

Cultivation Plan

Parcel # 208-341-015 / APP# 12014

The following plan describes the general operations for managing a 1,400 sq ft mixed-light and 8,584 sq ft outdoor cultivation site.

1. Water Use

The project will be done in three phases as additional water storage is implemented. By limiting the initial square footage and number of cycles in this phased approach, the site can rely on the planned catchment and existing water storage without additional well water for cultivation during the dry season. The site currently has the capacity to store 30,500 gallons of water for irrigation.

Phase 1 will be the site's five greenhouses consisting of 5,384 square feet of outdoor cultivation and 1,400 square feet of mixed-light cultivation. Cultivation will consist of one cultivation cycle grown per season. The primary water source will be the permitted onsite well, with rain catchment as secondary water source. A voluntary forbearance period for well water irrigation will occur from May through October, during which the site will rely on well water storage and rain catchment for irrigation.

Phase 2 of the project will occur after the DCC water storage grant is funded and 40,000 gallons of additional water storage is added to the site. The site will then increase operations to two cultivation cycles per year, with 5,384 square feet of light deprivation and 1,400 square feet of mixed-light.

Phase 3 of the project will occur once an additional 20,000 gallons or more of water storage is installed or the well is deemed to be hydrologically disconnected. The additional storage will allow for support of the final 3,200 square feet of pre-existing outdoor cultivation irrigation during the dry season.

The site will install gutters to two existing sheds, and two 10' x 12' structures will be built to collect rain over two of the 2,500 gallon and two of the 5,000 gallon water tanks. These structures will consist of lumber posts, tin roofing, and gutters to collect a large surface area. Rainwater structures will be gravity fed so that no pumping will be required to collect the water.

1.a. Estimated Water use Phase 1:

Jan	Feb	Mar	Apr	May	June
0	0	0	1,200	5,700	7,600

July	Aug	Sept	Oct	Nov	Dec
5,400	7,800	0	0	0	0

Total Water Use = 27,700 gallons

1.b. Estimated Water use Phase 2:

Jan	Feb	Mar	Apr	May	June
0	0	0	2,400	11,400	15,200

July	Aug	Sept	Oct	Nov	Dec
15,600	15,600	6,700	3,500	0	0

Total Water Use = 70,400 gallons

1.c. Estimated Water use Phase 3:

Jan	Feb	Mar	Apr	May	June
0	0	0	4,800	13,500	18,000

July	Aug	Sept	Oct	Nov	Dec
20,600	20,600	9,100	1,800	0	0

Total Water Use = 88,400 gallons

2. Watershed Protection

To protect nearby watershed areas and nearby habitat the site is managed to meet standard conditions and follow best practices in accordance with guidelines provided by the North Coast Regional Water Quality Control Board (NCRWQCB). 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 the site include:

- Ongoing mulch covering for water retention
- Usage of vegetative ground cover for added sediment control

The parcel has no onsite watercourses. The cannabis cultivation does not impose on any setbacks as required in the State Water Resource Control Board (SWRCB) General Order specifications.

The grower, designated as the “Discharger”, is enrolled in the SWRCB Waiver of Waste Discharge as a Tier I Discharger. The cultivation site includes a Site Management Plan (SMP) for the property. A copy of the SMP is kept onsite for ongoing site management and regulatory inspections.

3. Power Source

The site currently uses a Honda EX 5500 and a Honda EU 2000 gasoline generator for electricity, which will be recommissioned to provide backup power only once the site’s solar installation is completed. A planned 4.32kW array and battery bank are awaiting approval of grant funding from the county. Average use is from 6.3kWh-9.5kWh per day for lighting from April to May. The EU 2000 runs at or below 59dB, however as the EX 5500 runs above 60dB, it is housed in a generator shed to ensure meeting perimeter noise restrictions required by environmental regulations. During warmer months, solar fans are used for ventilation, requiring no additional power.

