Cultivation and Operations Manual
For
Larabee Farm, LLC
APN #: 210-250-020
Humboldt County Planning Application # 11889
CDFA Provisional License # CCL18-0003035
WDID# 1_12CC412048

Lead Agency:

Humboldt County Planning Department
3015 H Street
Eureka, CA 95501

Larabee Farm, LLC
552 Larabee Valley Road
Bridgeville, CA 95526

PROJECT DESCRIPTION

Larabee Farm, LLC is proposing to permit existing medical cannabis cultivation activities in accordance with the County of Humboldt *Commercial Medical Marijuana Land Use Ordinance* (CMMLUO). The project requires a Special Permit (SP) for a total of 9460 SF. The project includes the permitting of pre-existing mixed light cultivation in the following: GH#1 30'x100', GH#2 34'x95', GH#3 34'x95', for a total of 9460 SF. Power is supplied by PG&E. Water for irrigation and domestic use are provided by a permitted well (permit# 01/02-921). Propagation occurs in 900 SF existing 20'x64' (1280SF) Ag Exempt Structure and in a proposed 900 SF outdoor ancillary greenhouse. The two areas will not be operated in conjunction with each other. The 600 SF structure is used for drying, curing, and trimming of cannabis. Processing of cannabis will occur onsite by the applicant with use of a trim machine. There is currently 66,600-gallons of water storage and an additional 40,000-gallons of rain catchment tanks will be added with funds received from the DCC water storage grant. Annual water use is 110,000-gallons or 11-gallons per sf.

SITE DESCRIPTION

To reach the site from Eureka take US-101 south for 19 miles to exit 685 to Hwy 36. Continue on Hwy 36 east for 33 miles. Larabee Farm, LLC is located on the left at 552 Larabee Valley Road Bridgeville CA. Approximate drivetime from Eureka Ca is 1 hour and 15 minutes with a distance of 55 miles. The site is located in section 34, township 3 south, range 1 east, H.D & M can be seen on the quadrangle map. Furthermore, the site is located at Latitude 40.4426 and Longitude, -123.6842. The subject parcel is approximately 18.95 acres in size (per Humboldt County WEBGIS).

LAND USE/ZONING

The subject property has a General Plan designation of Agricultural Grazing and Timber Production (T; AG) as identified by the Humboldt County General Plan and is zoned Agriculture Exclusive and U(unclassified). Land uses surrounding the parcel are comprised of residential, timber and agriculture. The surrounding parcels are zoned Agricultural Exclusive (AE), Timber Production Zone (TPZ), Forest Recreation (FR), and (U) Unclassified.

HUMBOLDT COUNTY 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 Special Permit.

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. A 5000- gallon water tank has been installed specifically for fire protection.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The original 1600 Notification LSA 1600-2017-0903-R1 was filed and approved in 2017. An extension was filed and approved extending the agreement until October 8, 2028. The Culvert and completion of the pond overflow will be completed by October 15, 2024.

WATER SOURCE AND PROJECTED WATER USE

Water for domestic and Agricultural use is provided by the permitted groundwater well (permit# 01/02-921). There is currently 66,600-gallons of hard storage onsite site. The application was awarded an DCC Water Storage Grant and with those funds will purchase and install an additional 40,000-gallons of rain catchment storage. Irrigation water use is between 90,000-110,0000-gallons annually depending on weather and strains. Water for both and cannabis are metered separately. Water is stored during the winter months for use during the cultivation season. A well study was completed by Lundberg Geologic Consulting in 2022 and deemed the probability of connectivity is unlikely.

Table 3.1: Estimated Annual Irrigation Water Usage (Gallons)											
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0	0	5000	7,000	12,000	20,000	20,000	20,000	15,000	11,000	0	0

WATER STORAGE

There is currently 66,600-gallons of hard storage located on the parcel. (13) 5,000-gallon plastic tanks, (2) 550-gallon and (1) 500-gallon mix tank. One tank is used for domestic storage, and one is used only as a mix tank for nutrients.

WATER QUALITY

Larabee Farm, LLC is enrolled with the North Coast Regional Water Quality Control Board (NCRWQCB) for Tier 2 coverage, and State Order WQ 2017-0023-DWQ. A Water Resources Protection Plan (WRPP) and Site Management Plan (SMP) have been developed utilizing best management practices (BMP's) in accordance with the NCRWQCB's recommendations.

SITE DRAINAGE AND 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.

