodology	14
Preliminary Data Collection and Research	14
Field Survey	14
Mapping	14
Sufficiency of Biological Data	15
Disclaimer	15
Results	16
Habitats	16
Potentially Jurisdictional Waters of the State/US	18
Special Status Species	21
Impact Analysis	27
Impact Significance Criteria	27
Impacts to Vegetation Communities	27
Impacts to Wildlife Habitats	27
Impacts to Special- Status Species	28
Impacts to Potential Jurisdictional Water Resources	28
Cumulative Impacts	29
Mitigation Measures	29
Avoidance and Protection measures	29
Project Implementation APMs	31
The following activities or preventative measures should be adopted during project in to protect plant and wildlife resources, aquatic organisms, and water quality:	•
General	31
Special Status and Migratory Birds	32

Special Status Bats
Project Operation APMs33
References35
Appendix A Observed Species37
Appendix B Site Photos39
Appendix C California NAtural Diversity Database 5-mile Query42
Appendix D California Native PlanT Society 9-Quad Query43
Appendix E Consultation with USFWS44
TABLE OF FIGURES
TABLE OF FIGURES Figure 1. Project Location Map
Figure 1. Project Location Map13
Figure 1. Project Location Map
Figure 1. Project Location Map
Figure 1. Project Location Map

EXECUTIVE SUMMARY

As per the California Environmental Quality Act (CEQA) requirements contained within the Central Valley Regional Water Quality Control Board's General Order R5-2015-0113, Eastside Environmental, Inc. prepared this Biological Site Assessment (BSA) for Morgan Valley Ventures' outdoor commercial medicinal cannabis cultivation facility (Project) located at 22800 Morgan Valley Road, Lower Lake, California in Lake County (APNs 012-069-590 & 012-069-600). The 218.8-acre two parcel Project property currently contains a 10,200 ft² fenced medicinal cannabis cultivation area that is in compliance with Article 72 of the Lake County Code, which currently regulates cannabis cultivation in Lake County's unincorporated areas. The Project Proponent plans to expand the existing cultivation area to approximately 101,120 ft² if/when Lake County allows cannabis cultivation of that size/scale. To prepare for this anticipated expansion, the Project Proponent is changing the current operation's enrollment under Order R5-2015-0113 from Tier 1 to Tier 3, which would provide coverage for a cannabis cultivation operation that occupies and/or disturbs more than 1 acre (43,560 ft²), and for which requires that a Biological Site Assessment (this document) be prepared and submitted to the Central Valley Regional Water Quality Control Board.

The Project site is accessed from Morgan Valley Road via a gravel access road/driveway named Miantenio Ranch Road (Figure 1). There are five established watercourse crossings on Miantenio Ranch Road between Morgan Valley Road and the Project site. All five are currently functioning, well maintained, and there is no evidence of past failure. However, one of these crossings is undersized, composed of a 12" steel pipe culvert on a Class III watercourse, and will be replaced with a 24" corrugated metal pipe culvert capable of passing the expected 100-year flood flow and associated debris, during development of the planned larger cultivation operation. A Lake and Streambed Alteration Notification will be submitted to the California Department of Fish & Wildlife for the work associated with upgrading this watercourse crossing.

The current medicinal cannabis cultivation operation occupies approximately 0.25 acres. The planned larger cultivation operation would occupy and/or disturb approximately 3 acres (101,120 ft² cultivation area plus ancillary facilities). Current and past land uses for the existing cultivation area and the planned larger cultivation area are/were Extensive Agriculture. Little land clearing or earthwork was required to establish the existing cultivation area or will be required to establish the planned larger cultivation area and additional ancillary facilities. Current ancillary facilities include a seasonal stock pond, two water supply wells, a materials storage facility ("shop"), and a residence. Planned ancillary facilities include two additional water supply wells, four 5000-gallon water storage tanks, a well pump & generator house, a 1500 ft² materials storage facility, a 3000 ft² processing facility, and a small solar array.

The growing medium for the current medicinal cannabis cultivation operation is an imported organic soil mixture, placed in cloth sacks ("smart pots") on top of native grade. The growing medium for the planned larger cannabis cultivation operation will be an imported organic soil mixture in cloth sacks and raised

cultivation beds on top of native grade. Water for the current cultivation operation is supplied by existing domestic water well, and a drip irrigation system. Water for the planned cultivation operation will be supplied by the existing and planned water supply wells, as well as the existing stock pond on the property. An Initial Statement of Water Diversion and Use and Special Use Attachment (for Cannabis Cultivation) was filed with the State Water Resources Control Board's Division of Water Rights for this proposed surface water diversion prior to 1 July 2017.

Information from this requisite Biological Site Assessment was utilized to assist in located and designing the planned larger cultivation operation with appropriate regulatory setbacks. No habitat suitable for wildlife species listed as endangered, threatened, rare, proposed, candidate, or CNPS-listed (collectively referred to in this BSA as "special status species") is present within the Project area. There is a potentially-jurisdictional Class III watercourse that flows through the Project area, a potentially jurisdictional Class II watercourse to the south of the Project area, and a Class I watercourse (Rocky Creek) that flows along the eastern boundary of the Project property east of the Project area. Project setbacks include appropriate buffers from potentially-jurisdictional Waters of the US (WOUS).

INTRODUCTION

Purpose and Scope of the BSA

On October 2, 2015, the Central Valley Regional Water Quality Control Board (CVRWQCB) enacted General Order R5-2015-0113 regulating waste discharges from commercial cannabis cultivation activities. The purpose of this order is to provide a water quality regulatory structure to prevent and/or address poor water quality conditions and adverse impacts to water resources associated with cannabis cultivation on private land.

In addition, cannabis cultivation sites created after October 2, 2015 (the day the CVRWQCB passed General Order R5-2015—0113) are subject to California Environmental Quality Act (CEQA) compliance for biological, water and cultural resources. Enrollment in the Waste Discharge Program is contingent upon these CEQA requirements:

- I. Any potential impacts to wetlands and vernal pools have been permitted pursuant to section 401/404 of the Federal Clean Water Act;
- II. A Section 1602 Streambed Alteration has been procured, if necessary;
- III. The Discharger has obtained coverage under the State Water Board's Construction General Stormwater Permit, if necessary;
- IV. The Discharger has obtained a Timberland Conversion Permit, if necessary;
- The development of the Cannabis Cultivation Site is in compliance with any applicable County regulation and ordinances, including grading, construction, and building ordinances;
- VI. That any and all impacts to special-status species have been fully mitigated;
- VII. That all potential impacts to cultural resources will be appropriately addressed and mitigated.

This BSA has been prepared to fulfill the above-listed CEQA requirements of General Order R5-2105-0113.

Regulatory Setting

Regional Board Order R5-2015-0113 protects receiving water bodies from water-quality impacts associated with cannabis cultivation using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and via the following regulatory oversight:

Lake County Code Section 21 – Article 72, Regulations for the Cultivation of Medical Marijuana

Article 72 of the Lake County Code prohibits the large scale cultivation of marijuana used for non-medical purposes, while regulating the cultivation of limited amounts of marijuana for medical purposes to accommodate the needs of qualified patients and/or their caregivers, in order to protect Lake County's unique and sensitive environment, and to preserve the public peace, health, safety and general welfare of the citizens of, and visitors to the County.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) as the principal state agencies with the responsibility for controlling water quality in California. The act contains water quality policies and water quality standards that apply to both surface water and groundwater. It provides the legislative framework for regulations governing the discharges of pollutants from point and nonpoint sources.

Each RWQCB is required to develop, adopt, and implement a Water Quality Control Plan for its respective region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in each region. Basin Plans identify beneficial uses of surface waters and groundwater in the corresponding region; specify water quality standards, known as water quality objectives, for both surface water and groundwater; and develop the actions necessary to maintain the standards to control nonpoint and point sources of pollutants to the state's waters.

The SWRCB issues National Pollution Discharge Elimination Systems (NPDES) permits to cities and counties through the RWQCBs, and it is the responsibility of the RWQCBs to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements.

General Construction Activity Storm Water Permits and Stormwater Pollution Prevention Plans

In accordance with NPDES regulations, the SWRCB has issued a Statewide General Permit (Water Quality No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ) for construction activities in the state. The Construction General Permit (General Permit) is implemented and enforced by the RWQCBs. The General Permit applies to any construction activity affecting 1 acre or more and requires those activities to minimize the potential effects of construction runoff on receiving water quality. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the project, which include a Notice of Intent, a risk assessment, a site map, a signed certification statement, an annual fee, and a stormwater pollution prevention plan (SWPPP). The permit program is risk based wherein a project's risk is based on the project's potential to cause sedimentation

and the risk of such sedimentation on the receiving waters. A project's risk determines its water quality control requirements, ranging from Risk Level 1, which consists of only narrative effluent standards, implementation of BMPs, and visual monitoring, to Risk Level 3, which consists of numeric effluent limitations, additional sediment control measures, and receiving water monitoring. Additional requirements include compliance with post-construction standards focusing on low impact development (LID), preparation of rain event action plans, increased reporting requirements, and specific certification requirements for certain project personnel.

The SWPPP must include implementing best management practices to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. Typical BMPs contained in SWPPPs are designed to minimize erosion during construction and to address post-construction runoff quantity (volume) and quality (treatment). Examples of typical construction BMPs included in SWPPPs include, but are not limited to:

- Using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils.
- Storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water.
- Developing and implementing a spill prevention and cleanup.
- Installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters.

Clean Water Act 303(d), 401, 404

The federal Clean Water Act (CWA) gives states the primary responsibility for protecting and restoring water quality. In California, the State Water Resources Control Board (SWRCB) and the nine RWQCBs are the agencies with the primary responsibility for implementing federal CWA requirements, including developing and implementing programs to achieve compliance with water quality standards. Water quality standards include designated beneficial uses of water bodies, criteria or objectives (numeric or narrative) which are protective of those beneficial uses, and policies to limit the degradation of water bodies. The proposed project is located in a portion of the state that is regulated by the Central Valley RWQCB.

Section 303 of the CWA

Section 303(d) of the federal Clean Water Act requires that all states in the United States identify water bodies that do not meet specified water quality standards and do not support intended beneficial uses. Identified waters are placed on the Section 303(d) List of Impaired Water Bodies. Once a water body is placed on this list, states are required to develop a water quality control plan for the water body and each associated pollutant/stressor.

Sections 401 and 404 of the CWA

Sections 401 and 404 of the CWA are administered through the regulatory program of the US Army Corps of Engineers (USACE) and regulate the water quality of all discharges of fill or dredged material into waters of the United States, including wetlands and intermittent stream channels. Section 401 (Title 33, USC Section 1341) of the Clean Water Act sets forth water quality certification requirements for any applicant applying for a federal license or permit to conduct any activity, including but not limited to the construction or operation of facilities which may result in any discharge into the waters of the United States. In California, certifications must be approved by the SWRCB or the local RWQCB.

Section 404 of the CWA

As authorized by Section 402(p) of the CWA, the NPDES Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Waste discharge requirements for discharges to surface waters also serve as NPDES permits.

Federal Endangered Species Act

The Endangered Species Act of 1973 (ESA), as amended, provides protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Title 50, Part 222, of the Code of Federal Regulations (50 CFR Section 222) further defines "harm" to include "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering."

ESA Section 7(a) (1) requires federal agencies to utilize their authority to further the conservation of listed species. ESA Section 7(a)(2) requires consultation with the USFWS or the National Marine Fisheries Service if a federal agency undertakes, funds, permits, or authorizes (termed the federal nexus) any action that may affect endangered or threatened species, or designated critical habitat. For projects that may result in the incidental "take" of threatened or endangered species, or critical habitat, and that lack a federal nexus, a Section 10(a)(1)(b) incidental take permit can be obtained from the USFWS and/or the National Marine Fisheries Service.

CA Fish and Game Code

California Endangered Species Act

The California ESA (CESA; California Fish and Game Code §§ 2050-2116) protects species of fish, wildlife, and plants listed by the state as endangered or threatened. Species identified as candidates for listing may also receive protection. Section 2080 of the California ESA prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture,

or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful projects under permits issued by CDFW.

Fully Protected Species

The state of California first began to designate species as "fully protected" prior to the creation of ESA and CESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal ESA and/or CESA. Fully protected species are identified in the California Fish and Game Code Section 4700 for mammals, Section 3511 for birds, Section 5050 for reptiles and amphibians, and Section 5515 for fish.

These sections of the California Fish and Game Code provide that fully protected species may not be taken or possessed, and that the CDFW will only issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit, or may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

Native Plant Protection Act

The NPPA of 1977 (California Fish and Game Code §§ 1900-1913) was established with the intent to "preserve, protect and enhance rare and endangered plants in this state." The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. In 1984, the California ESA brought under its protection all plants previously listed as endangered under NPPA. Plants listed as rare are not protected under CESA, but are still protected only under the provisions of NPPA.

California Fish and Game Code Special Protections for Birds

In addition to the California ESA and fully protected species, the California Fish and Game Code includes a number of sections that specifically protect certain birds.

Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the California Fish and Game Commission or a mitigation plan approved by CDFW for mining operations.

Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.

Section 3503.5 protects birds of prey (raptors) and prohibits the take, possession, or destruction of any birds and their nests.

Section 3505 makes it unlawful to take, sell, or purchase egrets, ospreys, and several other species, or any part of these birds.

Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

California Environmental Quality Act

In accordance with CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal ESA, CESA, and NPPA, which deal with rare or endangered plants and animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either USFWS or CDFW.

CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant, and are particularly relevant to SSC. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant and require Lead Agencies to prepare an Environmental Impact Report (EIR) to thoroughly analyze and evaluate the impacts. Assessment of "impact significance" to populations of nonlisted species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Specifically, Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS; have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS; have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means; interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or conflict with the provisions of an adopted HCP, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

Environmental Setting

The Project area is located in the Northwestern California region and North Coast Ranges geographic sub region of the California Floristic Province. It is approximately 75 miles north of San Francisco, CA, in southeast Lake County, CA, approximately 6 miles east of Lower Lake, CA. The climate of the area is Mediterranean, characterized by hot dry summers and wet, moderately-cold winters; average temperatures range from a high of 92 °F to a low of 55°F in the dry summer months to a high of 55 °F degrees and a low of 32 °F in the wet season.

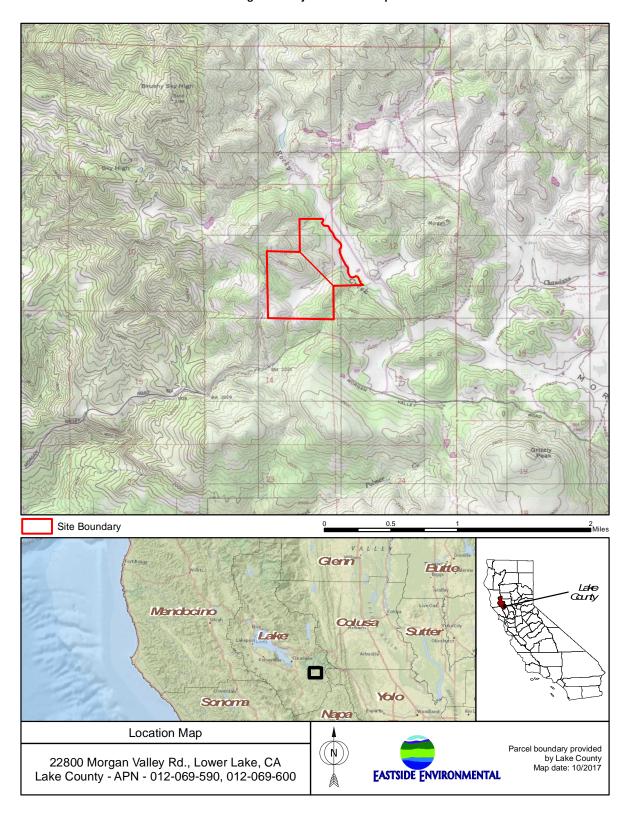
The Project parcel is within the Cache Creek Watershed, and the Rocky Creek - Upper Cache Creek Subwatershed. The headwaters of Rocky Creek are formed by springs and ephemeral drainages in the Morgan Valley basin, and from Chandans Creek, the only named tributary to Rocky Creek. Rocky Creek flows along the eastern boundary of the Project property; more than 300 feet from the current cultivation area and 150 feet from the planned larger cultivation area.

The 218.8-acre two parcel Project property contains one potentially-jurisdictional intermittent Class II/III watercourse, two potentially-jurisdictional ephemeral Class III watercourses, and a seasonal stock pond. The intermittent Class II/III watercourse is an unnamed National Hydrography Dataset (NHD) and United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI)-indicated riparian stream course that begins on the Project property and flows generally eastward into Rocky Creek.

Soils of the Project property are classified as Skyhigh-Millsholm loams (15 to 50 percent slopes), Skyhigh-Sleeper-Millsholm association (30 to 50 percent slopes), and Still loam by the USDA-NRCS Soil Survey. The soils of the Project area are Still loams with less than 15 percent slopes. The United States Geological Survey Map of the Santa Rosa Quadrangle defines the area in the vicinity of the Project area as the Lower Cretaceous-Upper Jurassic Great Valley Sequence, composed mostly of marine mudstones, siltstones, sandstones, and conglomerate.

The Project property and Project area have been used as a rural residential estate and agriculture and grazing land for decades. Surrounding land uses include rural residential estates, agriculture and grazing land.

Figure 1. Project Location Map



METHODOLOGY

Preliminary Data Collection and Research

Prior to conducting field surveys, the following information sources were reviewed:

- any readily-available previous studies pertaining to the project site or vicinity;
- United States Geologic Service (USGS) 7.5 degree-minute topographic quadrangles of the project site and vicinity;
- Current and historical aerial photography of the project site and vicinity;
- California Natural Diversity Database (CNDDB);
- USFWS species lists (IPaC Trust Resources Report);
- California Native Plant Society (CNPS) rare plant program database;
- USFWS National Wetland Inventory (NWI) database;
- USGS National Hydrography Dataset (NHD);
- USGS Soil Surveys; and
- CDFW Habitat Suitability Model for Special Status Species

Field Survey

On February 15th and June 1, 2017, Crystal Keesey of Eastside Environmental conducted on-site pedestrian field surveys. These surveys were to identify current and future cultivation activity locations, potential presence of special status species and potential Waters of the US (WOUS), building and property line setbacks, evidence of cultivation-based erosion, information regarding desired property improvements, and necessary cultivation site design based on client needs and regulatory guidelines. This information was recorded in field notebooks, on data sheets, and in photographs.

Mapping

The project site was surveyed by a CA registered professional engineer, with results plotted onto a site plan containing a delineation of project area and parcel, with all salient site development features noted. Site features include dwellings, outbuildings, well and septic locations, easements, fencing, potentially jurisdictional waters and any other information salient to cultivation activities.

For the purposes of the BSA, special status species maps were produced based on data obtained from the CA Natural Diversity Database (CNDDB), and habitat maps were produced bases on field verification of habitat types and aerial imagery analysis.

The boundaries of potentially jurisdictional water resources within the project site were identified and measured in the field. Topographic analyses were performed using geographical information system

software (ARCGIS 10.3). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987).

Sufficiency of Biological Data

All field studies for the Project were conducted during protocol survey season windows. No protocol-level surveys were conducted for special status species. No formal wetland or WOUS delineations were performed as part of this BSA.

Disclaimer

Due to the US Drug Enforcement Agency's (DEA) 's treatment of cannabis as a Schedule 1 drug, Federal agencies such as US Fish and Wildlife Service (USFWS) and US Army Corps of Engineers (USACOE) are prohibited from consulting about federally-listed special status species on cannabis site development projects in California. Due to the notification process required to conduct protocol-level surveys for federal species, no protocol-level species surveys can occur on cannabis development projects in California. In the absence of available project-specific federal guidance, Eastside Environmental has researched and relies upon relevant federal agency-authored documents issued for projects similar in scope and geographic region as precedent guidance for preparing appropriate impact avoidance and mitigation measures contained within this BSA.

