

16226

# MEADOWS CULTIVATION, NURSERY & PROCESSING FACILITY

Cultivation and Operations Manual  
Humboldt County, CA

---

Proposed Commercial Cannabis  
Cultivation Facilities



MAY 2020

**PREPARED FOR:**

**MEADOWS CANNABIS FACILITY  
APN No. 223-162-004-000  
223-162-005-000**

**Proposed Commercial Cannabis Cultivation Facility**

**LEAD AGENCY:**

**Humboldt County Planning Department  
3015 H Street  
Eureka, CA 95501**

**PREPARED BY:**

**SL Consulting Services, Inc.  
973 Dowler Drive  
Eureka, CA 95501**

**IN CONSULTATION WITH:**

**TRENT SANDERS  
PO BOX 1126  
REDWAY, CA 95560**

DECEMBER 2019  
**OPERATIONS MANUAL**

**TRENT SANDERS - MEADOWS FACILITY**

**TABLE OF CONTENTS**

OPERATIONS MANUAL .....	1
TRENT SANDERS - MEADOWS FACILITY.....	2
TABLE OF CONTENTS.....	3
<b>1. PROJECT SUMMARY.....</b>	<b>5</b>
1.1. Project Objective.....	5
1.2. Site Description.....	5
1.3. Land Use.....	6
1.4. State and Local Compliance.....	6
1.4.1 CA Commercial Cannabis Activities Permit.....	6
1.4.2 State Water Resource Control Board.....	6
1.4.3 Cal Fire.....	6
1.4.4 Department of Fish & Wildlife.....	6
1.4.5 Cultural Resources.....	6
<b>2. CULTIVATION AND PROCESSING.....</b>	<b>7</b>
2.1. Propagation and Initial Transplant.....	7
2.2. Cultivation Plan and Schedule.....	7
2.3. Irrigation Plan and Schedule.....	8
2.4. Processing Plan .....	8
2.5. Employee Plan .....	9
2.5.1 Staffing Requirements.....	9
2.5.2 Employee Training and Safety.....	9
2.5.3 Toilet and Handwashing Facilities.....	10
2.5.4 Drinking Water Source.....	10
2.5.5 Onsite Housing.....	10
2.5.6 Onsite Parking.....	10
<b>3. SECURITY PLAN.....</b>	<b>11</b>
3.1 Facility Security.....	11
3.2 Hours of Operation .....	13
<b>4. ENVIRONMENT.....</b>	<b>14</b>
4.1. Water Source and Projected Water Use.....	14
4.2. Water Storage.....	14
4.3. Site Drainage, Runoff, and Erosion Control.....	14
4.4. Watershed and Habitat Protection.....	15
4.5. Monitoring and Reporting.....	16
4.6. Energy Plan.....	16

4.7. Noise Control Measures.....	16
4.8. Light Pollution Control Measures.....	16
4.9. Best Management Practices.....	17
4.10 Fertilizers, Pesticides and Fungicides.....	17
4.11 Waste Management Plan.....	18
4.11.1 Cultivation Waste.....	18
4.11.2 Soil Management.....	18
4.11.3 Materials Management & Waste Plan.....	18
4.11.4 Wastewater Management Plan.....	18
4.11.5 Storm-water Management Plan.....	18
4.12 Invasive Species Control Plan.....	18
5. PRODUCT MANAGEMENT .....	19
5.1. Product Testing and Labeling.....	19
5.2. Product Inventory and Tracking.....	19
5.3. Transportation and Distribution.....	19

# 1. PROJECT SUMMARY

## 1.1. PROJECT OBJECTIVE

Trent Sanders, the applicant, under the 2.0 Humboldt County Commercial Cannabis Land Use Ordinance (CCLUO), is seeking a Special Permit for 35,280 SF of Mixed Light Cultivation and 8,280 SF of Commercial Nursery Cultivation for a total of 43,560 SF of Cannabis Cultivation with on-site processing in a 4,000 square foot building and drying in 4,000 square foot building..

The project proposal includes the development of facilities appurtenant to the cultivation, including greenhouses for mixed light and nursery cultivation, facilities for drying, storage, water diversion works and appropriate water storage. Water is sourced from an onsite permitted well and a proposed 750,000 gallon rain catchment pond and 52,000 gallons in hard tanks on site as noted in Appendix A Site Plan.

