

ATTACHMENT 1B

Cultivation and Operations Plan

XOTIC FLAVORZ, LLC
CULTIVATION AND OPERATIONS MANUAL
APN: 107-272-007
HUMBOLDT COUNTY, CA

COMMERCIAL CANNABIS
CULTIVATION FACILITIES

PREPARED FOR:



June 2022
Updated September 2022

Commercial Cannabis Cultivation Facilities
APN: 107-272-007

Lead Agency:

Humboldt County Planning Department
3015 H Street
Eureka, CA 95501

Prepared By:



1117 Samoa Blvd.
Arcata, CA 95521
(707) 798-6438

In Consultation with:

Xotic Flavorz, LLC
PO Box 88
Honeydew, CA 95545

June 2022
Updated September 2022

Contents

1. PROJECT SUMMARY	1
1.1. PROPOSED PROJECT OBJECTIVE	1
1.2. APPROVED SITE ACTIVITIES	1
1.3. SITE DESCRIPTION.....	1
1.3. LAND USE.....	2
1.4. STATE AND LOCAL COMPLIANCE.....	2
1.4.1. Department of Cannabis Control – CalCannabis	2
1.4.2. State Water Resources Control Board – Water Rights.....	2
1.4.3. State Water Resources Control Board and North Coast Regional Water Quality Control Board – Water Quality	2
1.4.4. Humboldt County Building Department.....	2
1.4.5. Cal Fire	3
1.4.6. California Department of Fish and Wildlife	3
1.4.7. Cultural Resources.....	3
2. CULTIVATION AND PROCESSING	3
2.1. PROPAGATION AND INITIAL TRANSPLANT	3
2.2. OUTDOOR CULTIVATION PLAN	3
2.3. IRRIGATION PLAN AND SCHEDULE	4
2.4. PROCESSING PLAN (HARVESTING, DRYING, AND TRIMMING).....	4
2.5. EMPLOYEE PLAN	4
2.5.1. Job Descriptions And Employee Summary	4
2.5.2. Staffing Requirements	4
2.5.3. Employee Training and Safety	4
2.5.4. Toilet and Handwashing Facilities	5
2.5.5. On Site Housing	5
2.5.6. Parking Plan	5
2.6. SECURITY PLAN AND HOURS OF OPERATION.....	5
2.6.1. Facility Security.....	5
2.6.2. Hours of Operation	5
2.6.3. Light Pollution Control Plan	5
3. ENVIRONMENT	5
3.1. WATER SOURCE, STORAGE, AND PROJECTED USE.....	5
3.2. SITE DRAINAGE, RUNOFF, AND EROSION CONTROL	8
3.2.1. Stormwater Management Plan	8
3.2.2. Erosion Control	8
3.3. WATERSHED AND HABITAT PROTECTION	8
3.4. INVASIVE VEGETATIVE SPECIES CONTROL PLAN	8
3.5. MATERIALS MANAGEMENT PLAN	9
3.6. SOILS MANAGEMENT PLAN.....	10
3.7. HAZARDOUS WASTE STATEMENT	10
3.8. ENERGY PLAN	10

3.9. WASTE MANAGEMENT.....	10
3.9.1. Cultivation.....	10
3.9.2. Sewage Disposal Plan	10
4. PRODUCT MANAGEMENT.....	11
4.1. PRODUCT TESTING AND LABELING	11
4.2. PRODUCT INVENTORY AND TRACKING	11
4.3. TRANSPORTATION AND DISTRIBUTION	11

1. PROJECT SUMMARY

1.1. PROPOSED PROJECT OBJECTIVE

Xotic Flavorz, LLC is proposing to permit 33,560 square feet (sq. ft.) of new outdoor commercial cannabis cultivation activities in accordance with the County of Humboldt's (County) *Commercial Cannabis Land Use Ordinance* (CCLUO), aka "Ordinance 2.0" on APN 107-272-007.

