

Grounds Management Plan

Purpose and Overview

Ursa Valley, LLC (Ursa Valley) is seeking a Major Use Permit and an Early Activation of Use Permit from the County of Lake, for a proposed commercial cannabis cultivation operation at 10950 Bachelor Valley Road near Witter Springs, California on Lake County APNs 002-046-15 and 16 (Project Parcels). Ursa Valley's proposed commercial cannabis cultivation operation will be composed of twelve (12) 43,560 ft² A-Type 3 "Medium Outdoor" cultivation/canopy areas, an 8' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area (proposed metal shipping/storage container), and a 10' X 12' (120 ft²) Security Center/Shed (proposed wooden building). The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). All water for the proposed cultivation operation will come from five existing onsite groundwater wells.

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

Chemicals Storage and Effluent

Chemicals stored and used at/by the proposed cultivation operation include fertilizers/nutrients, pesticides, and petroleum products (Agricultural Chemicals). All fertilizers/nutrients and pesticides, when not in use, will be stored in their manufacturer's original containers/packaging, undercover, and at least 100 feet from surface water bodies, inside the secure Pesticides & Agricultural Chemicals Storage Area (proposed metal shipping/storage container). Petroleum products will be stored under cover, in State of California-approved containers with secondary containment, and separate from pesticides and fertilizers within the proposed Pesticides & Agricultural Chemicals Storage Area. Spill containment and cleanup equipment will be maintained within the proposed Pesticides and Agricultural Chemicals Storage Area, as well as Materials Safety Data Sheets (MSDS/SDS) for all potentially hazardous materials used onsite. No effluent is expected to be produced by the proposed cultivation operation.

All fertilizers/nutrients will be mixed/prepared on an impermeable surface that is at least 100 feet from surface water bodies. Personnel will be trained how to appropriately prepare and apply fertilizers/nutrients before being allowed to use them. When using/preparing fertilizers and

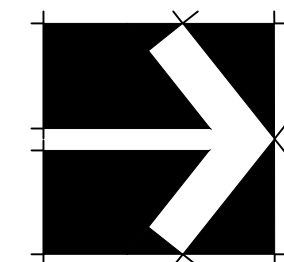
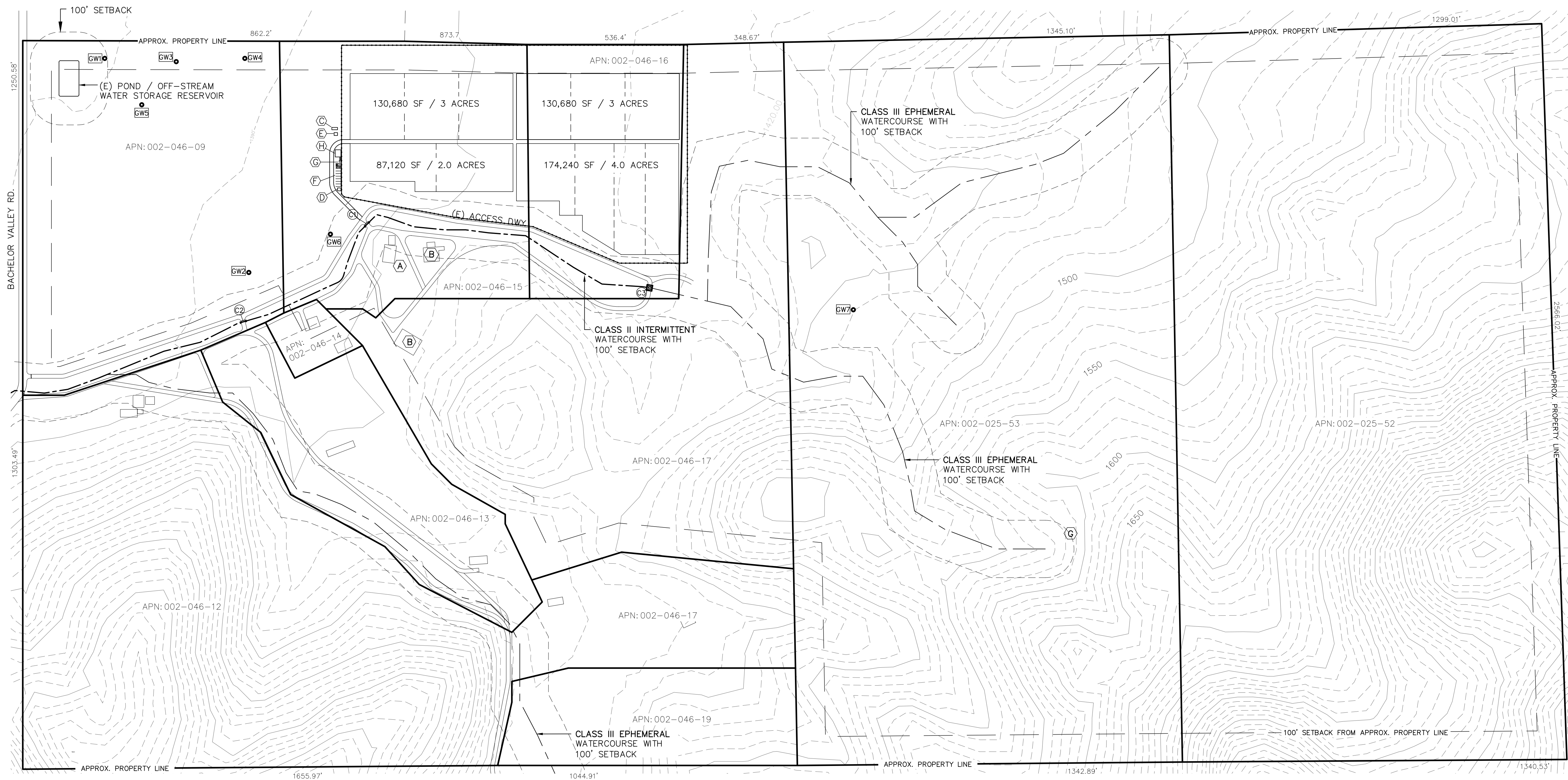
other chemicals, personnel will be required to use personal protective equipment (PPE) consistent with the MSDS/SDS recommendations for the product they're using/preparing. PPE to be used by staff include safety glasses, gloves, dust masks, boots, pants, and long-sleeved shirts.

Solid Waste Management

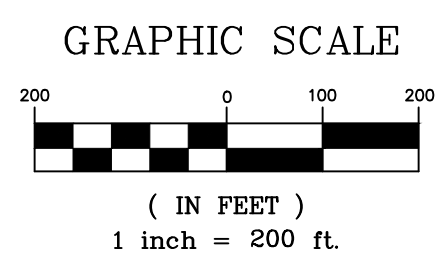
The types of solid waste that will be generated from the proposed cultivation operation include gardening materials and wastes (such as used plastic mulch and spent plastic fertilizer/pesticide bags and bottles) and general litter from staff/personnel. All solid waste will be stored in bins with secure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

Site Maintenance

When not in use, all equipment will be stored in its proper designated area upon completion of the task for which the equipment was needed. Any refuse created during the work day will be placed in the proper waste disposal receptacle at the end of each shift, or at a minimum upon completion of the task assigned. Any refuse which poses a risk for contamination or personal injury will be disposed of immediately. 100 feet of defensible space will be established and maintained around the proposed cultivation operation for fire protection and to ensure safe and sanitary working conditions. Areas of defensible space will be mowed and trimmed regularly around the cultivation operation to provide for visibility and security monitoring. Access roads and parking areas will be graveled to prevent the generation of fugitive dust, and vegetative ground cover will be preserved throughout the entire site to filter and infiltrate stormwater runoff from access roads, parking areas, and the proposed cultivation operation. Portable restroom facilities will be made available for use whenever staff are onsite and regularly serviced to ensure a safe and sanitary working environment.



PROPOSED CONDITIONS SITE PLAN

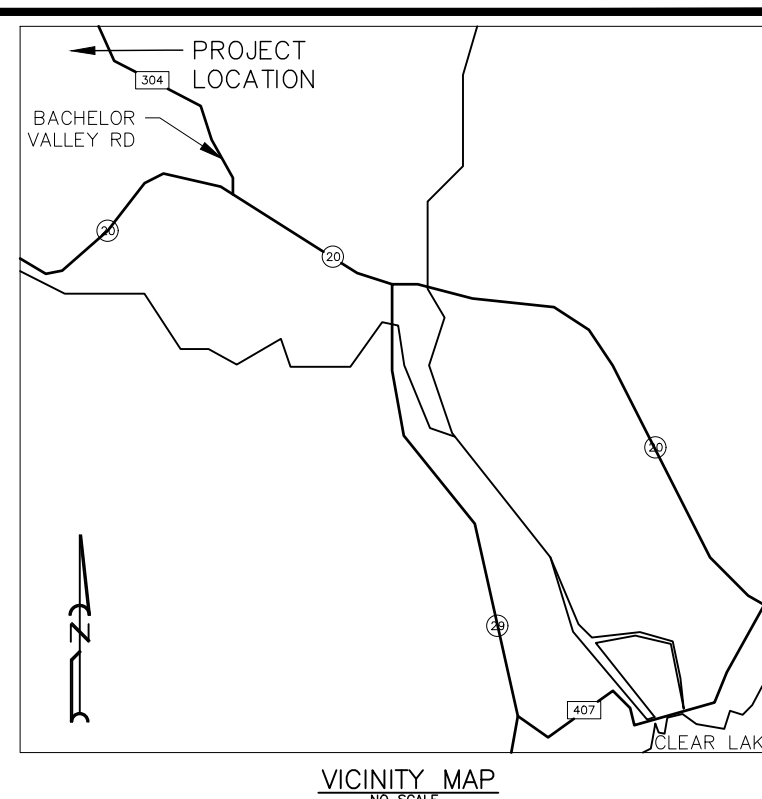


GROUNDWATER WELLS

GW1	GW-1 LAT: 39.193043° LONG: -122.966172° BENEFICIAL USE: IRRIGATION
GW2	GW-2 LAT: 39.194465° LONG: -122.963735° BENEFICIAL USE: DOMESTIC, IRRIGATION & FIRE PROTECTION
GW3	GW-3 LAT: 39.193879° LONG: -122.965919° BENEFICIAL USE: IRRIGATION
GW4	GW-4 LAT: 39.194529° LONG: -122.966134° BENEFICIAL USE: IRRIGATION
GW5	GW-5 LAT: 39.193254° LONG: -122.964859° BENEFICIAL USE: IRRIGATION
GW6	GW-6 LAT: 39.19516° LONG: -122.96398° (NON-FUNCTIONING)
GW7	GW-7 LAT: 39.20028° LONG: -122.96310° (NON-FUNCTIONING)

CULVERTS

C1	4' CMP CULVERT
C2	6' CMP CULVERT
C3	ROCK FORD CROSSING



URSA VALLEY LLC.
10950 BACHELOR VALLEY RD.
WITTER SPRINGS, CA 95493
APN: 002-046-09, 15, 16 & 17
AND 002-025-52 & 53

LEGEND:

1530	CONTOUR ELEVATION
---	FENCE
- - -	CREEK / SWALE
APN	ASSESSOR'S PARCEL NUMBER
APPROX	APPROXIMATELY
DWY	DRIVEWAY
(E)	EXISTING
(P)	PROPOSED
RD	ROAD
SF	SQUARE FEET

NOTES:

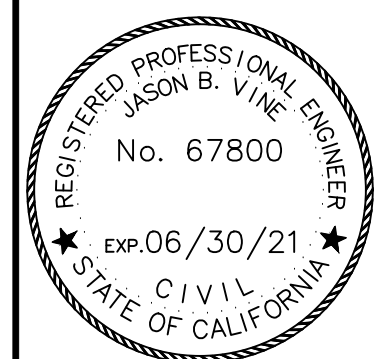
1. CONTOUR INTERVAL IS 10'

- (A) (E) RESIDENCE
- (B) (E) ACCESSORY AG STRUCTURES
- (P) 8'X20' PESTICIDES & AGRICULTURAL CHEMICALS STORAGE AREA
- (D) (P) 10'X12' SECURITY SHED
- (E) (P) DESIGNATED REFUSE AREA
- (F) (P) PARKING - 7 SPACES + 1 A.D.A.
- (G) (P) PORTABLE RESTROOM + 1 A.D.A.
- (H) (P) 20'X25' COMPOST AREA

Revisions:

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

PLANS PREPARED UNDER THE
SUPERVISION OF:



PROPOSED CONDITIONS SITE PLAN

APNs: 002-046-09, 15, 16 & 17 AND 002-025-52 & 53
10950 BACHELOR VALLEY RD.
WITTER SPRINGS, CA 95493
LAKE COUNTY

PLOTTED BY:

DATE PLOTTED:

SCALE OF DRAWING:

JOB NUMBER:

CADD FILE:

SHEET:

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Security Management Plan

Purpose and Overview

Ursa Valley, LLC (Ursa Valley) is seeking a Major Use Permit and an Early Activation of Use Permit from the County of Lake, for a proposed commercial cannabis cultivation operation at 10950 Bachelor Valley Road near Witter Springs, California on Lake County APNs 002-046-15 and 16 (Project Parcels). Ursa Valley's proposed commercial cannabis cultivation operation will be composed of twelve (12) 43,560 ft² A-Type 3 "Medium Outdoor" cultivation/canopy areas, an 8' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area (proposed metal shipping/storage container), and a 10' X 12' (120 ft²) Security Center/Shed (proposed wooden building). The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). All water for the proposed cultivation operation will come from five existing onsite groundwater wells.