## 1.2. SITE DESCRIPTION

The Project is located in Humboldt County on APN 223-162-004-000 & 223-162-005-000 in the Redway area, on the west side of US Highway 101, approximately 1.7 miles south from the intersection of US Highway 101 and Redwood Drive, at the end of Evergreen Drive is the property entrance. The subject parcels are approximately two hundred and seventy (270) acres in size (per the County of Humboldt's WebGIS), the site is characterized as mainly forested with a clearing that dates back to approximately 1985.

## 1.3. LAND USE

The subject property has a General Plan designation of Residential Agricultural (RA5-20) as identified by the Humboldt County General Plan and is zoned Agriculture (AG-B-5(5)). Land uses surrounding the parcel are comprised of commercial, industrial public lands, timber and agriculture. The surrounding parcels are zoned, Commercial General (CG), Commercial Services (CS), Public Lands (P), Industrial General (IG), Agriculture (AG) and Residential (R).

## 1.4. STATE AND LOCAL COMPLIANCE

### 1.4.1. STATE OF CALIFORNIA COMMERCIAL CANNABIS ACTIVITY LICENSE

Trent Sanders will secure a Commercial Cannabis Activity license from the State of California once local permits are issued.

### 1.4.2. STATE WATER RESOURCES CONTROL BOARD

Trent Sanders , Meadows Facility is in the process of obtaining coverage as a registered Tier 2 - Low Risk site with the SWRCB under the Cannabis Cultivation General Order (Order No. WQ 2019-0001-DWQ) *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for the Discharges of Waste associated with Cannabis Cultivation.* [Application Fee #: 424149 ]

### 1.4.3. CAL-FIRE

The subject property is located within a State Responsibility Area (SRA) for fire protection. Several improvements are proposed in order to meet SRA requirements, including designating a fire turn-around and pull-out area for emergency vehicles, and management of trees and vegetation around existing structures to maintain the required 100-foot defensible space. All structures on the property meet the 30-foot SRA setback requirement from property lines.

### 1.4.4. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

A Lake and Streambed Alteration Agreement (LSAA) from the Department of Fish and Wildlife (DFW) will be submitted for the property.

### 1.4.5. HUMBOLDT COUNTY PLANNING AND BUILDING DEPARTMENT

All necessary building permits will be obtained from the Humboldt County Building Department for all existing and proposed structures and supporting infrastructure upon approval of the proposed Meadows Cannabis facilities Special Permit and Zoning Clearance Certificate, in accordance with the Humboldt County Planning Departments *Commercial Cannabis Land Use Ordinance* (CCLUO).

### 1.4.6. CULTURAL RESOURCES

If buried archaeological or historical resources are encountered during construction or cultivation activities, the applicant or contractor shall call all work in the immediate area to halt temporarily, and a qualified archaeologist is to be contacted to evaluate the materials. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, dietary bone, and human burials. If human burial is found during construction, state law requires that the County Coroner be contacted immediately. If the remains are found to be those of a Native American, the California Native American Heritage Commission will then be contacted by the Coroner to determine appropriate treatment of the remains. The applicant is ultimately responsible for ensuring compliance with this condition.

## 2. CULTIVATION AND PROCESSING

### 2.1 PROPAGATION AND INITIAL TRANSPLANT

The proposed Commercial Nursery Cultivation and Ancillary Nursery Propagation will take place in designated area Greenhouse B = 126' x 108' (13,608 SF)

Commercial Nursery will be in an approximate area equal to 8,280 SF

Ancillary Nursery will be in an approximate area equal to 5,328 SF

Juvenile plants are propagated on site from 'mother plants' that demonstrate the desired genetics for the specific cannabis strain. Mother plants remain in the vegetative stage solely for propagation. Cuttings are sampled from the mother plants and are rooted into a growing medium, typically oasis cube trays, to produce 'clones.' The rooted clones are placed into the nursery, and after 3 weeks they are transplanted directly into one (1) gallon plastic containers . The juvenile plants are irrigated using hand watering methods. After 3 more weeks the clones are then transplanted into 5-7-gallon smart pots with a soil and perlite medium, where they continue their 'vegetative' cycle.

All moms are designated in METRC track and trace, while the cuttings are grouped in immature plant lots of 100 until they are flowering, in which they will each be assigned an individual tag when they reach required sizing.

## **2.2 CULTIVATION PLAN AND SCHEDULE**

The proposed Mixed Light Cultivation is located within one (1) Greenhouse.

Greenhouse A = 210' x 168' = 35,280 SF of cultivation

The mixed light greenhouses utilize a combination of artificial light and light deprivation to produce up to four (4) flowering cycles per year. The plants are are covered with an opaque automated internal light deprivation tarp when lights are utilized. Light emitted from the site will meet International Dark Sky Standards.