Table 1. Proposed Site Activities		
	<u>Outdoor Cultivation (sq. ft.)</u>	<u>Ancillary Nursery (sq. ft.)</u>
Proposed Project	33,560 (<i>new</i>)	3,300

This proposal includes 33,560 sq. ft. of new outdoor cultivation in (6) 34' x 150' greenhouses and (1) 20' x 150' greenhouse, 3,300 sq. ft. of ancillary nursery, onsite drying, and offsite processing in the commercial building approved with the 1.0 application. Processing would occur onsite in the approved 2,400- sq. ft. commercial processing building (Approved per Apps No. 11067, see Table 2 below), and would include the right to process product exclusively from other Xotic Flavorz, LLC cultivation sites. No other processing would occur onsite. Water would be sourced from an existing 2.5-million gallon rainwater catchment pond that serves the existing site activities. Power would come from an existing PG&E service and proposed upgrade currently in the works. The proposed cultivation activities would require 10 employees. The applicant aims to be in compliance with all state and local regulations.

1.2. APPROVED SITE ACTIVITIES

Xotic Flavorz, LLC has an approved Special Permit for approximately 5,000-sf of pre-existing outdoor and approximately 5,000-sf of pre-existing mixed-light cultivation (App. No. 11067) and an approved Zoning Clearance Certificate for 33,330 sf of RRR cultivation comprised of 13,330-sf of outdoor cultivation from APN 107-300-006 (App. No. 12336) and 20,000 sf of mixed-light cultivation from APN 107-300-007 (App. No. 13027).

Table 2. Approved Site Cannabis Activities Per Apps Nos. 11067, 12336, and 13027				
	<u>Outdoor Cultivation (sq. ft.)</u>	<u>Mixed-Light Cultivation (sq. ft.)</u>	<u>Processing (sq. ft.)</u>	<u>Ancillary Nursery (sq. ft.)</u>
Approved SP Apps No. 11067	5,000 (<i>pre-2016</i>)	5,000 (<i>pre-2016</i>)	2,400	4,330
Approved ZCC Apps No. 12336	13,330 (<i>RRR</i>)	-	-	-
Approved ZCC Apps No. 13027	-	20,000 (<i>RRR</i>)	-	-
Totals	43,330 sq. ft.		2,400	4,330

Approval for Apps No. 11067 also included on-site processing in a 4,200-sf building (now proposed as 2,400 sq. ft.), 4,330 sq. ft. of ancillary nursery, and ancillary drying activities. A Minor Deviation (PLN-2021-17207) was approved in June 2021 to allow for greenhouse reconfiguration and the construction of a new, 1,152-sq. ft. commercial building for processing activities.

1.3. SITE DESCRIPTION

The Project is located at 270 Applewood Road, in the community of Honeydew (APN 107-272-007). The subject parcel is approximately 13.2 acres in size (per the County of Humboldt's WebGIS), with gentle slopes less than 7% gradient and drainage flowing towards the south of the property. The parcel is mostly grassland located on a historic flood plain terrace of the Mattole River (Lower Mattole River Watershed) at an elevation of approximately 450-ft above mean sea level. The project itself is

located out of the 100-year flood zone. The site is used for agricultural and domestic purposes. The property contains an existing 2.5-million gallon rainwater catchment pond, and a historic onstream pond exists near the residence (unrelated to proposed project). In addition to the existing cannabis activities, the project contains a residence, a residential accessory building, and domestic garden/orchard activities. The property contains 575,428 sq. ft. of prime agricultural land according to the Humboldt County WebGIS, of which the approved project comprises 51,212 sq. ft. (8.8%) and the proposed project comprises an additional 36,860 sq. ft. (6.4%) for a total of 88,072 sq. ft. or 15% of prime agricultural land.