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

Secured Entry and Access

The Project Property is accessed via a shared private gravel access road off of Bachelor Valley Road. The proposed cultivation operation will be located west of the shared private gravel access road, and accessed via an existing private native soil surfaced access road that connects to the shared private gravel access road and Bachelor Valley Road. Metal gates (three) control access to the private native soil surfaced access road from Bachelor Valley Road and the shared private gravel access road. These gates will be closed and locked outside of core operating/business hours (8am to 6pm) and whenever Ursa Valley's managerial personnel are not present.

6-foot woven wire fences will be erected around the proposed cultivation/canopy area(s). Privacy Screen/Cloth will be installed on the fences where necessary to screen the cultivation area from public view. Posts will be set into the ground at not more than 10-foot intervals, and terminal posts will be set into concrete footings. Secured entry and access to the cultivation/canopy

area(s) will be controlled via locking gates that will be locked whenever Ursa Valley's managerial personnel are not present. All gates will be secured with heavy duty chains and commercial grade padlocks. Only approved managerial staff will be able to unlock the gates of the cultivation operation.

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

Personnel will be instructed to notify Ursa Valley's managerial staff immediately if/when suspicious activity is detected. Ursa Valley's managerial staff will investigate the suspicious activity for potential threats, issues, or concerns. Ursa Valley's managerial staff will contact the Lake County Sheriff's Office immediately if/when a threat is detected. When a visitor arrives at the proposed cultivation operation via the main entrance during core operating/business hours, they will be immediately greeted by a member of Ursa Valley'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.

Video Surveillance

Ursa Valley will use a color capable 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 will be equipped with motion sensing technology to activate the cameras when motion is detected, and all cameras (exterior and interior) will be waterproof. The CCTV system will feed into a Monitoring and Recording Station inside the Security Center (proposed wooden building), where video from the CCTV system will be digitally recorded. Video recordings will display the current date and time, and all recordings will be kept a minimum of 90 days, and 7 years for any corresponding reported incidents caught on tape. Video management software of the Monitoring and Recording Station will be capable of supporting remote access, and will be equipped with a failure notification system that immediately notifies Ursa Valley's managerial staff of any interruptions or failures. All sensitive areas covered by the video surveillance system will have adequate lighting to illuminate the camera's field of vision.

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

- Interior and exterior of all entryways and exits to the proposed cultivation area(s);
- Perimeter of the proposed cultivation area(s); and
- The interior and exterior of the entryway/exit to the Security Center.

Diversions/Theft Prevention

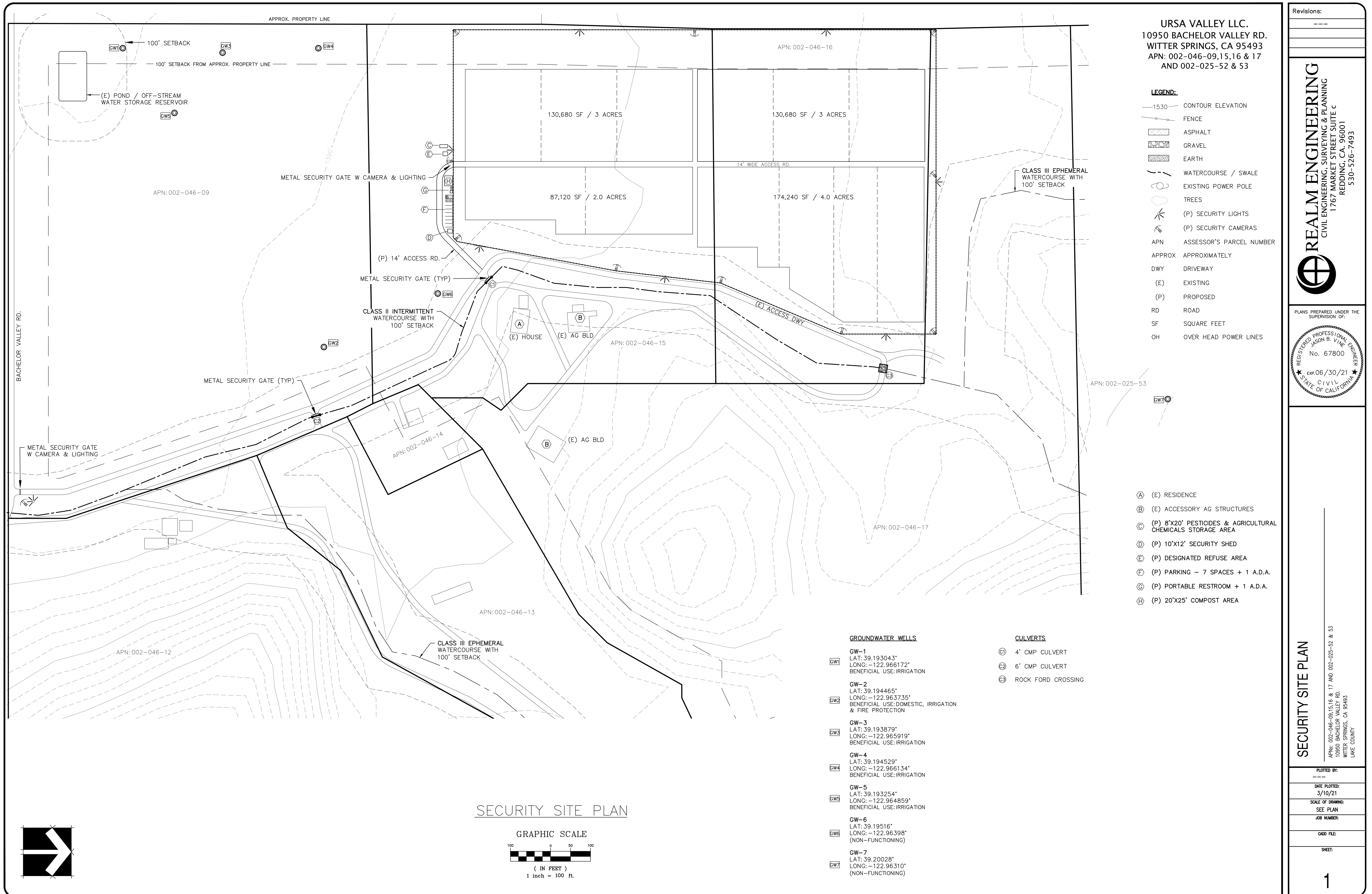
All personnel will be required to undergo a criminal background check with the Lake County Sheriff's Office. Visitors and personnel will be required to sign-in and sign-out each day, and record the areas in which they worked and the tasks they were assigned. Personnel will be required to store personal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

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

Community Liaison and Emergency Contact

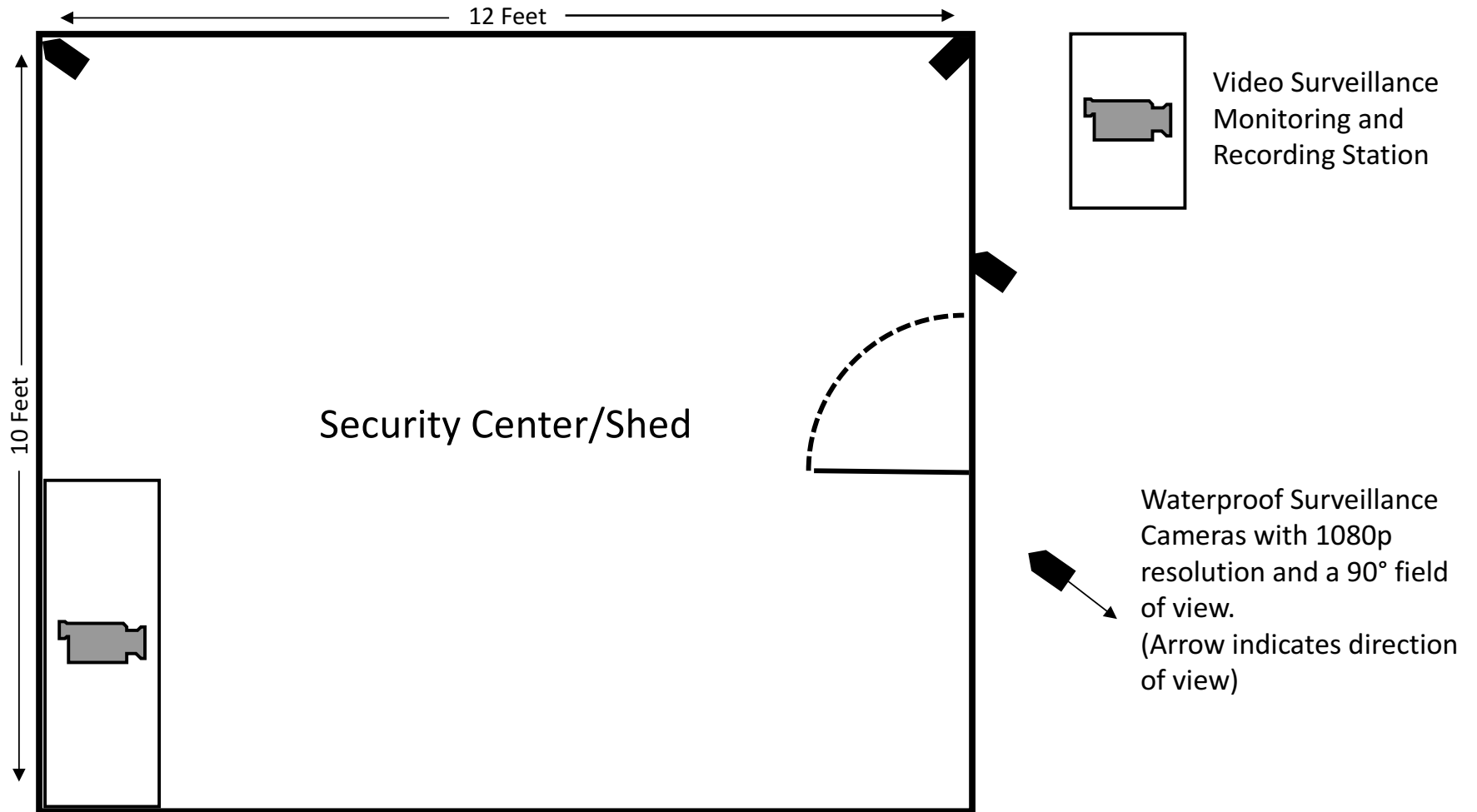
A Community Liaison/Emergency Contact will be made available to Lake County Officials/Staff and the Lake County Sheriff's Office at all times to address any needs or issues that may arise. Ursa Valley will provide the name, cell phone number, and email address of the Community Liaison/Emergency Contact to all interested County Departments, Law Enforcement Officials, and neighboring property owners and residents. Ursa Valley 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 Ursa Valley's annual Performance Review Report.

