

Cultivation and Operations Manual  
For  
Stay Humboldt, LLC

Cannabis Cultivation Facilities  
APN No. 522-021-010-000

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## Table of Contents

1. Project Objective
2. Site Description
  - 2.1 Land Use
  - 2.2 CA Commercial Cannabis Activities Permit
  - 2.3 State Water Resource Control Board
  - 2.4 CalFire
  - 2.5 Department of Fish and Wildlife
  - 2.6 Cultural resources
3. Cultivation and processing
  - 3.1 Propagation and Initial Transplant
  - 3.2 Outdoor Cultivation plan and schedule
  - 3.3 Irrigation plan and schedule
  - 3.4 Harvesting, drying, & trimming
  - 3.5 Processing facility
  - 3.6 Employee plan
  - 3.7 Staffing requirements
  - 3.8 Employee training and safety
  - 3.9 Toilet and handwashing facilities
  - 3.10 Drinking water source
  - 3.11 Onsite housing
  - 3.12 Onsite parking
4. Security Plan
  - 4.1 Facility security
  - 4.2 Hours of operation
5. Environment
  - 5.1 Water Source and Projected Water Use
  - 5.2 Water Storage
  - 5.3 Site drainage runoff and erosion control
  - 5.4 Site drainage and runoff
  - 5.5 Erosion control
  - 5.6 Watershed and habitat protection – Invasive Species Control
  - 5.7 Monitoring and reporting
  - 5.8 Energy plan
  - 5.9 Noise source assessment and mitigation plan
  - 5.10 Light pollution control plan
  - 5.11 Best management practices
  - 5.12 Fertilizers
  - 5.13 Waste management plan
  - 5.14 Cultivation waste and soil management
  - 5.15 Materials management plan
  - 5.16 Wastewater management
  - 5.17 Storm-water management plan
6. Product Management
  - 6.1 Product testing and labeling
  - 6.2 Product inventory and tracking
  - 6.3 Transportation and distribution

## 1. Project Summary

### 1.1. Project Objective

Stay Humboldt, LLC is proposing to permit cannabis cultivation in accordance with the County Of Humboldt Commercial Marijuana Land Use Ordinance (CMLUO). The existing project consisted of 12,000 square feet of mixed light cultivation and 30,000 square feet of outdoor cultivation. The operator proposes to convert the mixed light cultivation to light deprivation cultivation and to utilize supplemental lighting only in the nursery.

The project is seeking a Conditional Use Permit for commercial cannabis cultivation of 36,000 total square feet of outdoor light deprivation cultivation along with 6,000 square feet of dual use nursery and flowering greenhouses.

The project includes on-site relocation of cultivation to consolidate the cultivation site and reduce the overall footprint of impact. Three cultivation flats will be relocated and restored reducing the road system on the property by over 0.4 miles and reducing distance traveled on the property by a over 1 mile (~0.60 miles of private access road will no longer be traveled for the operation but remains in place due to neighbors' easement for access).

Flowering will occur in twelve (12) 30'x100' cold frame greenhouses. Flowering and nursery activities will occur in two (2) 30'x100' cold frame greenhouse structures with supplemental lighting. Blackout tarps will be pulled over the greenhouses to induce flowering for two harvests per year.

A 85'x56' commercial building is proposed. This structure will have a 35'x85' residence on the second story. The first story will consist of a 12'x75' harvest storage room, a 12'x65' processing room with 10'x12' ADA restroom and a 32'x85' drying room. A 10'x12' detached bedroom will be permitted as part of the residence for employee housing.

Water will be provided by an existing permitted well. There are 20,000 gallons of water storage on-site in plastic tanks and a 1,000,000 gallon rain catchment pond is proposed to reduce the well to back-up usage only within 2 years of approval.

Power will be provided by a roof mounted solar array and 33KW generator. The solar array will be developed within 2 years to power the cultivation site including well pump, irrigation distribution pumps, nursery lights, and greenhouse fans within greenhouses. The 33KW generator will be used to power the proposed residence and will serve as back up to the solar array powering the cultivation site.

