

ATTACHMENT 1A

Cultivation and Operations Plan

CULTIVATION, OPERATIONS, AND SECURITY PLAN
APN 522-492-015 & 522-492-016
APPS # 13230 & 13221

PROJECT DESCRIPTION

Applicant proposes a NEW 10,000 square foot area of indoor cultivation, and a new facility for distribution, processing, nursery, and manufacturing purposes.



OPERATIONS PLAN

1. Water Source, Storage, Irrigation Plan & Projected Water Usage

WATER SOURCE & STORAGE: The primary source of irrigation water is the Willow Creek Community Services District. All efforts to minimize over-use of water will be implemented. No storage is planned, unless required by the County of Humboldt or other applicable government agency.

IRRIGATION PLAN: Irrigation water will be applied at agronomic rates to minimize over watering cannabis plants and reducing the risk of irrigation runoff. Applicant anticipates watering cannabis plants every other day during the growing season. Irrigation is applied through a traditional drip irrigation and by hand watering using a spray stick or wand. Applicant will water in the morning/early evening hours to reduce evaporative loss. Ground cover and weed barrier will be used to minimize weed growth, which reduces water loss during watering. Applicant will use natural soil amendments to aid in soil moisture retention as part of irrigation plan.

PROJECTED WATER USAGE: Applicant will be cultivating approximately 10,000 sq. ft. of cannabis pursuant to a zoning clearance certificate. Based on California Department of Fish and Wildlife (CDFW) estimates for cannabis irrigation needs, and Applicant's irrigation practice of watering every other day, CDFW estimates that Applicant will be using 84,500 gallons of water ((169 days ÷ 2) x 1000 gallons) during the forbearance period required by the ordinance. Based on a 365-day growing cycle, Applicant's total yearly water usage is estimated by CDFW to be around 180,000 gallons.

Further water will be used in other operations on-site. It is expected that manufacturing activities and nursery activities will take the largest portion of non-cultivation related water use on-site. Current estimates for the water usage expected are unknown.

The above figures are weather dependent and are only estimated water usage totals. Applicant will install flow meters at all critical points to measure actual yearly water usage upon implementation of the project.

2. Site Drainage, Runoff & Erosion Control Measures

SITE DRAINAGE: All drainage on-site is expected to be contained within the greenhouses used for cultivation. Any drainage that is not contained will be minimal and not a repetitive occurrence. In addition, the site is flat and will be developed with gutters and storm drains that will direct any site runoff to the sewer system. Any hazardous wastes will be properly contained and disposed of.

Applicant will consult with, and implement recommendations from, Omsberg & Preston and Natural Resource Management Corporation to improve site drainage on an as needed basis.

EROSION CONTROL MEASURES: Applicant has performed no grading work on-site, and has not had any issues with sediment discharge into surface waters. The site does not have runoff issues.

The roads on the property have been rocked to reduce damage from storm events. Applicant will consult with, and implement recommendations from Omsberg & Preston and Natural Resources Management Corporation to improve erosion control measures on an as needed basis.

RUNOFF CONTROL MEASURES: There is no current runoff from any cultivation activities. Applicant will use drip irrigation and raised beds, will water at agronomic rates, and use timers to avoid overwatering. In addition, Applicant will maintain vegetation around cultivation and riparian areas to minimize runoff and sediment transport to receiving waters. Applicant will cultivate outdoors and provide appropriate runoff and sediment mitigation measures to deal with any concentrated storm water runoff from any cultivation areas. Applicant will re-seed and re-vegetate any exposed soils around the cultivation areas and install straw bales and sediment control fencing on slopes or discharge points that may transport sediment to receiving waters.

Applicant will consult with, and implement recommendations from, Omsberg & Preston and Natural Resources Management Corporation to improve runoff control measures on an as needed basis.

3. Measures Taken to Ensure Protection of Watershed & Nearby Habitat

PROTECTION OF WATERSHED & HABITAT: The site has not been developed for cultivation, and will not be developed during the 2017 season. All cultivation areas shall be located outside of all SMA's on the property and native vegetation buffers shall be maintained between cultivation sites and riparian areas. Applicant's WMP will address water storage and water conservation and develop a plan that meets irrigation needs. Site irrigation water will come from the Willow Creek Community Services District, and will not be drawn from any water features on-site.

CULTIVATION RELATED WASTE PROTOCOLS: Applicant will implement measures to reduce and/or eliminate cultivation related waste. All plant related material will be composted in bins to

prevent nutrient transport and will be reused as part of Applicant's soils management plan. Pots containing starts and clones will be washed, rinsed, and reused between seasons and recycled at the end of their useful life. Applicant will recycle pesticide and fertilizer containers per California pesticide regulations. Cultivation will occur in raised beds, and using bio-amendments (cover crops) to re-amend soils, resulting in minimal soil waste on site. All waste soils will be placed in a refuse pile outside of streamside management areas and will be covered with a tarp and surrounded with straw waddles to contain any discharge that may occur. All other associated waste will be placed in garbage cans with lids and placed on concrete surfaces to prevent nutrients from being leached to groundwater or transported to watercourses. Applicant will dispose of site cultivation refuse on an as needed basis.

REFUSE DISPOSAL: The site generates little human refuse, only associated with the residence on-site which is currently unoccupied. Applicant will take site refuse to the local dump on an as-needed basis.

HUMAN WASTE: There is a permitted septic system on-site that will handle all human waste generated on-site. A new septic may need to be designed, depending on the number of employees present on-site.