Greenhouses will have unimproved floors (dirt with weed barrier).

Overhead heaters with a propane fuel source will be used during early spring and late fall.

<b>Cultivation Operations Schedule</b>			
<b>Month</b>	<b>Cultivation Activities</b>	<b>Nursery Activities</b>	<b>Processing Activities</b>
January	No activity	Propagating immature plants	No activity
February	Feb 15- first planting (supplemental lighting)	Propagating immature plants	No activity
March	Watering/maintain plants (supplemental lighting)	Propagating immature plants	No activity
April	Watering/maintain plants	Propagating immature plants	No activity
May	May 1st - First Harvest, re-plant (supplemental lighting)	Propagating immature plants	Bucking down plants, trimming
June	Watering/maintain plants	Propagating immature plants	Bucking down plants, trimming
July	July 15 - Second harvest, replant	Propagating immature plants	Bucking down plants, trimming
August	Watering/maintain plants (light deprivation)	Propagating immature plants	Bucking down plants, trimming
September	Watering/maintain plants	Propagating immature plants	Bucking down plants, trimming
October	September 20 - Third Harvest and Replant (supplemental lighting)	Propagating immature plants	Bucking down plants, trimming
November	Watering/maintain plants	Minimal, keeping mother plans watered/fed	Bucking down plants, trimming
December	December 1st - Fourth Harvest	Minimal, keeping mother plans watered/fed	Bucking down plants, trimming

## **2.3 IRRIGATION PLAN AND SCHEDULE**

Irrigation and fertigation of plants occurs using top-feed hand watering methods and drip line methods. Trent Sanders maintains that irrigation and fertigation is more efficiently managed via hand watering, allowing for daily inspection of each plant by the cultivator and tailored irrigation and nutrient application depending on the needs of each individual plant.

The applicant uses ½" drip line emitters embedded every twelve (12) inches, that drip one (1) gallon per hour. Irrigation water is regulated by battery operated timers that water for one (1) to six (6) minutes every morning and evening based on the weather and plant needs. In addition, plants are hand watered with a compost tea on a weekly basis.

## **2.4 PROCESSING PLAN**

### **2.4.1 PROCESSING & DRYING FACILITIES**

The proposed Drying Facility is located in Building A (40' x 100' = 4,000 SF). Areas and activities within the building include a Weigh Station where fresh partial or whole plants are weighed and logged into the METRC system and a Dry Harvest Storage area where partial or whole plants are dried, cured, bucked in harvest batches, then packaged for product transfer to Processing Facility.

The Proposed Processing Facility is located in Building B (40' x 100' = 4,000 SF). Areas and activities within the building include a Weigh Station where transferred Products (Harvest Batches), an Office where Secured Electronic Records are Stored, Inventory Storage Room where products and materials are securely stored between transfers and processing, and a Processing room where dried cannabis will be trimmed, packaged and labeled.

Trimming and final packaging may also be conducted at other licensed, off-site facilities.

### **2.4.2 PROCESSING ACTIVITIES**

#### **2.4.1 HARVESTING**

Plants that are ready for either partial plant harvest (manicure) or whole plant harvest are to be cut / manicured, the harvest material is screened thoroughly for contamination and immediately brought to the Dry Harvest Storage Building (4,000 SF). The harvested plants are weighed wet and recorded as Harvest Batches. The Harvest Batches are moved into the drying room, grouped according to Batch with their flowering branches removed and suspended.

## **2.4.2 DRYING & CURING**

Each new drying period begins with a flash dry at temperatures in the range of seventy-five (75) degrees fahrenheit, until the plant material is adequately dry. Temperature and Humidity levels are monitored by high/low gages and records are kept in batch related logs/ The ambient humidity is generally kept between forty-five (45) and fifty-five (55) percent at all times. The freshly harvested plant material usually takes seven (7) to ten (10) days until it is dried and cured. All drying activity is logged on a daily flow sheet. Once the plant material is adequately dry it is relabeled and placed into a food grade container(s) and is stored in a temperature and humidity controlled setting until it can be transferred for further processing. The drying room equipped with ventilation fans and dehumidifiers. The drying process takes approximately one week.

## **2.4.3 BUCKING**

Once the Harvest Batch has dried, the dried flower is then bucked into manageable buds and packed in plastic containers with lids and weight is recorded. These are now identified as a product and get a new Product Package Tag. Final Products are securely stored until transported to on site or off site processing facility for trimming and processing.