Any federal consultation requirements or lack thereof should be determined by the lead agency reviewing this document. Eastside Environmental, Inc. assumes no responsibility for any decision made regarding federal special status species consultation on this Project.

RESULTS

Habitats

The dominant habitat¹ type on the two approximately 218.8-acre Project parcels is blue oak woodland (Holland classification 71140), consisting of open to dense woodlands with grassy to partially open shrubby understories (See Figure 2. Habitat Map). The habitat types located within the Project area are non-native grassland (Holland classification 42200) and agricultural field.

Major plant components of Blue Oak habitat include the blue oak (*Quercus douglasii*), which is often found alongside Valley Oak (*Quercus lobata*), California foothill pine (*Pinus sabiana*), and black oak (*Quercus kellogii*) in addition to a shrub story of wild lilac (*Ceanothus sp.*), manzanita (*Arctostaphylos sp.*), and poison oak (*Toxicodendron diversiloba*).

Major plant components of non-native grassland include Wild Oat (Avena) species, Bromes (Bromus sp.), lupines (Lupinus sp.), owl's clover (Orthocarpus sp.), and various other annual grasses (Vulpia sp., Lolium sp.).

The project site has been annually plowed and planted with alfalfa hay (Medicago sativa).

The CNDDB and USFWS Information for Planning and Consultation (IPaC) reports identify no special status habitats occurring within 5 miles of the Project parcel.

Appendix B, Site Photos, includes photographs of the habitats identified on the Project parcel.

¹ Habitat descriptions follow: Holland, R.F. 1986. *Preliminary Description of the Terrestrial Natural Communities of CA*. Department of Fish and Game. Sacramento, CA.

Figure 2. Habitat Map of 22800 Morgan Valley Road, Lower Lake, CA



Potentially Jurisdictional Waters of the State/US

During field surveys, an informal assessment of potentially-jurisdictional water resources was conducted: Potentially jurisdictional water resources include rivers, streams², tributaries, interstate water and wetlands, and territorial seas.

Rocky Creek, a perennial Class I watercourse, flows along the eastern boundary of the Project property. There is a potentially-jurisdictional intermittent Class II/III watercourse and two potentially-jurisdictional ephemeral Class III watercourses, that begin on the Project property and are tributaries to Rocky Creek. Rocky Creek and the unnamed intermittent Class II/III watercourse are indicated on the NHD map layer utilized by California resource agencies via CNDDB and on the federal NWI map layer (See Figure 4. NWI). 100-foot buffers have been established around all watercourses on the Project property, and no disturbance is planned within the buffered area. The seasonal stock pond on the Project property intercepts and stores overland flow and discharges excess flow to the potentially-jurisdictional intermittent Class II/III watercourse via an engineered spillway, when the capacity of the pond has been exceeded. The seasonal stock pond "dries up" in the late summer or fall of most years, prior to the onset of the Winter Wet Weather Period. The seasonal pond is not indicated on the NHD or NWI map layers.

² Streams are classified using the California Forest Practice Rules (also used in the CVRWQCB R5-2015-0113): Class I watercourse 1) providing habitat for fish always or seasonally, and/or 2) providing a domestic water source; a Class II watercourse is 1) a watercourse capable of supporting non-fish aquatic species, or 2) a watercourse within 1000 feet of a watercourse that seasonally or always has fish present; a Class III watercourse is a watercourse with no aquatic life present and that shows evidence of being capable of transporting sediment to Class I and Class II waters during high water flow conditions.

Figure 3. NHD-identified jurisdictional streams, lakes and ponds occurring within and in proximity to 22800 Morgan Valley Road, Lower Lake, CA

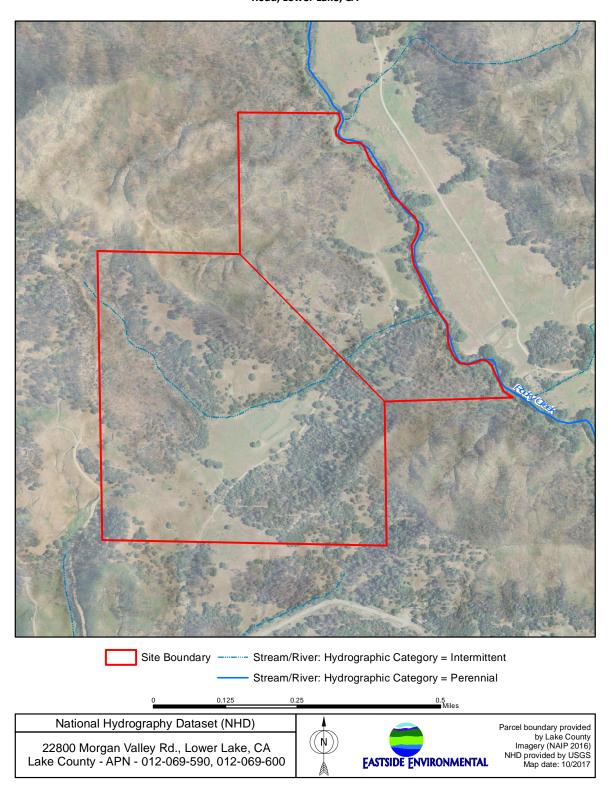
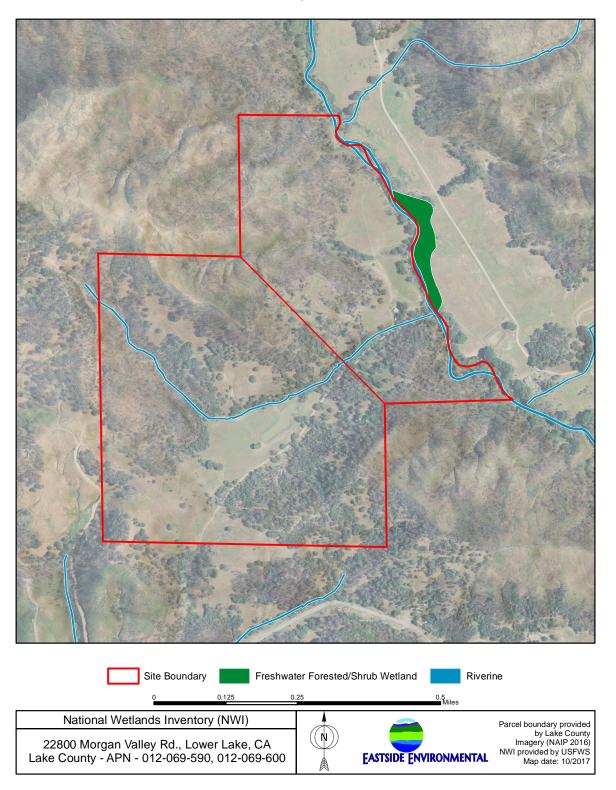


Figure 4. USFWS NWI-identified Waters of the US identified on and in proximity to 22800 Morgan Valley Road, Lower Lake, CA



Special Status Species

"Special Status Species" are any plants or animals that are of management concern to state or federal natural resource agencies and are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing under the California Endangered Species act;
- Designated as endangered or rare under California Fish and Game Code (1901);
- Designated as fully protected under Fish and Game Code (3511, 4700, 5050);
- Designated as a species of special concern by CDFW; and
- Plants listed as rare under the California Native Plant Protection Act.

Table 1. is a list of California and federal special status plants and wildlife with potential to occur at the Project area and Table 2 is a list of migratory birds with potential to occur at the Project area.

During focused field surveys, no special status plant or wildlife species, nor migratory birds were observed within the Project areas or adjacent Project buffer zones.

Appendix A lists the species observed at the Project parcels.

Table 1. Special Status Species with potential to occur at 22800 Morgan Valley Road, Lower Lake, CA

Common Name	Scientific name			Status	\mathbf{s}^1	Number of	Likelihood of Occurrence at Project Site
Common Name		Federal	State	CNPS	Other	Occurrences	
Birds							
Aquila chrysaetos²	Golden eagle	None	None	N/A	BLM_S; CDF_S; CDFW_FP; CDFW_WL; IUCN_LC; USFWS_BCC	1	Moderate . No nests located during field surveys, though adequate habitat exists for species surrounding project site.
Falco mexicanus²	Prairie falcon	None	None	N/A	CDFW_WL; IUCN_LC; USFWS_BCC	1	Moderate. No nests located during field surveys, though adequate habitat exists for species surrounding project site.
		_			Mammals		
Antrozous pallidus²	Pallid bat	None	None	N/A	BLM_S; CDFW_SSC; IUCN_LC; USFS_S; WBWG_H	1	Moderate . No species detected during field surveys, though adequate habitat exists surrounding project site within project buffers.
		_			Plants		
Amsinckia lunaris ⁴	Bent-flowered fiddleneck	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production for many years.
Astragalus rattanii var. rattanii ⁴	Rattan's milk- vetch	None	None	4.3		N/A	Low . Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Balsamorhiza macrolepis ⁴	Big-scale balsamroot	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
California macrophylla ⁴	Round-leaved filaree	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Calystegia collina ssp. oxyphylla⁴	Mt. saint helena morning-glory	None	None	4.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Centromadia parryi ssp. parryi ⁴	Pappose tarplant	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.

Common Name	Scientific name			Status	1	Number of Occurrences	Likelihood of Occurrence at Project Site
		Federal	State	CNPS	Other		
Centromadia parryi ssp. rudis ⁴	Parry's rough tarplant	None	None	4.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Cryptantha excavata ⁴	Deep-scarred cryptantha	None	None	1B.1		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Delphinium recurvatum ⁴	Recurved larkspur	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production alfalfa hay and grazing) for many years.
Eriastrum tracyi ⁴	Tracy's eriastrum	None	R	3.2		N/A	Low . Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Fritillaria pluriflora ^{2,4}	Adobe-lily	None	None	1B.2	BLM_S; SB_RSABG	3	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Lasthenia burkei ⁴	Burke's goldfields	Е	E	1B.1		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Leptosiphon acicularis ⁴	Bristly leptosiphon	None	None	4.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Lupinus milo- bakeri ⁴	Milo baker's lupine	None	Т	1B.1		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Lupinus sericatus ⁴	Cobb mountain lupine	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Micropus amphibolus ⁴	Mt. diablo cottonweed	None	None	3.2		N/A	Low . Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.

Common Name	Scientific name	Status ¹				Number of	Likelihood of Occurrence at Project Site
		Federal	State	CNPS	Other	Occurrences	Electronic at 1 roject site
Microseris sylvatica ⁴	Sylvan microseris	None	None	4.2		N/A	Low . Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Thelypodium brachycarpum ⁴	Short-podded thelypodium	None	None	4.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.
Trifolium hydrophilum⁴	Saline clover	None	None	1B.2		N/A	Low. Species not detected during focused surveys. Project area has been in agricultural production (alfalfa hay and grazing) for many years.

Notes:

¹ Threatened=T; Endangered=E; Candidate=C; AFS Threatened= AFS_TH; BLM Sensitive= BLM_S; CDFW Species of Special Concern= CDFW_SSC; CDFW Watch List= CDFW_WL; IUCN Endangered= IUCN_EN; IUCN Near Threatened= IUCN_NT; IUCN Vulnerable= IUCN_VU; USFS Sensitive= USFS_S.

² IPAC Database

³ CBDDB 5-Mile Database

Table 2. Migratory birds with potential to occur at Project site

Common Name	Scientific name	Status ³
Allen's Hummingbird	Selasphorus sasin	Fed BCC
Black-chinned Sparrow	Spizella atrogularis	Fed BCC
Burrowing Owl	Athene cunicularia	Fed BCC
California Thrasher	Toxostoma redivivum	None
Common Yellowthroat	Geothlypis trichas sinuosa	BCR Region 32
Costa's Hummingbird	Calypte costae	Fed BCC
Lawrence's Goldfinch	Carduelis lawrencei	Fed BCC
Lewis's Woodpecker	Melanerpes lewis	Fed BCC
Nuttall's Woodpecker	Picoides nuttallii	Fed BCC
Oak Titmouse	Baeolophus inornatus	Fed BCC
Rufous Hummingbird	Selasphorus rufus	Fed BCC
Song Sparrow	Melospiza melodia pusillula	Fed BCC
Spotted Towhee	Pipilo maculatus clementae	Fed BCC
Tricolored Blackbird	Agelaius tricolor	Fed BCC
White Headed Woodpecker	Picoides albolarvatus	None
Yellow-billed Magpie	Pica nuttalli	Fed BCC

-

³ Fed BCC = Federal Bird of Conservation Concern; BCR = Bird Conservation Region

California macrophylla
California macrophylla Fritillaria pluriflora Layia septentrionalis Rana boylii Rana boylii California macrophylla 'Emys ma Astragalus rattanii var. jepsonianus Layia septentrionalis Fritillaria pluriflora Layia septentrionalis California macrophylla alifornia macrophylla Astragalus rattanii var. jepsonianus Fritillaria pluriflora Astragalus rattanii var. jepsonian Layia septentrionalis Astragalus rattanii var. jepsonian Astragalus rattanii var. jepsonia Fritillaria pluriflora Fritillana pro... Fritillaria pluriflora California macrophylla Taricha rivularis Harmonia hallii Hesperolinon drymarioides Rana boyl Aquila chrysaetos Astragalus rattanii var. jepsonianus Brushy Sky High 1974 Site Boundary orynorhinus townsendii Antrozous pallidus

Corynorhinus townsendii

Corynorhinus townsendii Corynorhinus townsendii olinon sharsmithiae olinon sharsmithiae Streptant Castilleja rubicundula var. rubicundula Northern Interior Cypress Forest Septentine Bunchgrass orthern Interior Cypress Forest Castilleja rubicundula var rubicundula Northern Interior Cypress Forest Fritillaria pluriflora Hesperolinon sharsmithiae Rana boylii Emys marmorata Calystegia purpurata ssp. saxicola Northern Interior Cypress Forest Castilleja rubicundula vardella leiocarp n Interior Cypress Forest Streptanthus brachiatus ssp. hoffmanii Calystegia purpurata ssp. saxicola Grimmia torenii Grimmia torenii Jim Streptanthus brachiatus ssp. hoffmanii Streptanthus hesperidi Emys marmorata Emys marmorata Northern Basalt Flow Vernal Pool rthern Basalt Flow Vernal Pool Fritillaria plurifl itillaria pluriflora Rana boylii Fritillaria pluriflora Streptanthus morrisonii ssp. krucke esperolinon bicarpellatum Hesperolinon sharsmithi Astragalus rattanii var. jepsonianus Eriogonum ne Hesperolinon sharsn Astragalus rattanii var. jepsonianus Rana bovlii Hesperolinon sharsmithiae Terrestrial Comm. Site Boundary Plant 5 mile buffer Multiple Animal **CNDDB Occurrences** Parcel boundary provided by Lake County CNDDB provided N 22800 Morgan Valley Rd., Lower Lake, CA by CDFW (v. July 2017) **EASTSIDE ENVIRONMENTAL** Lake County - APN - 012-069-590, 012-069-600 Map date: 10/2017

Figure 5. CNDDB Occurrences within a 5-mile radius of 22800 Morgan Valley Road, Lower Lake, CA

IMPACT ANALYSIS

Impact Significance Criteria

Under CEQA, the significance of impacts to biological resources depends upon:

- proximity and quality of vegetation communities;
- proximity and quality of wildlife habitats;
- presence/absence of special-status species;
- and the effectiveness of measures implemented to protect these resources from project-related impacts.

In addition, the CVRWQCB General Order R5-2015-0113 would consider impacts of Project implementation significant if:

- Cannabis production lands or associated facilities were located within 100 feet of any surface water body;
- Commercial tree species were removed within 150 feet of fish-bearing waterbodies or within 100 feet of aquatic habitat for aquatic insects;
- Production lands would introduce sediment or other pollutants (fertilizers, pesticides, feces, etc.) into a surface waterbody.

Impacts to Vegetation Communities

Sensitive natural communities include those that are of special concern to resource agencies and those that are protected under CEQA, Section 1600 of the Fish and Game Code, and Section 404 of the Clean Water Act. Because there are no identified special status habitats occurring on the Project parcel or within a project buffer zone, the impacts to natural vegetation communities are less than significant.

Impacts to Wildlife Habitats

The Project is not located in any wildlife corridors or native wildlife nursery sites; the implementation of this project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, the impact to wildlife habitats as a result of this Project is less than significant.

Impacts to Special- Status Species

During field surveys, no special status plant or wildlife species nor nesting migratory birds were identified on the Project sites or within Project buffer zones.

As a result, impacts to special-status species and migratory birds are determined to be less than significant.

Impacts to Potential Jurisdictional Water Resources

All cultivation facilities were designed with adequate regulatory buffer zones to potentially jurisdictional water resources.

In addition, engineer-designed erosion control methods (e.g., installation of straw wattles and gravel on access roads as prescribed by the site's grading plans) are implemented at the Project site to protect water quality. To maintain enrollment in the CVRWQCB waste discharge permit program, the Project site is subject to two annual erosion control inspections (Pre-winter inspection and spring Effectiveness inspection) and an annual reporting requirement, to identify any maintenance that may be necessary to prevent impacts to surface water bodies as a result of on-going cultivation practices.

Because the operation is enrolled in the CVRWQCB waste discharge permit program, incorporated the mandated jurisdictional waters setbacks of this program into the Project design, and installed adequate erosion control methods across the Project parcel, the potential impacts to surface water bodies are less than significant.

Cumulative Impacts

The surrounding area of Lake County as a whole must be considered for the purpose of evaluating land use conversion issues associated with biological resources on a cumulative level. Continued development in the region could directly and indirectly affect biological resources. The development of natural areas could cause loss of wildlife habitats or plant communities. The Project includes approximately .25-acre of outdoor cannabis cultivation, with plans to expand the Project site to 3 acres, should the existing county cultivation regulations be modified to allow such development. While future development in the surrounding area will potentially contribute to cumulative impacts on special-status species and sensitive and critical habitats, as identified above, the Project itself would result in less than significant impacts to biological resources in the case that Project implementation follows the Avoidance and Protection Measures (APMs) contained within the document.

The Project contains .25 acre of cannabis cultivation area under the Lake County Article 72 ordinance; no Project expansion is permitted under the existing county cultivation regulations. However, should Lake County regulate commercial cannabis up to the maximum allowed by State of Ca regulations, there is potential for expansion of the Project beyond the existing .25 acres. As a result, the cumulative impacts of the Project cannot be fully identified within this document, as there are no current approved commercial cannabis regulations in the local jurisdiction. However, by implementing the Avoidance and Protection Measures contained within this document, maintaining enrollment in the CVRWQCB's cannabis waste discharge permit program and following the BMPs required for enrollment in this program and any future Lake County cultivation ordinance, the cumulative effects of an expanded operation (within the size limits of local and state regulations) should be less than significant.

Mitigation Measures

No mitigation is required for Project if the Project proponent implements the Avoidance and Protection Measures listed below:

AVOIDANCE AND PROTECTION MEASURES

Potential impacts to biological resources as a result of Project implementation can be reduced, avoided or eliminated by implementing the appropriate avoidance and protection measures as described below. Operational impacts can be avoided with careful compliance with Lake County Code Section 17.95, and by implementing the operational APMs listed below. In all cases, if special status species are detected

within the Project site or reasonable buffer zone around the Project, contact the appropriate regulatory authority (Lake County or CDFW, or both) for guidance ⁴ .
⁴ USFWS is the regulatory agency tasked with managing federally listed special status species; however, federal agencies are prohibited from consulting on cannabis projects.

