11607

APN: 522-023-001
Applicant Name: David Cuevas

Cultivation and Operations Plan

1 WATER

Water source + Storage: Cannabis irrigation water is sourced from a ground water well that was established in 2020. The well was drilled to a depth of 200 ft. through hard bedrock acting as an aquiclude from surrounding surface waters. The nearest surface water course, a class III ephemeral stream, is +/- 150 ft. from the well. The well is not hydrologically connected to any surrounding surface waters and as such does not require a water right nor is it subject to the surface water diversion forbearance period.

Domestic water is supplied by two registered springs S027566 and S0277565. Registration with the California State Water Resources Control Board (SWRCB), Division of Water Rights has been pursued by filing Initial Statements of Water Diversion and Use and copies of the filings are held onsite. The registered points of diversion (POD) are listed in Table 1.

A Cannabis Small Irrigation Use Registration (SIUR) was established for the two springs in 2018 when they were the sole source of irrigation water for the project. This SIUR and diversion will be maintained as a secondary, back-up source, of water. Under normal operating conditions no water will be diverted for cannabis irrigation from these springs.

Table 1. Registered points of diversion water sources on APN 522-023-001.

Name of Diversion	Source	Tributary To:	Thence	Location
POD 1 - S027565	Unnamed Spring	Unnamed Stream	Supply Creek	40.9927, -123.7210
POD2 - S027566	Unnamed Spring	Unnamed Stream	Supply Creek	40.9853, -123.7211

The total onsite water storage capacity is 157,750 gallons and is stored in several storage tanks, as listed in Table 2. As the source of water for the project is not subject to diversion forbearance requirements, water storage capacity does not need to be sufficient to meet demand during the forbearance period.

Table 2. Water storage facilities on APN 522-023-001

Location	WSA#	Type	Capacity (gal)	Notes	Location	WSA#	Type	Capacity (gal)	Notes
40.9924, -123.7207	WSA2	Water Bladder	20,000	To be replaced with hard storage	40.9874, -123.7275	WSA13	HDPE Hard Tank	550	To be removed from SMA
40.9918, -123.7209	WSA4	HDPE Hard Tank	550		40.9878, -123.7236	WSA10	HDPE Hard Tank	500	
40.9942, -123.7197	WSA1	HDPE Hard Tank	2,500		40.9878, -123.7236	WSA10	HDPE Hard Tank	2,500	
40.9942, -123.7197	WSA1	HDPE Hard Tank	550		40.9878, -123.7236	WSA10	HDPE Hard Tank	2,500	
40.9901, -123.7226	WSA5	HDPE Hard Tank	500		40.9881, -123.7234	WSA9	HDPE Hard Tank	2,500	
40.9901, -123.7226	WSA5	HDPE Hard Tank	5,000		40.9890, -123.7228	WSA7	HDPE Hard Tank	5,000	
40.9901, -123.7226	WSA5	HDPE Hard Tank	3,000		40.9887, -123.7230	WSA8	Water Bladder	50,000	To be replaced with hard storage
40.9897, -123.7223	WSA6	Water Bladder	20,000	To be replaced with hard storage	40.9891, -123.7229	WSA7	HDPE Hard Tank	3,000	
40.9899, -123.7265	WSA3	HDPE Hard Tank	2,500		40.9891, -123.7229	WSA7	HDPE Hard Tank	2,500	Emergency fire suppression
40.9899, -123.7265	WSA3	HDPE Hard Tank	2,500		40.9862, -123.7210	WSA11	HDPE Hard Tank	1,550	
40.9903, -123.7273	WSA12	HDPE Hard Tank	2,500		40.9893, -123.7229	WSA7	Above ground pool	17,000	Estimated capacity. To be replaced with hard storage
40.9874, -123.7275	WSA13	HDPE Hard Tank	550	To be removed from SMA					

Irrigation Plan: To conserve water, plants are irrigated in the morning via drip irrigation and all beds/ pots are mulched. Plants are watered at agronomic rates.

Projected Water Usage: Estimated 700,000 gal per year for irrigation. Water usage will be recorded daily and reported annually to the California Water Board pursuant to State Water Resource Control Board Cannabis General Order No. WQ 2019-0001-DWQ and records will be kept on-site. Estimated current water usage for the property is reported below, in Table 3.