The finished product is securely stored before being transported to a licensed distribution facility. The waste product, or 'trim', from the machines is collected and sold to manufacturers.

## **2.5. EMPLOYEE PLAN**

### **2.5.1 STAFFING REQUIREMENTS**

Applicant, Trent Sanders is an "agricultural employer" as defined in 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 complies with all applicable federal, state and local laws and regulations governing California Agricultural Employers.

### Operations Staffing Table

Month	Cultivation	Nursery	Processing
January	0	3	4
February	6	4	4
March	6	4	4
April	6	4	4
May	6	4	5
June	6	4	5
July	6	4	5
August	6	4	5
September	6	4	5
October	6	4	5
November	6	4	5
December	6	3	5

#### 2.5.1.1 JOB DESCRIPTIONS AND EMPLOYEE SUMMARY

- Agent in Charge: Responsible for business oversight and management of the Meadows Facility. Responsibilities include, but are not limited to: inventory and tracking, personnel management, record keeping, budget, and liaison with State and County inspectors as needed. This is a part-time to full-time, seasonal position.
- Lead Cultivators: Oversight and management of the day to day cultivation of medical cannabis. Responsibilities include, but are not limited to: plant propagation and transplant, soil management, irrigation, fertilization, pesticide management, and harvest activities. This is a full-time, year-round position.
- Seasonal Laborers: Provides cultivation, harvesting, processing and operational support for any cannabis operation activities. This is a part-time to full-time, seasonal position.

During the peak harvest and processing season, there are an estimated total of (15) employees on site.

#### **2.5.2 EMPLOYEE TRAINING AND SAFETY**

On site cultivation, harvesting, and drying, is performed by employees trained on each aspect of the procedure including: cultivation and harvesting techniques and use of pruning tools; proper application and storage of pesticides and fertilizers. All cultivation staff are provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the onsite cultivation, drying and processing facilities are limited to authorized and trained staff.

All employees are trained on proper safety procedure including fire safety; use of rubber gloves and respirators; proper hand washing guidelines; and protocol in the event of an emergency. Contact information for the local fire department, CAL FIRE, Humboldt County Sheriff and Poison Control as well as the Agent in Charge will be posted at the employee restroom. Each employee has access to all written Standard Operating Procedures, which includes emergency phone numbers, first responder list, fire safety and evacuation routes, the address of the farm, and a signature page that verifies each staff person has reviewed the farms Standard Operating Procedures, local resource information, and employee rights and responsibility information.

For an applicant entity with more than one employee, the applicant entity shall attest that the applicant employs, or will employ within one year of receiving a license, one supervisor and one employee who have successfully completed a Cal-OSHA 30-hour general industry outreach course offered by a training provider that is authorized by an OSHA Training Institute Education Center to provide the course;

#### **2.5.3 TOILET AND HANDWASHING FACILITIES**

The approved proposed processing building on APN: 223-162-005-000 will include one (1) ADA-compliant restroom, including a working flush toilet as well as a sink with hot and cold running water. Anti-bacterial Liquid Soap and paper hand towels will be made available. Employees will work at a distance typically no greater than 600 feet from the restroom facility.

A portable toilet with hand washing sink will be installed adjacent to cultivation areas until the processing building and septic systems are developed.

#### **2.5.4 DRINKING WATER SOURCE**

The approved proposed processing facility will have domestic water provided by an existing permitted well.

#### **2.5.4 ONSITE HOUSING**

There is no on site house, both full-time and seasonal employees live off site and commute daily to the cultivation site.

#### **2.5.5 PARKING PLAN**

See plot plan for parking locations. One parking space is provided for each expected employee.

#### **2.5.6 ESTIMATED DAILY TRIPS**

Two trips per employee (40 total). Deliveries/shipments - up to two per day typical (4 trips total)

### **3. SECURITY PLAN**

#### **3.1 FACILITY SECURITY**

The Meadows Facility is accessible via a private driveway at the end of Evergreen Rd. Evergreen Road is a county maintained road that dead ends at a locked electric keypad gate. Once an individual passes through this gate they are on a private road that serves the two parcels included on this , both of which are owned by Mr. Sanders.

The entry gate remains locked at all times and access to the cultivation and processing areas are limited exclusively to employees. The processing facility area will have low intensity exterior lighting to illuminate the entrances, and will include a small number of motion activated security lights. All lighting will be designed and located so that direct rays are confined to the property. Security cameras and alarm system will be installed at entrances to the processing facility.