Eastside Environmental, Inc. October 2017

Project Implementation APMs

The following activities or preventative measures should be adopted during project implementation to protect plant and wildlife resources, aquatic organisms, and water quality:

General

- Worker training: The Project proponent should retain a professional biologist to conduct mandatory contractor/worker awareness training for construction personnel. The awareness training will be provided to all construction personnel to brief them on the identified location(s) of sensitive biological resources, including how to identify species with the potential to occur in the construction area and the need to avoid impacts to biological resources (e.g., plants, wildlife, and jurisdictional waters), and to brief them on the penalties for not complying with biological mitigation requirements. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer and questions. If new construction personnel are added to the project, the contractor will ensure that they receive the mandatory training before starting work.
- **Pre-construction special-status species and migratory bird survey** should be performed by a qualified biologist at the proposed Project site and appropriate buffer zone around the Project prior to commencement of ground disturbing activities.
- A biological monitor should be present during the initial construction access in all unpaved areas to identify and mark sensitive resources for avoidance. The biological monitor should also be present during all grading and vegetation clearing (e.g., mowing, trimming, and removal) within 50 feet of sensitive habitats or resources. The biological monitor should have full authority to halt construction once safe to do so if a resource has or may be impacted.
- All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area should be deposited in trash containers with an adequate lid or cover to contain trash. All food waste should be placed in a securely-covered bin and removed from the site on a weekly basis to avoid attracting animals.
- Vehicles and equipment should be parked on pavement, existing roads or paved road shoulders
 developed areas, or approved work areas. Vehicles should be confined to public roadways and
 pre-approved access routes (e.g., private paved and unpaved roads, and overland routes),

previously disturbed and unvegetated roadsides, and work areas. Access routes and construction work areas should be limited to the minimum necessary to achieve the project goals.

- **Use of noxious weed washdown stations** during construction for all construction equipment/vehicles;
- Erosion control materials and planting seed mixes should not introduce invasive weed species;
- Only certified weed-free straw and mulch should be used on the Project site;
- Avoid impacting areas with large gopher activity or ground squirrel dens.
- After a rain event (greater than 0.1 inch of rainfall), workers should check underneath vehicles (i.e., tires, tracks, etc.) for the presence of wildlife. Any discovered wildlife should be reported to an approved biologist for relocation assistance.
- Avoid removing trees between March 1 and August 31 each year without the completion of a bird nest survey.

Special Status and Migratory Birds

- Nest Surveys: If additional earthmoving/construction work is scheduled during the nesting season
 (generally from February 1 through August 31, but may be earlier or later depending on species
 nesting patterns and weather conditions), nest detection surveys will occur within 7 days prior to
 the start of work activities at the Project area to determine nesting status. Nest surveys will be
 accomplished by ground surveys within 500 feet of work areas. Surveys will be conducted during
 the appropriate time of day and season for the species expected to be present.
- Standard Nest Buffers: If active nests are found, the biologist will establish a species-specific standard nest buffer around each active nest. Construction activities would be restricted within the buffers depending on the nature and location of the activities Nest buffers should not restrict construction-related traffic using existing roads. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing reduced nest buffers. Nest buffers should be implemented until the approved avian biologist determines that the nest is no longer active.
- Nesting in Active Work Areas: If birds are found building nests within the standard buffer distance
 after specific project activities begin and the activities are not expected to increase in duration,
 intensity, or distance from the nest, it should be assumed that the birds are tolerant of those
 specific project activities.

- Nest Monitoring: Active nests will be periodically monitored at a frequency and length of time
 necessary to ensure that nesting pairs continue to tend the nest, and until the monitoring biologist
 has determined that the young have fledged, or once construction ends. At minimum, nest
 monitoring will occur weekly.
- Nesting Deterrents: As appropriate, nest deterrent strategies may be used to prevent birds from
 nesting in construction equipment or staged materials. Nest deterrent strategies may include
 exclusion netting, covering equipment with tarps, or covering small holes. The monitoring
 biologist or qualified representative should review bird netting use daily due to risk of
 entanglement.

Special Status Bats

- Prior to construction, a qualified biologist with expertise in bats should conduct a pre-construction assessment for suitable special-status or otherwise protected bat roosting habitat that may be impacted within approximately 50 feet of project work areas and access routes where grading and vegetation removal may occur. The qualified biologist should identify all suitable bat roosts that may be impacted, including man-made structures, snags, rotten stumps, mature trees with broken limbs, trees with exfoliating bark, bole cavities or hollows, and dense foliage.
- If pupping bats are identified in the Project area during the pre-construction survey, either a species-appropriate buffer zone or biological monitor must be utilized to insure construction activities are not affecting rearing activities.

Project Operation APMs

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

- Implement a noxious weed management program;
- Closely monitor the cannabis production facility and adjacent areas for wildlife presence, especially during rain events. Do not attempt to move or otherwise relocate any wildlife species should they appear on site. Allow all wildlife to return to their habitat without assistance.
- Avoid impacting areas with large gopher activity or ground squirrel dens.
- Avoid allowing pesticide to drift into areas beyond the cannabis cultivation operations;
- Maintain installed erosion control measures;

- Maintain enrollment the Central Valley Regional Water Quality Control Board Cannabis Waste Discharge Permit Program and adhere to the Best Management Practices (BMPs) designed for the program;
- Maintain State of CA-required buffer zones stream courses.
- All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area
 will be deposited in trash containers with an adequate lid or cover to contain trash. All food waste
 should be placed in a securely-covered bin and removed from the site on a weekly basis to avoid
 attracting animals.
- Vehicles and equipment will be parked on pavement, existing roads or paved road shoulders
 developed areas, or approved work areas. Vehicles will be confined to public roadways and preapproved access routes (e.g., private paved and unpaved roads, and overland routes), previously
 disturbed and unvegetated roadsides, and work areas. Access routes and construction work areas
 will be limited to the minimum necessary to achieve the project goals.

REFERENCES

Alderfer, J. and J. Dunn, Eds. 2008. *Field Guide to the Birds of Western North America*. National Geographic Society. Washington, D.C.

Baldwin, B.G. et al. Editors. 2012. *The Jepson Manual: Vascular Plant of California*. University of CA Press. Berkeley, CA.

Barbour, M. et al. 2007. Terrestrial Vegetation of California. University of California Press. Berkeley, CA.

Brenzel, K.N. 2001. Sunset Western Garden Book. Sunset Publishing Corporation. Menlo Park, CA.

Calflora: Information on California plants for education, research and conservation. [web application]. 2014. Berkeley, California: The Calflora Database [a non-profit organization]. Available: http://www.calflora.org/

California Department of Fish and Wildlife. 2016a. *RareFind 5., California Natural Diversity Database*. Sacramento, CA. (updated monthly by subscription service).

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 11 August 2017].

Clark, William P. and Philip A. Lydon. 1962. Mines and Mineral Resources of Lake County, California. California Division of Mines and Geology. San Francisco, CA.

Cowardin, L.M. et al. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. USFWS. Washington, D.C.

Crampton, B. 1974. *Grasses in California*. University of California Press. Berkeley, CA.

David P. Tibor, convening editor. 2007. *Inventory of Rare and Endangered Plants, 7th Edition*. California Native Plant Society. Sacramento, CA. Available: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi.

DiTomaso, J. and E. Healy. 2003. *Aquatic and Riparian Weeds of the West*. Regents of the University of California. Oakland, CA.

Environmental Laboratory. 1987 *Corps of Engineers Wetlands Delineation Manual*. US Army Engineers, Vicksburg, MS.

Holland, R.F. 1986. *Preliminary Description of the Terrestrial Natural Communities of CA*. Department of Fish and Game. Sacramento, CA.

Munsell. 2009. Soil Color Charts. Munsell Color. Grand Rapids, MI.

Pavlik, B. et al. 1991. Oaks of California. Cachuma Press. Los Olivos, CA.

Sawyer, J.O and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society. Sacramento, CA.

Sibley, D. A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf, Inc. New York, NY.

University of California, Berkeley. 2016. *Jepson Online Interchange for California Floristics*. UC Berkeley, Berkeley, CA. Internet database available at http://ucjeps.berkeley.edu/interchange.html.

U.S. Army Engineer Research and Development Center. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. U.S. Army Corps of Engineers. Vicksburg, MS.

Vasilas, L. et al., eds. 2010. Field Indicators of Hydric Soils in the United States, Version 7.0. USDA NRCS. Washington, D.C.

Wagner, D.L., C.W. Jennings, T.L. Bedrossian, and E.J. Bortugno. 1981. *Geologic Map of the Sacramento Quadrangle, CA*. California Geologic Survey. Accessed via: https://ngmdb.usgs.gov/ngm-bin/pdp/zui-pdpViewer.pl?id=7669

Whitson, T. et al. 2000. Weeds of the West. Western Society of Weed Science. Newark, CA.

APPENDIX A OBSERVED SPECIES

Common name

Scientific nomenclature

Yellow mariposaCalochortus superbusBindweedCalystegia purpurataRye GrassFestuca perennis

Medusa head grassTaeniaetherum caput-medusaeNotch leaf cloverTrifolium bifidumHairy VetchViscia villosa

Bur clover Medicago polymorpha
Dock Rumex crispus
Rush sp. Juncus sp.
Wild oat Avena sp.

Blue oak

Cottonwood

Brome

Populus fremontii

Brome

Bromus hordeaceous

Valley Oak

Quercus lobata

Rabbit's foot grass

White leaf manzanita

California brome

Everlasting

Tom cat clover

Blue eyed grass

Grassy tarweed

Polypogon monospeliensis

Acrtostaphylos viscida

Bromus carinatus

Gnaphalium sp.

Trifolium wildenovii

Sisyrinchium bellum

Madia gracilis

Ripgut brome Bromus madritensis rubens
Thyme leaf spurge Euphorbia serpyllifolia

Tritaloia lava

Ithuriel's spearTriteleia laxaYello mariposa lilyCalochortus luteusWild onionAllium sp.

Fringed checkerbloom

Narrow tarplant

Skunkweed

California parsley

Sidalcea diploscypha

Holocarpha virgata

Navarretia squarrosa

Lomatium californicum

Ladies' tobacco Pseudognaphalium californicum

Needle-leaved navarretiaNavarretia intertextaSnowberrySymphoricarpos albusFoothill penstemonPenstemon heterophyllusBrewer's peaLathyrus sulphureusToad rushJuncus bufonius

Toad rush

Big squirreltail grass

Beardless wildrye

Juncus bufonius

Elymus multisetus

Elymus triticoides

California buttercup Ranununculus californicus

Gumweed Grindelia hirsutula

Western meadowlark Eurasian collared dove California Quail Sturnella neglecta Streptopelia decaocto Callipepla californica

APPENDIX B SITE PHOTOS



Existing/Current Cultivation Area



Miantenio Ranch Road/Access Road.



Existing stockpond with engineered outfall



Typical habitast of project parcel: Oak Woodland and non-native grassland



Typical habitat of Project parcel: Oak woodland and non-native grassland

APPENDIX QUERY	C	CALIFORNIA	NATURAL	DIVERSITY	DATABASE	5-MILE

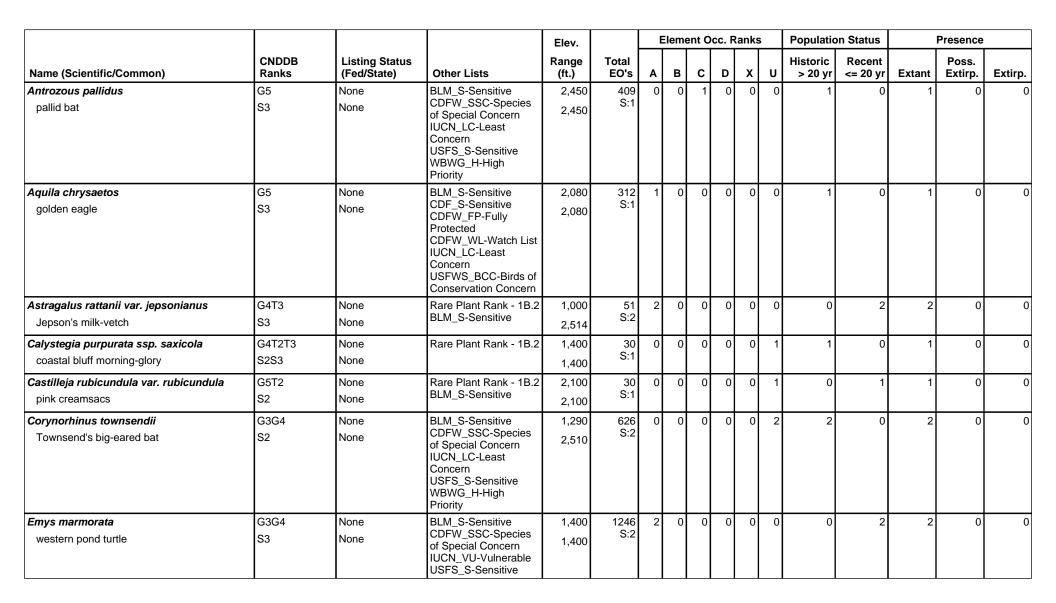


Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: BIOS selection





Summary Table Report

California Department of Fish and Wildlife



California Natural Diversity Database

				Elev.	ev.		Elem	ent C	CC. F	Ranks	5	Population	on Status		Presence	,
Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Range (ft.)	Total EO's	Α	В	С	D	х	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Eriogonum nervulosum Snow Mountain buckwheat	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,400 2,400	9 S:1	1	0	0	0	0	0	0	1	1	0	0
Falco mexicanus prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2,000 2,000	458 S:1	1	0	0	0	0	0	1	0	1	0	0
Fritillaria pluriflora adobe-lily	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	1,300 2,200	107 S:2	0	1	0	0	0	1	2	0	2	0	0
Grimmia torenii Toren's grimmia	G2 S2	None None	Rare Plant Rank - 1B.3	2,200 2,200	13 S:1	0	0	0	0	0	1	0	1	1	0	0
Harmonia hallii Hall's harmonia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	2,553 2,553	19 S:1	0	1	0	0	0	0	0	1	1	0	0
Hesperolinon drymarioides drymaria-like western flax	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,650 2,650	20 S:1	0	1	0	0	0	0	0	1	1	0	0
Hesperolinon sharsmithiae Sharsmith's western flax	G2Q S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,400 1,600	32 S:2	0	0	1	0	0	1	1	1	2	0	0
Juglans hindsii Northern California black walnut	G1 S1	None None	Rare Plant Rank - 1B.1 SB_USDA-US Dept of Agriculture	2,100 2,100	5 S:1	0	1	0	0	0	0	0	1	1	0	0
Northern Basalt Flow Vernal Pool Northern Basalt Flow Vernal Pool	G3 S2.2	None None		1,750 1,750	28 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Interior Cypress Forest Northern Interior Cypress Forest	G2 S2.2	None None		2,240 2,320	22 S:2	0	0	0	0	0	2	2	0	2	0	0



Summary Table Report

California Department of Fish and Wildlife



California Natural Diversity Database

				Elev.		Element Occ. Ranks			S	Populatio	on Status		Presence	!		
Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Range (ft.)	Total EO's	Α	В	O	D	Х	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	1,400 1,400	1230 S:1	0	1	0	0	0	0	0	1	1	0	0
Saldula usingeri Wilbur Springs shorebug	G1 S1	None None		1,400 1,400	4 S:1	0	0	0	0	0	1	1	0	1	0	0
Serpentine Bunchgrass Serpentine Bunchgrass	G2 S2.2	None None		2,100 2,100	22 S:1	0	0	1	0	0	0	1	0	1	0	0
Streptanthus brachiatus ssp. hoffmanii Freed's jewelflower	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,600 2,450	13 S:2	1	0	0	0	0	1	0	2	2	0	0
Streptanthus morrisonii ssp. kruckebergii Kruckeberg's jewelflower	G2T1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	2,180 2,180	S·1	0	1	0	0	0	0	1	0	1	0	0
Taricha rivularis red-bellied newt	G4 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,566 1,566	136 S:1	0	0	0	0	0	1	1	0	1	0	0





Plant List

Inventory of Rare and Endangered Plants

81 matches found. Click on scientific name for details

Search Criteria

Found in Quads 3912215, 3912214, 3912213, 3812285, 3812284, 3812283, 3812275 3812274 and 3812273;

Q Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium fimbriatum var. purdyi	Purdy's onion	Alliaceae	perennial bulbiferous herb	Apr-Jun	4.3	S3	G4G5T3
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S2S3	G2G3
Antirrhinum virga	twig-like snapdragon	Plantaginaceae	perennial herb	Jun-Jul	4.3	S3S4	G3G4
Arabis modesta	modest rockcress	Brassicaceae	perennial herb	Mar-Jul	4.3	S3	G3
Arabis oregana	Oregon rockcress	Brassicaceae	perennial herb	May	4.3	S3	G3G4Q
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Ericaceae	perennial evergreen shrub	(Jan)Mar- May(Jul)	1B.3	S3	G5T3
Asclepias solanoana	serpentine milkweed	Apocynaceae	perennial herb	May- Jul(Aug)	4.2	S3	G3
Astragalus breweri	Brewer's milk-vetch	Fabaceae	annual herb	Apr-Jun	4.2	S3	G3
Astragalus clevelandii	Cleveland's milk- vetch	Fabaceae	perennial herb	Jun-Sep	4.3	S4	G4
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S3	G4T3
Astragalus rattanii var. rattanii	Rattan's milk-vetch	Fabaceae	perennial herb	Apr-Jul	4.3	S4	G4T4
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Brodiaea rosea	Indian Valley brodiaea	Themidaceae	perennial bulbiferous herb	May-Jun	1B.1	S2	G2
Calamagrostis ophitidis	serpentine reed grass	Poaceae	perennial herb	Apr-Jul	4.3	S3	G3
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	Mar-May	1B.2	S4	G4
<u>Calyptridium</u> <u>quadripetalum</u>	four-petaled pussypaws	Montiaceae	annual herb	Apr-Jun	4.3	S4	G4
Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.2	S3	G4T3

Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr- Sep	1B.2	S2S3	G4T2T3
Carex scabriuscula	Siskiyou sedge	Cyperaceae	perennial rhizomatous herb	May-Jul	4.3	S4	G5?
Castilleja rubicundula var. rubicundula	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	annual herb	May-Nov	1B.2	S2	G3T2
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	4.2	S3	G3T3
Clarkia gracilis ssp. tracyi	Tracy's clarkia	Onagraceae	annual herb	Apr-Jul	4.2	S3	G5T3
Collomia diversifolia	serpentine collomia	Polemoniaceae	annual herb	May-Jun	4.3	S4	G4
Cordylanthus tenuis ssp. brunneus	serpentine bird's- beak	Orobanchaceae	annual herb (hemiparasitic)	Jul-Aug	4.3	S3	G4G5T3
Cryptantha dissita	serpentine cryptantha	Boraginaceae	annual herb	Apr-Jun	1B.2	S2	G2
Cryptantha excavata	deep-scarred cryptantha	Boraginaceae	annual herb	Apr-May	1B.1	S1	G1
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	4.2	S3	G3
Equisetum palustre	marsh horsetail	Equisetaceae	perennial rhizomatous herb	unk	3	S1S3	G5
Eriastrum tracyi	Tracy's eriastrum	Polemoniaceae	annual herb	May-Jul	3.2	S3	G3Q
Erigeron greenei	Greene's narrow- leaved daisy	Asteraceae	perennial herb	May-Sep	1B.2	S3	G3
Eriogonum nervulosum	Snow Mountain buckwheat	Polygonaceae	perennial rhizomatous herb	Jun-Sep	1B.2	S2	G2
Erythranthe nudata	bare monkeyflower	Phrymaceae	annual herb	May-Jun	4.3	S4	G4
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
Fritillaria pluriflora	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
Fritillaria purdyi	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.3	S4	G4
Galium andrewsii ssp. gatense	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	Apr-Jul	4.2	S3	G5T3
Gratiola heterosepala	Boggs Lake hedge- hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
Grimmia torenii	Toren's grimmia	Grimmiaceae	moss		1B.3	S2	G2
Harmonia hallii	Hall's harmonia	Asteraceae	annual herb	Apr-Jun	1B.2	S2	G2
Helianthus exilis	serpentine sunflower	Asteraceae	annual herb	Jun-Nov	4.2	S3	G3Q
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2