Table 1. Estimated monthly and yearly water use estimates on APN 522-023-001

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Yearly
Estimated Water Use (gal)	-	-	-	20,000	60,000	90,000	120,000	140,000	130,000	80,000	60,000	-	700,000

Fire Suppression Water Source and Storage: A 2,500 gallon water storage tank near the center of the property (40.9891, -123.7229) has been reserved for fire suppression. The source of water for this tank is POD2.

2 SITE CHARACTERISTICS

Drainage: The site has well-draining soils and natural vegetation is maintained around all cultivation areas.

Runoff and Erosion Control Measures: Cultivation operations are enclosed with a large natural buffer around cultivations site. Drip irrigation and hand-watering are utilized and the irrigation practices do not produce runoff. Site shall comply with the SWRCB sediment and erosion control best practical treatment and controls.

3 WATERSHED + HABITAT PROTECTION

The applicant is enrolled in the Water Board's Cannabis General Waste Discharge Program under WDID 1_12CC407328. The applicant has developed a Site Management Plan to help ensure riparian watershed and habitat protection.

All Streamside Management Area and riparian setback buffers are observed, there is ample vegetative buffers between cultivation areas and surrounding surface water courses. As such sediment delivery potential to water courses is extremely low. Cultivation areas 6, 7 & 8 have been decommissioned and are to be remediated due to the slopes they are sited on being too steep and pose a risk of erosion and sediment delivery.

No Surface water shall be diverted during normal operations as such this project will not have an adverse impact on water levels in the surrounding watershed

All trash, recycling, amendments, fertilizers, and other cultivation related materials are stored such that they are secured from wildlife and cannot be released into the natural environment.

Notice of Intent and Monitoring Self-Certification documents will be filed with the California and North Coast Regional Water Quality Control Board and will be held on the property.

4 STORAGE + HAZARDOUS MATERIALS

Amendments and Nutrients: All fertilizers and nutrients are stored in covered outbuildings for dry storage. Bulk soil piles used for cultivation operations is kept contained and tarped. Products are purchased on an as-needed basis with minimal stockpiles stored onsite. Fertilizers and soil amendments are applied per packaging instructions. Liquid fertilizers are stored in tea tanks with secondary containment. A listing of all Soil Amendments and Chemicals with their product Material and Safety Data Sheets are kept on-site.

Pesticides and Herbicides: Diatomaceous earth is used according to labeling instructions. No herbicides are used. All products used on-site are consistent with product labelling and are placed, used, and stored in a shed where no products are released into surface or groundwaters.

Fuel: Two propane tanks for resident use. Ten 5-gallon gasoline jerry cans stored in secure outbuilding with secondary containment.

5 SOLID WASTE/RECYCLING

Refuse and garbage is stored in a location and manner that prevents its discharge to receiving water and discourages wildlife from interacting with waste materials.

Storage Area: Trash and recycling are stored in wildlife proof containers in a shipping container and are disposed of.

Removal Frequency: Trash is removed from site weekly as needed.

Disposal Facility: Samoa transfer station.

Waste Soil/ Growth Media/Soil Management Plan: All soil is amended and reused. Unused soil is contained and covered onsite. The following guidelines from the Waterboard will be followed:

a. Spoils shall not be stored or placed in or where they can enter any surface water.
b. Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.
c. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be side cast in any location where they can enter or be transported to surface waters.

The main soil stockpile area is near Cultivation Area 4 and is indicated on the Site Plan.

6 DESCRIPTION OF CULTIVATION ACTIVITIES

There are five (5) distinct cultivation areas (CA) located on site. The cultivation areas are inventoried in Table 4.

Most cannabis cultivation on the property is full-sun outdoor grown in smart pots. There is some in-ground planting and CA4 and CA5 are being grown in hoophouses utilizing light deprivation. All hoophouses shall be harvested twice per year, all outdoor areas shall be harvested once per year.

Table 4: Inventory of the cultivation area and associated characteristics.