4. Protocols for Proper Storage & Use of Fertilizers, Pesticides & Other Regulated Products

PESTICIDES: Pesticides shall be stored in an on-site shed equipped with a non-permeable floor liner to prevent leaching of pesticides into groundwater or transport to surface waters. Pesticides will be kept in original containers with labels affixed and kept in secondary containment totes to further minimize spills from being transported to groundwater or surface waters. Approved spill proof containers with appropriate warning and information labels will be used to transport pesticides to and from site.

Applicant shall maintain and keep personal protective equipment required by the pesticide label in good working order. All proper pesticide application protocols will be followed.

All required warning signs will be posted and material safety data sheets (MSDS) will be kept in the area where pesticides are stored. Emergency contact information in the event of pesticide poisoning shall also be posted at the work site including the name, address and telephone number of emergency medical care facilities.

Before making a pesticide application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

FERTILIZERS & SOIL AMENDMENTS: Fertilizers and other amendments will be stored in the on-site shed which is equipped with a non-permeable floor liner to prevent leaching and transport

to surface waters. Applicant will store and use fertilizers according to the protocols used for pesticide storage and use. Fertilizers will be kept in secondary containment totes to further prevent leaching. Applicant will use all fertilizers according to the label and use personal protective equipment as required by the label.

Before making a fertilizer or soil amendment application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

PETROLEUM PRODUCTS & STORAGE: All petroleum products stored on-site will be properly stored and managed to prevent any discharge of contaminants into the surrounding landscape. Secondary containment, as required by law, will be utilized on-site.

5. Cultivation Activities (e.g. outdoor, indoor, mixed light)

CULTIVATION ACTIVITIES: Applicant is proposing to permit one proposed indoor cultivation site with cultivation area of 10,000 square feet. Applicant will be applying for a zoning clearance certificate for the above referenced activity. Applicant will be cultivating in raised beds to prevent excess irrigation runoff and promote soil moisture retention. Applicant anticipates hiring some employees at the site for cultivation activities.

Applicant will follow all performance standards outlined in Humboldt County's Commercial Medical Marijuana Land Use Ordinance ("CMMLUO") with respect to cultivation activities, including developing employee safety protocols which include: 1) an emergency action response plan and spill prevention protocols; 2) employee accident reporting and investigation policies; 3) fire prevention policies; 4) maintenance of Material Safety Data Sheets (MSDS); 5) materials handling policies; 6) job hazard analyses; and 7) personal protective equipment policies. Applicant will ensure that all safety equipment is in good and operable condition, and provide employees with training on the proper use of safety equipment.

Applicant will post and maintain an emergency contact list which includes: 1) operation manager contacts; 2) emergency responder contacts; and 3) poison control contacts. All cultivation activities will be charted and calendared and visibly posted in the cultivation facilities.

6. Sample Schedule of Activities During Each Month of the Growing & Harvesting Season

Week 1 Flowering

- Light Quantity – 100% (600watt HPS)
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 77°F / 64.4°F (25°C/18°C)
- Humidity level – 70%

Week 2 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 78.1°F / 64.4°F (26°C/18°C)
- Humidity level – 70%

Week 3 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 78.1°F / 64.4°F (26°C/18°C)
- Humidity level – 60%

Week 4 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 80.6°F / 64.4°F (27°C/18°C)
- Humidity level – 50%

Week 5 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 80.6°F / 64.4°F (27°C/18°C)
- Humidity level – 50%

Week 6 Flowering

- Light Quantity – 100%

- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 80.6°F / 64.4°F (27°C/18°C)
- Humidity level – 50%

Week 7 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 82.4°F / 64.4°F (28°C/18°C)
- Humidity level – 40%

Week 8 Flowering

- Light Quantity – 100%
- Light distance – 1.6 ft. (50cm)
- Light Duration – 12 hours
- Temperature Day / Night – 82.4°F / 64.4°F (28°C/18°C)
- Humidity level – 40%

Week 9 Flowering

- Light Quantity 100%
- Light distance 1.6 ft. (50cm)
- Light Duration 12 hours
- Temperature Day / Night 82.4°F / 64.4°F (28°C/18°C)
- Humidity level 40%

Week 10 Harvest and Process

PROCESSING PLAN & ACTIVITIES

PLAN: Processing will occur on-site, unless it is found to be more economical to take product to a licensed processing facility. In that case, Applicant will identify permitted processing facility once permits for such facilities have been issued by the County.

SECURITY FEATURES

Applicant will implement security measures to safeguard the product and prevent nuisance from occurring on the property. T-post and metal fencing will be established around some cultivation. All structures on the parcel will have locking access, and the parcel will have a locked gate on all access driveways onto the parcel. All doors and windows on all buildings and cultivation facilities shall remain locked when the parcel is not occupied. Security cameras shall be utilized along the outer perimeter of the cannabis garden and all improvements on the parcel. All finished product shall be stored under lock and key and away from processing activities. A prominent "No Trespassing" sign shall be displayed at the parcel's entrance. To ensure the non-diversion of product, Applicant will enroll in a track and trace program upon the implementation of those programs at the state and local level. Applicant will comply with SB 420 and the Attorney General Guidelines for the Security and Non-Diversion of Medical Cannabis (2007).

SOIL AMENDMENTS AND FERTILIZER

PRODUCT USED

AMOUNT STORED ON-SITE

To be determined

To be determined