## 2. Land Use

### 2.1. Site Description

The Project is located near Willow Creek, CA (APN 522-021-010-000) just North of the intersection of Supply Creek and Old Three Creeks Roads. The subject parcel is zoned TPZ and is approximately 169.35 total acres in size (per the County of Humboldt's WebGIS). The northern half of the property is primarily forest, with Supply Creek intersecting the northeast corner of the property. Cultivation historically occurred on several logging flats throughout the property.

### 2.2. State of California Commercial Cannabis Activity License

Stay Humboldt, LLC will operate under a California Cultivation license.

### 2.3. State Water Resources Control Board

Water will be provided by an existing permitted well and 20,000 gallons total of water storage in four 5000 gallon plastic tanks. The project proposes a water storage pond with an additional 1,000,000 gallons of storage capacity. The property has been enrolled under the Waterboard's Cannabis Cultivation general order.

### 2.4. Cal Fire

The subject property is located within a State Responsibility Area (SRA) for fire protection and SRA requirements have been met. All structures on the property meet the 30-foot SRA setback requirement from property lines.

### 2.5. California Department of Fish and Wildlife

A Lake and Streambed Alteration Agreement (LSAA) from the Department of Fish and Wildlife (DFW) has been issued.

### 2.6. 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, ground stone 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.

## 3. Cultivation and Processing

### 3.1. Propagation and Initial Transplant

Operator starts plants from cuttings from “mother” plants sourced from licensed nurseries.

The cuttings are transplanted into pots scaling up to a final 4” pot size within the nursery space to reach the appropriate size to plant.

String lights will be used with blackout covers for light control to maintain vegetative stage. Once at the appropriate, juvenile plants are then transplanted to the cultivation greenhouses.

### 3.2. Outdoor Cultivation Plan and Schedule

Cultivation activities will occur within fourteen (14) 30'x100' cultivation greenhouses in beds (both trenched and raised beds are used) as outlined in the site plan. Twelve (12) of the greenhouses are used for flowing and two (2) of the greenhouses are used for nursery and flowering.

See schedule of operations below.

#### Proposed Outdoor Cultivation Schedule

| Cultivation Operations Schedule |                                                                                               |                                               |                                       |
|---------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------|
| Month                           | Cultivation Activities                                                                        | Nursery Activities                            | Processing Activities                 |
| January                         | No activity                                                                                   | No activity                                   | No activity                           |
| February                        | No activity                                                                                   | No activity                                   | No activity                           |
| March                           | No activity                                                                                   | Procure clones and maintain them in nursery   | No activity                           |
| April                           | Greenhouse maintenance preparation                                                            | Maintain nursery starts                       | No activity                           |
| May                             | ~Mid may - begin to transplant starts into flowering greenhouses, watering/maintaining plants | Propagating immature plants/vegging up plants | No activity                           |
| June                            | Watering/maintaining plants                                                                   | Propagating immature plants/vegging up plants | No activity                           |
| July                            | Watering/maintain plants                                                                      | Propagating immature plants/vegging up plants | Bucking down plants, drying, trimming |
| August                          | Harvest/Transplant                                                                            | No activity                                   | Bucking down plants, drying, trimming |
| September                       | Watering/maintain plants                                                                      | No activity                                   | Bucking down plants, drying, trimming |
| October                         | Watering/maintain plants/harvest                                                              | No activity                                   | Bucking down plants, drying, trimming |
| November                        | Finish harvest, Field Maintenance/Cover crop                                                  | No activity                                   | Bucking down plants, drying, trimming |
| December                        | Field Maintenance/Cover crop                                                                  | No activity                                   | No activity                           |

### 3.3. Irrigation Plan and Schedule

Irrigation and fertigation of plants occurs using drip irrigation within the greenhouses and hand watering methods (nursery) at agronomic rates which conserves water by not allowing excess water runoff.