##### **3.1.1 UNAUTHORIZED ACCESS PREVENTION**

###### **3.1.1.1 PERIMETER**

The property entrance is protected by a locked electrical keypad gate with a security camera and DVR system that records all traffic entering and leaving the property. This is the sole ingress, egress to APN: 223-162-004-000 and 223-162-005-000. The entry gates remain locked at all times and only accessible by Authorized Personnel or authorization through Authorized Personnel for Transporters and Sub- Contractors.

###### **3.1.1.2 CONSTRUCTION**

The exterior of cultivation areas, dry harvest storage and processing building will have low intensity exterior lighting to illuminate the entrances, and will include a small number of motion activated security lights. All lighting will be designed and located so that direct rays are confined to the property.

### ***3.1.1.3 AUTHORIZED PERSONNEL***

All Authorized Personnel, Suppliers and Visitors, upon first time arrival will be required to register with the Facility and receive a Laminated Identification if required. Access Levels throughout the Premises will vary on persons responsibility to corresponding processes. All Authorized Personnel are required to wear Identification Badge assigned by company at all times while on property and any Contractors or Sub-contractors, vendors or distributors must at minimum wear a visible name tag while in Limited Access Areas (if required).

### ***3.1.1.4 SECURITY MONITORING MAINTENANCE***

Premises must be maintained so that all surveillance has a no obstructed views and that monitoring systems are not interfered with. Regular Inspection and Maintenance shall be performed and recorded.

### ***3.1.1.5 SUSPICIOUS ACTIVITY***

When there is any reason to suspect suspicious activity, the first step is to document observations and accurate reporting of behaviors. Second, must be submitted in a timely manner to the Supervisors assigned SAR responsibility.

## **3.1.2 THEFT AND DIVERSION MEASURES**

### ***3.1.2.1 INVENTORY & PERSONNEL TRACKING***

Company's use of the California Metric System allows inventory tracking and reporting of all movements made by cannabis products on site at all times. Personnel

### ***3.1.2.2 ACCESSIBILITY TO LIMITED ACCESS AREAS***

Personnel Access will be limited to the area use required by job duties as well as specifically scheduled time frames for completion of job duties. In order to further prevent cannabis or cannabis product diversion, all personnel are required to store personal belongings (purses, backpacks etc.) outside of premise.

### ***3.1.2.3 DIVERSION RISKS***

The risk of Diversion increases when Cannabis or Cannabis Products are not securely stored, (i.e., Transfers between Facilities) therefore a Supervisor must be present to inspect, document and accompany the product to its next secured holding. Supervisors identification and reports are attached to the Product Inventory Processing.

### ***3.1.2.4 SECURING OF ELECTRONIC RECORDS***

All mechanical components for Electronic Records including the Security Alarm System, Video Surveillance System, Inventory and Personnel Tracking System, etc are Stored in the Electronic Storage Room Secured and designated as a High Level Restricted Access Area.

### **3.1.3 VIDEO SURVEILLANCE MEASURES**

#### **3.1.3.1 SYSTEM REQUIREMENTS**

The Premises Surveillance System features complete digital video surveillance capable of 24 hour continuous recording at 15 frames per second, providing clear images in all lighting environments at a resolution of 1280x720 . All surveillance recordings are kept for 90 days and display at the current time and date on recorded event.

#### **3.1.3.2 REMOTE ACCESS**

Licensee will have remote access to Surveillance and can monitor all activities from off-site, strengthening activity tracking.

#### **3.1.3.3 INTERFERENCE PREVENTION**

Location installation of Surveillance cameras are out of persons natural reach and reasonable distance for foreign reach, so that if obstruction were attempted, identification of persons or activity will already be recorded. The Surveillance cameras are fully enclosed and protected from tampering or disabling, as all power and control features are Secured either on site in the Electronic Storage Room or Remotely Controlled by Licensee.

#### **3.1.3.4 SPECIFIED CANNABIS ACTIVITY AREAS**

*Specified Areas Where Cannabis Or Cannabis Product is Weighed, Packed, Stored, Quarantined, Loaded and Unloaded for Transportation Including Preparation and Transfers*

- 1.) Main Gate Entrance
- 2.) All traffic moving between Main Gate, the Dry Harvest Storage Building and the Processing Building.
- 3.) Weigh Stations
- 4.) Dry Harvest Storage Area
- 5.) Dry Harvest Storage Building
  - a.) Entry & Exit
  - b.) Loading and Unloading Zone
  - c.) Inventory Storage Area
- 6.) Processing Building
  - a.) Entry & Exit
  - b.) Loading and Unloading Zone

- c.) Inventory Storage Area
- d.) Office
- e.) Processing & Packaging Area

### **3.2 FACILITY HOURS OF OPERATION**

Activities associated with cultivation in the greenhouses (watering, transplanting, and harvesting) generally occur during daylight hours. All other activities such as processing typically occur no earlier than 8 AM and extend no later than 8 PM. Employees will be staggered and each shift runs 8 hours.