The Community Liaison/Emergency Contact for the proposed cultivation operation is Mr. Jaime Restrepo. Mr. Restrepo's cell phone number is (202) 257-2738, and his email address is jaime@flowcannabis.co. The residents and owners of all properties neighboring the Project Parcel, will have Mr. Restrepo's contact information before cannabis cultivation begins.



Security Center/Shed

(Proposed Wooden Shed)



Storm Water Management Plan

Purpose and Overview

Ursa Valley, LLC (Ursa Valley) is seeking a Major Use Permit and an Early Activation of Use Permit from the County of Lake, for a proposed commercial cannabis cultivation operation at 10950 Bachelor Valley Road near Witter Springs, California on Lake County APNs 002-046-15 and 16 (Project Parcels). Ursa Valley's proposed commercial cannabis cultivation operation will be composed of twelve (12) 43,560 ft² A-Type 3 "Medium Outdoor" cultivation/canopy areas, an 8' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area (proposed metal shipping/storage container), and a 10' X 12' (120 ft²) Security Center/Shed (proposed wooden building). The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). All water for the proposed cultivation operation will come from five existing onsite groundwater wells.

The intent/purpose of this Storm Water Management Plan is to protect the water quality of the surface and stormwater management systems managed by Lake County, and to evaluate the impact on downstream property owners. The proposed cultivation operation will increase the impervious surface area of the Project Parcel by approximately 280 ft², or less than 0.1% of the Project Parcels, through the installation of a 10' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area/Shed and a 10' X 12' (120 ft²) Security Center/Shed. The proposed outdoor cultivation/canopy area(s) will not increase the impervious surface area of the Project Property and should not increase the volume of runoff from the Project Site. The proposed parking lot will have a permeable gravel surface, and the proposed ADA parking space will be constructed of permeable pavers.

Ursa Valley will focus on low impact development (LID) and "green" stormwater management infrastructure to achieve permanent stabilization post site development as quickly as possible. LID practices utilizing "green" infrastructure will manage storm water by minimizing impervious surfaces, maintaining, preserving, and enhancing existing vegetation, and by using natural systems to filter and infiltrate stormwater into the ground. LID with "green" storm water infrastructure is cost competitive with traditional storm water management infrastructure/practices, while providing numerous other long-term benefits, such as improved water quality, ecosystem enhancement, and preserved/improved aesthetics. The stormwater management measures outlined in this Storm Water Management Plan meet and/or exceed the requirements of the Lake County Storm Water Management Ordinance (Chapter 29 of the Lake County Ordinance Code).

Receiving Water Bodies and Infrastructure

The Project Property is located in the northeastern portion of Bachelor Valley, within the Lower Scotts Creek Watershed (HUC 12), and approximately 9 miles north of Lakeport, CA. An unnamed intermittent Class III watercourse (NHD/DFG Water ID: 156361727) flows from north to south, through the eastern third of the Project Parcels. Additionally, there is a pond/off-stream water storage reservoir in the southwestern corner of the Project Property, that was developed in 2004/2005 (from satellite imagery) and now has some fringe hydrophytic vegetation. All cultivation areas and associated facilities of the proposed cultivation operation will be located more than 100 feet of any surface waterbody.

The proposed cultivation operation will be located west of the unnamed intermittent Class III watercourse that flows through the eastern third of the Project Parcels. The Project Parcels are accessed via a shared private gravel access road off of Bachelor Valley Road (east of the unnamed intermittent Class III watercourse) and a private native soil surfaced access road off of Bachelor Valley Road (west of the unnamed intermittent Class III watercourse). Two existing culverted watercourse crossings of the unnamed intermittent Class III watercourse, connect the shared private gravel and private native soil surfaced access roads, and will be used to access the proposed cultivation operation from Bachelor Valley Road. Both of the CMP culverts in the watercourse crossings of intermittent Class III watercourse can accommodate the expected 100-year flood flow of ~50 cubic feet per second (please see attached 100-Year Flood Flow and Culvert Calculations).

The unnamed intermittent Class III watercourse flows off of the Project Property and under Bachelor Valley Road via a reinforced concrete bridge, then under East Road and Highway 20 and into Tule Lake. Development of the proposed cultivation operation, with the implementation of the LID practices and erosion and sediment control measures outlined below, will not increase the volume of stormwater discharges from the Project Property/Parcels onto adjacent properties or flood elevations downstream.

Ground Disturbance and Grading

Soils of the Project Parcels are identified as Lupoyoma silt and Still loams by the NRCS Web Soil Survey (attached), and characterized as well-drained alluvium derived from sandstone and shale. The proposed cultivation operation will increase the impervious surface area of the Project Parcel by approximately 280 ft², or less than 0.1% of the Project Parcel, through the installation of an 8' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area (proposed metal shipping/storage container) and a 10' X 12' (120 ft²) Security Center/Shed (proposed wooden building). The proposed outdoor cultivation/canopy areas will not increase the impervious surface area of the Project Property/Parcels and should not increase the volume of runoff from the Project Site. The proposed parking lot will have a permeable gravel surface, and the proposed ADA parking space will be constructed of permeable pavers.

The proposed cultivation operation will be established in an area/field of the Project Property (over 1,000 feet north of Bachelor Valley Road) that supported a mature walnut orchard until 2016. The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). Each spring, the native soil/growing medium of the proposed outdoor cultivation/canopy areas will be plowed/disc'd and harrowed to create planting beds for the cultivation of cannabis. Each fall, the native soil/growing medium of the proposed outdoor cultivation/canopy areas will be plowed/disc'd and planted with a nitrogen-fixing cover crop, to stabilize the site(s) for the winter wet weather period.

Erosion and Sediment Control Measures

Established vegetation within and around the proposed cultivation operation will be maintained/protected to the extent possible, as a permanent erosion and sediment control measure. All structures and cultivation areas will be located more than 100 feet from the nearest surface water bodies, and stormwater runoff from the structures and cultivation/canopy area(s) will be discharged to the well-vegetated buffers surrounding the proposed cultivation operation to filter and/or remove any sediment, nutrients, and/or pesticides mobilized by stormwater runoff, and prevent those pollutants from reaching nearby surface water bodies.

A native grass seed mixture and certified weed-free straw mulch will be applied at a rate of two tons per acre to all areas of the exposed soil outside of the proposed cultivation/canopy areas, prior to November 15th of each year, until permanent stabilization has been achieved. Prior to November 15th of each year, a nitrogen-fixing cover crop will be planted in the proposed cultivation/canopy areas, to stabilize the site(s) for the winter wet weather period. Straw wattles will be installed and maintained throughout the proposed cultivation operation per the attached Erosion & Sediment Control Site Plan following site development, until permanent stabilization has been achieved. If areas of concentrated stormwater runoff begin to develop, additional erosion and sediment control measures will be implemented to protect those areas and their outfalls. Ursa Valley will conduct monthly monitoring inspections to confirm that this operation is in compliance with California Water Code/SWRCB's Cannabis General Order.

Regulatory Compliance (Stormwater)

The Project Parcel was enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. WQ-2019-0001-DWQ), as a Tier 2 Low Risk Discharger on September 9th, 2020. Site Management and Nitrogen Management Plans will be developed for the proposed cultivation operation, and submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) for review, prior to planting. Each year, prior to March 1st, an Annual Monitoring Report will be prepared and submitted to the CVRWQCB, demonstrating measures taken over the course of the previous year to comply with the Cannabis General Order.

The stormwater management measures outlined above meet or exceed the requirements of the Lake County Storm Water Management Ordinance (Chapter 29 of the Lake County Ordinance Code). All proposed ground/land disturbing activities qualify for the Permit Exemptions and Requirements outlined in Article V of Chapter 30 of the Lake County Code (Grading Ordinance).

In particular, the proposed ground/land disturbing activities qualify for Section 17.4.2 and Section 17.4.3 of Article V:

Section 17.4.2 a - "Routine mechanical practices including, but not limited to: discing, harrowing, raking, chiseling, or plowing to till the soil for the production of agricultural crops on land historically used for that purpose".

Section 17.4.3, "All crop conversions involving agricultural grading are exempt provided the grading activities:

- a) Do not expand the footprint of the existing farming activity or operation.
- b) Do not occur within thirty (30) feet of the top of bank of a watercourse, wetland, lake, or vernal pool.
- c) Do not remove previously cultivated trees, vines or other plants having stable woody root systems extending at least twelve (12) inches below the soil surface and occur on soils with a moderated or severe Erosion Hazard Rating.
- d) Do not occur during the Winter Period.
- e) Do not create any cut or fill slope of a ratio greater than two to one (2:1).

The soils of the fields in which the proposed cultivation operation will be established, have a low/slight Erosion Hazard Rating, and evidence of recent and long-running intensive agricultural operations can be easily field verified by the Lake County Community Development Department. Development of the proposed cultivation operation, with the implementation of the LID practices and erosion and sediment control measures outlined above, will not increase the volume of stormwater discharges from the Project Property onto adjacent properties or flood elevations downstream.

Storm Water Management Monitoring and Reporting

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

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

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

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

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

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

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

Cannabis Vegetative Material Waste Management

Cannabis Waste

“Cannabis waste” is an organic waste, as defined in Section 42649.8(c) of the Public Resources Code. Cannabis waste generated from the proposed cannabis cultivation operation will be limited to cannabis plant leaves and stems. All other parts of cannabis plants cultivated at this site will be transferred to a State of California-licensed Distributor for distribution to State of California-licensed Processors and Manufacturers. The proposed cannabis cultivation operation should generate approximately 600 pounds of dried cannabis waste each cultivation season (May 1st through November 15th). All cannabis waste will be composted onsite.

Cannabis Waste Composting

All cannabis waste generated from the proposed cultivation operation will be composted on-site and in compliance with Title 14 of the California Code of Regulations at Division 7, Chapter 3.1. Cannabis waste will be ripped/shredded and placed in the designated composting areas. In the designated composting areas, cannabis waste will be composted until it is incorporated into the soils of the proposed outdoor cultivation/canopy areas as a soil amendment.

Cannabis Waste Records/Documentation

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

Growing Medium Management

Growing Medium Overview

The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). Each year the growing medium of the proposed cultivation operation will be amended and reused. Each spring, the native soil/growing medium of the proposed outdoor cultivation/canopy area(s) will be plowed/disc'd and harrowed to create planting beds for the cultivation of cannabis. Each fall, the native soil/growing medium of the proposed outdoor cultivation/canopy area(s) will be plowed/disc'd and planted with a nitrogen-fixing cover crop, to stabilize the site(s) for the winter wet weather period. Only low salt fertilizers will be used, so that salts do not accumulate within the growing medium of the proposed cultivation/canopy area(s), rendering it unusable.

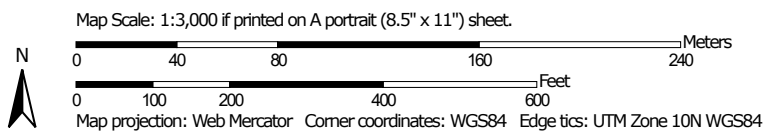
Growing Medium Waste

Ideally, the growing medium of the cultivation/canopy area(s) will be amended and reused each year/cultivation season. In the event of a root and/or soil borne pest infestation, the infested soil will be quarantined and treated with a pesticide that targets the infestation and that is approved for use in cannabis cultivation by the California Department of Food and Agriculture. The treated soil will be returned to production after treatment. No growing medium waste should be generated from the proposed cannabis cultivation operation (all growing medium should be recycled/reused).

Soil Map—Lake County, California
(10950 Bachelor Valley Road)



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

10/2/2020
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Lake County, California

Survey Area Data: Version 17, Jun 1, 2020

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

Date(s) aerial images were photographed: May 8, 2019—May 10, 2019

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
158	Lupoyoma silt loam, protected	12.2	32.1%
214	Sleeper variant-Sleeper loams, 15 to 30 percent slopes	0.7	1.8%
215	Sleeper variant-Sleeper loams, 30 to 50 percent slopes	4.1	10.8%
233	Still loam, stratified substratum	21.0	55.3%
Totals for Area of Interest		38.0	100.0%

100-Year Flood Flow and Culvert Calculations

Two Culverted Intermittent Class III Watercourse Crossings
10950 Bachelor Valley Road, Witter Springs, CA 95493

Contributing water shed to watercourse crossing = ~70 acres

The Rational Method was used to calculate the expected 100-year flood flow, as recommended by CALFIRE Designing Watercourse Crossings for Passage of 100-year Flood Flows, Wood, and Sediment document (2004) for watersheds less than 200 acres.

