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# Cultivation/Operations Plan David Coffey PLN-12995/APN # 211-331-005

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The following plan describes the general operations for managing a 9,080 sq ft outdoor cultivation site.

#### 1. Water Use

The project will be done in two phases as additional water storage is implemented. By limiting the initial square footage, the site can rely on rain catchment and existing water storage.

Phase 1 will consist of the applicant growing only 3,360 square feet of the cultivation area, to accommodate current water storage capacity. Water used for cannabis cultivation will be sourced primarily from rain catchment. The well will be only used for domestic purposes. Rain catchment is sourced from the residence roof and two sheds, that total 3,120 sq ft of collection area. The site currently has the capacity to store 26,500 gallons.

Phase 2 of the project will occur after the applicant has added the necessary water storage to the parcel. The site will then increase operations to the full 9,080 square feet of outdoor cultivation.

During the beginning of the growing season, seedlings will be occasionally watered as needed. Once fully planted, daily irrigation will begin with plants watered for 2-5 minutes every third day. Alfalfa mulch will be used around plants to improve water retention. Careful timed irrigation, with immediate oversight, is planned to reduce the possibility of irrigation runoff.

The following provides an estimate of monthly irrigation use in gallons:

## 1.a . Water Use per month for 3,660 sq ft of cultivation:

Jan	Feb	Mar	Apr	May	June
0	0	0	1,500	3,000	5,000

July	Aug	Sept	Oct	Nov	Dec
6,000	6,000	3,000	1,500	0	0

Total annual use: 26,000 gallons

# 1.b. Water Use per month for 9,080 sq ft of cultivation:

Jan	Feb	Mar	Apr	May	June
0	0	0	6,000	8,000	12,000

July	Aug	Sept	Oct	Nov	Dec
12,000	12,000	8,000	6,000	0	0

Total annual use: 64,000 gallons

# 1.c. Existing Water Storage:

Water Storage Type	Size (Gallons)	Number	Total (Gallons)
Poly Water Tank	2,500	2	5,000
Poly Water Tank	1,500	1	1,500
Water Bladder (To Be Removed)	20,000	1	20,000
		Total	26,500

# 1.d. Proposed Water Storage:

Water Storage Type	Size (Gallons)	Number	Total (Gallons)
Poly Water Tank	5,000	11	55,000
Poly Water Tank	3,000	1	3,000
		Total	58,000

#### 2. Watershed Protection

To protect nearby watershed areas and nearby habitat the site will be managed to meet standard conditions and follow best practices in accordance with guidelines provided by the State Water Resources Control Board (SWRCB). These practices address erosion control and

drainage features, spoils management, water storage and use, irrigation runoff, fertilizers and pesticides, and stream and wetland buffers when applicable.

The most active steps for this site will include:

- Moderate road shaping and ditch-relief used to optimize drainage to stable areas
- Out-sloping maintained to ensure proper capture and capacity of seasonal flow
- Usage of vegetative ground cover and gravel for added sediment control
- Application of straw mulch to exposed soils to minimize erosion

The grower, designated as the "Discharger", is enrolled in the SWRCB Waiver of Waste Discharge as a Tier I Low Risk Discharger (WDID: 1\_12CC418293). The cultivation site will include a Water Resource Protection Plan (WRPP) for the property. A copy of the WRPP will be kept onsite for ongoing site management and regulatory inspections.

#### 3. Power Source

The site is connected to the municipal power grid as its primary source of electricity (PG&E). A 2,000 Watt Honda EU backup generator is onsite for emergency use.

#### 4. Site Structures

There are a variety of structures on the premises that include:

	Existing Structures				
Storage Container	8'x20' (160 sq ft)	Drying, Harvest Storage, Processing, and Packaging Area			
Shed 1	18'x40' (720 sq ft)	Used as a rain catchment surface and for domestic purposes			
Shed 2	20'x20' (400 sq ft)	Used as a rain catchment surface and for domestic purposes			
Residence	80'x50' (2,000 sq ft)	Used as a rain catchment surface and for domestic purposes			
Shed 3	12'x18' (216 sq ft)	Pesticide/Amendment Storage			

See site plan for additional details.