## **4. ENVIRONMENT**

### **4.1 WATER SOURCE & PROJECT WATER USE**

#### **4.1.1 SOURCE**

Water for *cultivation* irrigation is provided by two of the three permitted wells onsite and a proposed 750,000 gallon rain catchment pond. Rainwater from the roofs of the proposed buildings and greenhouses will be collected using gutters and transferred using solar pumps and floats within two 2,600 gallon hard plastic tanks to the pond.

Assuming an average rainfall depth of 60 inches per year, a total catchment area (pond surface and roof surface) of 26,736 square feet will be required to capture sufficient water to fill the pond. During drought years, the wells will be used to fill the pond.

Water is pumped from the pond to the Irrigation Water Tanks, then gravity fed to Cultivation areas.

Water for domestic use is provided by a permitted well. Well water is pumped from the well using a solar pump, and is used year round to keep the Domestic Water Tank full (2,600 gallons).

#### **4.1.2 USE**

HUMBOLDT HILLS NATURAL FARMS, INC utilizes water management strategies such as hand watering/drip emitters to conserve water use.

The table below outlines the estimated irrigation water usage for cultivation during a typical year. Variables such as weather conditions and specific cannabis strains will have a slight effect on water use.

Domestic use was conservatively estimated at 15 gallons per employee per day for 15 peak employees across the entire year.

Water usage at other sites operated by the applicant has yielded approximately 10 gallons per square foot for two cycles that occur between April 1st and November 1st. This operation will include two additional cycles that begin in February and end in December. These cycles overlap with the wet season and are during colder months and are estimated to use approximately 50% less water than standard cultivation operations that occur during the warm weather season. A total of ~15 gallons of water usage per square foot of cultivation operation is the total estimated water usage for four cycles.

<b>ESTIMATED MONTHLY WATER USAGE</b>				
<b>Month</b>	<b>Cultivation (Irrigation)</b>	<b>Nursery (Irrigation)</b>	<b>Required Storage</b>	<b>Domestic</b>
January	0	5,000	0	3,150
February	20,000	15,000	0	6,300
March	40,000	15,000	0	6,300
April	40,000	15,000	55,000	6,300
May	40,000	15,000	55,000	6,750
June	80,000	15,000	95,000	6,750
July	80,000	15,000	95,000	6,750
August	80,000	15,000	95,000	6,750
September	80,000	15,000	95,000	6,750
October	40,000	15,000	55,000	6,750
November	45,000	15,000	0	6,750
December	45,000	5,000	0	6,300
<b>Total</b>	<b>580,000</b>	<b>160,000</b>	<b>545,000</b>	<b>75,600</b>

#### **4.2 WATER STORAGE**

Water storage for irrigation use will be provided in hard water tanks and a proposed rain catchment pond. The capacity of the pond is to be 1 million gallons. The additional volume in the pond will help account for evaporation and other losses.

Pond water will be pumped up with a solar pump to a system of twenty 2,600-gallon tanks for a total of 52,000 gallons of hard water storage proposed to distribute water to the operation. A 2,600 gallon tank for domestic use will be provided.

#### **4.3 SITE DRAINAGE, RUNOFF, AND EROSION CONTROL**

Trent Sanders is enrolled with the California State Water Resource Control Board (SWRCB) in accordance with the Cannabis Cultivation General Order as a Tier 2 - Low Risk site, and a Site Management Plan (SMP) will be developed utilizing best management practices (BMP's) in accordance with the SWRCB's recommendations.

##### **4.3.1 SITE DRAINAGE**

The slopes of the cultivation areas are approximately on natural flats with more than one hundred (100) feet of forest and native grass land between all cultivation areas and the nearest drainage or water course. Slopes associated with the cultivation areas range from < 2 % to 5 % grade.

The gravel roads on the property are armored. The proposed Greenhouses, Dry Harvest Storage and processing buildings are located away from riparian zones. Fertilizers and pesticides will be stored in the proposed structures on concrete slabs with secondary containment.