Water is also used for supplemental foliar spraying of pesticides and drip watering of inoculants such as compost tea, beneficial bacterial.

See section 5.1 for water usage estimates.

### 3.4. Harvesting, Drying, and Trimming

Plants that are ready for harvest have their flowering branches removed and are brought to the drying facility and then hung and suspended. The drying facilities are equipped with air conditioning and dehumidifiers to ensure proper curing and elimination of conditions for mold. All work surfaces are maintained in a clean and sanitary manner. Contamination prevention protocols are strictly followed within the facilities.

Dried plants are bucked off the stalks and put into totes for transfer to the dry space in the commercial building. Material will be machine trimmed with hand trim finish. Waste plant material is composted onsite just outside the cultivation area.

### 3.5. Processing Facility

Drying will occur at the proposed 85'x56' commercial structure within the 32'x85' first floor space. Once cured, the cannabis will be trimmed at the proposed 12'x65' trimming room within the commercial building. Trimmed cannabis and cannabis "sugar leaf" is then placed into totes and returned to the 12'x75' storage area in the commercial building until sale.

### 3.6. Employee Plan

Stay Humboldt, LLC 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.

#### ❑ Job Descriptions And Employee Summary

- Agent in Charge: Responsible for business oversight and management of the Stay Humboldt, LLC. 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.
- Operations and Compliance Managers: 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 Laborer: Provides cultivation, harvesting and processing support. This is a part-time to full-time, seasonal position.

### 3.7. Staffing Requirements

Staffing is limited to one (1) lead agent, two (2) full time employees and ten (10) part time staff during planting/harvest/trimming for a peak of thirteen (13) employees onsite.

| Month     | Cultivation | Harvest/Planting/<br>Processing |
|-----------|-------------|---------------------------------|
| January   | -           | 0                               |
| February  | -           | 0                               |
| March     | 3           | 0                               |
| April     | 3           | 0                               |
| May       | 3           | 5                               |
| June      | 3           | 0                               |
| July      | 3           | 5                               |
| August    | 3           | 10                              |
| September | 3           | 10                              |
| October   | 3           | 10                              |
| November  | 3           | 10                              |
| December  | 3           | 0                               |

### 3.8. Employee Training and Safety

On site cultivation, harvesting, drying and processing 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 and processing staff are provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the onsite facilities are limited to authorized and trained staff.

All employees are trained on proper safety procedures 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 is provided with a written copy of emergency procedures and contact information. The material safety data sheets (MSDS) are kept on site and accessible to employees.

### 3.9. Toilet and Handwashing Facilities

Portable toilets and handwashing stations will be provided until the septic and ADA toilet facility are developed.

### 3.10. Drinking Water Source

The well will provide potable water for the commercial building for employee drinking water use.

### 3.11. On Site Housing

A residence will be developed for the owner operator of the property. One 10x12 detached bedroom cabin is provided for the two full time cultivation employees. The remainder of employees will commute to the property.

### 3.12. On Site Parking

See plot plan for parking locations.



## 4. Security Plan and Hours of Operation

### 4.1. Facility Security

Entry gates are located at each entrance. The entry gates remain locked at all times and access to the cultivation area is limited exclusively to employees. Alarms located at access points and any buildings holding drying or processed inventory. The drying facility area has low intensity, downcast and shielded 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 are installed at key locations.

### 4.2. Hours of Operation

Activities associated with cultivation in the greenhouses (watering, transplanting, and harvesting) generally occur during daylight hours. All other activities typically occur no earlier than 8 AM and extend no later than 8 PM.

## 5. Environment

### 5.1. Water Source and Projected Water Use

Water will be provided by an existing permitted well.

