

**ATTACHMENT 1B**

**Cultivation and Operations Plan**

## **CULTIVATION AND OPERATIONS PLAN**

**Merry Whether Farms, LLC**

**Parcel # 221-111-028 / PLN-11734**

**Site Address: 6757 Doody Ridge Road  
Whitethorn, CA 95589**

Created December 2016

Revised January 2021

Revised January 2023

Submitted to:

County of Humboldt

Planning and Building Department

3015 H Street

Eureka, California 95501-4484

Tel: (707) 445-7541

### **Purpose and Scope**

Merry Whether Farms, LLC, a California limited liability company ("Applicant"), submits this application requesting approval of a Permit for commercial cannabis cultivation activities in the County of Humboldt ("County"). This application has been prepared in accordance with the County's Commercial Medical Marijuana Land Use Ordinance ("CMMLUO") and the state Medical Cannabis Regulation and Safety Act ("MCRSA") (Business and Professions Code § 19300 et seq.). This application seeks to permit outdoor cultivation that existed on the Applicant's property prior to January 1, 2016.

### **Project Description**

The project application is for APN# 221-111-028, site address is 6757 Doody Ridge Road in Whitethorn. The project parcel is zoned U, which falls within the allowable zoning specified by the local authority. The applicant seeks permit approval for 9,950 square feet of outdoor cultivation that is pre-existing, is supported by evidence, and involves natural light with an expectation of supplemental lighting to support nursery activities.

The project features (6) cultivation areas comprising (4) green houses; (2) 80'x20' and (2) 70'x20', (2) outdoor areas with a combined square footage of 3,950 (145 smart pots) and (1) nursery area 20X50.

The Applicant is seeking a Special Permit to authorize the following uses and activities on the project site:

- Cultivate 9,950 square feet of cannabis, using outdoor light deprivation and full sun cultivation methods in the U zone.

The following plan describes the general operations for managing a 9,950 sq ft outdoor cultivation site using two cycles of light deprivation growing techniques in the greenhouses and a full term cycle for the plants in smart pots. A 1,000 sqft nursery will be maintained.

**1. Water Use**

The amount of water used for the cultivation of cannabis will vary throughout the year, from 400 gallons a day to 1,000 gallons per day in summer months. Details of the grower's cultivation and water usage is outlined below. Annual irrigation requirements for the 9,950 sqft cultivation area is estimated at 150,000 gallons.

Water used for cannabis cultivation will be primarily sourced from rain catchment captured into onsite rain catchment tanks and a point of diversion will be used as a backup source during years of low rain. Forbearance will be practiced based on the LSA Agreement with Dept. Fish & Wildlife. A water pump directs water to irrigation lines and distributes water flow from the irrigation tanks to the cultivation site. All irrigation is timed drip irrigation. The annual rainfall and the area of capture allows for an estimate of over 113,810 gallons a year. The site currently has the capacity to store 152,900 gallons of water for irrigation which exceeds the annual cannabis irrigation usage of water. A point of diversion onsite provides domestic water and back-up irrigation water source.

During the beginning of the grow season, clones are occasionally watered once a week as needed. Vegetation is used around plants to improve water retention. Timed drip irrigation, with careful oversight, and flat topography eliminates the possibility of irrigation runoff.

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

**1 a. Water USE by month**

| Jan | Feb | Mar   | Apr   | May   | June   |
|-----|-----|-------|-------|-------|--------|
| 0   | 0   | 1,000 | 2,000 | 2,000 | 25,000 |

| July   | Aug    | Sept   | Oct    | Nov | Dec |
|--------|--------|--------|--------|-----|-----|
| 40,000 | 40,000 | 25,000 | 15,000 | 0   | 0   |

**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 State Water Resources Control Board (SWRCB) and 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 this site include:

- Usage of vegetative ground cover and gravel for added sediment control
- Application of straw mulch on exposed soils to minimize erosion

The cannabis cultivation occurs more than 50 feet away from any watercourse as required in the SWRCB specifications. There are not water crossings or culverts on the property.

The grower is enrolled in the SWRCB Waiver of Waste Discharge as an exemption under WDID: 1\_12CC422556.

### **3. Power Source**

The current solar array is 2,500 kWh. Usage is up to 1.5 kWh per hour and up to 4 hours daily as needed for propagation lighting, ventilation, and farming equipment. The solar array is the primary source of power with (1) 3000-watt Honda generator for domestic use and (1) 15 kVA WhisperWatt diesel generator used as backup power for cultivation activities.

### **4. Site Structures**

There is one main building onsite which will be used for cannabis operations including drying, curing, packaging and storage. The site also utilizes a 20' x 10' shed for pesticide storage. During the season, the cultivation site will include four large hoop house covered areas and a nursery area.