Hesperolinon didymocarpum	Lake County western flax	Linaceae	annual herb	May-Jul	1B.2	S1	G1
Hesperolinon drymarioides	drymaria-like western flax	Linaceae	annual herb	May-Aug	1B.2	S2	G2
Hesperolinon sharsmithiae	Sharsmith's western flax	Linaceae	annual herb	May-Jul	1B.2	S2	G2Q
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May	1B.1	S1	G1
Lasthenia burkei	Burke's goldfields	Asteraceae	annual herb	Apr-Jun	1B.1	S1	G1
Layia septentrionalis	Colusa layia	Asteraceae	annual herb	Apr-May	1B.2	S2	G2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S3	G3
Lomatium hooveri	Hoover's Iomatium	Apiaceae	perennial herb	Apr-Jul	4.3	S3	G3
Lomatium repostum	Napa Iomatium	Apiaceae	perennial herb	Mar-Jun	4.3	S3	G3
Lupinus milo-bakeri	Milo Baker's lupine	Fabaceae	annual herb	Jun-Sep	1B.1	S1	G1Q
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Malacothamnus helleri	Heller's bush- mallow	Malvaceae	perennial deciduous shrub	May-Jul	3.3	S3	G3Q
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4
Microseris sylvatica	sylvan microseris	Asteraceae	perennial herb	Mar-Jun	4.2	S4	G4
Navarretia cotulifolia	cotula navarretia	Polemoniaceae	annual herb	May-Jun	4.2	S4	G4
Navarretia jepsonii	Jepson's navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G4T2
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.1	S1	G4T1
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	Polemoniaceae	annual herb	May-Jun	1B.2	S1	G4T1
Navarretia nigelliformis ssp. nigelliformis	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
Navarretia paradoxinota	Porter's navarretia	Polemoniaceae	annual herb	May- Jun(Jul)	1B.3	S2	G2
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May- Sep(Oct)	1B.1	S2	G2
Orobanche valida ssp. howellii	Howell's broomrape	Orobanchaceae	perennial herb (parasitic)	Jun-Sep	4.3	S4	G4T4
Plagiobothrys hystriculus	bearded popcornflower	Boraginaceae	annual herb	Apr-May	1B.1	S2	G2
Plagiobryoides vinosula	wine-colored tufa moss	Bryaceae	moss		4.2	S2	G3G4

Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
Sedella leiocarpa	Lake County stonecrop	Crassulaceae	annual herb	Apr-May	1B.1	S1	G1
Senecio clevelandii var. clevelandii	Cleveland's ragwort	Asteraceae	perennial herb	Jun-Jul	4.3	S3	G4?T3Q
Sidalcea keckii	Keck's checkerbloom	Malvaceae	annual herb	Apr- May(Jun)	1B.1	S2	G2
Streptanthus barbiger	bearded jewelflower	Brassicaceae	annual herb	May-Jul	4.2	S3	G3
Streptanthus brachiatus ssp. hoffmanii	Freed's jewelflower	Brassicaceae	perennial herb	May-Jul	1B.2	S2	G2T2
Streptanthus hesperidis	green jewelflower	Brassicaceae	annual herb	May-Jul	1B.2	S2	G2
Streptanthus morrisonii ssp. elatus	Three Peaks jewelflower	Brassicaceae	perennial herb	Jun-Sep	1B.2	S1	G2T1
Streptanthus morrisonii ssp. kruckebergii	Kruckeberg's jewelflower	Brassicaceae	perennial herb	Apr-Jul	1B.2	S1	G2T1
Thelypodium brachycarpum	short-podded thelypodium	Brassicaceae	perennial herb	May-Aug	4.2	S3	G3
Toxicoscordion fontanum	marsh zigadenus	Melanthiaceae	perennial bulbiferous herb	Apr-Jul	4.2	S3	G3
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 24 October 2017].

Search the Inventory	Information	Contributors
Simple Search	About the Inventory	The Calflora Database
Advanced Search	About the Rare Plant Program	The California Lichen Society
Glossary	CNPS Home Page	
	About CNPS	
	Join CNPS	

© Copyright 2010-2018 California Native Plant Society. All rights reserved.





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To: October 20, 2017

Consultation Code: 08ESMF00-2018-SLI-0168

Event Code: 08ESMF00-2018-E-00483 Project Name: 22800 Morgan Valley Rd

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and

http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846 (916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2018-SLI-0168

Event Code: 08ESMF00-2018-E-00483

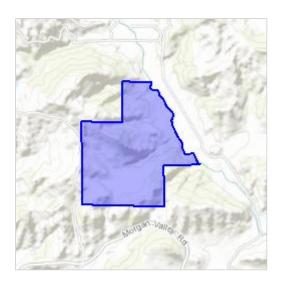
Project Name: 22800 Morgan Valley Rd

Project Type: AGRICULTURE

Project Description: 22800 Morgan Valley Rd.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.899803817640816N122.48689506607931W



Counties: Lake, CA

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Birds

NAME STATUS

Northern Spotted Owl Strix occidentalis caurina

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/1123

Amphibians

NAME STATUS

California Red-legged Frog Rana draytonii

Threatened

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/2891

Fishes

NAME STATUS

Delta Smelt Hypomesus transpacificus

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/321

Steelhead *Oncorhynchus* (=Salmo) mykiss

Threatened

Population: Northern California DPS

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/1007

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

OPERATIONS MANUAL

Intent: To describe the operating procedures of the commercial cannabis cultivation site to ensure compliance with the use permit, protect the public health, safety and welfare, as well as the natural environment of Lake County.

This section shall include the following:

- a. Authorization for the County, its agents, and employees, to see verification of the information contained within the development permit or use permit applications, the Operations Manual, and the Operating Standards at any time before or after development or use permits are issued;
- b. A description of the staff screening processes;
- c. The hours and days of the week when the facility will be open;
- d. Description of measures taken to minimize or offset the carbon footprint from operational activities;
- e. Description of chemicals stored, used and any effluent discharged as a result of operational activities;
- f. The permittee shall establish and implement written procedures to ensure that the grounds of the premises controlled by the permittee are kept in a condition that prevents the contamination of components and cannabis products. The methods for adequate maintenance of the grounds shall include at minimum:
 - i. The proper storage of equipment, removal of litter and waste, and cutting of weeds or grass so that the premises shall not constitute an attractant, breeding place, or harborage for pests.
 - ii. The proper maintenance of roads, yards, and parking lots so that these areas shall not constitute a source of contamination in areas where cannabis products are handled or transported.
 - iii. The provision of adequate draining areas in order to prevent contamination by seepage, foot-borne filth, or the breeding of pests due to unsanitary conditions.
 - iv. The provision and maintenance of waste treatment systems so as to prevent contamination in areas where cannabis products may be exposed to such a system's waste or waste by-products.

If the lot of record is bordered by grounds outside the applicant's control that are not maintained in the manner described in subsections (i) through (iv) of this section, inspection, extermination, and other reasonable care shall be exercised within the lot of record in order to eliminate any pests, dirt, and/or filth that pose a source of cannabis product contamination.

Operations Manual

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Official Authorizations

MVV authorizes the County of Lake, its agents, and employees, to seek verification of the information contained within the Use Permit Application package, the Operations Manual, and the Operating Standards for the proposed cannabis cultivation operation at 22800 Morgan Valley Road, Lower Lake, CA at any time before or after a Use Permit is issued. All information contained in this Use Permit Application package is currently available for viewing, and will remain viewable in a physical and digital format given to the County of Lake and its agents/employees and kept at the project site.

Staff Screening

All employees must undergo a background check by the Lake County Sheriff's Department before starting employment. MVV does not/will not employ individuals that have convictions of an offense that is substantially related to the qualifications, functions, or duties of the

existing/proposed cultivation operation, unless the Sheriff determines that the individual would not compromise the operation or public safety after a thorough review of the crime, conviction, circumstances, and evidence of rehabilitation. All staff must be a United States citizen or eligible for employment within the US.

Facility Hours of Operation

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

Facility Carbon Footprint

MVV recognizes that the most sustainable source of power/light is the sun, and is committed to growing high quality cannabis with as little supplemental light as necessary. All electricity for MVV's existing/proposed outdoor cannabis cultivation operation comes from a battery bank connected to a photovoltaic solar array with a gasoline powered generator backup. MVV uses the lightweight, low noise, compact, and fuel efficient Honda EU6500is Generator as its backup power source, to supply power only when it is not available from the photovoltaic solar array/battery bank. The motion-sensing alarms and security lights of MVV's cultivation operation are equipped with their own batteries and photovoltaic solar panels. The generation of carbon dioxide would be partially offset by the outdoor cultivation of cannabis plants, which remove/sequester carbon dioxide in the air for photosynthesis.

Chemicals Storage and Effluent

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

Site Maintenance

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

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

Standard Operating Procedures

The cultivation season for MVV's existing/proposed outdoor cannabis cultivation operation begins on April 1st and ends on November 15th of each year. MVV's core operating/business hours for are from 8am to 6pm, Monday through Saturday during the cultivation season. At least one member of MVV's staff are onsite twenty-four (24) hours a day and seven (7) days a week for security purposes throughout the cultivation season. Both of the metal gates along MVV's access road are closed and locked outside of core operating/business hours (6pm to 8am) during the cultivation season, and whenever MVV personnel are not present outside of the cultivation season (November 16th through March 31st).

At the beginning of each cultivation season, the soils of the cultivation area(s) are sampled and analyzed by a Certified Crop Adviser, then plowed and amended per the Crop Adviser's recommendations. MVV cultivates mostly "autoflowering" cannabis plants (cannabis plants that switch from vegetative growth to the flowering stage with age, as opposed to being photoperiod dependent), and implements a cyclical planting and harvesting schedule. MVV will adhere to the inventory tracking and recording requirements of the CCTT system. All staff will be trained in the requirements of the CCTT system, and at least two members of MVV's managerial staff will be designated track-and-trace system administrators. The designated track-and-trace system administrators will complete an initial training provided by the California Department of Food and Agriculture, and will participate in ongoing training as required. All cannabis transfers/movement will be reported through the CCTT system, and a track-and-trace system administrator will supervise all tasks with high potential for diversion/theft.

Processing (drying, curing, grading, trimming, storing, packaging, and labeling) of harvested cannabis plants will take place in the 5,000 ft² Processing Facility. Immediately after being harvested, raw cannabis plant material will be weighed, recorded, then hung in the drying/harvest storage area of the Processing Facility. Once dry, the raw cannabis plant material will be weighed, recorded, then transferred to the processing area of the Processing Facility. There it will be trimmed, graded, and packaged, then weighed, recorded, and

transferred to the secure storage area of the Processing Facility, until transferred to a State of California-licensed Distributor. All activities within the Processing Facility will be under constant video surveillance and will be overseen by a track-and-trace system administrator. All cannabis waste generated from MVV's existing/proposed cultivation operation is composted on-site. Composted cannabis waste is stored in the designated composting area of MVV's cultivation operation, until it is incorporated into the soils of the cultivation area(s) as a soil amendment. Cannabis waste generated from MVV's cannabis cultivation operation is identified, weighed, and tracked while onsite. All required information pertaining to cannabis waste will be entered into the CCTT system. MVV maintains accurate and comprehensive records regarding cannabis waste generation that account for, reconcile, and evidence all activity related to the generation and disposition of cannabis waste.

Before transferring cannabis to a State of California-licensed Distributor, a MMV track-and-trace system administrator will enter all required commercial cannabis activities into the California Cannabis Track-and-Trace - Marijuana Enforcement Tracking Reporting Compliance system (CCTT-METRC). For each purchase order/shipment, an electronic shipping manifest that includes a track-and-trace UID is completed. MVV's track-and-trace system administrator then securely transmits the manifest to the licensed distributor that will be receiving the cannabis product. Upon receiving the cannabis product, the licensed distributor is given a physical copy of the manifest and ensures that the product received is as described in the manifest. The licensed distributor then records acceptance and acknowledgment of the product in the track-and-trace system. A physical copy of the shipping manifest shall be maintained by the licensed distributor receiving the cannabis product, so that it can be provided should it be requested by the Bureau of Cannabis Control ("The Bureau") or law enforcement officers. If for some reason there is any major discrepancy identified during inventory by diversion, theft, loss, criminal activity, or alteration of records, the appropriate licensing authority and law enforcement agency will be notified within 24 hours of discovery.

At the end of each cultivation season, MVV sows a nitrogen-fixing cover crop and applies weed-free straw mulch to the entire cultivation area(s). All trash is removed from the Project Property, and erosion and sediment control measures are inspected and replaced (if necessary). Any soil or amendment stockpiles are covered and all pesticides, fertilizers, and petroleum products and associated equipment are securely stored in the Pesticides and Agricultural Chemicals Storage Area. After all processed cannabis has been transferred to a licensed distributor, the Processing Facility is sanitized and secured in preparation for the next cultivation season.

Self-Distribution

MVV is seeking to obtain a Lake County Minor Use Permit and Bureau of Cannabis Control License for Type 13 Cannabis Distributor Transport Only, Self-Distribution, so that they may transport cannabis from their cultivation operation to Licensed Cannabis Distribution and Manufacturing Facilities. Before the transportation of cannabis products takes place, MVV's track-and-trace system administrator will enter all required commercial cannabis activities and movements into the California Cannabis Track-and-Trace (CCTT) system. For each purchase

order, an electronic shipping manifest that includes the track-and-trace unique identifier (UID) will be completed. MVV will then securely transmit the manifest to the licensee that will receive the cannabis product.

For transportation of products, MVV will utilize a specialty, unmarked, registered and insured vehicle for delivery to licensed manufacturers and other distributors. The vehicle will have specialty boxes/containers that are secured to the inside of the vehicle, and a vehicle alarm system that alerts law enforcement and MVV managerial staff as a result of an attempted breach of the vehicle. MVV will conduct daily light checks and proper/regular vehicle maintenance. MVV's distribution vehicle will only travel from the Project Property to the premises of licensed cannabis manufacturing and distribution facilities, and back to the Project Property. MVV's drivers will not leave the vehicle containing any product unattended in a residential area nor parked overnight in any such area. If the vehicle is left unattended (which would only be in the case of a restroom break), the vehicle will be locked and secured. During transportation, MVV's driver will maintain a physical copy of the shipping manifest, to make available should it be requested by the Bureau of Cannabis Control ("the Bureau") or law enforcement officers. Upon delivery of products, the licensee receiving the shipment will then be given the manifest and will ensure that the product received is as described in the manifest. The licensee receiving the shipment shall record acceptance and acknowledgment of the product in the CCTT system. If for some reason there is any major discrepancy identified during inventory by diversion, theft, loss, criminal activity, or alteration of records, the appropriate licensing authority and law enforcement will be notified within 24 hours of discovery.

PEST MANAGEMENT

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

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

- a. Complying with the California Food and Agriculture Code, Division 6 Pest Control Operations and Division 7 Agriculture Chemical; Chapter 1-3.6 and California Code of Regulations, Division 6 Pest Control Operations.
- b. Complying with all pesticide label directions;
- c. Storing chemicals in a secure building or shed to prevent access by wildlife;
- d. Containing any chemical leaks and immediately clean up any spills;
- e. Preventing offsite drift;
- f. Not applying pesticides when pollinators are present;
- g. Not allowing drift to flowering plants attractive to pollinators;
- h. Not spraying directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;
- i. Not applying pesticides when they may reach surface water or groundwater;
- j. Using only properly labeled pesticides; and
- k. Not using pesticides within 100 feet of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. For purposes of determining the edge of Clear Lake, the setback shall be measured from the full lake level or 7.79 feet on the Rumsey Gauge.

This section shall include a map of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record of land or within 100 feet of the lot of record and a 100-foot setback from any identified spring, top of bank or any creek or seasonal stream, edge of lake, delineated wetland or vernal pool. This map shall include the location of where pesticides will be stored and used.

Pest Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Allowable Pesticides for Cannabis Cultivation & Required Reporting

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

All pesticide product labels include a warning statement, precautionary statements for protecting human and environmental health, storage and disposal statements, and directions for use. By law, all pesticide users must follow these statements. When using pesticide products in cannabis cultivation, applicators must not use a rate that is higher than the rates listed on the

label and follow the agricultural use requirements including method of application, restricted entry interval, personal protective equipment, and pre-harvest interval. Additionally, cannabis cultivators using pesticides in the production of cannabis for commercial purposes must obtain an Operator Identification Number (OID) from their County's Department of Agriculture, and submit Monthly Pesticide Use Reports (PURs). PURs are required to be submitted by the 10th day of the month following the month in which the work was performed. PURs can be submitted either electronically through the CalAg Permits website or by using the appropriate paper form.

Pesticide Practices & Protocols for Use

MVV implements Integrated Pest Management (IPM) practices that focus on the long-term prevention of pests and their damage through an integrated ecosystem-based strategy that uses a combination of techniques such as biological controls, habitat manipulation, adaptive cultivation practices, and the use of pest resistant varieties/strains. MVV implements daily pest monitoring to ensure production of the cleanest, purest, highest quality cannabis.

Pest Deterrence

The following techniques are implemented to minimize pest infestations:

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

Pesticides

MVV uses the following biopesticides approved by the California Department of Pesticide Regulation for use on cannabis, when daily monitoring indicates that they are needed to prevent pest infestations and save the cannabis crop:

Pesticide	Active Ingredient					
Grandevo Bioinsecticide	Chromobacterium subtsugae strain					
	PRAA4-1 and spent fermentation media					
Venerate Bioinsecticide	Burkholderia spp. Strain A396					
Regalia Biofungicide	Extract of Reynoutria sachalinensis					

Any employee who is involved in the application or handling of pesticides must first complete Pesticide Handler safety training as described in 40 Code of Federal Regulations, Section 170.230. Personnel are trained how to appropriately prepare and apply pesticides before being allowed to use them. Each employee training record will be verified by the employee's

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

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

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

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

When preparing/mixing pesticides, MVV's trained pesticide applicator(s) don the following Personal Protective Equipment (PPE):

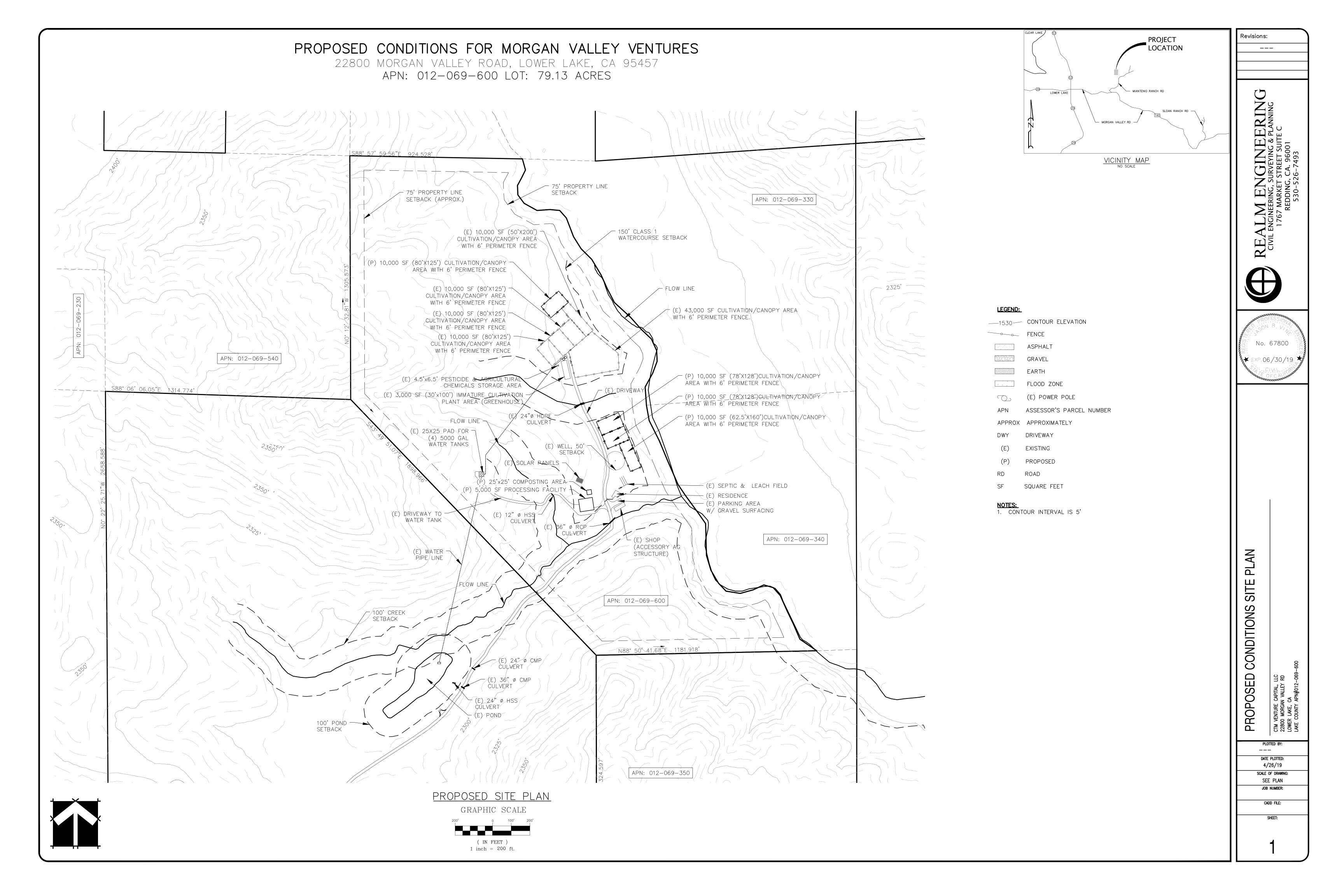
- A dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95;
- Long-sleeved shirt and long pants;
- Waterproof gloves; and
- Shoes plus socks.