Rational Method: $Q_{100} = CIA$

C = Runoff Coefficient

I = Uniform Rate of Rainfall Intensity (inches/hour)

A = Drainage Area (Acres)

C = 0.3 (Loam Soils, Woodland Land Use)

A = ~70 Acres

Time of concentration (T_c) is needed to select the appropriate rainfall intensity

$$T_c = [11.9L/H]^{0.385}$$

L = Length of Channel (miles)

H = Elevation Difference within Watershed (feet)

L = ~0.75 miles

H = ~1,700' - ~1,400' = ~200'

T_c = 0.30 or 18 minutes

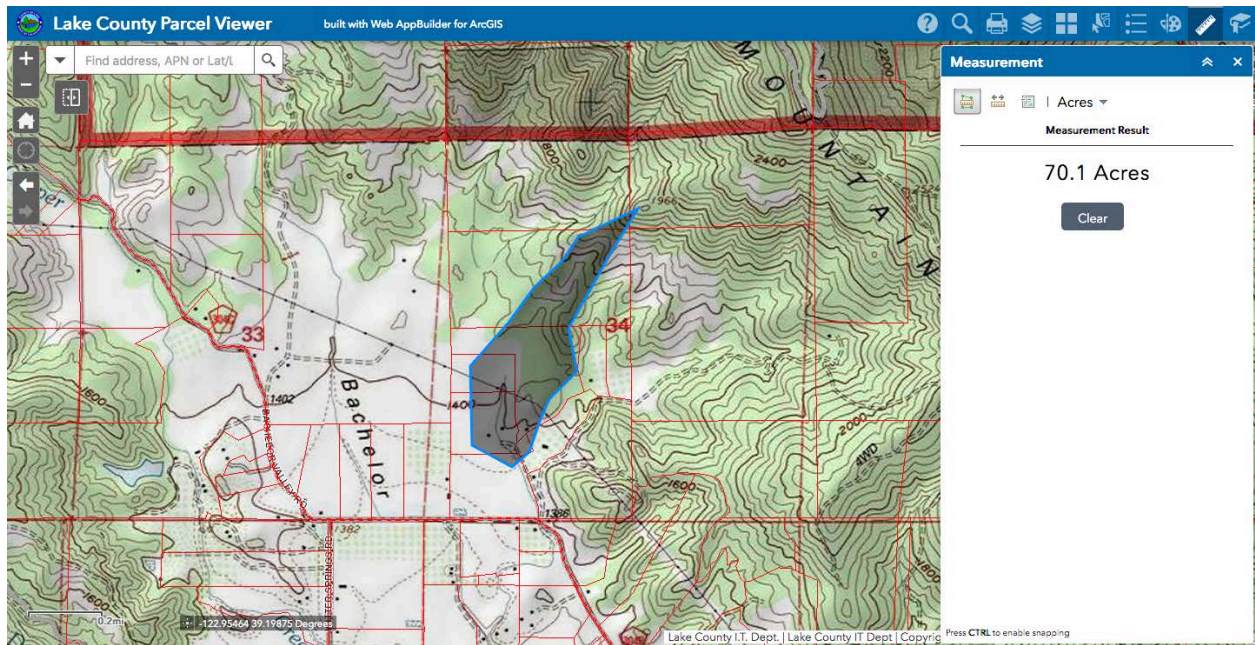
Precipitation Frequency Estimate for Project Site (see attached Table)

15 Minute I_{100} = 0.596 (inches)

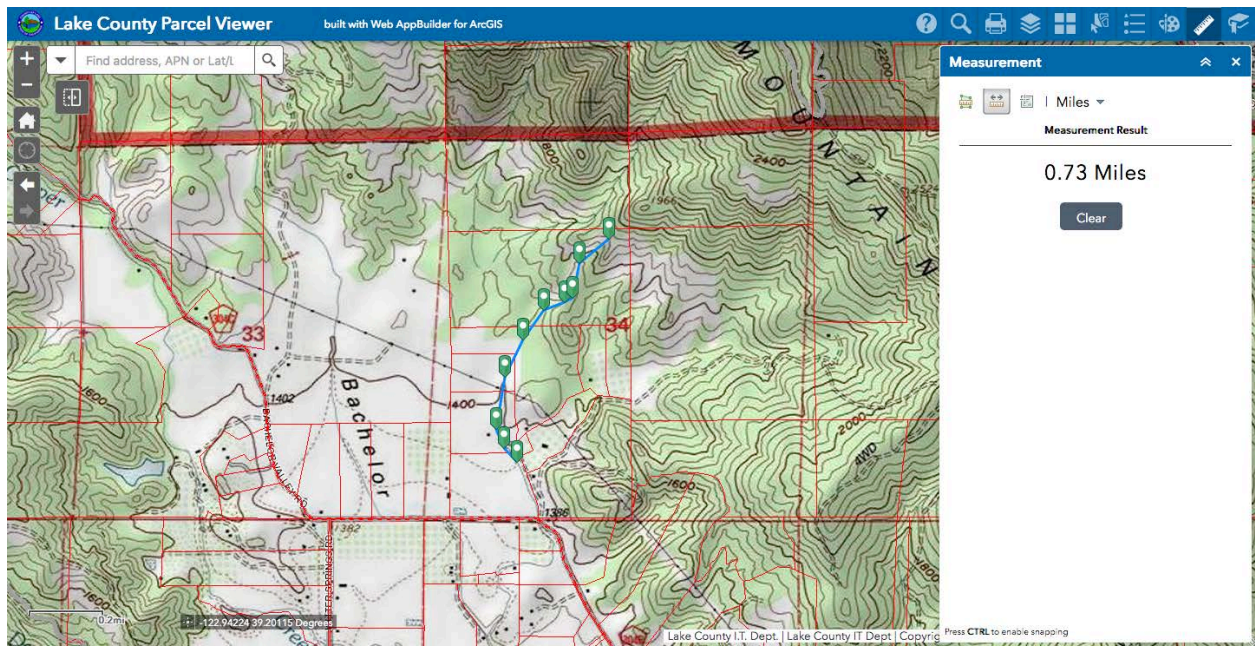
I_{100} = 2.384 (inches)

$$Q_{100} = 0.3 \times 2.384 \times 70 = 50.1 \text{ cfs}$$


The Federal Highway Administration (FHWA) Culvert Capacity Inlet Control Nomograph was used to determine adequate sizing for the expected 100-year flood flow for the watercourse crossings. Based on this nomograph, a 44" CMP Culvert should be able to accommodate the expected 100-year flood flows. Both of the two existing intermittent Class III watercourse crossings at 10950 Bachelor Valley Road have culverts with a diameter greater than 44 inches.