4. Onsite Structures

Currently, there is one 10’x12’ amendments shed, one 4’x5’ generator shed, and one 10’x10’ storage shed. There is one 1,400 sq ft mixed-light green house/nursery, and four outdoor greenhouses. Plans are being considered for a commercial building to support onsite processing, but no plans will be initiated until the site’s county permit is approved.

5. Materials Storage

Currently there are primarily natural fertilizers utilized in the cultivation process and include:

- Bone meal (liquid)
- Bat guano (nitro)
- Bat guano (phosphorus)
- Chicken manure
- Kelp
- Mycorrhizae tea
- Seabird guano
- Dolomite
- Trace Minerals

- Rainbow Mix Pro Grow
- SeaPal Liquid Fish
- Earth Juice Seablast Bloom
- FoxFarm Open Sesame
- FoxFarm Cha-Ching
- Trifecta
- Plant Therapy

The primary pesticides used to control mites and powdery mildew are:

- Neem oil
- Diatomaceous Earth

A dedicated, secure, and fully contained shed will be used for the storage of all amendments. Materials are kept in their original containers with product labels in place and legible. Appropriate Safety Data Sheets (SDS) are kept onsite as a component of the cultivator's SMP.

Upto to 20 gallons of fuel will be stored within an onsite shed with secondary containment, along with a Spill Prevention, Countermeasures, and Cleanup (SPCC) kit. As a safety measure, kits provide a supply of clean-up materials in the event of accidents, and are kept within fuel storage areas.

6. Waste Management

Plant waste is placed in a stable area, then covered for recycling and reuse. Unusable plant waste is composted. Other solid waste is stored in 32 gallon containers with covers, and are transported to the Mad River Waste Disposal site, on a weekly basis. Materials intended for reuse are stored in a clean and safe manner to be managed and reused as needed.

The site is not yet permitted for human waste. The cultivator has access to the restroom on the owner's adjoining facility if needed, however, portable toilets will be placed onsite during the season until a permitted septic is installed.

7. Cultivation Activities when site is fully operational

Jan-Feb	<input type="checkbox"/> Submit SWRCB enrollment annual report <input type="checkbox"/> Install and repair any infrastructure <input type="checkbox"/> Perform initial site inspection <input type="checkbox"/> Fill water storage for Irrigation
Mar-Apr	<input type="checkbox"/> Conduct and record inventory of amendments and verify proper storage <input type="checkbox"/> Begin tilling soil and amendments to prepare for planting

	<input type="checkbox"/> Plant Clones in Nursery/Mixed Light Greenhouse #1 <input type="checkbox"/> Begin daily plant inspections <input type="checkbox"/> Check water meters and record monthly usage <input type="checkbox"/> Conduct regular site inspections and make repairs as needed
May-Jun	<input type="checkbox"/> Transplant clones into additional greenhouses and full sun areas <input type="checkbox"/> Encage plants for stability <input type="checkbox"/> Top and prune plants <input type="checkbox"/> Harvest greenhouse by hand (1st Crop) <input type="checkbox"/> Dry crop <input type="checkbox"/> Send crop offsite for processing
Jul-Aug	<input type="checkbox"/> Remove and recycle plant waste following harvest <input type="checkbox"/> Package and store (1st Crop) <input type="checkbox"/> Plant 2nd Crop cycle <input type="checkbox"/> Encage plants for stability
Sep-Oct	<input type="checkbox"/> Harvest greenhouse crops by hand (2nd Crop) <input type="checkbox"/> Harvest full sun crops by hand (1st Crop) <input type="checkbox"/> Send crop offsite for processing <input type="checkbox"/> Remove and recycle plant waste following harvest <input type="checkbox"/> Package and store final product for sale
Nov-Dec	<input type="checkbox"/> Prepare site for Winter period

8. Soil Management

Amendments are applied based on standard practices. Items are purchased, applied, stored and inventoried. Once tilling is completed and soil has been prepared, planting begins.