##### **4.3.2 SITE RUNOFF**

Cultivation facilities will meet all required setbacks from the nearest water course, providing a sufficient buffer to prevent sediment and nutrient delivery. To further prevent runoff to riparian areas, water conservation and containment measures will be implemented including the use of hand irrigation to prevent excessive water use, and the maintenance of a stable, vegetated buffer between the cultivation area and riparian zone.

##### **4.3.3 EROSION CONTROL**

HUMBOLDT HILLS NATURAL FARMS, INC, has taken multiple measures to develop an ingress/egress site plan that includes mitigation, as necessary, addressing all drainages and all culverts located on the property. The applicant utilizes a combination of out sloping and water bars to minimize the water and sediment flows related to the building sites, flats and driveways. The applicant has intentionally located the cultivation areas away from any unstable or erosion prone zones.

HUMBOLDT HILLS NATURAL FARMS, INC will utilize best management practices including but not limited to:

1. Maintenance of roads, including rocking and armoring.

2. Proper management of solid, liquid and cultivation waste (see section 3.8)
3. Cultivation facilities and spoil stockpiles will meet all required setbacks from riparian and wetland areas.
4. Irrigation and application of fertilizers will be applied at agronomic rates.
5. Regulated products will be safely stored with secondary containment

#### **4.4 WATERSHED AND HABITAT PROTECTION**

Adherence to the proposed best management practices ensures that the watershed and surrounding habitat are protected. The cultivation activities and associated structures meet all required setbacks from the nearest watercourse, providing a suitable buffer between the cultivation operation and habitat. Additionally, site development and maintenance activities utilize BMP's in accordance with the SWRCB's recommendations. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits.

An Invasive Species Control plan was conducted, see the appended technical report from a biologist.

#### **4.5 MONITORING AND REPORTING**

Monitoring will be conducted to confirm the effectiveness of corrected measures listed in the Site Management Plan (SMP) and determine if the site meets all Standard Conditions. Inspections will include photographic documentation of any controllable sediment discharge sites as identified on the site map. Visual inspection will occur at those locations on the site where pollutants or wastes, if uncontained, could be transported into receiving waters, and those locations where runoff from roads or developed areas drains into or towards surface water. The inspection will also document the progress of any plan element subject to a time schedule, or in the process of being implemented. A monitoring plan is included in the SMP with photo points identified on SMP map.

Onsite monitoring shall occur:

- Before and after any significant alteration or upgrade to a given stream crossing, road segment, or other controllable sediment discharge site. Inspection should include photographic documentation, with photo records to be kept on site.
- Prior to October 15 and December 15 to evaluate site preparedness for storm events and stormwater runoff.
- Following any rainfall event with an intensity of 3 inches precipitation in 24 hours. Precipitation data can be obtained from the National Weather Service by entering the site zip code at <http://www.srh.noaa.gov/forecast>.

A Monitoring and Reporting Form (Order No. WQ 2019-0001-DWQ Attachment B) will be submitted upon initial enrollment in the Order (NOI) and then annually by March 1st to the State Water Resource Control Board. The annual report will include

data from the monitoring reports.

#### **4.6 ENERGY PLAN**

PG & E power lines run across the property. A service drop proposal is being processed by PG & E. Generators will be used for back up purposes only, once PG & E service is provided.

#### **4.7 NOISE CONTROL MEASUREMENTS**

The back up generator will be located in an enclosure to ensure the noise level does not exceed 50 decibels measured at 100 feet.

Fans and generators used will generate less than 50 decibels at 100'.

Ventilated enclosures will be used as necessary to mitigate generator noises.

An on-site 24-hour noise assessment was performed. See appended document.

#### **4.8 LIGHT POLLUTION CONTROL MEASURES**

Greenhouses will be equipped with an automatic light deprivation system to limit any human error in ensuring light does not escape the greenhouses. The project will meet International Dark Sky Standards.

#### **4.9 BEST MANAGEMENT PRACTICES**

##### **4.9.1 USE AND STORAGE OF REGULATED PRODUCTS**

Best Management Practices (BMP's) are employed when storing, handling, mixing, application and disposal of all fertilizers, pesticides and fungicides. All nutrients, pesticides and fungicides are located in a locked storage room, and contained within water tight, locked and labeled containers in accordance with manufactures instruction. Application rates will be tracked and reported with the end of the year monitoring report required in the Site Management Plan (SMP). Employees responsible for application are trained to handle, mix, apply or dispose of pesticides/fungicides with proper hand, eye body and respiratory protection in accordance with the manufacturer's recommendations. See the SMP'S for complete BMP specifications for the use and storage of regulated products.