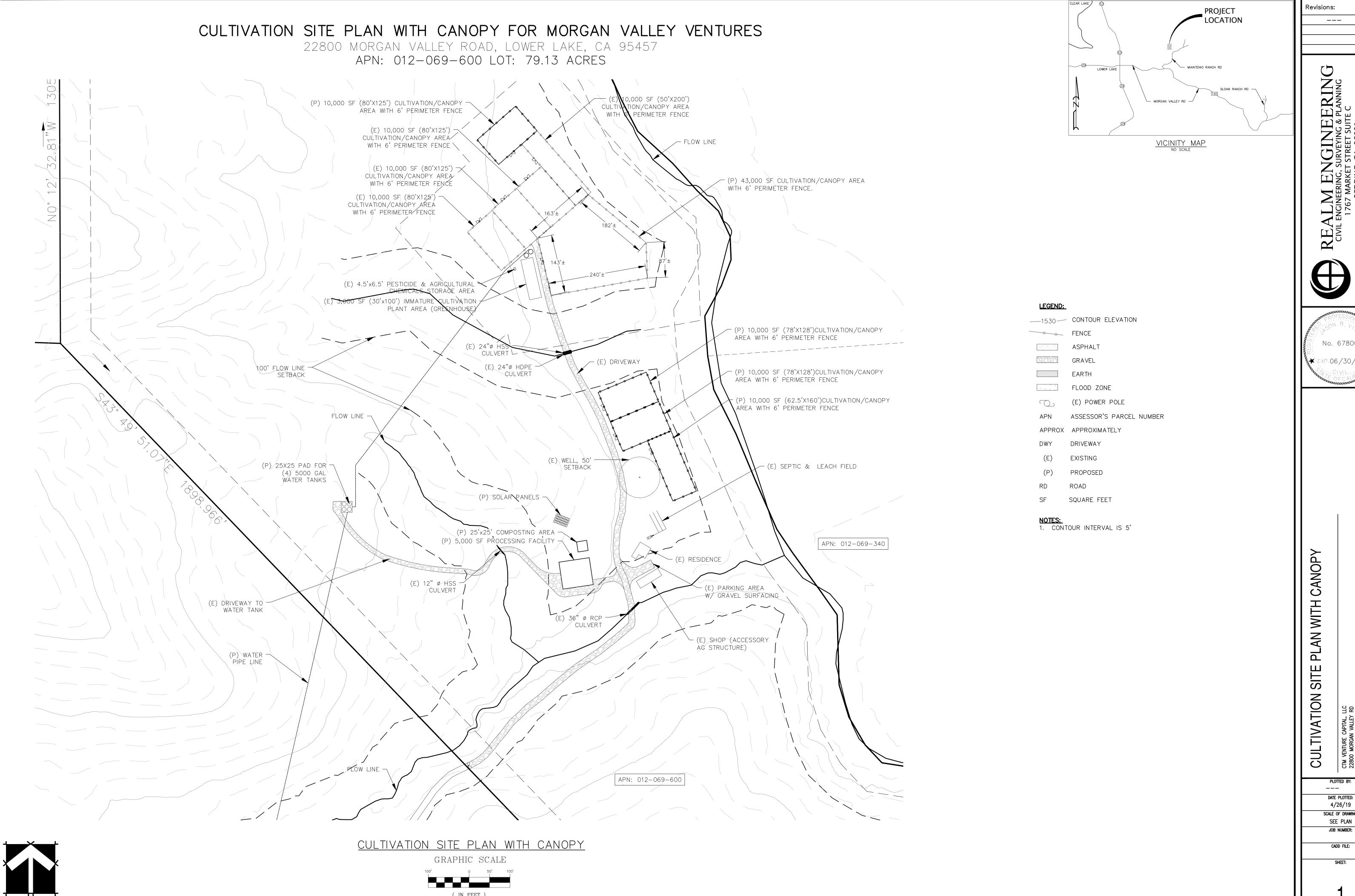
Pesticide Storage and Spill Containment

When not in use, all pesticides will be stored under cover and in compliance with label instructions, within a secure wooden shed (Pesticides and Agricultural Chemicals Storage Area) located adjacent to the existing cultivation area(s) and more than 150 feet from the nearest surface water body. All pesticides are stored in their manufacturer's original containers/packaging, within secondary containment structures to prevent possible exposure to the environment. Absorbent materials designed for spill containment and spill cleanup

equipment are maintained within the materials storage shed and adjacent to the pesticide mixing/preparation area, for use in the event of an accidental spill.

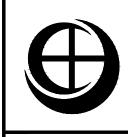
Materials Safety Data Sheets (MSDS/SDS) for all pesticides used by MVV are stored within the materials storage shed and available for personnel to reference at any time. Personnel are trained how to appropriately prepare and apply pesticides before being allowed to use them. When using/preparing pesticides and other chemicals, personnel are 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.





1 inch = 100 ft.

SURVEYING & PLANNING
- STREET SUITE C
-, CA. 96001
26-7493





DATE PLOTTED: 4/26/19 SCALE OF DRAWING:

CADD FILE:

SECURITY

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

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

- a. Prevent access to the cultivation site by unauthorized personnel and protect the physical safety of employees. This includes, but is not limited to:
 - i. A description of fences;
 - ii. Establishing physical barriers to secure perimeter access and all points of entry (such as locking primary entrances with commercial-grad, non-residential door locks, or providing fencing around the grounds, driveway, and any secondary entrances including windows, roofs, or ventilation systems);
 - iii. Installing a security alarm system to notify and record incidents where physical barriers have been breached;
 - iv. Establishing an identification and sign-in/sign-out procedure for authorized personnel, suppliers, and/or visitors;
 - v. Maintaining the premises such that visibility and security monitoring of the premises is possible; and
 - vi. Establishing procedures for the investigation of suspicious activities.
- b. Prevent theft or loss of cannabis and cannabis products. This includes but is not limited to:
 - i. Establishing an inventory system to track cannabis material and the personnel responsible for processing it throughout the cultivation process;
 - ii. Limiting access of personnel within the premises to those areas necessary to complete job duties, and to those time-frames specifically scheduled for completion of job duties;
 - iii. Supervising tasks or processes with high potential for diversion (including the loading and unloading of cannabis transportation vehicles); and
 - iv. Providing designated areas in which personnel may store and access personal items.
- c. Identification of emergency contact(s) that is/are available 24 hours/seven (7) days a week including holidays. This section shall include the name, phone number and facsimile number or email address of an individual working on the commercial cultivation premises, to whom notice of problems associated with the operation of the commercial cultivation establishment can be provided. The commercial cultivation establishment shall keep this information current at all times. The applicant shall make every good faith effort to encourage neighborhood residents to call this designated person to resolve operating problems, if any, before any calls or complaints are made to the County. This section shall include a description of the procedures on receiving complaints, responding to the complaints, maintaining records of all complaints and resolution of

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

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

Security Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Secured Entry and Access

The Project Property is accessed from Morgan Valley Road via a graveled private access road/driveway approximately one mile in length. An iron gate located directly adjacent to Morgan Valley Road, controls access to the private access road/driveway. An additional locking gate will be installed on the private access road/driveway where it enters onto to the Project Parcel (main entrance), to control access to the existing/proposed cultivation operation. Both gates will be closed and locked outside of core operating/business hours (8am to 6pm) and whenever MVV personnel are not present.

6-foot woven galvanized wire fences have been/will be erected around the existing/proposed cultivation area(s). Privacy Screen/Cloth has been/will be installed on the fences where necessary to screen the cultivation area from public view. Posts were/will be set into the ground at not more than 10-foot intervals, and terminal posts were/will be set into concrete footings. Secured entry and access to the cultivation area(s) is/will be controlled via locking gates that are/will be locked whenever MVV personnel are not present. All gates are/will be

secured with heavy duty chains and commercial grade padlocks. Only approved MVV managerial staff are able to unlock the gates on the Project Property.

A 100-foot defensible space (vegetation management) has been/will be established and maintained around the existing/proposed cultivation operation for fire protection and to provide for visibility and security monitoring. Motion-sensing alarms have been installed at the main entrance to the Project Parcel, to alert personnel when someone/something has entered onto the premises. Motion-sensing security lights have been/will be installed on all external corners of the existing/proposed cultivation area(s), and at the main entrance to the Project Parcel. All lighting is/will be fully shielded, downward casting and will not spill over onto other properties or the night sky.

Personnel are instructed to notify MVV managerial staff immediately if/when suspicious activity is detected. MVV managerial staff will investigate the suspicious activity for potential threats, issues, or concerns. MVV will contact the Lake County Sheriff's Office immediately if/when a threat is detected.

When a visitor arrives at the existing/proposed cultivation operation via the main entrance during core operating/business hours, they will be immediately greeted by a member of MVV's managerial 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.

Diversion/Theft Prevention

All MVV personnel are required to undergo a criminal background check. Visitors and personnel are required to sign-in and sign-out each day, and record the areas in which they worked and the tasks they were assigned. Personnel are required to store personal items in the onsite residential/office building throughout their shift.

MVV 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 two members of MVV's managerial staff will be designated track-and-trace system administrators. 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. MVV will provide the name, cell phone number, and email address of the Community Liaison/Emergency Contact to all interested County Departments, Law Enforcement Officials,

and neighboring property owners and residents. MVV 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 MVV's annual Performance Review Report.

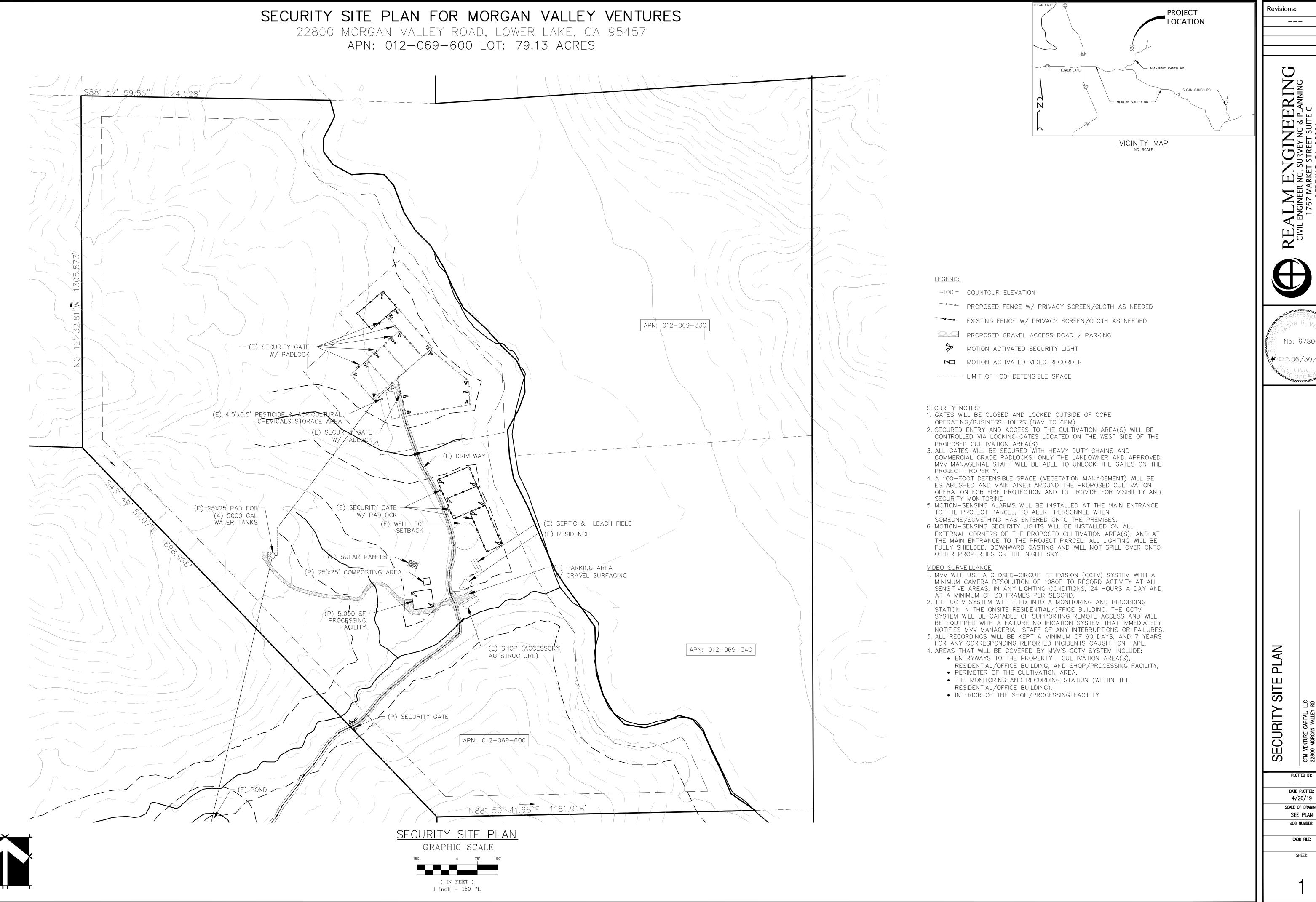
The Community Liaison/Emergency Contact for Morgan Valley Ventures is Mr. Bob Skalla. Mr Skalla's cell phone number is (707) 477-7606, and his email address is bobbyskalla@gmail.com.

Video Surveillance

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

Plan. Areas that will be covered by the CCTV system include:

- Entryways to the property, cultivation area(s), residential/office building, and shop/processing facility,
- Perimeter of the cultivation/canopy areas,
- The monitoring and recording station (within the Processing Facility),
- Interior of the Processing Facility.







SCALE OF DRAWING: SEE PLAN JOB NUMBER:

STORM WATER MANAGEMENT

Intent: To protect the water quality of the surface water and the stormwater management systems managed by Lake County and to evaluate the impact on downstream property owners.

This section shall include at a minimum:

- a. Provide written and graphic representation of how storm water runoff will be managed to protect downstream receiving water bodies from water quality degradation;
- b. Provide written and graphic representation of how the applicant will comply with the California State Water Resources Control Board, the Central Valley Regional Water Quality Control Board, and/or the North Coast Regional Water Quality Control Board orders, regulations, and procedures as appropriate;
- c. Provide written and graphic representation showing the cultivation operation, including any topsoil, pesticide or fertilizers storage areas;
- d. Provide written discussion describing how the illicit discharges of irrigation or storm water from the premises, as defined in Title 40 of the Code of Federal Regulations, Section 122.26, which could result in degradation of water quality of any water body will be prevented;
- e. Identify any Lake County maintained drainage or conveyance systems that the storm water is discharged into and documentation that the storm water discharge is in compliance with the design parameters of those structures;
- f. Identify any public roads and bridges that are downstream of the discharge point and documentation that the storm water discharge is in compliance with the design parameters of any such bridges;
- g. Provide documentation that the discharge of storm water from the site will not increase the volume of water that historically has flowed onto adjacent properties;
- h. Provide documentation that the discharge of storm water will not increase flood elevations downstream of the discharge point;
- i. Provide documentation of compliance with the requirements of Chapter 29, Storm Water Management Ordinance of the Lake County Ordinance Code;
- j. Describe the proposed grading of the property;
- k. Describe the best management practices (BMPs) that will be used during construction and those that will be used post-construction. Post-construction BMPs shall be maintained through the life of the permit; and
- I. Describe what parameters will be monitored and the methodology of the monitoring program.

Storm Water Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Stormwater Management Measures

The proposed cultivation area(s) will not increase the impervious surface area of the Project Parcel and should not increase the volume of runoff. Actually, the volume of stormwater runoff generated from the field in which the proposed cultivation area(s) will be located should decrease from the addition of well-vegetated swales and erosion and sediment control measures that are not currently being implemented. Well-vegetated buffers (minimum 100 feet) will be maintained around the proposed cultivation area(s) 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.

Erosion and Sediment Control Measures

The existing cannabis cultivation operation was established with minimal disturbance to existing vegetation (no grading was required), and the proposed cultivation area(s) will be established with minimal disturbance as well. Established and re-established vegetation within and around the existing/proposed cultivation operation will be maintained/protected as a permanent erosion and sediment control measure. Straw mulch is/will be applied to all areas of exposed soil prior to November 15th of each year, and straw wattles will be installed in accordance with this Site's Grading and Erosion Control Plan Set (included in the attached Site Management Plan), 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. MVV's Site Manager will conduct monthly monitoring inspections to confirm that this operation is in compliance California Water Code. Monitoring inspections conducted during and following the 2018/2019 winter wet weather period, indicate that the erosion and sediment control measures implemented within and around the existing cultivation operation were successful in preventing sediment discharges to surface water bodies.

Regulatory Compliance (Stormwater)

MVV's existing/proposed cannabis cultivation operation is enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. WQ-2017-0023-DWQ) as a Tier 2 Low Risk Discharger (WDID: 5S17CC402499). A Site Management Plan was developed for the existing/proposed commercial cannabis cultivation operation, and has been reviewed and approved by the Central Valley Water Board's Cannabis Cultivation Waste Discharge Regulatory Program.

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). Stormwater runoff from the existing/proposed cultivation operation will not discharge into any Lake County maintained drainage or conveyance system, and there are no public bridges or culverted watercourse crossings downstream from the proposed cultivation operation. There is however, a culverted watercourse crossing of Rocky Creek on a shared private access road approximately ½ mile downstream of the proposed cultivation operation, and two wet ford crossings of Rocky Creek on Rocky Creek Road (a Lake County maintained public access road) downstream of the proposed cultivation operation. Development of MVV's existing/proposed cultivation operation, with the implementation of the LID practices and erosion and sediment control measures outlined above, has not and will not increase the volume of stormwater discharges from the Project Property onto adjacent properties or flood elevations downstream.