Contributing Watershed to Project Site



Length of Channel to Project Site



NOAA Atlas 14, Volume 6, Version 2


Location name: Witter Springs, California, USA*

Latitude: 39.1986°, Longitude: -122.9621°

Elevation: 1433.96 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

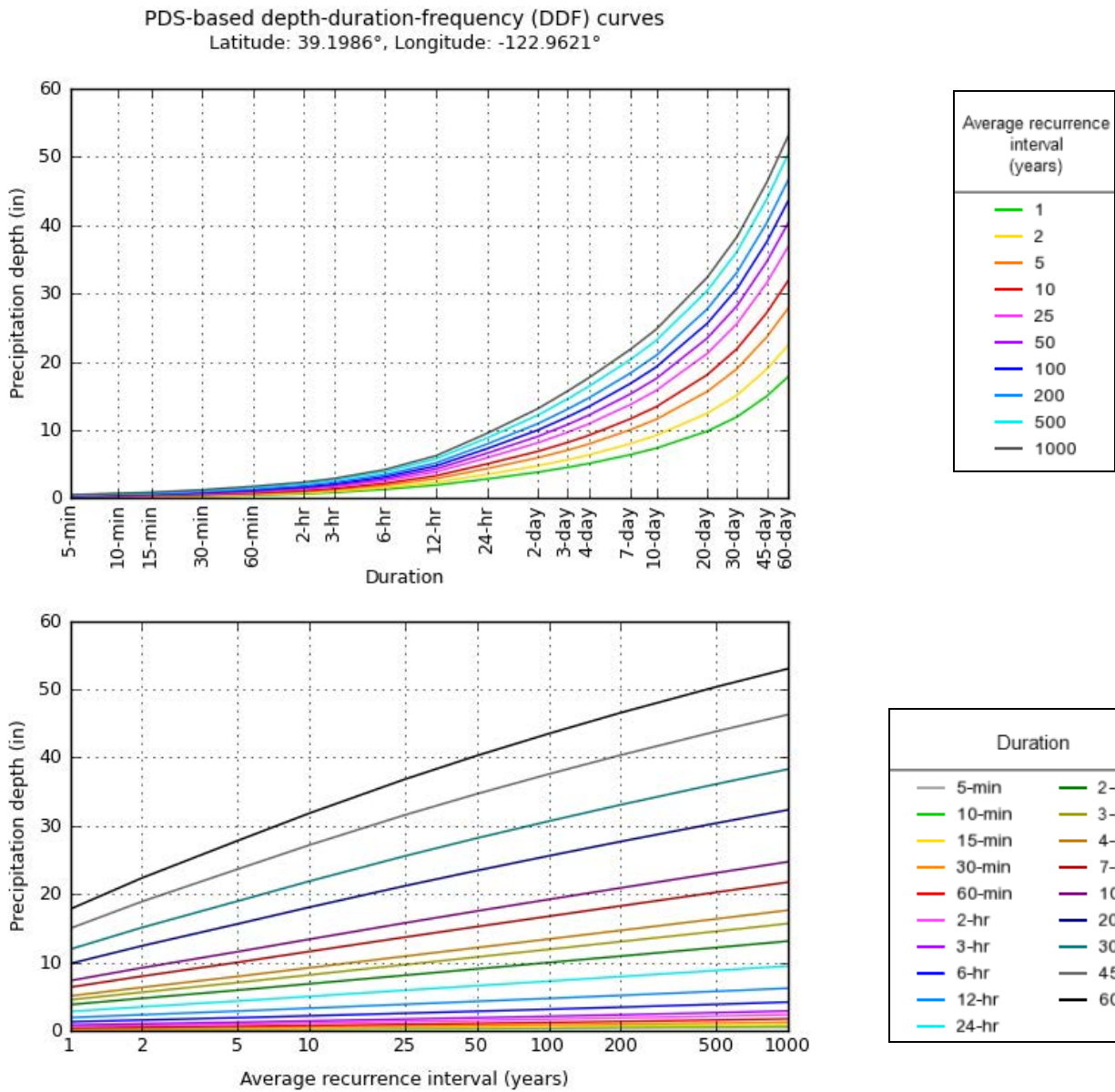
[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.119 (0.106-0.136)	0.148 (0.131-0.169)	0.187 (0.165-0.214)	0.220 (0.192-0.254)	0.266 (0.224-0.320)	0.304 (0.250-0.374)	0.344 (0.275-0.435)	0.387 (0.299-0.505)	0.448 (0.330-0.612)	0.497 (0.353-0.708)
10-min	0.171 (0.152-0.195)	0.212 (0.188-0.242)	0.268 (0.236-0.306)	0.315 (0.275-0.364)	0.382 (0.321-0.458)	0.436 (0.358-0.536)	0.493 (0.394-0.623)	0.554 (0.429-0.723)	0.641 (0.474-0.878)	0.713 (0.506-1.01)
15-min	0.207 (0.184-0.236)	0.256 (0.227-0.292)	0.324 (0.286-0.370)	0.381 (0.333-0.440)	0.462 (0.389-0.554)	0.527 (0.433-0.648)	0.596 (0.476-0.753)	0.670 (0.519-0.875)	0.776 (0.573-1.06)	0.862 (0.612-1.23)
30-min	0.294 (0.261-0.335)	0.364 (0.323-0.416)	0.460 (0.406-0.526)	0.541 (0.474-0.625)	0.657 (0.553-0.788)	0.749 (0.616-0.921)	0.847 (0.677-1.07)	0.953 (0.737-1.24)	1.10 (0.814-1.51)	1.23 (0.870-1.74)
60-min	0.417 (0.370-0.474)	0.516 (0.457-0.588)	0.651 (0.575-0.745)	0.766 (0.670-0.885)	0.929 (0.782-1.12)	1.06 (0.872-1.30)	1.20 (0.958-1.52)	1.35 (1.04-1.76)	1.56 (1.15-2.14)	1.74 (1.23-2.47)
2-hr	0.637 (0.565-0.726)	0.775 (0.687-0.884)	0.960 (0.848-1.10)	1.11 (0.975-1.29)	1.33 (1.12-1.60)	1.50 (1.23-1.85)	1.68 (1.34-2.12)	1.87 (1.45-2.44)	2.13 (1.57-2.92)	2.35 (1.67-3.34)
3-hr	0.832 (0.738-0.947)	1.00 (0.889-1.14)	1.23 (1.09-1.41)	1.42 (1.24-1.64)	1.68 (1.42-2.02)	1.89 (1.55-2.32)	2.10 (1.68-2.66)	2.33 (1.80-3.04)	2.64 (1.95-3.61)	2.88 (2.05-4.10)
6-hr	1.30 (1.15-1.48)	1.56 (1.38-1.77)	1.89 (1.67-2.17)	2.17 (1.90-2.50)	2.55 (2.14-3.05)	2.84 (2.33-3.49)	3.13 (2.50-3.96)	3.44 (2.66-4.49)	3.86 (2.85-5.28)	4.19 (2.97-5.96)
12-hr	1.92 (1.70-2.19)	2.33 (2.07-2.66)	2.86 (2.53-3.27)	3.29 (2.88-3.80)	3.86 (3.25-4.63)	4.29 (3.52-5.27)	4.72 (3.77-5.97)	5.17 (4.00-6.74)	5.76 (4.25-7.88)	6.21 (4.41-8.84)
24-hr	2.81 (2.52-3.19)	3.48 (3.12-3.96)	4.33 (3.88-4.94)	5.01 (4.45-5.76)	5.91 (5.10-6.98)	6.58 (5.58-7.91)	7.25 (6.02-8.89)	7.92 (6.43-9.95)	8.80 (6.90-11.5)	9.48 (7.21-12.7)
2-day	3.81 (3.42-4.33)	4.74 (4.25-5.39)	5.92 (5.29-6.75)	6.86 (6.09-7.88)	8.11 (7.00-9.58)	9.04 (7.68-10.9)	9.98 (8.29-12.2)	10.9 (8.86-13.7)	12.2 (9.53-15.8)	13.1 (9.97-17.6)
3-day	4.52 (4.06-5.14)	5.62 (5.04-6.40)	7.04 (6.29-8.03)	8.16 (7.25-9.37)	9.66 (8.34-11.4)	10.8 (9.15-13.0)	11.9 (9.90-14.6)	13.0 (10.6-16.4)	14.5 (11.4-18.9)	15.7 (11.9-21.1)
4-day	5.08 (4.56-5.78)	6.33 (5.68-7.21)	7.93 (7.10-9.05)	9.21 (8.18-10.6)	10.9 (9.41-12.9)	12.2 (10.3-14.6)	13.4 (11.2-16.5)	14.7 (11.9-18.5)	16.4 (12.8-21.3)	17.6 (13.4-23.7)
7-day	6.36 (5.71-7.23)	7.97 (7.15-9.07)	10.00 (8.94-11.4)	11.6 (10.3-13.3)	13.7 (11.8-16.2)	15.2 (12.9-18.3)	16.8 (13.9-20.6)	18.3 (14.8-23.0)	20.3 (15.9-26.4)	21.8 (16.5-29.2)
10-day	7.32 (6.57-8.32)	9.20 (8.25-10.5)	11.6 (10.3-13.2)	13.4 (11.9-15.4)	15.8 (13.6-18.6)	17.5 (14.9-21.1)	19.2 (16.0-23.6)	20.9 (17.0-26.3)	23.1 (18.1-30.1)	24.7 (18.8-33.2)
20-day	9.81 (8.81-11.2)	12.4 (11.1-14.1)	15.6 (14.0-17.8)	18.1 (16.1-20.8)	21.2 (18.3-25.0)	23.4 (19.9-28.2)	25.6 (21.3-31.4)	27.7 (22.5-34.8)	30.4 (23.8-39.6)	32.3 (24.6-43.4)
30-day	11.9 (10.7-13.5)	15.1 (13.5-17.2)	19.0 (17.0-21.6)	21.9 (19.5-25.1)	25.6 (22.1-30.2)	28.2 (23.9-33.9)	30.7 (25.5-37.7)	33.1 (26.9-41.6)	36.1 (28.3-47.0)	38.3 (29.1-51.4)
45-day	15.0 (13.4-17.0)	18.9 (17.0-21.5)	23.6 (21.1-27.0)	27.2 (24.2-31.2)	31.6 (27.3-37.3)	34.7 (29.4-41.7)	37.6 (31.2-46.1)	40.4 (32.8-50.7)	43.8 (34.3-57.1)	46.3 (35.2-62.1)
60-day	17.8 (16.0-20.2)	22.4 (20.1-25.5)	27.8 (24.9-31.7)	31.8 (28.3-36.6)	36.8 (31.8-43.5)	40.3 (34.2-48.4)	43.5 (36.2-53.4)	46.6 (37.8-58.6)	50.4 (39.4-65.6)	53.0 (40.3-71.2)
<div><div>¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).</div><div>Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.</div><div>Please refer to NOAA Atlas 14 document for more information.</div></div>										

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PF graphical



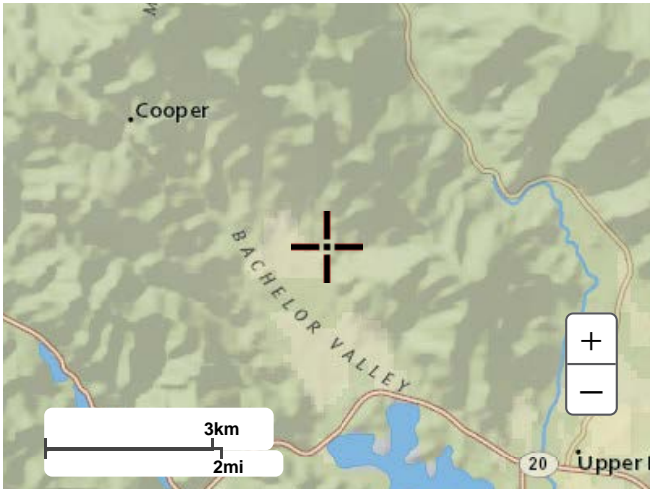
NOAA Atlas 14, Volume 6, Version 2

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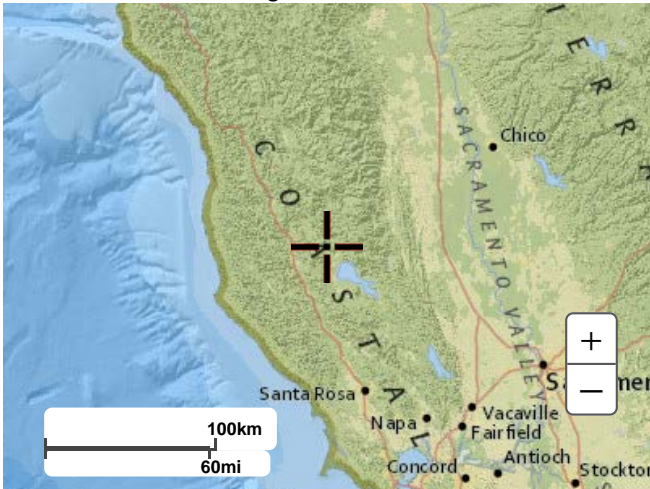
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Maps & aerals

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



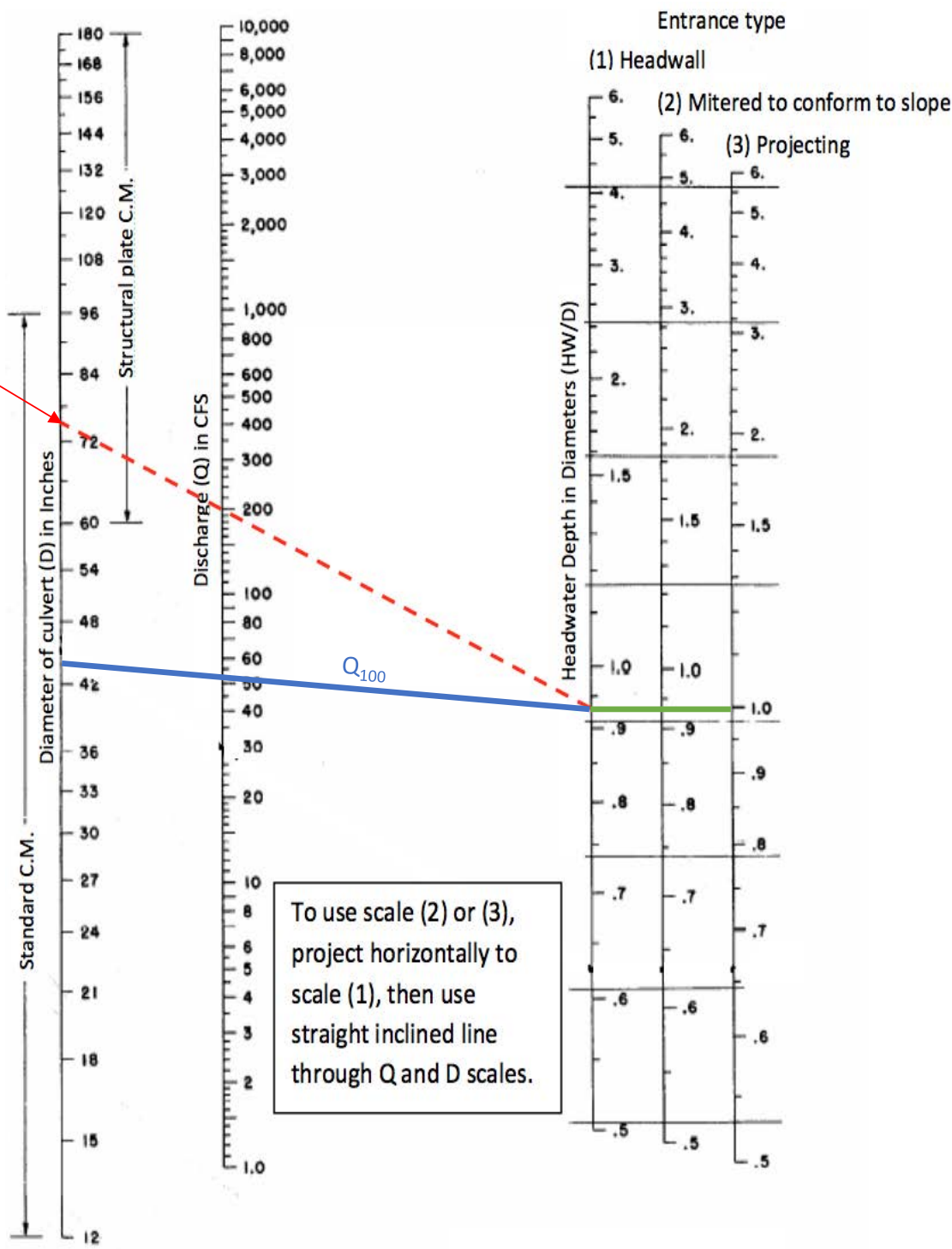
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FIGURE A-1.
*FWHA Culvert
Capacity
Inlet Control
Nomograph.*

Example Line



Water Use Management Plan

Purpose and Overview

Ursa Valley, LLC (Ursa Valley) is seeking a Major Use Permit and an Early Activation of Use Permit from the County of Lake, for a proposed commercial cannabis cultivation operation at 10950 Bachelor Valley Road near Witter Springs, California on Lake County APNs 002-046-15 and 16 (Project Parcels). Ursa Valley's proposed commercial cannabis cultivation operation will be composed of twelve (12) 43,560 ft² A-Type 3 "Medium Outdoor" cultivation/canopy areas, an 8' X 20' (160 ft²) Pesticide & Agricultural Chemicals Storage Area (proposed metal shipping/storage container), and a 10' X 12' (120 ft²) Security Center/Shed (proposed wooden building). The growing medium of the proposed outdoor cultivation/canopy area(s) will be an amended native soil mixture at or below grade, with drip irrigation systems covered in white plastic mulch (to conserve water resources). All water for the proposed cultivation operation will come from five existing onsite groundwater wells.