Stay Humboldt, LLC utilizes water management strategies such as drip irrigation 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.

| TABLE 4.1 ESTIMATED ANNUAL IRRIGATION WATER USAGE |     |       |        |        |        |         |         |         |        |     |     |
|---------------------------------------------------|-----|-------|--------|--------|--------|---------|---------|---------|--------|-----|-----|
| JAN                                               | FEB | MAR   | APR    | MAY    | JUN    | JUL     | AUG     | SEP     | OCT    | NOV | DEC |
| ---                                               | --- | 5,000 | 30,000 | 55,000 | 80,000 | 100,000 | 100,000 | 100,000 | 50,000 | --- | --- |

Approximately 520,000 (~12.38 gallons per square foot canopy) gallons of water is estimated to support the operation. The conversion from full sun outdoor in pots to light deprivation cultivation methods in beds and trenches with drip-irrigation will reduce water usage compared to the pre-existing operation.

### 5.2. Water Storage

There are 20,000 gallons total of water storage in four (4) 5000 gallon plastic tanks. The project proposes a water storage pond with an additional 1,000,000 gallons of storage capacity. The residence will be guttered to generate rainfall to supply the tanks and pond.

### 5.3. Site Drainage, Runoff, and Erosion Control

Stay Humboldt, LLC will enroll with the State Water Quality Control Board State general order and a Water Resource Protection Plan (WRPP) will be developed utilizing best management practices (BMP's) in accordance with the NCRWQCB's recommendations.

### 5.4. Site Drainage and Runoff

The site has a forested buffer surrounding the cultivation area and property to mitigate runoff. Drainage primarily from surface flows in the wet season runs from northwest to northeast. There are no stream crossings for this project. Buffers and setbacks from neighboring drainages are met.

### 5.5. Erosion Control

Stay Humboldt, LLC will utilize best management practices including but not limited to:

- Maintenance of roads, including rocking and armoring.
- Proper management of solid, liquid and cultivation waste (see section 3.8)

- Cultivation facilities and spoil stockpiles will meet all required setbacks from riparian and wetland areas.
- Irrigation and application of fertilizers will be applied at agronomic rates.
- Regulated products will be safely stored with secondary containment (see section 3.7)

## 5.6. 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 NCRWQCB's recommendations. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits.

## 5.7. Monitoring and Reporting

Monitoring will be conducted to confirm the effectiveness of corrected measures listed in the Water Resource Protection Plan 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.

- 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 storm water 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 will be submitted upon initial enrollment in the Order and then annually by March 1 to the Water Board. The annual report will include data from the monitoring reports.

## 5.8. Energy Plan

The existing operation was powered by multiple Honda 3000 generators at each mixed light greenhouse and a Whisperwatt 25KW generator.

As part of relocation of the cultivation operation, the use of Honda 3000 and 25KW generator will be discontinued. A 33 KW generator will be used to power the residence and the site until the solar and battery system are developed to be the primary means of power for the site.

A rough schedule outlining power usage and source has been provided below:

### **January**

No cannabis activity

### **February**

No cannabis activity

### **March**

Pumping well water to fill tanks or pond. 3 hours a day during daytime hours 3-4 times a week until storage tanks are full (power supplied by solar, generator back up only). Starting March 15th - supplemental string lights 4.5 to 5 hours per day in the nursery

### **April**

Pump water from well. Water starts. 2 hours a day 3-4 times a week during daytime hours (power supplied by solar, generator back up only)

Supplemental string lights 4.5 to 5 hours per day in the nursery

### **May**

Pump water from well. Water plants. 2 hours a day 3-4 times a week during daytime hours (power supplied by solar, generator back up only)

Supplemental string lights 4.5 to 3.5 hours per day, decreasing as month goes on in the nursery.

### **June**

Pump water from well. Water plants. 3 hours a day 5-7 times a week during daytime hours (power supplied by solar, generator back up only)

## **July**

Pump water from well. Water plants. 3 hours a day 5-7 times a week during daytime hours (power supplied by solar, generator back up only). Drying operations, power required 24 hours a day July 15-31

## **August**

Pump water from well. Water plants. 3 hours a day 5-7 times a week during daytime hours (power supplied by solar, generator back up only)

**8/1-8/14** Drying operations, power required 24 hours a day.

## **September**

Pump water from well. Water plants. 3 hours a day 3-4 times a week during daytime hours (power supplied by solar, generator back up only)

Processing facility is powered during working hours (8 AM to 6 PM).