#### **4.10 FERTILIZERS, PESTICIDES AND FUNGICIDES**

##### **4.10.1 FERTILIZERS**

Nutrients and biological inoculants used for cultivation include:

- Bat Guano - As necessary to amend beds, 100 lbs kept onsite for compost tea
- Oyster shell - As necessary to amend beds, 100 lbs kept onsite for compost tea

- Earthworm Castings - As necessary to amend beds, 100 lbs kept onsite for compost tea
- Mycorrhizae - As necessary to amend beds, 100 lbs kept onsite for compost tea
- Chicken manure - As necessary to amend beds, 100 lbs kept onsite for compost tea
- Equinox B1 (30 gallons)

#### **4.10.2 PESTICIDES AND FUNGICIDES**

Pesticides and fungicides used for cultivation include:

- Lost Coast Plant Therapy - 20 to 30 Gallons
- Liquid sulfur - 5 Gallons

#### **4.10.3 FUELS AND OILS AND OTHER REGULATED SUBSTANCES**

Fuels and oils stored on site include:

- Isopropyl Alcohol – 20 Gallons
- Diesel - 50 Gallons
- Household Cleaners - 5 Gallons or less of each (soap, bleach, hand sanitizer)

### **4.11 WASTE MANAGEMENT PLAN**

#### **4.11.1 CULTIVATION WASTE AND SOIL MANAGEMENT**

Cultivation vegetative matter such as root balls are shredded and composted on site. Spent potting soil is kept within the beds overwinter. A soils testing service is utilized to check nutrient levels and provide recommendations for proper amendments to re-condition soil. The soils are amended and reused. Nitrogen fixing cover crops are utilized over winter.

#### **4.11.3 MATERIALS MANAGEMENT AND WASTE PLAN**

Waste bins with lids are kept adjacent to cultivation sites and are emptied out into dumpsters serviced by Recology weekly. Recyclables are sorted and kept in a separate dumpster.

Trash and recycling containers are located near the greenhouses.

Larger quantities of waste from deliveries of amendments (pallets, plastic wrap, etc) are collected and self-hauled to Redway Transfer Station.

#### **4.11.4 WASTEWATER MANAGEMENT PLAN**

Dripline and hand watering methods minimize the over-irrigation of plants and subsequent runoff. Moreover, the greenhouse floors are gravel/dirt and will absorb any excess runoff.

A portable toilet will be installed adjacent to the cultivation sites and will be serviced as needed.

#### **4.11.5 STORM-WATER MANAGEMENT PLAN**

See appended RPF report regarding the sizing of culverts and storm-water discharge best management practices.

#### **4.12 INVASIVE SPECIES CONTROL PLAN**

The Invasive Species Management Plan dated 12/16/19 will be implemented.

### **5. PRODUCT MANAGEMENT**

#### **5.1 PRODUCT TESTING AND LABELING**

Samples are selected from individual harvested cannabis strains and are tested by a licensed third-party lab in accordance with State and local standards. The finished product is labeled with the HUMBOLDT HILLS NATURAL FARMS, INC logo, and will include tracking ID's provided by the CDFA's Cal Cannabis Track & Trace System.

#### **5.2 PRODUCT INVENTORY AND TRACKING**

HUMBOLDT HILLS NATURAL FARMS, INC is active in the CalCannabis METRC Track and Trace System. The Agent in Charge ensures all commercial cannabis, from clone to packaged product is tracked, accounted for and inventoried. Records are kept at each phase of the planting, harvest, drying, and packaging for reporting and compliance with State and Local regulations. The information recorded for each harvest includes:

- Cultivation canopy area
- Weight of flowers, by-product, and trim waste after drying and separation
- Weight of buds after trimming
- Product UID numbers and product weight
- Staff identification (at each step)
- Physical location of the plant material at all times

#### **5.3 TRANSPORTATION AND DISTRIBUTION**

Transportation will be handled by a third-party, contracted, licensed transporter/distributor in accordance with State and Local regulations. All merchantable products will be distributed through licensed cannabis commercial

dispensaries. Prior to moving packages from the on-site holding facility to another physical location, a transport manifest will be created by the distributor/transporter and will include:

- Product ID numbers and product weight
- Route to be travelled
- Origin and destination addresses
- Time of departure
- Time of arrival

The *Agent in Charge* is responsible for performing a physical inventory of all packages being transported, and ensuring that the physical inventory coincides with the transport manifest.