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

Description of Water Resources

Surface Water

The Project Property is located in the northeastern portion of Bachelor Valley, within the Lower Scotts Creek Watershed (HUC 12). An unnamed intermittent Class III watercourse (NHD/DFG Water ID: 156361727) flows from north to south, through the eastern third of the Project Parcels. Two ephemeral Class III watercourses form in the northern half of the Project Property and flow south into the unnamed intermittent Class III watercourse. Additionally, there is a pond/off-stream water storage reservoir in the southwestern corner of the Project Property, that was developed in 2004/2005 (from satellite imagery) and now has some fringe hydrophytic vegetation. All cultivation areas and associated facilities of the proposed cultivation operation will be located more than 100 feet of any surface waterbody.

Groundwater

Soils of the Project Parcel are identified as Lupoyoma silt and Still loams by the NRCS Web Soil Survey (attached), and characterized as well-drained alluvium derived from sandstone and shale. The United States Geological Survey Map of the Ukiah Sheet defines the area in the vicinity of the Project Property as Quarternary Alluvium surrounded by hills and mountains of the Franciscan Formation. The Project Property is located in the Upper Lake Valley Groundwater Management Plan Area and Upper Lake Groundwater Basin as identified in the 2006 Lake County Groundwater Management Plan. The Upper Lake Basin is composed of three valleys: Middle Creek Valley, Clover Valley, and Bachelor Valley. Bachelor Valley is in the Scott's Creek Inventory Unit, which is bounded primarily by the Franciscan Formation, and by Middle Creek Valley to the southeast. Groundwater recharges the Upper Lake Basin at the mouths of canyons and around the periphery of the basin, and from stream channels during the wet season. Groundwater levels in the Upper Lake Basin are shallow and have remained relatively constant for decades, with water levels in the basin rising to within 10 feet of the ground surface each spring.

There are seven existing groundwater wells on the Project Property, five of which will serve as the primary water sources for the propose cultivation operation (please see the attached Site Plans for well locations). The Well Completion Report for groundwater well "GW-1", located at Latitude: 39.193043° and Longitude: -122.966172°, indicates that it was drilled in 2003, through soft brown clay with some imbedded gravels and into blue and black shale, to a depth of 71 feet below ground surface (Well Completion Report attached). At the time it was drilled, this well had an estimated yield of 20 gallons per minute. A recent test of this groundwater well concluded that this well can still produce at least 6 gallons per minute. The Well Completion Report for the groundwater well "GW-2", located at Latitude: 39.194465° and Longitude: -122.963735°, indicates that it was drilled in 2016, through brown silt with some imbedded gravels, fractured sandy rock, and into shale, to a depth of 100 feet below ground surface (Well Completion Report attached). At the time it was drilled, this well had an estimated yield of 30 gallons per minute. A recent test of this groundwater well concluded that this well can still produce at least 22 gallons per minute. The Well Completion Report for the groundwater well "GW-3", located at Latitude: 39.193879° and Longitude: -122.965919°, indicates that it was drilled in 2020, through soft brown clay with some imbedded gravels and into shale, to a depth of 71 feet below ground surface (Well Completion Report attached). At the time it was drilled, this well had an estimated yield of 14 gallons per minute. A recent test of this groundwater well concluded that this well can still produce at least 14 gallons per minute. The Well Completion Report for the groundwater well "GW-4", located at Latitude: 39.194529° and Longitude: -122.966134°, indicates that it was drilled in 2020, through soft brown clay with some imbedded gravels, olive colored soft sticky clay with imbedded gravels, and into shale, to a depth of 74 feet below ground surface (Well Completion Report attached). At the time it was drilled, this well had an estimated yield of 7 gallons per minute. A recent test of this groundwater well concluded that this well can still produce at least 7 gallons per minute. The Well Completion Report for the groundwater well "GW-5", located at Latitude: 39.193254° and Longitude: -122.964859°, indicates that it was drilled in 2020, through clay and shale, to a depth of 71 feet below ground surface (Well Completion Report attached). At the time it was drilled, this well had an estimated yield of 12

gallons per minute. A recent test of this groundwater well concluded that this well can still produce at least 12 gallons per minute.

Water Resources Protection

Ursa Valley 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 portable restroom facilities at all times when onsite, and those restroom facilities will be established in a location that is at least 100 feet from any surface water body, and serviced regularly.

The Project Parcel was enrolled for coverage under the State Water Resources Control Board's Cannabis General Order (Order No. WQ-2019-0001-DWQ), as a Tier 2 Low Risk Discharger on September 9th, 2020. Site Management and Nitrogen Management Plans will be developed for the proposed cultivation operation, and submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) for review, prior to planting. Each year, prior to March 1st, an Annual Monitoring Report will be prepared and submitted to the CVRWQCB, demonstrating measures taken over the course of the previous year to comply with the Cannabis General Order. Ursa Valley will maintain compliance with the Cannabis General Order for the protection of water resources for as long as the proposed cultivation operation is operating.

Water Sources and Storage

All water for the proposed cultivation operation will come from five of the seven existing onsite groundwater wells. NSF/ANSI 61 compliant positive displacement mechanical brass totalizing meters and Well Watch 670 sonic water level meters equipped with data logging capabilities, will be installed on the water supply groundwater wells prior to operation. In September and December of 2020, a series of tests were performed to thoroughly evaluate the production capacity of the groundwater wells. The results and conclusions of these tests are summarized in the table below.

Well ID	Latitude	Longitude	Estimate Yield
“GW-1”	39.193043°	-122.966172°	6 GPM
“GW-2”	39.194465°	-122.963735°	22 GPM
“GW-3”	39.193879°	-122.965919°	14 GPM
“GW-4”	39.194529°	-122.966134°	7 GPM
“GW-5”	39.193254°	-122.964859°	12 GPM

Ursa Valley will use the existing onsite pond/off-stream water storage reservoir with an estimated capacity of one acre-foot (325,851 gallons), to store water from the five groundwater wells outlined above, for the proposed cultivation operation.

Irrigation

Ursa Valley proposes use the existing onsite pond/off-stream water storage reservoir with an estimated capacity of one acre-foot (325,851 gallons), to store water from the five groundwater wells outlined above, for the proposed cultivation operation. Ursa Valley may develop additional water storage on the Project Parcel, in the form of heavy-duty plastic water storage tanks, should it be needed to support the irrigation and fire protection needs of the proposed cultivation operation. Water storage tanks will be equipped with float valves to shut off the flow water from the wells and prevent the overflow and runoff of irrigation water when full. HDPE water supply lines will feed irrigation water from the pond/off-stream water storage reservoir to the irrigation systems of the proposed cultivation/canopy area(s). The water supply lines will be equipped with safety valves, capable of shutting off the flow of water so that waste of water and runoff is prevented/minimized when leaks occur and the system needs repair, and inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7. Ursa Valley 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 proposed cultivation/canopy areas will be composed of PVC piping and drip tapes/lines under white plastic mulch (to conserve water resources).

Water Availability Analysis

All water for the proposed cultivation operation will come from five of the seven existing groundwater wells of the Project Property. NSF/ANSI 61 compliant positive displacement mechanical brass totalizing meters and Well Watch 670 sonic water level meters equipped with data logging capabilities, will be installed on the water supply groundwater wells prior to operation. In September of 2020, a series of tests were performed by AAA Pump Service (License No. 644864) to thoroughly evaluate the production capacity of groundwater wells "GW-1" and "GW-2". The results and conclusions of these tests, indicate that groundwater well "GW-1", (located at Latitude 39.193043° and Longitude -122.966172°) can produce over 6 gallons per minute; and that groundwater well "GW-2" (located at Latitude 39.194465° and Longitude -122.963735°) can produce at least 22 gallons per minute (please see the attached AAA Pump Test Reports). In December of 2020, a series of tests were performed by Hutton Drilling (License No. 522306) to thoroughly evaluate the production capacity of groundwater wells "GW-3", "GW-4", and "GW-5". The results and conclusions of these tests, indicate that groundwater well "GW-3" (located at Latitude: 39.193879° and Longitude: -122.965919°) can produce at least 14 gallons per minute; that groundwater well "GW-4" (located at Latitude: 39.194529° and Longitude: -122.966134°) can produce at least 7 gallons per minute; and that groundwater well "GW-5"

(located at Latitude: 39.193254° and Longitude: -122.964859°) can produce at least 12 gallons per minute (please see the attached Hutton Drilling Pump Test Reports).

Another Lake County Commercial Cannabis Cultivation Operation that uses very similar cultivation practices to that of Ursa Valley's proposed cultivation practices (outdoor cultivation in amended native soil with drip tapes/lines under white plastic mulch) used ~880,000 gallons of water to irrigate 83,000 ft² of cultivation/canopy area throughout the 2019 cultivation season (please see attached 2019 Water Use Report). Based on this empirical data, Ursa Valley expects to use approximately 462,000 gallons of water each year/cultivation season per acre of outdoor cultivation/canopy area, with a total expected water usage of 5,544,000 gallons (or ~17 acre-feet) each year/cultivation season for their proposed cultivation operation. The cultivation season for the proposed cultivation operation will begin in May and end 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.

May	June	July	Aug	Sept	Oct	Nov
277,000	880,000	977,500	1,075,000	1,303,000	815,000	228,000
0.8	2.7	3.0	3.3	4.0	2.5	0.7

The peak anticipated daily demand for water of the proposed cultivation operation is ~43,500 gallons per day, with an average daily water demand of ~26,400 during the cultivation season. Ursa Valley's five existing onsite groundwater wells can produce at least 60 gallons per minute (combined), or 86,400 gallons per day. Two of the seven existing onsite groundwater wells, in conjunction with the existing onsite pond/off-stream water storage reservoir, have been used to irrigate an approximately 24-acre walnut orchard on the Project Property for last four years. There is no doubt that the existing onsite groundwater wells of the Project Property, with the water storage capacity of pond/off-stream water storage reservoir, will be able to provide enough water for the proposed cultivation operation on the hottest driest days in the latest part of the summer when irrigation water is needed most.

Water Conservation

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

- Regularly inspect the entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.
- Apply weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.
- Implement water conserving irrigation methods (drip or trickle and micro-spray irrigation).

- Maintain daily records of all water used for irrigation of cannabis. Daily records will be calculated by using a measuring device (inline water meter) installed on the main irrigation supply line between the water storage area and cultivation areas.
- Install float valves on all water storage tanks to keep them from overflowing onto the ground.

Monitoring and Reporting

NSF/ANSI 61 compliant positive displacement mechanical brass totalizing meters and a Well Watch 670 sonic water level meters equipped with data logging capabilities will be installed on the existing water supply groundwater wells prior to operation. Inline water meters compliant with California Code of Regulations, Title 23, Division 3, Chapter 2.7 will be installed on the main water supply lines running between the pond/off-stream water storage reservoir and the proposed cultivation operation. Ursa Valley's staff will record daily water meter readings, and will maintain those records onsite for a minimum of five years. Ursa Valley will make those records available to Water Boards, CDFW, and Lake County staff upon request.