## **October**

Pump water from well. Water plants. 3 hours a day 3-4 times a week during daytime hours (power supplied by solar, generator back up only)

Drying operations – power required 24/7

Processing facility is powered during working hours (8 AM to 6 PM).

## **November**

Processing facility is powered during working hours (8 AM to 6 PM).

## **December**

No proposed cannabis activity

### **5.9. Light Pollution Control Plan**

The nursery greenhouse uses a blackout tarp over the lighted canopy area whenever supplemental lighting is utilized outside of daylight hours.

No lighting will be used in the “outdoor” greenhouses, plants of the appropriate size to flower will be developed in the nursery and also sourced from licensed nurseries.

All security lighting will be on motion sensors and will be screened and downcast.

The operation will conform to International Dark Sky Standards.

## 5.10. Best Management Practices

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 manufacturer's instruction. Application rates will be tracked and reported with the end of the year monitoring report required in the 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.

## 5.11. Fertilizers

Nutrients and biological inoculants used for cultivation and kept on site include:

Beds are amended with chicken manure, alfalfa meal, phyta grow, crab shell, kelp meal, bean seed meal, guano, bone meal, potash, humus, soybean meal, crab meal, fish bone meal and fish meal at start of season based on consultation with a soils lab. Up to one to two 50 pound bags of each of the above amendment may be kept onsite. Up to 25 gallons of the following liquid nutrients may be kept on site for fertigation use:

- ☐ Liquid Bone Meal
- ☐ Fish Emulsion

Pesticides and fungicides used for cultivation include:

- ☐ Neem oil (1 gallon max)
- ☐ Dr Zymes - up to 5 gallons

Fuels, oils other regulated substances stored on site include:

- ☐ Gasoline: 110 gallons
- ☐ Diesel: up to 1,000 gallons
- ☐ Propane: 2,000 gallons
- ☐ Isopropyl / Ethyl Alcohol – up to 5 Gallons

#### 5.12. Waste Management Plan

Animal-proof trash and recycling containers are located near the greenhouses. Solid waste and recycling is hauled off-site to a transfer station at least once per month.

#### 5.13. Cultivation Waste and Soil Management

Cultivation vegetative matter such as root balls are composted on site. Soil is amended in place and contained by the greenhouse beds.

#### 5.14. Materials Management Plan

Waste bins with lids are kept adjacent to cultivation sites and emptied out the day they are filled up or weekly.

Waste materials are stored in a trailer and self-hauled off weekly to a licensed waste transfer station.

Soil management:

Current cultivation operations are conducted in trenches of amended soil for current outdoor cultivation and raised beds (for the greenhouse mixed light cultivation).

The proposed outdoor greenhouse cultivation will be conducted in trenches and raised beds.

There are no existing or proposed soil stockpiles on-site, all soil is amended in place.

Cannabis waste will be chipped and composted at the compost stockpile location on the plot plan.

#### 5.15. Wastewater Management

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

#### 5.16. Storm-water Management Plan

Roads will be armored appropriately.

Soil beds will be utilized and cover cropped to reduce sediment delivery.

#### 5.17. Noise Management Plan

The greenhouse fans will meet county decibel limits

The generators proposed will be placed in an enclosure to mitigate noise levels to meet county decibel limits.

## 6. Product Management

### 6.1. Product Testing and Labeling

Sampling and labeling is handled by the third party distributor off-site.

### 6.2. Product Inventory and Tracking

Site will be enrolled with the state METRC track and trace system and utilizes it to manage inventory and tracking.

### 6.3. Transportation and Distribution

Transportation will be handled by a third-party, contracted, licensed transporter/distributor in accordance with State and Local regulations. All merchantable product will be distributed through licensed medical cannabis 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 address
- ☐ Time of departure
- ☐ Time of arrival

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