Map ID	Cultivation Area (ft^2)	Area Description	Cultivation Area Slope (%)	Distance to Water Body (ft)	Nearest Water Body Classification

CA1	11,100	Outdoor	<5	>150	Class III
CA2	15,038	Outdoor	<5	>200	Class III
CA3	5,000	Outdoor	<5	>200	Class III
CA4	5,659	Light Deprivation Hoop Houses	<5	>200	Class III
CA5	6,763	Light Deprivation Hoop houses and Outdoor	<5	>200	Class III

Clones are secured from an offsite facility. Propagation occurs in a 1,620 square foot dedicated nursery. Supplemental lighting may occur only in this area early in the season. Dark Sky Association standards will be met by monitoring and ensuring that little to no light escapes from nursery area. Blackout tarps coverings will be used from dusk until dawn and inspected during nighttime hours for light leakages.

7 SCHEDULE OF ACTIVITIES

Month	Activities
January	No cultivation activity.
February	No cultivation activity.
March	No cultivation activity.
April	Set up.
May	Set up. Generator use, evening/early night.
June	Planting begins. Water use begins. Generator use, evening/early night.
July	Farm operation and maintenance. Generator use, evening/early night.
August	Farm operation and maintenance. Generator use, evening/early night.
September	Harvest/drying. Generator use, evening/early night.
October	Harvest/drying. End water use. Generator use, evening/early night.
November	Drying. Winterize property. Generator use, evening/early night.
December	No cultivation activity.

Generator use: Generators are limited to evening and early night for domestic use from May-November. Generators are also used for pumping water, dehumidifiers and fans. Typically, onsite there are two Honda EU2000i generators used and one Honda EU2200i. The generators will be housed in an enclosure for noise dampening. The Honda EU2000i emits 59 decibels at the maximum rated load. The Honda EU2200i emits 62 decibels at the maximum rated load. Sound enclosures are expected to dampen sound by 20-25 dBA (engineeringtoolbox.com). A doubling of the distance from a noise source will reduce the sound pressure level with 6 decibel (Engineering ToolBox 2005). Generator noise is expected to be less than 50 dB at the property line located well over 100 feet from any generator.

(Engineering ToolBox, (2005). Inverse Square Law. [online] Available at: https://www.engineeringtoolbox.com/inverse-square-law-d_890.html [Accessed 21, Aug. 2020].)

8 PROCESSING PLAN

Processing Practices: Crop harvested then dried in outbuildings. Processing occurs offsite at a licensed 3rd-party facility.

Number of Employees: Four full time employees during the cultivation season, during harvest activities an additional 6 employees shall be added.

Duration of employment: April through November.

Employee Safety Practices: Cultivation and harvest operations implement best practices to the highest degree feasible. The operation follows all OSHA safety protocols and provides all employees with adequate safety training pursuant to County and State regulations and guidance. Employee safety practices will be in compliance with standards set forth by the County and State which may include the following and additional elements:

- Emergency action response planning as necessary; employee accident reporting and investigation policies; fire prevention; hazard communication policies; maintenance of material safety data sheets (MSDS); materials handling policies; job hazard analyses; and personal protective equipment policies, including respiratory protection.
- Visibly posted emergency contact list that includes operation manager, emergency responder contacts, and poison control contacts.

Domestic/ Drinking Water: Domestic water comes from a spring that is registered by the State Water Resources Control Board.

Toilet, Handwashing, and Onsite Wastewater Facilities:

Handwashing is available indoors with heated water. A permitted septic OWTS is being planned. Cultivator will provide regularly serviced portable toilets in the interim.

Increased Road Use: The road to the property is in good condition and the applicant belongs to a road association and pays yearly dues to maintain the road. Workers travel by site via car, with estimated eight trips per day during cultivation and 20 trips per day during harvest.

Onsite Housing: No onsite housing is provided at this time. Workers will commute to the site daily.

9 SECURITY PLAN

The security measures located on the premises will include the following:

(1) The cultivation areas are located behind two locked gates at the end of the road.
(2) Alarm- There is an informal community watch in place in the neighborhood.
(3) Alarm- There are dogs kept on-site.

(4) Access Control- All entrances to the facility are restricted by locked gates. Full time occupancy of the parcel during the cultivation season is maintained.
(5) There are posted private property and no trespassing signs on-site.
(6) All cultivation related items and products will be stored in locked locations. The security measures will secure the medical marijuana against diversion for non-medical purposes by protecting against theft not only from intruders, but also from staff members and other parties onsite. This is done by limiting access into the facility as necessary and by surveillance monitoring of personnel and visitors at all times when in close proximity to the product. Strict inventory control measures will also be engaged to prevent and detect diversion.