Following the harvest, reusable soil is properly contained and covered for tilling in the next season.

9. Cultivation Cycles

Phase 1 of the project will only produce one crop cycle. After receiving additional water storage then Phase 2 will increase greenhouses to two crop cycles per year. When fully operational the site will also have full sun seasonal plants, with one harvest. In the nursery greenhouse, the site uses supplemental lighting for vegetation early in the year. When the plants are transplanted to their canopy area, they are supported with light deprivation methods. In April, planting begins with clones in the nursery. Plants are then transplanted to greenhouses and caged for stability. Harvest occurs primarily in July, and September, but will vary depending on environmental factors including weather, pests, and plant strains.

10. Plant Management

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

11. Processing Practices

After being harvested, the cannabis is taken offsite for processing.

12. Staffing

The site is a family farm currently not hiring part-time or full-time employees. Harvesting is done with the support of one or two family members. There are three people onsite at peak season operating the farm.

13. Security Measures

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

- Road access is restricted by locked gates. Gates are of heavy steel construction with a steel combination lock.
- There is 24/7 presence onsite throughout the cultivation season.
- Security Motion lighting is installed.
- Guard dogs provide onsite protection against human intruders and invasive wildlife.

14. Site Adjustments

There is a P&G easement that runs through the property. Grow areas have been properly setback away from the easement on a pre-existing flat. Part of the garden is utilizing a flat which had previously been a logging trail. The whole site was scaled down from the original pre-existing 2016 configuration, such that grow areas beyond 10,000 square feet including areas on the hillside slopes were decommissioned.

15. Health and Safety

If employees are hired this site will be operated as an “agricultural employer” as defined by the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code, and comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers. At the first establishment of 20 or more employees, the firm will sign and enact a Labor Peace

Agreement and allow upon written request, all bona fide labor organizations access at reasonable times to areas in which the farm's employees work, for the purpose of meeting with employees to discuss their right to representation, employment rights under state law, and terms and conditions of employment.

An Injury and Illness Prevention Program (IIPP) Plan will be posted. It includes safety protocols including emergency action plan and fire prevention plan, use of personal protective equipment, proper equipment and materials handling, heat illness prevention, employee accident reporting policies and logs, communication of hazards and Material Safety Data Sheets for amendments and chemicals used onsite, and employee training logs.

Posted and available documentation for employees (if applicable) will include:

- *Injury and Illness Prevention Program (IIPP) Plan* - T8 CCR Section 3203 of the General Industry Safety Orders
- *Agricultural Occupations Notice* - Industrial Welfare Commission Order No. 14-2001
- *Professional, Technical, Clerical, Mechanical, and Similar Occupations Notice* - Industrial Welfare Commission Order No. 4-2001
- *Safety and Health Protection on the Job* - Labor Code section 6328
- *California Minimum Wage* - MW-2017 General Minimum Wage Order
- *Healthy Workplaces/Healthy Families Act of 2014 Paid Sick Leave* - Division of Labor Standards
- *Payday Notice* - Labor Code section 207
- *Emergency Numbers* - Title 8 Section 1512 (e), California Code of Regulations
- *Access to Medical and Exposure Records and General Industry Safety Order 3204*
- *Injuries Caused by Work* - Title 8, California Code of Regulations, Division of Workers' Compensation section 9881
- *Whistleblower Protections* - Labor Code Section 1102.8(a)
- *No smoking signage* - Labor Code section 6404.5(c)(1)
- *Farm Labor Contractor Statement of Pay Rates* - California Labor Code Section 1695(7)
- *Insurance and Paid Leave Notice to Employees* - DE 1857A
- *Equal Employment Opportunity is the Law* - EEOC-P/E1 and Americans with Disabilities Act
- *Human Trafficking Public Notice* - Civil Code § 52.6

16. 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.