MAR 23 2016

Well Completion Report

Page 1 of 1

Owner's Well Number #1

No. e0303742

Date Work Began 02/16/2016

Date Work Ended 2/18/2016

Local Permit Agency Lake County Environmental

Permit Number WE-4673

Permit Date 1/22/16

DWR Use Only - Do Not Fill In

16N		10W		34	
State Well Number/Site Number					
Latitude			Longitude		
APN/TRS/Other					

Geologic Log

Orientation ☒ Vertical ☐ Horizontal ☐ Angle Specify _____

Drilling Method Direct Rotary

Drilling Fluid Polymer mud

Depth from Surface

Description

Feet to Feet

Describe material, grain size, color, etc

0	10	Brown silt, sand and gravel
10	12	Wet clayee tan gravel
12	18	Brown silt
18	24	Fractured brown sandy rock
24	92	Dark blue sandy rock with fractures at 84' to 86'
92	100	Shale

Well Location

Address 10950 Bachelor Valley Road

City Witter Springs

County Lake

Latitude 39 11 716 N Longitude 12 57 826 W
Deq. Min. Sec. Deq. Min. Sec.

Datum _____ Decimal Lat. _____ Decimal Long. _____

APN Book 002 Page 046

Parcel 150

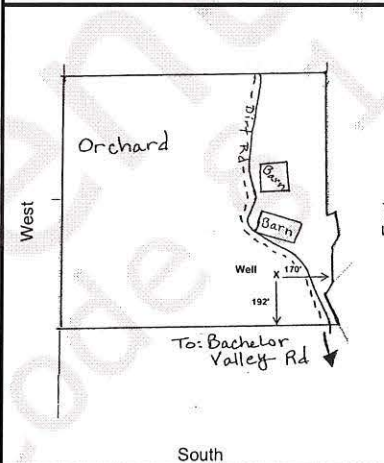
Township 16N Range 10W

Section 34

Location Sketch

(Sketch must be drawn by hand after form is printed.)

North



South

Illustrate or describe distance of well from roads, buildings, fences, rivers, etc. and attach a map. Use additional paper if necessary. Please be accurate and complete.

Activity

- ☒ New Well
☐ Modification/Repair
☐ Deepen
☐ Other _____
☐ Destroy
 Describe procedures and materials under "GEOLOGIC LOG"

Planned Uses

- ☒ Water Supply
☒ Domestic ☐ Public
☒ Irrigation ☐ Industrial
☐ Cathodic Protection
☐ Dewatering
☐ Heat Exchange
☐ Injection
☐ Monitoring
☐ Remediation
☐ Sparging
☐ Test Well
☐ Vapor Extraction
☐ Other _____

Total Depth of Boring 100 Feet

Total Depth of Completed Well 98 Feet

Water Level and Yield of Completed Well

Depth to first water 18 (Feet below surface)

Depth to Static _____

Water Level 5 (Feet) Date Measured 02/18/2016

Estimated Yield * 30 (GPM) Test Type Air Lift

Test Length 2.0 (Hours) Total Drawdown 84 (Feet)

*May not be representative of a well's long term yield.

Casings

Depth from Surface Feet to Feet	Borehole Diameter (Inches)	Type	Material	Wall Thickness (Inches)	Outside Diameter (Inches)	Screen Type	Slot Size if Any (Inches)
0	20	11					
20	100	8					
0	18		Blank	PVC Sch. 40	SDR21	5	
18	58		Screen	PVC Sch. 40	SDR21	5	Milled Slots 0.032
58	78		Blank	PVC Sch. 40	SDR21	5	
78	98		Screen	PVC Sch. 40	SDR21	5	Milled Slots 0.032

Annular Material

Depth from Surface Feet to Feet	Fill	Description
0	15	Bentonite
15	98	Filter Pack 3/8 Pea Gravel

Attachments

- ☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log(s)
☐ Soil/Water Chemical Analyses
☐ Other _____

Attach additional information, if it exists.

Certification Statement

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief
Name Weeks Drilling & Pump Co.

Person, Firm or Corporation

P.O. Box 176

Sebastopol

CA

95473

Signed

Address

City

State

Zip

C-57 Licensed Water Well Contractor

Date Signed

177681

C-57 License Number

ORIGINAL
File with DWR

Page 1 of 1 AUG 12 2003

Owner's Well No.

Date Work Began 3/19/03, Ended 3/31/03 No. 797713

Local Permit Agency LAKE

Permit No. Permit Date 3/18/03

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

DWR USE ONLY - DO NOT FILL IN

16N/10W-344

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION () ☒ VERTICAL ☐ HORIZONTAL ☐ ANGLE (SPECIFY)

DRILLING METHOD CABLE FLUID

DEPTH FROM SURFACE			DESCRIPTION
Ft.	to	Ft.	
0	3		SOIL
3	37		SOFT BROWN CLAY
37	60		" " " + SOME
60	65		IMBEDDED GRAVEL
65	71		BLUE SHALE
			BLACK "

WELL LOCATION

Address 10960 BACHELOR VALLEY RD

City WITTER SPRINGS

County LAKE

APN Book 002 Page 046 Parcel 09

Township 15N Range 10W Section 3/34

Latitude 16N Longitude 10W

LOCATION SKETCH

WITTER SPRINGS RD

BACHELOR VALLEY RD

SEC 3

WELL

ACTIVITY ()

☒ NEW WELL

MODIFICATION/REPAIR

Deepen

Other (Specify)

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES ()

WATER SUPPLY

Domestic Public

Irrigation Industrial

MONITORING

TEST WELL

CATHODIC PROTECTION

HEAT EXCHANGE

DIRECT PUSH

INJECTION

VAPOR EXTRACTION

SPARGING

REMEDIATION

OTHER (SPECIFY)

TOTAL DEPTH OF BORING 71 (Feet)

TOTAL DEPTH OF COMPLETED WELL 60 (Feet)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 37 (Ft.) BELOW SURFACE

DEPTH OF STATIC WATER LEVEL 3 (Ft.) & DATE MEASURED 3/31/03

ESTIMATED YIELD 20 (GPM) & TEST TYPE BAIL

TEST LENGTH 3 (Hrs.) TOTAL DRAWDOWN 25 (Ft.)

* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE			BORE-HOLE DIA. (Inches)	CASING (S)							
				TYPE (✓)				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
Ft.	to	Ft.	BLANK	SCREEN	CON- DUCTOR	FILL PIPE					
1	30	12	✓					STEEL	8	1/8	—
30	60	12		✓				✓	✓	✓	1/8x4 DBL

DEPTH FROM SURFACE			ANNULAR MATERIAL			
			TYPE			
Ft.	to	Ft.	CE- MENT (✓)	BEN- TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)
0	21		✓			
21	60				✓	P. GRAVEL

Aug 13 2003

ATTACHMENTS ()

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

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

NAME J.W. HUTTON

(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

1466 PITNEY LANE UPPER LAKE, CA 95485

ADDRESS CITY STATE ZIP

Signed J.W. Hutton DATE SIGNED 4/5/03 153912

WELL DRILLER AUTHORIZED REPRESENTATIVE C-57 LICENSE NUMBER

**AAA PUMP SERVICE
3005 KEELING AVE
LAKEPORT, CA 95453**

Lic # C44864

PUMP TEST REPORT

9/22/2020

Micah Flaese

10930 ,10950 Bachelor Valley Rd

Upperlake, CA 95485

WELL DEPTH 70' STATIC DEPTH 11'8" CASING:steel

WELL DIA 8" WELL SEAL : yes TYPE: AG

TIME	STATIC	GPM	APPEARANCE
8:00	11'8"	20	dirty
8:05	12'4"	20	
8:10	13'8"	10	dirty
8:15	14'5"	10	
8:20	16'	10	
8:25	17'4"	10	
8:30	18'	10	dirty
8:40	19'4"	10	
8:50	20'5"	10	
9:00	21'5"	06	
9:30	21'4"	06	
10:00	20'9"	06	
10:30	20'2"	06	
11:00	19'	06	clearing
11:30	18'9"	06	
12:00	18'9"	06	
Recovery			
12:15	17'1"		
12:30	16'3"		
12:45	14'9"		
1:00	13'6"		
1:15	12'9"		
1:30	12'1"		

EQUIPMENT: well has a 3/4 hp pump with a pump tech pump protector
LOCATION: well number 1 next to Koker property

AAA PUMP SERVICE
3005 KEELING AVE
LAKEPORT, CA 95453
LIC # 644864

PUMP TEST REPORT

9/24/2020

Micah Flause

10930, 10950 Bachelor Valley Rd

Upperlake, CA 95485

WELL DEPTH 50*' STATIC DEPTH 22'8" CASING: steel

WELL DIA 6"

WELL SEAL : yes

domestic

TIME	STATIC	GPM	APPEARANCE
9:00	22'8"	22	clear
9:05	22'10"	22	
9:10	22'11"	22	
9:15	22'11"	22	
9:20	22'11"	22	
9:25	22'11"	22	
9:30	22'11"	22	
9:40	22'11"	22	
9:50	22'11"	22	
10:00	22'11"	22	clear
10:30	22'11"	22	
11:00	22'11"	22	
11:30	22'11"	22	
12:00	22'11"	22	
12:30	22'11"	22	
1:00	22'11"	22	

NOTES: well has a 1/2 hp pump, Recovery 1:15 22'8"

*could not probe depth of well, probably blocked by a torque arrester

State of California
Well Completion Report
 Form DWR 188 Submitted 1/25/2021
 WCR2021-000926

Owner's Well Number 4-8" Date Work Began 01/21/2021 Date Work Ended 01/25/2021
 Local Permit Agency Lake County Health Services Department - Environmental Health Division
 Secondary Permit Agency _____ Permit Number WE-5540AG Permit Date 01/05/2021

Well Owner (must remain confidential pursuant to Water Code 13752)		Planned Use and Activity	
Name <u>Morongo Equity Partners Morongo Equity Partners</u>	Activity <u>New Well</u>		
Mailing Address <u>730 Arcady Rd.</u>	Planned Use <u>Water Supply Irrigation - Agriculture</u>		
City <u>Santa Barbara</u> State <u>Ca</u> Zip <u>93108</u>			

Well Location			
Address <u>10960 Bachelor Valley RD</u>		APN <u>002-046-09</u>	
City <u>Upper Lake</u>	Zip <u>95485</u>	Township <u>16 N</u>	
County <u>Lake</u>		Range <u>10 W</u>	
Latitude <u>39</u> <u>11</u> <u>35.7136</u> <u>N</u>	Longitude <u>-122</u> <u>57</u> <u>53.4924</u> <u>W</u>	Section <u>34</u>	
Dec. Lat. <u>39.1932538</u>	Dec. Long. <u>-122.964859</u>	Baseline Meridian <u>Mount Diablo</u>	
Vertical Datum _____ Horizontal Datum <u>WGS84</u>		Ground Surface Elevation _____	
Location Accuracy _____ Location Determination Method _____		Elevation Accuracy _____	
		Elevation Determination Method _____	

Borehole Information		Water Level and Yield of Completed Well	
Orientation <u>Vertical</u> Specify _____	Depth to first water _____ (Feet below surface)		
Drilling Method <u>Cable Tool</u> Drilling Fluid <u>None</u>	Depth to Static _____		
Total Depth of Boring <u>71</u> Feet	Water Level <u>14</u> (Feet) Date Measured <u>01/25/2021</u>		
Total Depth of Completed Well <u>71</u> Feet	Estimated Yield* <u>12</u> (GPM) Test Type <u>Pump</u>		
	Test Length <u>6</u> (Hours) Total Drawdown <u>15</u> (feet)		
	*May not be representative of a well's long term yield.		

