

14 SEP 2017

REVISED: 7 JUNE 2020



Cultivation and Operations Plan

PROJECT OVERVIEW

This existing permit application was initiated by Sha-Boom LLC in 2016.

4 Ponds LLC purchased the property from Sha-Boom and took possession of the parcel in August 2017.

1 WATER

Water source + Storage:

The irrigation water source is from an existing permitted well and onsite storage. [Well permit #11/12 – 1154]. Existing onsite water storage consists of six HDPE tanks with a total capacity of 15,900 gallons. A 2,800-gallon tank near the north-west of the property has been reserved for fire suppression and is labeled on the County Site Map as such. A water meter has been installed near the well to track amounts pumped. Water meters will be installed at the outflow of all tanks arrays to track daily irrigation rates.

Irrigation Plan:

Drip irrigation with supplemental hand watering, mulching, time of day watering, and moisture retentive soils for water conservation. Water is applied at no more than agronomic rates.

Projected Water Usage:

An estimated 164,000 gallons of water is used per growing season for irrigation. Water usage to be recorded monthly and reported annually to the Water Board pursuant to Cannabis General Order No. WQ 2019-0001-DWQ.

Month	Estimated Irrigation Water Use (gal)
January	0
February	0
March	0
April	0
May	28,000
June	28,000
July	33,000
August	33,000
September	33,000
October	9,000
November	0

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December	0
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2 SITE CHARACTERISTICS

Drainage, Runoff, and Erosion Control Measures:

The site has well-draining soils and buffers of natural vegetation are maintained around all cultivation areas, as well as the majority of the parcel.

Site is maintained to be in compliance with California State Water Resource Control Board General Order for site maintenance, erosion control, and drainage features.

All runoff sources are maintained so that they are hydrologically disconnected, as feasible.

Periodic inspections are conducted and recorded during wet and dry weather for drainage, runoff and evidence of erosion. Corrective measures and/or improvements are implemented as necessary.

Cultivation is located within enclosed greenhouses or well-defined areas surrounded by mulch and vegetation buffers which prevents soil erosion, discharge, and provides an additional buffer between the cultivation activities and wild areas.

3 WATERSHED + HABITAT PROTECTION

Applicant is enrolled in the State Water Board's Cannabis Discharge Waiver Program. Pursuant to the program, a Site Management Plan has been implemented to ensure riparian watershed and habitat protection.

Applicants conduct wet-weather road inspections periodically during the rainy season to minimize sediment discharge.

Property was a previous site to timber harvest operations and applicants are committed to land stewardship which includes mitigating the legacy impacts of previous logging.

Applicants will remove trash and debris accumulated on the property from previous owners as well as equipment and debris associated with timber harvest operations that occurred on the property. The goal is to have the legacy trash clean-up effort completed by the Fall of 2020.

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

Buffers of natural vegetation and habitat maintained around all areas of human activity. The majority of parcel is undeveloped and conserved in a wild state.

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Cultivation areas will be maintained to prevent nutrients from leaving the site at all times: during the growing season and post-harvest.

4 STORAGE + HAZARDOUS MATERIALS

Storage for fertilizers, pesticides, and dry amendments is in the 1,500 square foot barn onsite.

Storage of fertilizers, pesticides, and other regulated products is in accordance with best practices, including storage within an enclosed space to prevent surface water contamination. The

Fertilizers, potting soils, compost, soils, soil amendments, fuels, and all cultivation related items and wastes are stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater, and cannot enter the environment.

Amendments and Nutrients:

All materials stored in a locked storage enclosure on shelves.

Liquid nutrients are stored with secondary containment.

Compost teas to be brewed onsite and all dry materials will be stored in enclosed outbuilding (barn) on shelves.

All dry amendments and garden supplies are palletized and stored in an enclosed space.

Pesticides and Herbicides: Only organic and approved products are utilized and employed per package directions.

Fuel:

A 500-gal diesel storage tank with secondary containments is located next to the barn. Five-gallon jerry cans of gasoline are stored in the barn. Five-gallon propane tanks in the manufacturers containers are stored near the barn. All fuel storage is with secondary containment and in compliance with the California Water Resource Control Board pursuant to Cannabis General Order No. WQ 2019-0001-DWQ.

5 SOLID WASTE/RECYCLING

Refuse and garbage are stored in a location and manner that prevents discharge to receiving water and prevents any leachate or contact water from entering or percolating to receiving waters.

Storage Area: Trash and recycling are stored in contractor bags in an outbuilding prior to removal.

Disposal Facility: Eureka transfer station.

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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 the center of the property and is indicated on the Site Plan.