Monitoring and Reporting Program

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

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

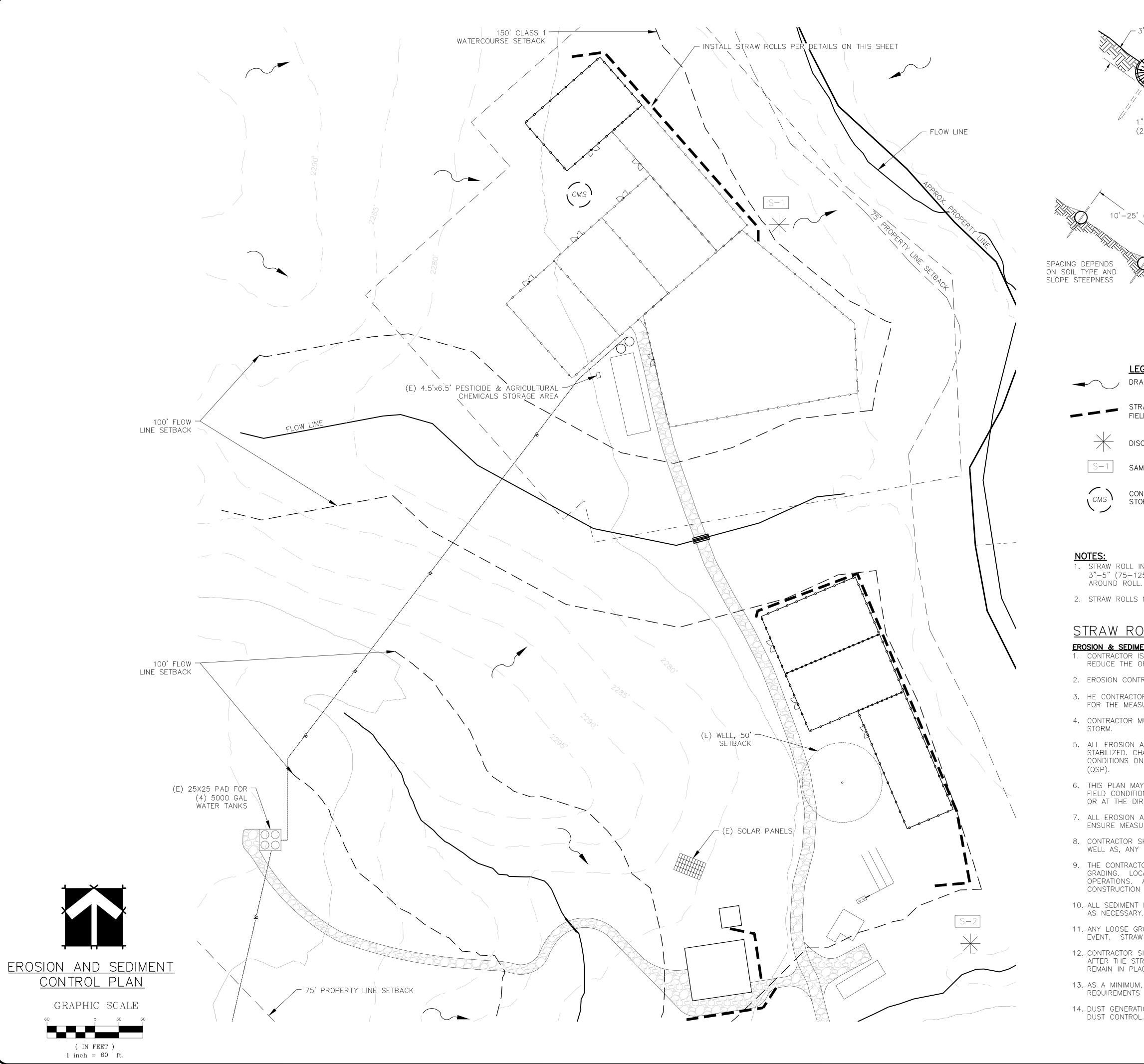
An Annual Report shall be submitted to the Central Valley Regional Water Quality Control Board by March 1st of each year. The Annual Report shall include the following:

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

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

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



__ 3"-5" (75-125mm) LIVE STAKE 1<u>" X 1" STAKE</u> (25 x 25mm) SEDIMENT, ORGANIC
MATTER, AND NATIVE
SEEDS ARE CAPTURED
BEHIND THE ROLLS.

<u>LEGEND</u>

DRAINAGE PATTERNS

STRAW ROLLS (ADJUST TO SUIT FIELD CONDITIONS)

DISCHARGE POINT

SAMPLING LOCATION

CONSTRUCTION MATERIALS STORAGE AREA

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

STRAW ROLL DETAILS

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
- 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
- 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
- 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.

Revisions:

CINERRING & PLANNING
STREET SUITE C
CA. 96001



No. 67800

PLAN CONTROL SEDIMENT S **EROSION AND**

DATE PLOTTED: 4/26/19 SCALE OF DRAWING: SEE PLAN

CADD FILE:

JOB NUMBER:

Waste Management

Intent: To minimize the generation of waste and dispose of such waste properly, to prevent the release of hazardous waste into the environment, minimize the generation of cannabis vegetative waste and dispose of cannabis vegetative waste properly, and manage growing medium and dispose of growing medium properly.

Solid Waste Management

The solid waste management section shall:

Provide an estimate of the amount of solid waste that will be generated on an annual basis and daily during peak operational seasons, broken down into the following categories:

- Paper
- Glass
- Metal
- Electronics
- Plastic
- Organics
- Inerts
- Household hazardous waste
- Special waste, and
- Mixed residue

Describe how the permittee will minimize solid waste generation including working with vendors to minimize packaging.

Describe the waste collection frequency and method.

Describe how solid waste will be temporarily stored prior to transport to a compost, recycling, or final disposal location.

Describe the composting, recycling, or final disposal location for each of the above categories of solid waste.

Hazardous Waste Management

The hazardous waste section shall include:

1) Hazard Analysis

The applicant shall conduct a hazard analysis to identify or evaluate known or reasonably foreseeable hazards for each type of cannabis product produced at their facility in order to determine whether there exist any hazards requiring a preventative control. The hazard analysis shall include:

The identification of potential hazards, including:

i. Biological hazards, including microbiological hazards;

- ii. Chemical hazards, including radiological hazards, pesticide(s) contamination, solvent or other residue, natural toxins, decomposition, unapproved additives, or food allergens; and/or
- iii. Physical hazards, such as stone, glass, metal fragments, hair or insects.

The evaluation of the hazards identified in order to assess the severity of any illness or injury that may occur as a result of a given hazard, and the probability that the hazard will occur in the absence of preventative controls.

The hazard evaluation shall consider the effect of the following on the safety of the finished cannabis product for the intended consumer:

- i. The sanitation conditions of the manufacturing premises;
- ii. The product formulation process;
- iii. The design, function and conditions of the manufacturing facility and its equipment;
- iv. The ingredients and components used in a given cannabis product;
- v. The operation's transportation and transfer practices;
- vi. The facility's manufacturing and processing procedures;
- vii. The facility's packaging and labeling activities;
- viii. The storage of components and/or the finished cannabis product;
- ix. The intended or reasonably foreseeable use of the finished cannabis product; and
- x. Any other relevant factors.

2) Management Plan

The Management Plans shall:

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

Pursuant to the California Health and Safety Code, the use of hazardous materials shall be prohibited except for limited quantities of hazardous materials that are below State threshold

levels of 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas. The production of any Hazardous Waste as part of the cultivation process is prohibited.

Cannabis Vegetative Material Waste Management

The cannabis vegetative material waste management section shall:

- 1) Provide an estimate of the type and amount of cannabis vegetative waste that will be generated on an annual basis;
- 2) Describe how the permittee will minimize cannabis vegetative waste generation;
- 3) Describe how solid waste will be disposed; and
- 4) Describe the methodology on how the amount of cannabis vegetative waste that is generated on the site, the amount that is recycled, and the amount and where cannabis vegetative waste is disposed of is measured.

Growing Medium Management

The growing medium management section shall:

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

Waste Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

This WMP is broken into four sections:

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

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

Solid Waste Management

Solid Waste Management Plan

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

Solid Waste Monitoring and Reporting

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

Estimated Solid Waste Generation

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

- Paper AAG: 30 lbs MDG: 3 lbs
- Glass AAG: 240 lbs MDG: 20 lbs
- Metal AAG: <1 lb MDG: <1 lb
- Electronics AAG: 7.5 lbs MDG: 7
- Plastic –AAG: 300 lbs MDG: 10 lbs
- Organics AAG: 0 MDG: 0 (All organics to be composted/fermented)
- Inerts AAG: <1 lb MDG: <1 lb
- Household hazardous waste AAG: <5 lbs MDG: <1 lb
- Special waste AAG: <1 lb MDG: <1 lb
- Mixed residue AAG: <1 lb MDG: <1 lb

Solid Waste Reduction Plan

To reduce the solid waste generated by the existing/proposed cultivation operation, MVV will:

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

Hazardous Waste Management

Hazardous Waste Overview

Pursuant to the California Health and Safety Code, the use of hazardous materials shall be prohibited except for limited quantities of hazardous materials that are below State threshold levels of 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of compressed gas. The production of any Hazardous Waste as part of the cannabis cultivation process is prohibited. No Hazardous Wastes will be generated from the proposed cultivation operation.

Hazards

Hazards with the potential to occur at MVV's existing/proposed cultivation operation include:

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

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

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

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

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

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

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

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

Hazardous Materials Business Plan

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

Agricultural and Processing Chemicals

Potentially hazardous agricultural and processing chemicals that are stored and used at MVV's existing/proposed cannabis cultivation operation include the following. Flammable/Petroleum Products:

- Gasoline no more than 20 gallons at any given time;
- Diesel Fuel no more than 20 gallons at any given time; and
- Oils/Lubricants no more than 2 gallons in total at any given time;
- Isopropyl alcohol no more than 3 gallons at any given time.

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

• Biologic Systems Liquid Bloom 0-4-0 (Derived from Bat Guano and Citric Acid) – no more than 5 gallons at any given time.

Pesticides:

- Grandevo Bioinsecticide (*Chromobacterium subtsugae* strain PRAA4-1) no more than 5 gallons at any given time;
- Venerate Bioinsecticide (*Burkholderia* spp. Strain A396) no more than 5 gallons at any given time;
- Regalia Biofungicide (*Reynoutria sachalinensis*) no more than 5 gallons at any given time

All fertilizers and pesticides are stored within a roofed and ventilated wooden shed (Pesticides and Agricultural Chemicals Storage Area) located directly adjacent to the existing cultivation area(s). Within the Pesticides and Agricultural Chemicals Storage Area fertilizers are segregated from pesticides at all times. All solids and liquids are stored undercover and in the manufacturer's original packaging, and all liquids have secondary containment to prevent accidental release. Fertilizers and pesticides are prepared/mixed on an impermeable pad, and absorbent materials designated for spill containment and spill cleanup equipment are maintained inside the Pesticides and Agricultural Chemicals Storage Area, for use in the event of a spill or leak.

Chemical Incident Response

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

1. Secure Site

- Secure a perimeter and keep all non-essential people out of the incident area;
- Do not allow smoking in area;
- Alert firefighters and/or other emergency personnel of precautions as advised by material safety data sheets;
- Arrange off-site evacuation if necessary (this should be done through working with the local officials); and,
- If the leak or spill is indoors, ventilate the area as thoroughly as possible.

2. Abatement

- If it can be done safely, stop further leakage from damaged containers; Contain above-ground runoff by placing absorbent pillows, clay, other heavy soil, etc., around liquid spills to limit further spread of spilled chemical; and,
- Plug or berm underground waterways (storm sewers, sanitary sewers, etc.).

3. Recovery

- Transfer the remaining contents of each leaking container into a clean empty container of the same type and remove the salvaged container from the contaminated area;
- Separate any containers that have not been affected by the spill; and,
- Arrange to remove, hold, or dispose of pooled contaminated water, soil, etc.

4. Remediation

- Determine the extent and degree of contamination;
- Develop steps for the final clean-up of the incident;
- Reuse or dispose of the recovered chemicals and/or contaminated materials; and.
- Determine the effectiveness of the clean-up through the collection & analysis of samples

Worker Safety

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

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

Cannabis Vegetative Material Waste Management

Cannabis Waste

"Cannabis waste" is an organic waste, as defined in Section 42649.8(c) of the Public Resources Code. Cannabis waste generated from MVV's cannabis cultivation operation is limited to cannabis plant stems. All other parts of cannabis plants cultivated at this site are transferred to a State of California-licensed Distributor for distribution to State of California-licensed Manufacturers and Retailers. MVV anticipates that the proposed cannabis cultivation area(s) will generate approximately 100 pounds of dried cannabis waste each cultivation season (April 1st through November 15th).

Cannabis Waste Composting

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

Cannabis Waste Records/Documentation

Cannabis waste generated from MVV's cannabis cultivation operation are 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. MVV 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 MVV's existing/proposed cannabis cultivation area(s) is/will be an amended native soil mixture at or below grade, composed of native soil, compost, composted chicken manure, perlite, and earthworm castings. A crop advisor oversees and advises MVV's soil amendment processes and procedures. Prior to each cultivation season, representative soil samples are collected and analyzed by Dellavalle Laboratory, Inc. The results of this analysis is reviewed by MVV's managerial staff and crop advisor to determine the types and volumes of amendments that will needed to be added to maintain the desired growing medium/native soil mixture for the upcoming cultivation season.

Growing Medium Waste

There is no growing medium waste generated from MVV's cultivation operation. The amended native soil mixture is analyzed, amended, and reused each year/cultivation season. In the event of a root and/or soil born pest infestation, the infested soil will be removed from the cultivation area(s), quarantined, 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, then incorporated with compost in the designated composting area. After composting, the treated soil will be reintroduced to the existing/proposed cultivation area(s) as a soil amendment.

WATER RESOURCES

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

This section shall include:

- a. A description of the surface and groundwater resources that are located on the lot of record where the permitted activity is located.
- b. A description of the watershed in which the permitted activity is located.
- c. A description of how the permittee will minimize adverse impacts on surface and ground water resources.
- d. A description of what parameters will be measured and the methodology of how they will be measured.
- e. A map of any spring, top of bank of any creek or seasonal stream, edge of lake, delineated wetland or vernal pool on the lot of record of land or within 200 feet of the lot of record.
- f. A topographic map of the parcel prepared by a licensed surveyor where the permitted activity is located with contours no greater than five (5) feet.

Water Resources Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Description of Water Resources

Surface Water

MVV's existing/proposed cultivation operation is located within the Upper Cache Creek Watershed (HUC 8), and the Rocky Creek - Cache Creek Sub-watershed (HUC 12). Rocky Creek, a perennial Class I watercourse, flows along the eastern boundary of the Project Parcel and more than 150 feet from the proposed cultivation area. The headwaters of Rocky Creek are formed by springs and ephemeral drainages in the Morgan Valley basin, and from Chandans Creek, the only named tributary to Rocky Creek.

There is an intermittent Class II/III watercourse and two ephemeral Class III watercourses, that begin on the Project Property and are tributaries to Rocky Creek. Rocky Creek (DFG/NHD Water ID 116962516) and the unnamed intermittent Class II/III watercourse (DFG/NHD Water ID 116962318) are indicated on the National Hydrography Dataset (NHD) map layer utilized by California resource agencies via the California Natural Diversity Database (CNDDB) and on the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) map layer (see NHD and NWI maps, attached). There is an USFWS NWI-identified Freshwater Forested/Shrub

Wetland within 200 feet of the Project Parcel, on the opposite side of Rocky Creek from the proposed cultivation operation. There is a seasonal stock pond on the Project property, that intercepts and stores overland flow and discharges excess flow to the intermittent Class II/III watercourse via an engineered spillway, when the capacity of the pond has been exceeded. The seasonal stock pond "dries up" in the late summer or fall of most years, prior to the onset of the Winter Wet Weather Period. The seasonal pond and ephemeral Class III watercourses are not indicated on the NHD or NWI map layers. Generous and well vegetated riparian buffers have been established between the proposed cultivation operation and surface water resources.

Groundwater

Soils of the Project Parcel are classified as Skyhigh-Millsholm loams (15 to 50 percent slopes), Skyhigh-Sleeper-Millsholm association (30 to 50 percent slopes), and Still loam by the USDA-NRCS Soil Survey. The soils of the existing/proposed cultivation area(s) are Still loams with less than 15 percent slopes. The United States Geological Survey Map of the Santa Rosa Quadrangle defines the area in the vicinity of the Project area as the Lower Cretaceous-Upper Jurassic Great Valley Sequence, composed mostly of marine mudstones, siltstones, sandstones, and conglomerate. The Project Property is not located within any of the 13 groundwater basins/source areas identified in the 2006 Lake County Groundwater Management Plan. There are two Lake County Environmental Health Division permitted wells on the Project Property. The first, located adjacent to the residence on the Project Parcel (Latitude 38.900446° and Longitude -122.482977° and Latitude 38.896181°), was drilled in 2009 to a depth of 140 feet with an estimated yield of 40 GPM. The second, located to the west of the seasonal pond on the Project Property (Latitude 38.896181° and Longitude -122.490939°), was drilled to a depth of 140 feet with an estimated yield of 8 GPM. Well Completion Reports for these two wells are attached to the Water Use section of this Property Management Plan.

Water Sources and Storage

Water is provided to Morgan Valley Ventures, Inc.'s (MVV) existing/proposed cultivation operation from two groundwater wells, located at Latitude 38.900446° and Longitude - 122.482977° and Latitude 38.896181° and Longitude -122.490939°, and from a Pond/Rain Water Catchment Reservoir. The Pond/Rain Water Catchment Reservoir intercepts overland flow/stormwater runoff from the surrounding hillsides (Catchment Basin of ~950,000 ft² or 21.8 acres) and can store approximately 2,280,957 gallons of water (approximately 7 acre-feet). The well located at Latitude 38.900446° and Longitude -122.482977° was drilled in 2016 and has an estimated yield of 8 gallons per minute. The well located at Latitude 38.896181° and Longitude -122.490939° was drilled in 2009 and has an estimated yield of 40 gallons per minute. There are four 5000-gallon heavy-duty plastic water storage tanks on the Project Property, to provide additional stored water for irrigation and fire suppression purposes/uses.

Water Resources Protection

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

The Project Parcel has been enrolled for coverage under the Central Valley Water Board's General Order for Cannabis Cultivation Activities since January 31st, 2017 (WDID 5A17MJ00010 and Enrollee Number R5-2015-0113-0576). The Project Property was enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. 2017-0023-DWQ) on June 8th, 2018 as a Tier 2 Low Risk discharger. MVV has maintained compliance with the State and Central Valley General Orders for over two years, and will continue to maintain compliance for the protection of water resources for as long as they are in operation.