Geologic Log - Lite					
Depth from Surface Feet to Feet		Material Type	Material Color	Material Texture	Material Description
0	3	Soil or Organic			Soil
3	36	Clay			Brown Clay and Imbedded Gravel
36	45	Shale			Brown Fractured Shale and Clay
45	50	Shale			Blue-Brown Shaley Clay
50	53	Shale			Brown Shale
53	61	Shale			Muddy Blue Shale
61	71	Shale			Muddy Black Shale

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	30	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	8.625			
1	30	71	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	8.625	Milled Slots	0.125	

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	1	Cement	10.3 Sack Mix		
1	22	Bentonite	Other Bentonite		
22	71	Filter Pack	Other Gravel Pack	Pea Gravel	

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	71	13

Certification Statement

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

Name HUTTON WELL DRILLING
 Person, Firm or Corporation
1466 B PITNEY LANE UPPER LAKE CA 95485
 Address City State Zip
 Signed electronic signature received 01/25/2021 522306
 C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number
		N	W

Latitude Deg/Min/Sec

Longitude Deg/Min/Sec

TRS:

APN:

State of California
Well Completion Report
 Form DWR 188 Submitted 12/8/2020
 WCR2020-016941

Owner's Well Number 2-8" Date Work Began 12/03/2020 Date Work Ended 12/08/2020
 Local Permit Agency Lake County Health Services Department - Environmental Health Division
 Secondary Permit Agency _____ Permit Number WE5504AG Permit Date 11/23/2020

Well Owner (must remain confidential pursuant to Water Code 13752)	Planned Use and Activity
Name <u>MORONGO EQUITY PARTNERS,</u>	Activity <u>New Well</u>
Mailing Address <u>730 Arcady Rd</u>	Planned Use <u>Water Supply Irrigation - Agriculture</u>
City <u>Santa Barbara</u> State <u>Ca</u> Zip <u>93108</u>	

Well Location	
Address <u>10960 Bachelor Valley Rd</u> APN <u>002-046-09</u>	
City <u>Upper Lake</u> Zip <u>95485</u> County <u>Lake</u>	Township <u>16 N</u>
Latitude <u>39</u> <u>11</u> <u>37.9644</u> N Longitude <u>-122</u> <u>57</u> <u>57.3076</u> W	Range <u>10 W</u>
Deg. Min. Sec. Deg. Min. Sec.	Section <u>34</u>
Dec. Lat. <u>39.193879</u> Dec. Long. <u>-122.9659188</u>	Baseline Meridian <u>Mount Diablo</u>
Vertical Datum _____ Horizontal Datum <u>WGS84</u>	Ground Surface Elevation _____
Location Accuracy _____ Location Determination Method _____	Elevation Accuracy _____
	Elevation Determination Method _____

Borehole Information	Water Level and Yield of Completed Well
Orientation <u>Vertical</u> Specify _____	Depth to first water _____ (Feet below surface)
Drilling Method <u>Cable Tool</u> Drilling Fluid <u>None</u>	Depth to Static _____
Total Depth of Boring <u>71</u> Feet	Water Level <u>11</u> (Feet) Date Measured <u>12/07/2020</u>
Total Depth of Completed Well <u>71</u> Feet	Estimated Yield* <u>14</u> (GPM) Test Type <u>Pump</u>
	Test Length <u>8</u> (Hours) Total Drawdown <u>20</u> (feet)
	*May not be representative of a well's long term yield. <u>31'</u>

Geologic Log - Free Form		
Depth from Surface Feet to Feet		Description
<u>0</u>	<u>31</u>	<u>Soft Brown Clay</u>
<u>31</u>	<u>60</u>	<u>Soft Brown Clay and Imbedded Gravel</u>
<u>60</u>	<u>71</u>	<u>Blue-Black Shale</u>

Casings										
Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	31	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	8.625			
1	31	71	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	8.625	Milled Slots	0.8	Double

Annular Material					
Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	21	Cement	10.3 Sack Mix		
21	71	Filter Pack	Other Gravel Pack	Pea	

Other Observations:

Borehole Specifications		
Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	71	13

Certification Statement			
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief			
Name	HUTTON WELL DRILLING		
Person, Firm or Corporation			
1466 B PITNEY LANE	UPPER LAKE	CA	95485
Address	City	State	Zip
Signed <i>electronic signature received</i>	12/08/2020	522306	
C-57 Licensed Water Well Contractor	Date Signed	C-57 License Number	

DWR Use Only										
CSG #	State Well Number				Site Code	Local Well Number				
					N					W
Latitude Deg/Min/Sec						Longitude Deg/Min/Sec				

TRS:

APN:

State of California
Well Completion Report
 Form DWR 188 Submitted 12/19/2020
 WCR2020-017371

Owner's Well Number 3-8" Date Work Began 12/10/2020 Date Work Ended 12/18/2020
 Local Permit Agency Lake County Health Services Department - Environmental Health Division
 Secondary Permit Agency _____ Permit Number WE-5523 AG Permit Date 12/10/2020

Well Owner (must remain confidential pursuant to Water Code 13752)		Planned Use and Activity
Name <u>MORONGO EQUITY PARTNERS,</u>	Activity <u>New Well</u>	
Mailing Address <u>730 Arcady Rd</u>	Planned Use <u>Water Supply Irrigation - Agriculture</u>	
City <u>Santa Barbara</u> State <u>Ca</u> Zip <u>93108</u>		

Well Location		
Address <u>10960 Bachelor Valley RD</u>	APN <u>002-046-09</u>	
City <u>Witter Springs</u> Zip <u>95493</u> County <u>Lake</u>	Township <u>16 N</u>	
Latitude <u>39</u> <u>11</u> <u>40.3044</u> <u>N</u> Longitude <u>-122</u> <u>57</u> <u>58.0834</u> <u>W</u>	Range <u>10 W</u>	
Deg. Min. Sec. Deg. Min. Sec.	Section <u>34</u>	
Dec. Lat. <u>39.194529</u> Dec. Long. <u>-122.9661343</u>	Baseline Meridian <u>Mount Diablo</u>	
Vertical Datum _____ Horizontal Datum <u>WGS84</u>	Ground Surface Elevation _____	
Location Accuracy _____ Location Determination Method _____	Elevation Accuracy _____	
	Elevation Determination Method _____	

Borehole Information	Water Level and Yield of Completed Well
Orientation <u>Vertical</u> Specify _____	Depth to first water _____ (Feet below surface)
Drilling Method <u>Cable Tool</u> Drilling Fluid <u>None</u>	Depth to Static _____
Total Depth of Boring <u>74</u> Feet	Water Level <u>15</u> (Feet) Date Measured <u>12/18/2020</u>
Total Depth of Completed Well <u>74</u> Feet	Estimated Yield* <u>7</u> (GPM) Test Type <u>Pump</u>
	Test Length <u>6</u> (Hours) Total Drawdown <u>23</u> (feet)
	*May not be representative of a well's long term yield.

Geologic Log - Free Form		
Depth from Surface Feet to Feet		Description
0	21	Brown Clay
21	36	Soft Brown Clay
36	39	Sticky Brown Clay and Imbedded Gravel
39	63	Olive Color Soft Sticky Clay and Imbedded Gravel
63	74	Blue-Black Shale

Casings

Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if any (inches)	Description
1	0	36	Blank	Low Carbon Steel	Grade: ASTM A53	0.188	8.625			
1	36	74	Screen	Low Carbon Steel	Grade: ASTM A53	0.188	8.625	Milled Slots	0.125	1/8 x 3 Double Perf

Annular Material

Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	21	Cement	10.3 Sack Mix		
21	74	Filter Pack	Other Gravel Pack	Pea	Pea Gravel

Other Observations:

Borehole Specifications

Depth from Surface Feet to Feet		Borehole Diameter (inches)
0	74	13

Certification Statement

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

Name HUTTON WELL DRILLING
 Person, Firm or Corporation
1466 B PITNEY LANE UPPER LAKE CA 95485
 Address City State Zip
 Signed electronic signature received 12/19/2020 522306
 C-57 Licensed Water Well Contractor Date Signed C-57 License Number

DWR Use Only

CSG #	State Well Number	Site Code	Local Well Number

Latitude Deg/Min/Sec

Longitude Deg/Min/Sec

TRS:

APN:

**Hutton Drilling
License # 522306
1466 B Pitney Lane
Upper Lake CA 95485
(707) 275-9727**

Event Horizon Technologies inc.
340 S. Lemon Ave #6420N
Walnut, CA 91789

Well Location: 10960 Bachelor Valley Rd, Upper Lake

Scope of work:

12/08/2020 7:00 am began extended pump test on Well # 1 – 8".
Pump rate was 15 GPM uninterrupted thru 1:30 pm 12/10/2020.

Following are water levels on Well # 1 – 8", Well #2 – 8" and neighbors
concrete cased well to the west. All measurements are from TOC (top of casing)

12/08/2020

Time	Well # 1 – 8"	Well # 2 – 8"	Neighbors Well
7:00 am	11.25'	14.50'	9'
9:45	21.50'	14.50'	"
10:45	"	"	not measured
1:05 pm	"	14'	not measured
3:30	21.75'	15'	9'

12/09/2020

9:00 am	21.50'	15'	9'
3:45	21.75'	15'	9'

12/10/2020

8:00 am	21.75'	15.25'	9'
10:25	"	"	"
1:15 pm	"	"	"
1:30	End Test		

**Hutton Drilling
License # 522306
1466 B Pitney Lane
Upper Lake CA 95485
(707) 275-9727**

Event Horizon Technologies inc.
340 S. Lemon Ave #6420N
Walnut, CA 91789

Well Location: 10960 Bachelor Valley Rd, Upper Lake

Scope of work:

Test Pump Report
Well # 3 – 8"

12/16/2020

Static 16.5'

Time	TOC	GPM
10:05 am	41'	11
10:15	41'	11
10:20	42'	11
10:30	42'	10
10:45	42'	10
11:00	43'	10
11:10	42.5'	8
11:25	42'	8
11:35	42'	8
12:40	42.5'	8

12/17/20

8:30 am	16.5	8.3
8:41	24	8.3
11:23	39.5	8
11:41	39.5	8

**Hutton Drilling
License # 522306
1466 B Pitney Lane
Upper Lake CA 95485
(707) 275-9727**

1:12 pm	39.5	8
1:25	39	6
2:11	36	6

**Hutton Drilling
License # 522306
1466 B Pitney Lane
Upper Lake CA 95485
(707) 275-9727**

Event Horizon Technologies inc.
340 S. Lemon Ave #6420N
Walnut, CA 91789

Well Location: 10960 Bachelor Valley Rd, Upper Lake

Scope of work:

Test Pump Report
Well # 2 – 8"

12/07/2020

Static 11'

Time	TOC	GPM
7:14 am	start	
7:25	28'	16
7:35	31'	16
7:58	31.5'	16
8:07	31.5'	14
8:50	32	14
9:05	32.5	14
9:11	33	14
9:15	32.5	12
9:36	32.5	12
9:41	32.5	12
10:00	32.5	12
10:03	32.5	13
10:15	31.5	13
10:36	31	12

**Hutton Drilling
License # 522306
1466 B Pitney Lane
Upper Lake CA 95485
(707) 275-9727**

12:04	31	12
12:15	30.5	12
12:22	30	12
12:25	30	14
12:38	31	14
1:30 pm	30	13
3:33	29	13

2019 WATER USE REPORT
MORGAN VALLEY VENTURES MAJOR USE PERMIT UP 18-22
22800 MORGAN VALLEY ROAD, LOWER LAKE, CA 95457
LAKE COUTNY APNS 012-069-59 & 60

Week	Water Usage (Gallons)
4/1 - 4/7	0
4/8 - 4/14	1000
4/15 - 4/21	1000
4/22 - 4/28	5000
4/29 - 5/5	5000
5/6 - 5/12	10000
5/13 - 5/19	10000
5/20 - 5/26	15000
5/27 - 6/2	20000
6/3 - 6/9	25000
6/10 - 6/16	30000
6/17 - 6/23	35000
6/24 - 6/30	40000
7/1 - 7/7	55000
7/8 - 7/14	20000
7/15 - 7/21	20000
7/22 - 7/28	25000
7/29 - 8/4	35000
8/5 - 8/11	45000
8/12 - 8/18	45000
8/19 - 8/25	50000
8/26 - 9/1	50000
9/2 - 9/8	50000
9/9 - 9/15	50000
9/16 - 9/22	50000
9/23 - 9/29	45000
9/30 - 10/6	45000
10/7 - 10/13	30000
10/14 - 10/20	30000
10/21 - 10/27	15000
10/28 - 11/3	15000
11/4 - 11/10	5000
11/11 - 11/17	2000
11/18 - 11/24	1000

APPENDIX V – PHOTOS



Proposed Cultivation/Canopy Area (west view)



Proposed Cultivation/Canopy Area (north view)



Onsite Pond/Off-stream Water Storage Reservoir (west view)



Culverted Watercourse Crossing of Project Parcel (48" CMP Culvert)



Visual Example of Proposed Cultivation Methods/Practices (photo from Licensed Cannabis Farm in 2019)



Visual Example of Proposed Cultivation Methods/Practices (photo from Licensed Cannabis Farm in 2019)