1.3. LAND USE

The subject property is located outside of the Coastal Zone and within the State Fire Responsibility Area, with a Humboldt County General Plan designation of Agricultural Exclusive (AE) and zoning of Agricultural General with Combined Zone (AG-B-6). Land uses surrounding the parcel are comprised of agriculture lands and agriculture grazing. The surrounding parcels are zoned Agricultural Exclusive (AE). The nearest mapped Public Lands are located over 1,900 feet from proposed project activities.

1.4. STATE AND LOCAL COMPLIANCE

1.4.1. DEPARTMENT OF CANNABIS CONTROL – CALCANNABIS

Xotic Flavorz, LLC has secured state licenses for approved onsite cultivation activities. Additional Commercial Cannabis Activity licenses would be obtained for the proposed project once local approval has been received.

1.4.2. STATE WATER RESOURCES CONTROL BOARD – WATER RIGHTS

Water for cannabis cultivation will be provided by an existing rainwater catchment pond with an approximate 2.5-million-gallon capacity. Rainwater catchment does not require a Water Right permit.

1.4.3. STATE WATER RESOURCES CONTROL BOARD AND NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD – WATER QUALITY

The applicants enrolled for coverage as a Tier 2, Low Risk under the State Water Resources Control Board (SWRCB) General Order WQ 2019-0001-DWQ *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Dischargers of Waste Associated with Cannabis Cultivation Activities* “Order”) on June 24th, 2019 (Application Number 417938). The assigned statewide Waste Discharger Identification (WDID) number is 1_12CC417938.

The purpose of the SWRCB Order is to implement the requirements for waste discharges associated with cannabis cultivation as described in SWRCB’s *Cannabis Cultivation Policy – Principles and Guidelines for Cannabis Cultivation* (“Policy”). A Site Management Plan has been developed for the property to describe how the discharger is complying with the applicable Best Practicable Treatment or Control (BPTC) Measures listed in Attachment A of the Order/Policy.

The current Tier 2, Low Risk discharger status reflects current operations that disturb an area greater than one acre. The applicants intend to keep all cultivation activities out of riparian setbacks to maintain Low Risk status with SWRCB.

1.4.4. HUMBOLDT COUNTY BUILDING DEPARTMENT

The single family residence existing on site has been permitted with the Humboldt County Building Department. A permit application for existing accessory structures (App No. 41520) is currently being processed by the Building Department. All necessary building permits for proposed structures and supporting infrastructure will be obtained from the Humboldt County Building Department. Ag

Exempt permits have been issued for the greenhouses associated with the existing, approved cultivation (BLD-2020-51413).

1.4.5. CAL FIRE

The subject property is located within a State Responsibility Area (SRA) for fire protection. All structures on the property meet the 30-foot SRA setback requirement from property lines. Permitted structures meet SRA building and site requirements. This includes a fire turn-around, pull-out area for emergency vehicles, and additional water storage for fire suppression. Vegetation will also be managed around existing structures to maintain the required defensible space. No trees are proposed to be removed as part of this project.

1.4.6. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

A Lake and Streambed Alteration Agreement (LSAA) final agreement with DFW has been completed and signed. Project encroachments include points of diversion, spillway construction and maintenance, pond construction, and a culvert upgrade. The final LSAA agreement was received January 4, 2017 (Notification No. 1600-2016-0481-R1).

This Agreement expired in January of 2021. A new agreement to cover the domestic point of diversion and onstream pond point of diversion (neither related to proposed cannabis use) has been applied for and is in process (EPIMS No. HUM-29256-R1C).

1.4.7. CULTURAL RESOURCES

A Cultural Resources Evaluation was completed for the Approved project. 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 applicants propose to propagate juvenile plants on-site from seeds and mother plants within the proposed 3,300 sq. ft. immature plant area greenhouse (see site map in Appendix A). Mother plants will remain in the vegetative stage solely for propagation. Cuttings will be sampled from the mother plants and rooted into a growing medium (e.g. oasis cubes) to produce clones. The clones will then be transferred to the vegetative nursery area, and after 2-3 weeks will be transplanted into one-gallon pots or similar. The juvenile plants will be irrigated using hand watering methods, and after three weeks they will be transplanted directly into the soil, where they will continue their vegetative cycle and eventually flower.