### **5. Materials Storage**

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

- Sequoia Soil Company's Sequoia Complete Soil Blend. Contains Sequoia Compost, Ligna Peat, pumice stone, lava rock, feather meal, alfalfa meal, bone meal, nitrogen bat guano, calcium silicate, fish bone meal, blood meal, gypsum, potassium magnesium sulfate, volcanic ash, cottonseed meal, ag lime, and insect frass. Also used is Age Old Bloom & Grow, Dr. Earth Bloom and Earth Juice/Rainbow Bloom.

Careful preventative measures restrict the need for any pesticides. Organic pesticide methods include the use of:

- Lady bugs
- Predatory mites

- Oxidate 2.0
- Plant Therapy

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

Fuels are stored within an onsite shed or in covered tanks 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

Unusable plant waste is composted. Other waste is stored in containers with covers and transported along with recyclables to the Fortuna Recology, on a weekly basis. Materials intended for reuse are stored in a clean and safe manner to be managed and reused as needed.

## 7. Cultivation Activities

|         |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Jan-Feb | <input type="checkbox"/> Submit SWRCB enrollment report and fee<br><input type="checkbox"/> Install and repair any infrastructure<br><input type="checkbox"/> Perform initial site inspection                                                                                                                                                                                                                                          |
| Mar-Apr | <input type="checkbox"/> Verify proper amendments storage and record inventory<br><input type="checkbox"/> Acquire clones and begin nursery<br><input type="checkbox"/> Begin tilling soil and amendments to prepare for planting<br><input type="checkbox"/> Plant clones to initial pots (Crop #1)<br><input type="checkbox"/> Begin daily plant inspections<br><input type="checkbox"/> Check water meters and record monthly usage |
| May-Jun | <input type="checkbox"/> Transfer plants to soil beds in cultivation area<br><input type="checkbox"/> Add nutrients as needed<br><input type="checkbox"/> Install trellis support and ties to plants for stability<br><input type="checkbox"/> Plant clones to initial pots (Crop #2)                                                                                                                                                  |
| Jul-Aug | <input type="checkbox"/> Plant clones to initial pots (Crop #3 - full sun)<br><input type="checkbox"/> Harvest plants (Crop #1)<br><input type="checkbox"/> Dry crop<br><input type="checkbox"/> Process off-site<br><input type="checkbox"/> Package and store<br><input type="checkbox"/> Remove and compost plant waste following harvest<br><input type="checkbox"/> Transfer plants to final beds in cultivation area (Crop #2)   |

|                |                                                                                                                                                                                                                                                                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sep-Oct</b> | <input type="checkbox"/> Harvest plants (Crop #2)<br><input type="checkbox"/> Harvest plants (Crop #3 - full sun)<br><input type="checkbox"/> Machine Trim<br><input type="checkbox"/> Dry crop<br><input type="checkbox"/> Process off-site<br><input type="checkbox"/> Package and store<br><input type="checkbox"/> Remove and compost plant waste following harvest |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 8. Soil Management & Erosion Control

Cultivation soil is a living soil and reused, not discarded. Following the harvest, soil is kept in an area contained by straw wattles for tilling in the next season. Vegetation is used to improve water retention and provide groundcover to mitigate any potential erosion. Timed drip irrigation, with careful oversight, and flat topography eliminates the possibility of irrigation runoff.

## 9. Cultivation Cycles

The farm grows three cultivation cycles per year. Light deprivation is done with tarps hung temporarily above the beds with poles and lines. Tarps will be necessary only for the first cycle and second. The third cycle is full sun in pots. Raised beds are constructed for growing juvenile plants to maturity.

## 10. Plant Management

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

## 11. Processing Practices

After being harvested, the cannabis is taken into the building where it will be dried and cured. After drying, product is prepared off-site for processing. All work surfaces and equipment are maintained in clean and safe conditions. Protocols are strictly followed to prevent the spread of mold and fungus. The final cannabis product is then packaged and stored in a secure location.

## 12. Staffing

The site is currently not hiring part-time or full-time employees. Harvesting is usually done with the support of family members. As the site's commercial operations are developed, temporary staffing will be considered if needed. Third-party licensed contractors or temporary employment agency services may be utilized on a temporary basis to support harvest operations.

### **13. Security Measures**

Security measures have been established on the site. They include:

- Locked gate at entrance of property
- Guard dogs onsite
- Proposed fencing

### **14. Health and Safety**

The first response emergency contact phone number is 9-1-1. Hospitals at Jerold Phelps Community Hospital 707-923-3921 and Redwood Memorial Hospital at 707-725-3361. The American Association of Poison Control Centers can be reached at 800-222-1222.

Any onsite operations will ensure that anyone handling cannabis for packaging will have access to facemasks and gloves in good operable condition, and will be required to wash hands sufficiently when handling cannabis or use gloves.

If necessary to hire employees, an Injury and Illness Prevention Program (IIPP) Plan will be developed, posted and would include 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 Safety Data Sheets for amendments and chemicals used onsite, and employee training logs.

### **15. 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.