Water Conservation

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

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

Monitoring and Reporting Program

The following are the Monitoring and Reporting Requirements for MVV's existing/proposed cannabis cultivation operation from the Cannabis General Order:

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

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

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

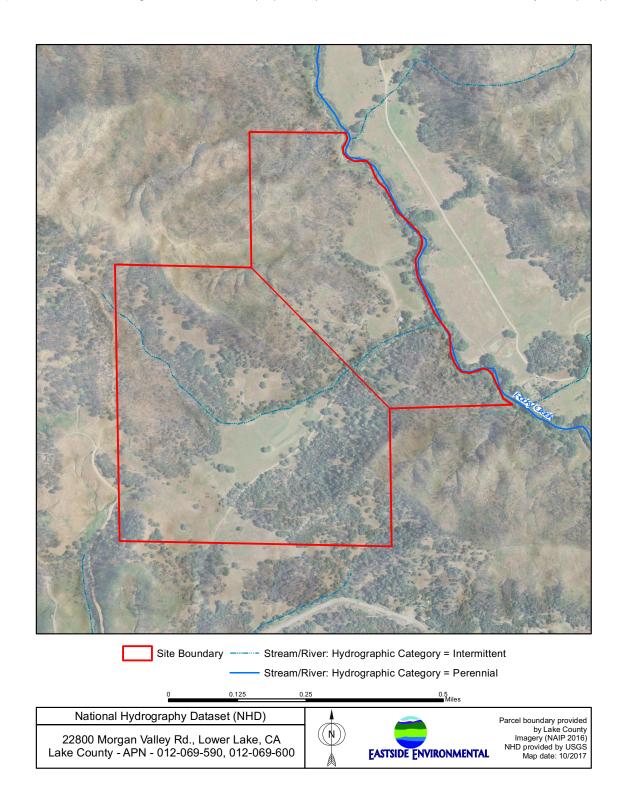
A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following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

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

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

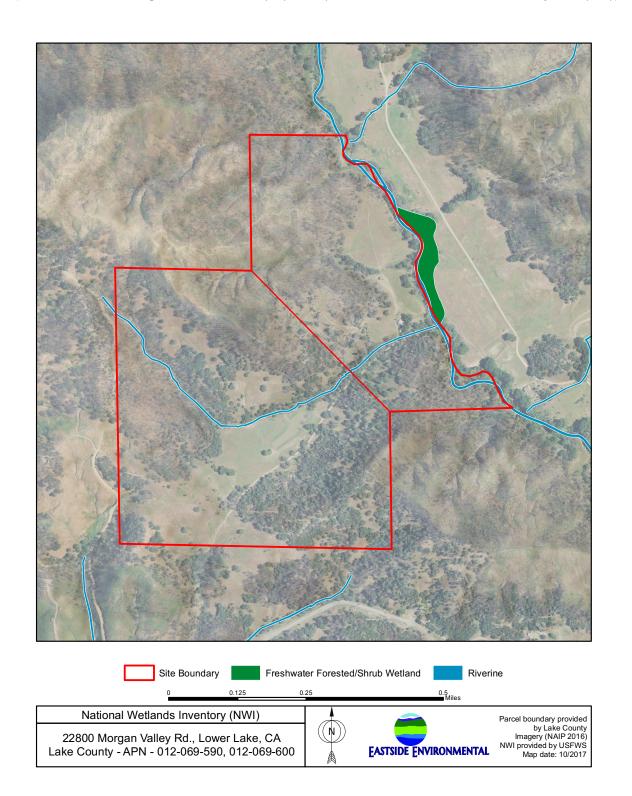
National Hydrography Dataset Map for 22800 Morgan Valley Road

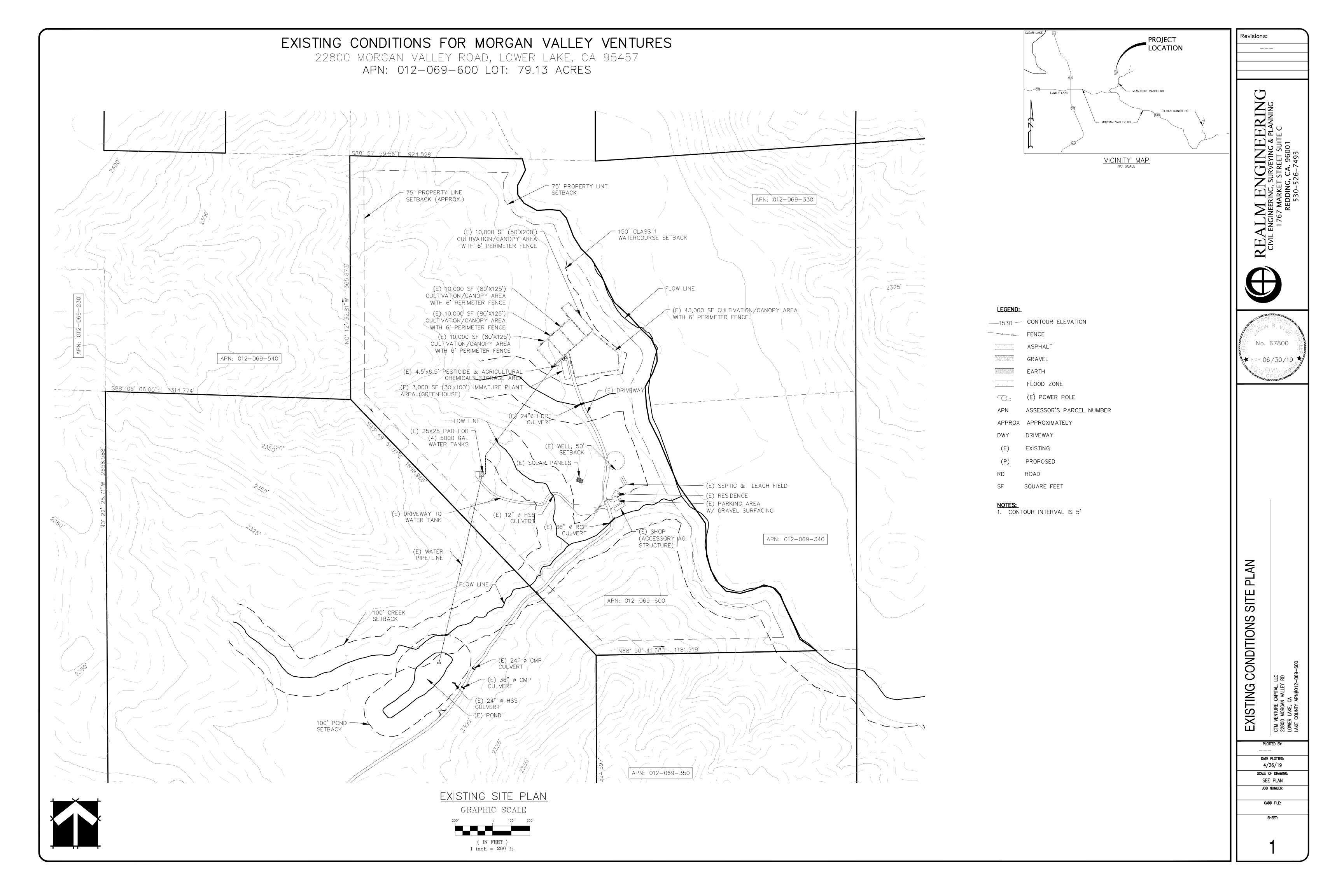
(Obtained from the Biological Site Assessment prepared by Eastside Environmental, Inc. for the Project Property)

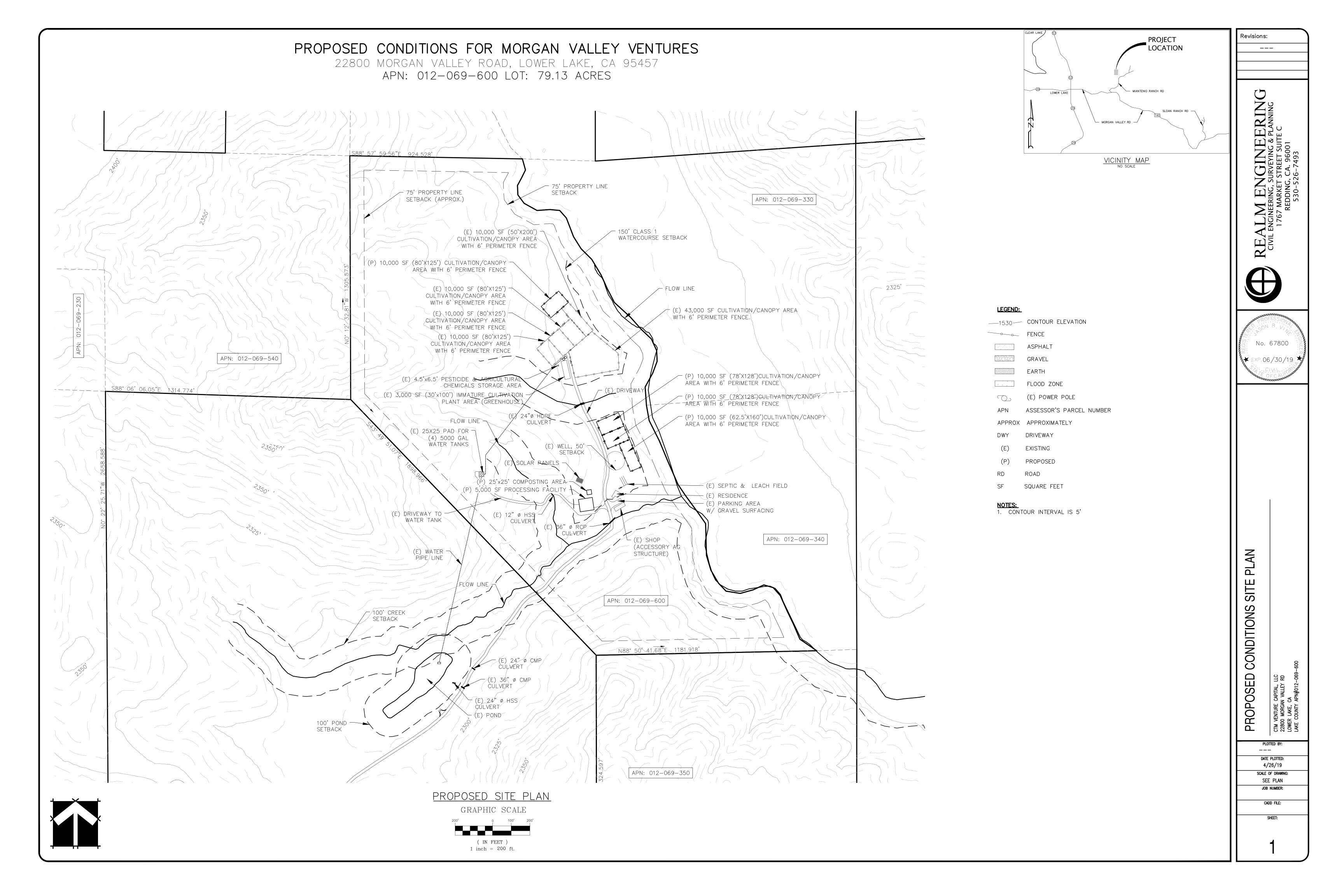


National Wetlands Inventory Map for 22800 Morgan Valley Road

(Obtained from the Biological Site Assessment prepared by Eastside Environmental, Inc. for the Project Property)







WATER USE

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

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

This section shall:

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

Water Use Management Plan

Purpose and Overview

Morgan Valley Ventures, Inc. (MVV) has received a Major Use Permit (UP 18-22) from the County of Lake, allowing up to 91,000 ft² of commercial cannabis cultivation area with up to 83,000 ft² of outdoor canopy area at 22800 Morgan Valley Road in Lower Lake, California on Lake County APN 012-069-600 (Project Parcel). MVV proposes to develop an additional 40,000 ft² of commercial cannabis outdoor cultivation/canopy area, composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV seeks to obtain a Major Use Permit for Commercial Cannabis Cultivation for an A-Type 3 "Medium Outdoor" cultivation/canopy area of 40,000 ft², composed of four separate fenced 10,000 ft² outdoor cultivation/canopy areas. MVV also seeks to obtain a Minor Use Permit for Type 13 Cannabis Distributor Transport Only, Self-Distribution.

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

Water Sources

Water is provided to Morgan Valley Ventures, Inc.'s (MVV) existing/proposed cultivation operation from two groundwater wells, located at Latitude 38.900446° and Longitude - 122.482977° and Latitude 38.896181° and Longitude -122.490939°, and from a Pond/Rain Water Catchment Reservoir. The Pond/Rain Water Catchment Reservoir intercepts overland flow/stormwater runoff from the surrounding hillsides (Catchment Basin of ~950,000 ft² or 21.8 acres) and can store approximately 2,280,957 gallons of water (approximately 7 acre-feet). The well located at Latitude 38.900446° and Longitude -122.482977° was drilled in 2016 and has an estimated yield of 8 gallons per minute. The well located at Latitude 38.896181° and Longitude -122.490939° was drilled in 2009 and has an estimated yield of 40 gallons per minute.

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."

MVV's cultivation practices are most similar to commercial tomato or hops production with an estimated water use requirement of 20 inches per year. MVV's total combined existing and proposed cannabis cultivation area is $126,000 \, \text{ft}^2$ ($43,000 \, \text{ft}^2 + 40,000 \, \text{ft}^2 + 40,000 \, \text{ft}^2 + 3000 \, \text{ft}^2$) with an expected total annual water use requirement of $4.8 \, \text{acre-feet}$ or $1,570,600 \, \text{gallons}$. The cultivation season for MVV's existing/proposed outdoor cannabis cultivation operation begins in April and ends in November of each year. The following table presents the expected water use of the proposed cultivation operation by month during the cultivation season in gallons and acre-feet.

April	May	June	July	Aug	Sept	Oct	Nov
97,800	195,500	228,100	260,700	260,700	260,700	195,500	65,200
0.3	0.6	0.7	0.8	0.8	0.8	0.6	0.2

A solar powered water pump fitted with a CDFW-approved water-intake screen in the Pond/Rain Water Catchment Reservoir, pumps irrigation water for MVV's existing/proposed cultivation operation to four 5,000-gallon water storage tanks located above the existing/proposed cultivation area(s) via an HDPE water supply line. The water storage tanks are equipped with floats valves to shut off the flow water from the solar powered water pump and prevent the overflow and runoff of irrigation water when full. Another HDPE water supply line gravity feeds irrigation water from the water storage tanks to the irrigation systems of the existing/proposed cultivation area(s). The water supply lines are 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. MVV staff will maintain daily water meter readings records for a minimum of five years, and will make those records available to Water Boards, CDFW, and Lake County staff upon request. The irrigation system of the existing/proposed cultivation area(s) are/will be composed of buried PVC piping, black poly tubing, and drip tapes/lines.

When/if needed, water from the existing groundwater supply wells of the Project Property, will be discharged to the stock pond or conveyed to the water storage tanks via HDPE water supply lines, and will enter the irrigation system via the steps outlined above. MVV will install additional separate measuring/metering devices to quantify the water used for the existing/proposed cannabis cultivation operation versus other beneficial uses on the Project Property (domestic/sanitary use, vegetable garden irrigation and stock watering).

Water Conservation

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

- MVV staff will regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.
- MVV apply weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.
- MVV will implement water conserving irrigation methods (drip or trickle and microspray irrigation).
- MVV will 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 area(s).

Water Availability Analysis

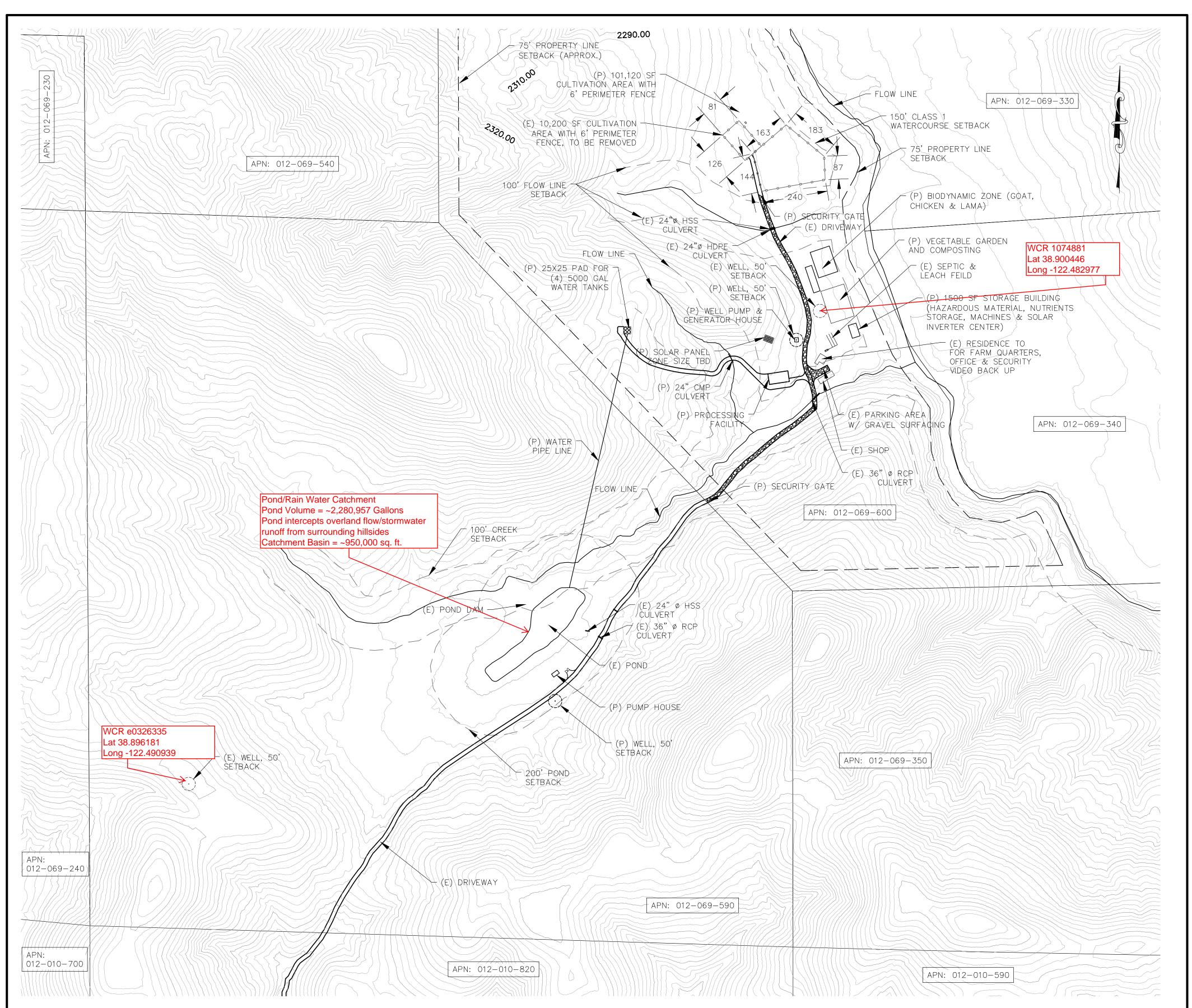
MVV's Pond/Rain Water Catchment Reservoir can store approximately 2,280,957 gallons or 7 acre-feet of water, which is more than the amount of MVV's projected annual water usage. MVV has two additional backup water sources in the form of their two existing onsite groundwater wells, with a combined estimated yield of 48 gallons per minute. 237,034 gallons were used to cultivate one acre of cannabis in 2018, starting in July and finishing in November (short 5-month cultivation season). Based on this empirical data, we can confidently estimate that ~380,000 gallons will be needed to irrigate each acre over the course of a full 8-month cultivation season, for a total of ~1,140,000 gallons for the total proposed cultivation operation per year. In most years, MVV's Pond/Rain Water Catchment Reservoir fills and is able to store and make available more water than is required by the existing/proposed cultivation operation. During drier years, additional water may need to be provided by the existing onsite groundwater wells, to replace stored water lost to infiltration (seepage) and evaporation while in the Pond/Rain Water Catchment Reservoir.

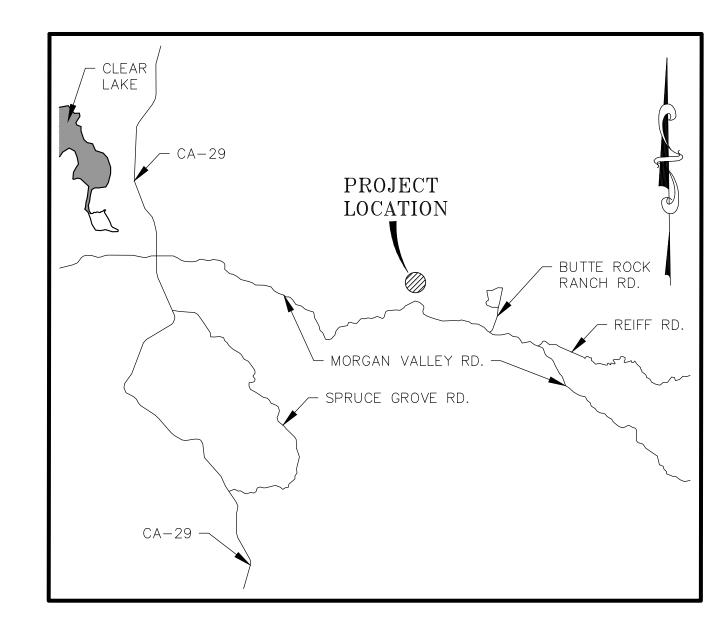
Monitoring and Reporting

MVV's water supply lines are equipped with inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7. MVV staff will continue to record daily water meter readings, and will maintain those records onsite for a minimum of five years. MVV will make those records available to Water Boards, CDFW, and Lake County staff upon request.

STREAMBED ALTERATION PLAN FOR OUTDOOR CANNABIS CULTIVATION IN LAKE COUNTY

APN: 012-069-590 & 012-069-600





VICINITY MAP

NOT TO SCALE

LEGEND:

-100 - COUNTOUR ELEVATION

PROPOSED FENCE

EXISTING FENCE

PROPOSED GRAVEL ACCESS ROAD / PARKING

QUANTITIES:

CUT = 50 CU. YD.