EROSION CONTROL

Larabee Farm, LLC 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. Soil piles are surrounded with straw fiber rolls and covered during the winter months.

4. Irrigation and application of fertilizers will be applied at agronomic rates.
5. Regulated products will be safely stored with secondary containment (see section 3.7)

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.

MONITORING AND REPORTING

Monitoring will be conducted to confirm the effectiveness of corrected measures listed in the Water Resource Protection Plan (WRPP) 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 WRPP with photo points identified on WRPP 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. 2015-0023 Appendix C) will be submitted upon initial enrollment in the Order (NOI) and then annually by March 31 to the Regional Water Board. The annual report will include data from the monitoring reports.

ENERGY AND GENERATOR USE

Electricity is provided by PG&E for all cultivation and domestic uses. Use of the on-site generator is used only during power outages and follows all guidelines set up by Humboldt County and the State of California. The generator is located away from the property line and is enclosed in a shed to further control the noise level. The generator is a Whisper Watt DCA36SPXU4F or equivalent, rated for 45 kW. Decibel readings at 100 feet were recorded at 39.7 decibels. The generator and diesel fuel are located within an enclosed structure with secondary containment.

PROCESSING FACILITY

All cannabis processing will occur on-site by the applicant. The existing 660 SF structure is used drying and curing of cannabis of harvested cannabis plants. The dried flowers are then bucked into manageable buds and processed through a trim machine. Processed flower and biomass are stored in the Harvest Storage Area location in the 1280 SF Ag Exempt Structure.

SECURITY PLAN AND HOURS OF OPERATION

The cultivation facilities, including greenhouses and the proposed residence are enclosed in a secure privacy fence. The entry gates always remain locked and access to the cultivation area is limited exclusively to employees. Restricted access signs are posted conspicuously at the entry gates. The cultivation and 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 will be installed at the main access gates and at entrances to the facilities, and the proposed residence will include an alarm system. All above will be powered by PG&E.

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 5 PM.

FERTILIZER AND PESTICIDE MANAGEMENT

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 in a locked storage room, and contained within watertight, 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 Water Resources Protection Plan (WRPP). 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 WRPP for complete BMP specifications for the use and storage of regulated products.

FERTILIZERS

Nutrients and biological inoculants used for cultivation include:

- Stutzman's Chicken Manure – 100lbs
- Bat Guano – 100lbs
- Azomite – 100lbs
- Dolomite – 100lbs
- Worm Castings – 100lbs
- Maxsea- 25lbs buckets multi-propose 16-16-16 and Bloom 3-20-20

PESTICIDES AND FUNGICIDES

Pesticides and fungicides used for cultivation include:

- Neem Oil
- Dr Zyme
- Pest Out

SOLID WASTE MANAGEMENT

Trash and recycling containers are located by each greenhouse and axillary structure. Trash is stored in an enclosed fenced area to prevent animal intrusion. Solid waste and recycling are hauled off-site to Fortuna Transfer Station at least once per week.

CULTIVATION WASTE AND SOIL MANAGEMENT

Cultivation vegetative matter such as root balls, branches, and leaves are composted on site or off hauled to Eel River Resource Recovery. Spent potting soil is stored in the greenhouses. The soil containment contained with fiber rolls and covered during the winter months to prevent any soil erosion or nutrient seepage.

CULTIVATION PLAN

Larabee Farm cultivates (3) mixed light grow cycles per year. Greenhouses are equipped with complete automated greenhouse controllers that regulate climate, lights, and light deprivation tarps.

Cultivation Schedule

January: Site Monitoring and Preparation for planting. Clones are propagated onsite.
February: Clone propagation continues. 1St Cultivation cycle is planted.
March: Clone Propagation continues. Plants in vegetative grow stage.
April: Plants are changed to flower grow stage.
May: Clones are transitioned from indoor propagation area to ancillary nursery. Plants in flowering greenhouses remain in flower.
June: 1st harvest. Replanting of flowering greenhouses with plants from ancillary nursery. Plants are immediately flipped to flower. Clones are propagated for next grow cycle.
July: Clone propagation continues. Plants in flowering greenhouses remain in flower.
August: 2nd harvest. Replanting of flowering greenhouses with plants from ancillary nursery. Plants are immediately flipped to flower.
September: Clone propagation continues. Plants in flowering greenhouses remain in flower.
October: 3rd harvest. Clone inventory is cleared and mothers that will not be used for the following year are discontinued/destroyed.
November/December: New Mother Plants arrive onsite and remain in the indoor propagation area for the upcoming season.