# 5. Materials Storage

Currently, there are primarily natural fertilizers and pesticides used for the cultivation process and include:

- Green Sand
- Bat Guano
- Chicken manure

Materials will be kept in their original containers with product labels in place. Appropriate Safety Data Sheets (SDS) are kept onsite.

#### 6. Waste Management

Plant waste will be placed in the compost area and composted. Other solid waste will be stored in containers with covers and transported to Recology- Redway Transfer Station, on a weekly basis; recyclables are taken monthly. Materials intended for reuse will be stored in a clean and safe manner to be managed and reused as needed.

An existing septic system is located on site for the residence. This system is not yet permitted and portable toilets will be placed onsite during the season if needed.

#### 7. Cultivation Activities

Jan-Feb	<ul><li>☐ Install and repair any infrastructure</li><li>☐ Perform initial site inspection</li></ul>
Mar-Apr	<ul> <li>Conduct and record inventory of amendments and verify proper storage</li> <li>Submit SWRCB enrollment annual report</li> <li>Start seeds and let them mature in 4 inch pots</li> <li>Begin daily plant inspections</li> <li>Check water meters and record monthly usage</li> <li>Conduct regular site inspections and make repairs as needed</li> </ul>
May-June	<ul> <li>□ Transplant babies to canopy area and plant them directly in the ground</li> <li>□ Maintain plants with pruning,topping and thinning</li> <li>□ Adjust nutrients as needed</li> <li>□ Check water meters and record monthly usage</li> </ul>
July-September	<ul> <li>Maintain plants with pruning,topping and thinning</li> <li>Adjust nutrients as needed</li> <li>Check water meters and record monthly usage</li> </ul>

October	<ul> <li>□ Harvest outdoor crops by hand</li> <li>□ Dry with dehumidifiers and fans</li> <li>□ Remove and recycle plant waste following harvest</li> <li>□ Package and store final product for sale</li> </ul>
November -December	☐ Prepare site for winter period☐ Plant cover crop

# 8. Soil Management

At the beginning of the season soil is tilled and prepared for planting. During the season, plants are fertilized in small doses as needed throughout the grow cycle. Following the harvest, reusable soil is properly contained and covered for tilling in the next season.

# 9. Cultivation Cycles

This site does one outdoor grow cycle for the year. Seeds are planted starting in March, and repotted into larger containers as the plants mature. Harvest occurs in October and reusable soil is properly contained and covered.

### 10. Plant Management

During the cultivation cycles, plants are inspected daily. Irrigation is monitored and adjusted based on various factors, mainly heat and precipitation. Once plants are placed into the ground, they will be carefully maintained with periodic topping and pruning until ready to harvest.

#### 11. Processing Practices

Plants will be harvested one at a time using hand shears and taken to a storage container for drying, processing and storage. All work surfaces and equipment are maintained in clean and safe conditions. Protocols are strictly followed to prevent the spread of mold and fungus. Processing will be done by the applicant in accordance with Department Policy No. 21-02.

# 12. Security Measures

A number of security measures have been established on the site. They include:

- The cultivation site is remote and rural with natural privacy.
- There will be 24/7 presence onsite throughout the cultivation season.
- Guard dogs onsite provide protection against human intruders and invasive wildlife

# 13. Staffing

The homestead site will be managed and run by the owner himself. The site is currently not hiring part-time or full-time employees. Harvesting will be done with the support of his wife and adult son who also live on the property.

## 14. International Dark Sky Standards

Any greenhouse or propagation area with supplemental lighting will be properly maintained to avoid being visible from any neighboring property between sunset and sunrise. The site will comply with International Dark Sky Association standards for Lighting Zone 0, and prevent light spillage which may impact local wildlife. Any and all complaints received in writing regarding light spillage will be corrected within 10 business days from the date of receipt.