FILL(RIPRAP) = 50 CU. YD.

(FOR PERMITTING ONLY, CONTRACTORS TO CALCULATE

THEIR OWN CUT/FILL QUANTITIES)

OWNER INFORMATION:

CTM VENTURE CAPITAL LLC.

PO BOX 1051 CALISTOGA, CA 94515

PROPERTY INFORMATION:

ADDRESS: 22800 MORGAN VALLEY RD. LOWER LAKE, CA 95457

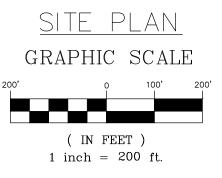
APN: 012-069-590 LOT SIZE: 56.00 ACRES

ELEVATION DATUM

VERTICAL ELEVATION IS NAD 88 AND WAS ESTABLISHED WITH SURVEY GRADE GPS.

PLANS REVIEWED OR APPROVED BY:

CA DEPT. OF FISH AND WILDLIFE DATE





HUMMER CONSULTING ENGINEERING DISCLAIMS ANY RESPONSIBILITY FOR THE IMPROPER USE OF THESE PLANS THESE PLANS AND/OR ANY ASSOCIATED SPECIFICATIONS ARE ONLY VALID FOR THE SITE FOR WHICH THEY WERE

SITE PLA



GRADING & EROSION CONTRO
PLANS
APN: 012-069-590
OWNER: CTM VENTURE CAPITAL LLC.

ENGINEERING
CIVIL - STRUCTURAL
368 E. 1ST AVENUE

HCE JOB # 17 - 62

DATE: 6-29-2018

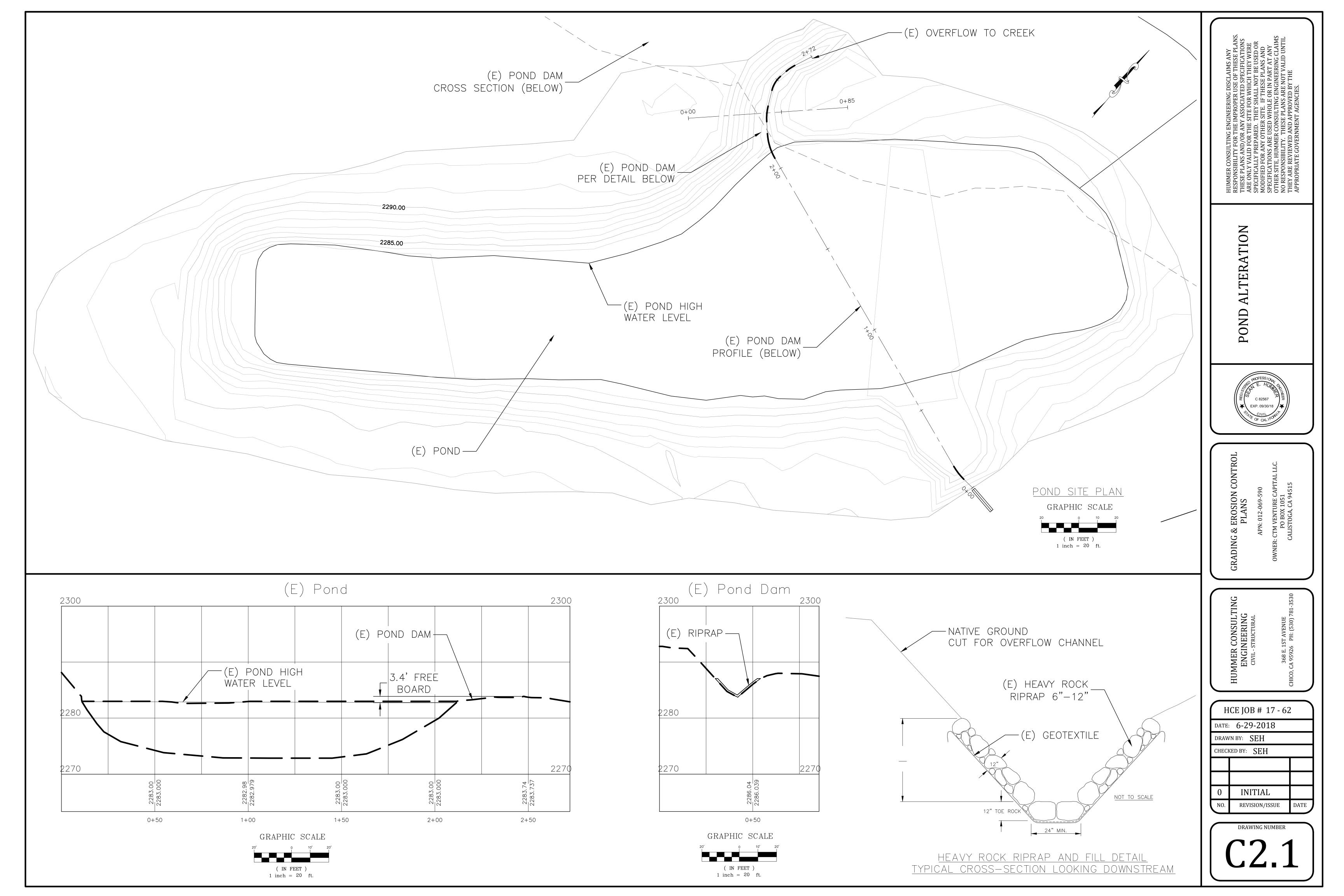
DRAWN BY: SEH

CHECKED BY: SEH

O INITIAL

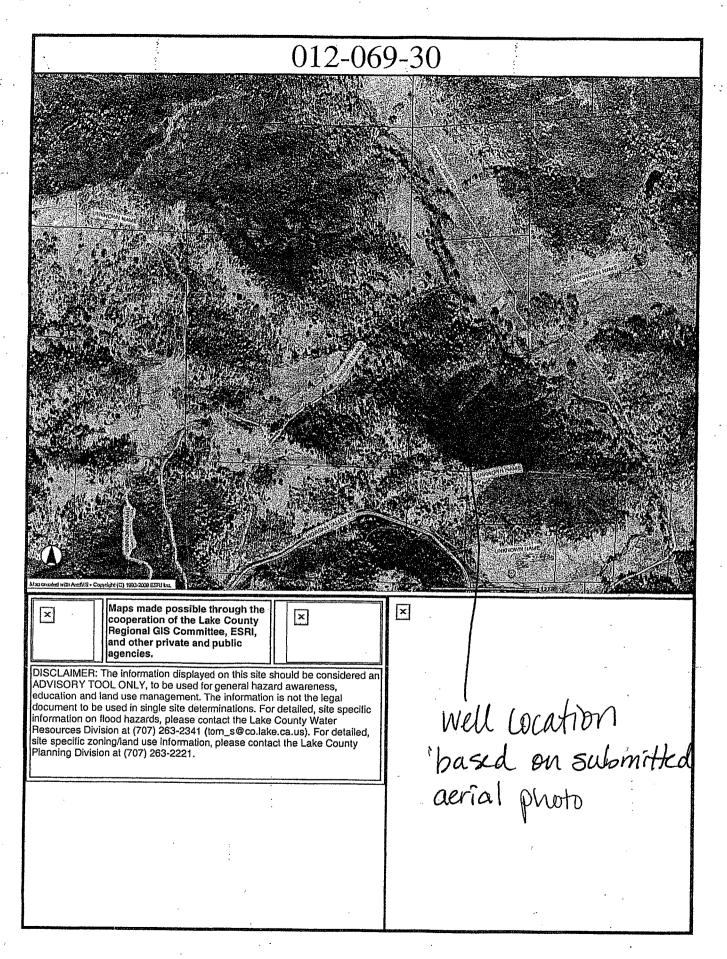
NO. REVISION/ISSUE DATE

DRAWING NUMBER



"The fra	Adobe R	oader m	By be used	d to vie	w and compl	oto this for	m. However	, soloware n	nust be purche	and to come	into esso	ODA smare		•	
	inal with	DWR	,		OCT 0 3	2016	S	tate of Ca	lifomia						Not Fill in
Page _	Well Nu	_ of _	1.		J	2010	Well Co	Implet	ion Rep	ort	172	The Person Name of Street, or other Persons	6W -		THE
	ork Bege	mber 3	5-31-11		**************************************				e 0321	335		Sta	te Well No	mber/5	ite Number
Local P	ermit Age				Enviy o	le Work I	Ended 9-	0-10	C00			Latitude	IN	L	Longitude W
Pennit!	vumber_	NE	475	7	Permit	Data V	3/10/2	0110	-				J	11	
-				Geol	ogic Log			U W	-	<u> </u>				IRS/O	ter
	ontation Method	Ove	riical	OH	wimonto!	OAng	le Spec	lly				The M	A		
The second second	from S	triace	Rote	Y	Commence of the last of the la		Fluid		near the same of t						
Fee	to F	eet		De	scribe materi	ecription el, grain al	il 20. color. etc	•							
20		0	Brow	211	Clay										
75	13	2		own		£ 50	meGp	avel	Address	, 225	20/	Horag	1/2/10	V 0	d. LAKE
35	- 3	2	B/90		5491e				City L	ower L	gke	1.0	D-111C	Z K	LAVE
55	- 1 -	=			19/8	,	_		Latitude		THE PERSON NAMED IN COLUMN		u l anali	unty	
75	- 14	3	Sta	510	ne/co	113,7	9	Anno estação aproveçação.	11	Deg.	Min.	Sec.	u milii	eoe	Dec. Mis. Sec. W
			DITE	2	3h918				Datum_ APN Bo		Dec. Lai	<u></u>		Dec.	Long.
									Townsh					3	d 012-069-59
							***************************************		- House		Rang Ion Sice			Sect	
· · · · · ·					-		**************************************		(Shelch	must be down	n by hand at	lar form is p	rinted.)	CA N	Activity ew Well
-			-				*********	- III III III II II II II II II II II II	1		North	- Colonia de Primario		OM	lodification/Repeir
	-		-						71) Deepen) Other
			***************************************						11					OD	estrov
 	_		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-	·	-			0.00				0	encibe procedurés and materials mar "GEOLOGIC LOG"
-	+		***************************************				-		一作	2	- "			-	Planned Uses
	-	-							1 12		\times \setminus :	٥.	Î		fater Supply
				-				· ·		, ,	`]i	r r	E884		Domestic Public Irrigation Industrial
			•				*******		-113		1	1	u	12000	athodic Protection
					**************				-					OD	ewetering
			-						ITM	organ	valle	YKa		OH	eat Exchange
			-				***		11 /				Ī		jection Ionitoring
<u> </u>		-						***************************************					1	OR	onadiation
	+-] '					Os	perging
-		\dashv	-		and the same of th						South				est Well
	_								illustrate or d thrent, etc. an	escribe distance of elizate a map. reseate and appr	of well from co Use additional	ede, belidings I paper 11 men	fences,	O	spor Extraction
	-	-					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		- Water I	evel and	Viold o	& Course	late of 10		4101
		7	-	-			Marker o proper programme		- Brings in		- 4-	75	SCHOOL S	Chickmanning	A hadana a Cara
-			************						Depth to	Static evel	-1				t below surface)
Total D	opth of B	oring			145		Feet		Estimate	nd Yield *	3	(Feel) Date	Meesu	red 9-1-16
Total D	epth of C	omplet	ed Well	1	36'		Feet		Test Ler	igth Z	4123	(Hou	rel Total	Decumb	AST LIFT
									*May no	t be repres	entative	of a well	s long to	on yiel	d. (Feet)
	h from	Borets	olo –			rings	Well			•			Annul	Witness Communication	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN
	face lo Feet	Diame! (Inche	100	be.	Mat	riel	Thickness	Outskie Diameter	Screen Type	Slot Size If Any		i from	FR		
O	60	9"	F	180	PUC	***************************************	(Inches)	(Inches)	Blank	(Inches)	Foot 1	o Feet			Description
60	1.40	911	F4	180	PVC		2411	42"	Pert	1032"	0	21	Concr		Seq /
 		- -	4-		-				<u> </u>		21	136	Bento 516		seal- gravelfack
					-	-							2 14		Judo CI PACK
			_	-	1		+								
		Atlaci	ments												
	Geologic	Log				I, the	ndersione	Contiff. 12	C C	ertificati	on Stat	ment			
	Well Con	struction	n Diagrae	m		I, the undersioned, certify that this report is complete and accurate to the best of my knowledge and belief									
Geophysical Log(s)						4/89								the majority and the same of t	
Soil/Water Chemical Analyses Other						Signed	11/	19.0	A-	on medinden	City		STATE OF THE PARTY NAMED IN	_	95451
Attach add	Monel Inform		erists.						Med Contractor		-	9-8-			09053
UNIX 188	REV. 1/2000	3				IF ADDIT	With the Party of	THE RESERVE OF THE PARTY OF THE	LIBENEXTCO			vate Sig	ned C	57 Lice	ense Number

		 ;	REC		ED	, to pare	TOTAL TO SALE THE T	* mr - r^		n Henrich (das des seus seus com seus Antonio.	an tankan membeluaran m	ntan eren drum etau	•			e degree op een een de een ee
	RIGINA				**	/1 C T T		OF CALIF		NIA N REPOR	т [7	DWR US	E ONLY		DO N	OT FILL IN
	age	. 1	MAY :	18 20	09	ىلانىلاشلار ا	Refer to In	struction	Pam	phlet	`` <u>`</u>	S	TATE WE	LL NO.	STATIO	ON NO.
C	wner's	Well No)	1 PM 677	A MARKET SALE	· .	No	10	74	881		<u> </u>				
Γ			7147-3	00	End	$\frac{1}{2}$	-30-0	<u> </u>				LATITUDE	1 1	l. '	L.C	NGITUDE
)		Permit Ag nit No. 🜙		160	17-6	Power	Doto U	160	رم (9	- L		APN	I I V/TRS/C	THER	
_	rerm	nt 100		EOLOG	CIC LO	Permit G ——	Date	-10	7		_	er (*			
	ORIENTAT	ION (∠)	VERTI	CAL	HORIZOI	NTAL	ANGLE	(SPECIFY)								
\vdash	DEPTH	FROM	DRILLING ⊓ METHOD ∠	400	6ta	ry F	LUID		4							
-	SURF	ACE	De	scribe n		RIPTION grain size	e, color, etc	n M								
H	Ft. to	12	1.0	سام		B. 4511 012	~ (1)/2	2) / 2	A	ldress 2	3086	WELL LO	CATIO	N	61	(a. R)
	12	7.5	Oma	4/	BL	140 C	a(Y)	J. P. Comer	Ci	1. 3. 1 a & 3. "	010	the C	Cal	3	5-U	5
L	75	105	Gra	<u> 4 le</u>	1as	Kg		Townson &	, Òç	ounity \	cke"					
\vdash	105	140	Shal	2_	Sage	CS J-by	Y T	reen	13			069			<u>)</u>	,,
H			1 1	12	17		(James Jan	,, '	15/3/2	Rang	e <i>6</i> W		1 — 3	:5 _	
r	I I			TI	- Constant	Marian Maria		10		')		EG.	Long_	DEG		MIN. SEC.
	1		The	9	117	John Sandaran 1	1	1183		L00	CATION S					TIVITY (=) — EW WELL
	I	· .	100	Shirt Shirt	or of the	A R								ŀ	-	ICATION/REPAIR
Ŀ	<u>i</u>		1 2	1 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A GARAGE							. (_	Deepen Other (Specify)
\vdash	1	arrive.	+-((111	The state of	3(2) -	9		-			i (
\vdash		-(c)	1	<u> </u>	ZXX	\(\frac{\fin}}}{\fint}}}}}}}{\frac}}}}}}}}}{\frac{\fir}}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\f			ł			λ		ŀ	D	ESTROY (Describe rocedures and Materials
H	i	1 1 N		~11	DIVI			<u> </u>		coel,	(,	000			USES	nder "GEOLOGIC LOG")
	1	li de	The same of the sa	<u> (Mi) i</u>	W T					c roll	\ \V				WATER	SUPPLY
	1		1	\sim]_`					. 1		omestic Public rigation Industrial
\perp	i		<u>i</u>						WES.	M	,			EAST		MONITORING
\vdash	1		1						-	۴.	,					TEST WELL
-			1			•			-							DIC PROTECTION
-	1		1		`				1					ı		DIRECT PUSH
	······································		1						1					ŀ	VAD	INJECTION
	j		1												*/	SPARGING
L	· · ·		, 						Illı	ustrate or Describe	— SOUTH Distance of V	Vell from Road	ds, Buildir	ıgs,		REMEDIATION
┝	1		1						nec	nces, Rivers, etc. an cessary. PLEASE B	d attach a m BE ACCURA	ap. Use additi TE & COMP	onal papei LETE.	r if		OTHER (SPECIFY)
┢	<u> </u>		1 			·			Г	WATER	R LEVEL	& YIELD	OF CO	MPLE	TED	WELL
F	- 								DE	EPTH TO FIRST W	ATER	≤ (Ft.) BE	LOW SU	RFACE		
F	1		l							EPTH OF STATIC	48	(E4) 0 DATE		L	1.3	0-09
		-	1							STIMATED YIELD *	40	_ (Pt.) & DATE (GPM) & 1	: MEASUF FEST TYP	E N	<u>, ~ </u>	Lich
T	OTAL DE	EPTH OF	BORING		_(Feet)					ST LENGTH _						
Γ	OTAL DE	EPTH OF	COMPLETED	WELL		(Feet)				May not be repre						
Γ	DED.	T. I				-	CASING (S)							ANNII	TAR	MATERIAL
	DEP FROM SL	JRFACE		TYPE (<u></u>	.)				-п		FROM	PTH SURFACE	<u> </u>	, 0	TY	
\vdash			DIA. (inches)	SCREEN CON- DUCTOR	H M	ATERIAL / GRADE	INTERNAL DIAMETER	GAUGE OR WAL	_L	SLOT SIZE IF ANY			CE- MENT T	BEN- ONITE	FILL	FILTER PACK
L	Ft. to	Ft.	3	5 ^점	뒫		(Inches)	THICKNE		(inches)	Ft.	to Ft.			(∠)	(TYPE/SIZE)
L	0	00	7" X		10	VC	4/2	160			300	10	<u></u>]	<u> </u>
L	60	150	7"	X	4	SVC	4/2	200		.030	20	140	57	0	ect	srave _
-	120	140	/ X	+		pvc	41/2	160	<u>)</u>				118	2 \		·
┝						•						1				
\vdash	i										-	. 1				
F		ATTACI	HMENTS (🗠) —		1 45		Alf. II.		CERTIFICA	TION STA	TEMENT				
	Geologic Log Well Construction Diagram I, the undersigned, certify that the property of the construction Diagram NAME (PERSON, FIRM, OR CORPORATION)							nis re	eport is complete	e and accu	rate to the	best of r	ny kno	owiedg	e and belief.	
								TYPE (TYPE	OR PRINTEN	2 421	rite	~ <u>`</u> C,	1			
	Geophysical Log(s)						1 6		1	.100		Cont		9011017		
	_	_ Soil/Wate _ Other _	er Chemical An	alyses		ADDRESS	· [- 6	7	<u></u> -	3	LEYC	CITY	رم	124	STATE	ZIP
	— АТТАСН АГ		INFORMATION,	IF IT EY		Signed	tond	M.	(Men		5	-4-0	99	_4	165071
_			Gravia HON,			C-57			TRACTO				E SIGNED	-,		57 LICENSE NUMBER
DV	VR 188 REV	/. 05-03		ı⊢ AD	אווטוONA	LSKACE	پة NEEDED,	USE NEX	CI C	ONSECUTIVELY	NUMBERE	D FORM			100	OSP 03 78836



Site Photos



Iron gate that controls access to the private access road/driveway from Morgan Valley Road



View of non-native grassland (foreground) and stock pond (right) from access road/driveway



Dam and engineered outfall of stock pond



Residential/office building (left) and Shop (right)



View of cultivation area(s) from existing onsite residential/office building



Access road and culverted watercourse crossing between existing and proposed cultivation areas



Existing fenced cultivation area