6 DESCRIPTION OF CULTIVATION ACTIVITIES

Outdoor: Existing total outdoor cultivation area is approximately 10,000 sq ft. There are four separate cultivation areas identified on the Site Plan. Cultivation Areas 1-3 are located near the north west corner of the property and Cultivation Area 4 is located on the south east corner. The dimensions of each area is shown on the Site Plan and listed below.

Cultivation Area #	Canopy Dimensions (FT x FT)	Canopy Area (SQ FT)
1	44 x 104 & 65 x 4	4,836
2	18 x 100	1,800
3	20 x 68	1,360
4	20 x 100	2,000
Total Cultivation Square Footage (SQ FT)		9,996

Propagation Area: Clones are purchased from a licensed source and are initially held in a 11' x 25' hoop-house near the north west corner of the property. This area is called out on the Site Plan and is the only nursery area on the property. Supplemental lighting is used in this area only from approximately May 1-June 15 between 8 pm-12 am. Eight (8) 11-watt bulbs are used in this process to support immature plants. 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.

Light Deprivation: No light deprivation techniques are used, harvest of plants occurs between September and November.

7 SCHEDULE OF ACTIVITIES

Month	Activities
January	No cultivation activity.
February	No cultivation activity.

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March	Site preparation.
April	Site preparation.
May	Clones purchased from licensed nursery and propagated in the designated immature plant area. Lights are used for nursery plants, as needed, from 8pm-12am. Lights are 130v, 10.6w x 8 bulbs. Solar power/generator use, evening/early night.
June	Clones propagated in designated immature plant area. Lights are used for nursery plants, as needed, from 8pm-12am. Lights are 130v, 10.6w x 8 bulbs. Planting begins. Plants moved to full term area for vegetation. Water use begins. Solar power/generator use, evening/early night.
July	Farm operation and maintenance. Solar power/generator use, evening/early night.
August	Farm operation and maintenance. Solar power/generator use, evening/early night.
September	Harvest/drying. Solar power/generator use, evening/early night.
October	Harvest/drying.
November	Drying. Winterize property.
December	No cultivation activity.

Generator use: A solar power system has been installed near Cultivation Area 1. This system is primarily used for pumping water and lighting in the designated nursery area. One MQ 25 WhisperWatt generator, with secondary containment, is located near the center of the property. The generator usage is limited to evening and early night from May-November.

A Honda EU2200i generator is located onsite for backup, if needed. The Honda EU2200i emits 62 dB at the maximum rated load and 53 dB at the ¼ rated load. It is expected that the generator will never be used at the maximum rate load. Generator noise is expected to be less than 50 dB at the property line, located over 50 feet away.

The WhisperWatt generator emits 65 dB at the maximum rated load at 23 feet. It is expected that the generator will never be used at the maximum rate load. The sound level at 100 feet is estimated to be less than 50 dB using the Inverse Square Law Calculator and a starting sound generation of 60 dB (https://www.engineeringtoolbox.com/inverse-square-law-d_890.html).

8 PROCESSING PLAN

Processing Practices: Crop harvested then dried in outbuilding. Machine trimming with supplemental hand trimming by landowner or will occur offsite at licensed 3rd party facility.

Any and all processing methods utilized will comply with all industry, county, and state rules and guidelines.

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Location: Onsite processing may occur in barn outbuilding by landowner, or processing may occur offsite at a third-party facility. Barn height is estimated at 15 feet.

Staffing

The facilities are operated by applicant (LLC members). There is only one LLC member. There are no employees. Applicant travels to site via car about once a day during the growing season. The length of the trip is approximately 35 miles from Arcata.

Days and Hours of Operation

The facility is not open to the public and will not accept visitors without a specific business purpose.

Safety Practices:

Farm is applicant-operated. There are no employees.

Cultivation and processing operations implement best practices to the highest degree feasible. The operation will follow all safety protocols and safety training pursuant to County and State regulations and guidance. Furthermore, all safety practices will be in compliance with standards set forth by the County and State.

Domestic/ Drinking Water: Domestic and drinking water provided from onsite well.

Toilet, Handwashing, and Onsite Wastewater Facilities: Toilet, handwashing, and shower hot water facilities are located inside of the bathhouse structure. Wastewater is treated onsite with a septic system. The septic system is not yet permitted. In the interim the applicant purposes to use a regularly serviced portable toilet and hand washing unit.

Increased Road Use: No significant noise or traffic impacts are anticipated on access roads or impacts to neighboring properties.

Onsite Housing: None. No employees at this time.

9 SECURITY PLAN

The cultivation and operations area is located behind a locked gate. Large portion of property is fenced. All cultivation sites are fenced for wildlife exclusion. One or more persons reside onsite 24hrs a day, 7 days a week. All cannabis and cannabis associated materials are secured in locked locations.