2.2. OUTDOOR CULTIVATION PLAN

Cultivation will occur in various greenhouses of 34' width and varying lengths located near the western property boundary, adjacent to existing cultivation (see site map in Appendix A). The greenhouses consist of heavy gauge steel tubing and covered with a woven poly translucent tarp,

where plants will be placed directly in the ground or in raised beds. Each cold frame greenhouse will be ventilated by intake and exhaust fans as well as roll up side panels. Light deprivation technique may be used to produce two (2) to three (3) flowering cycles per year. The monthly Cultivation Schedule in Appendix B details the cultivation activities associated with the operation for a typical three-cycle year.

2.3. IRRIGATION PLAN AND SCHEDULE

Irrigation and fertigation of plants will occur using top-feed hand watering methods. The applicant believes irrigation and fertigation may be more efficiently managed via hand watering, which allows for daily inspection of each plant. Daily inspection of each plant allows the cultivator to tailor irrigation and nutrient application based on the needs of each individual plant. The monthly Cultivation Schedule in Appendix B details the irrigation activities associated with all cultivation.

2.4. PROCESSING PLAN (HARVESTING, DRYING, AND TRIMMING)

Plants that are ready for harvest will have their flowering branches removed and placed in the existing Processing Building on the northwest side of the parcel (see site map in Appendix A), where they will be suspended and left to dry for approximately one week. The dried flowers will be bucked into manageable buds and trimmed by seasonal employees in the approved commercial processing building before being distributed and packaged offsite.

The approved 40' x 60' processing building, which has not yet been constructed, was originally approved to only trim onsite product. This application seeks to utilize that building for processing of additional Xotic Flavorz, LLC product grown on other farms. This application is not seeking to permit an off-site processing to trim product from outside farms.

2.5. EMPLOYEE PLAN

The applicant is an "agricultural employer" as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 of Division 2 of the Labor Code), and complies with all applicable federal, state and local laws and regulations governing California Agricultural Employers.

2.5.1. JOB DESCRIPTIONS AND EMPLOYEE SUMMARY

- Seasonal Laborer: Provides cultivation, harvesting, and drying support. This is a part-time to full-time, seasonal position.

2.5.2. STAFFING REQUIREMENTS

As the applicant already has an established cultivation operation at this site, the only employee needs are for seasonal laborers for cultivation, harvesting, and drying support. The proposed project would result in an increase of five (5) full-time employees during the cultivation season, and an additional five (5) seasonal workers for a maximum total of ten (10) additional workers onsite during peak seasonal events.

Existing approved activities require eight (8) full-time employees and up to eighteen (18) seasonal workers for a maximum total of 26 workers onsite.

In total, Approved and Proposed project employee count would total thirteen (13) full-time employees and up to 23 seasonal workers for a total of 36 employees onsite during peak season events. Seasonal workers are on site less than 90 days out of the year.

2.5.3. EMPLOYEE TRAINING AND SAFETY

On-site cultivation, harvesting and drying will be performed by employees trained on each aspect of the procedure including cultivation/harvesting techniques, use of pruning tools, and proper

application/storage of pesticides and fertilizers. All cultivation staff will be provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the on-site cultivation and drying facilities will be limited to authorized and trained staff. All employees will be trained on proper safety procedures including fire safety, use of PPE, proper hand washing guidelines, and emergency protocol. 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 common areas indicated in the Site Plan in Appendix A. Each employee is provided with a written copy of emergency procedures and contact information. The material safety data sheets are kept on site and accessible to employees.

2.5.4. TOILET AND HANDWASHING FACILITIES

The processing building is designed to include three (3) ADA-compliant restrooms. Until this building is constructed, cultivation employees will be served by a portable restroom and handwashing facility. Anti-bacterial Liquid Soap and paper hand towels will be made available. Restroom and handwashing units will be serviced at regular intervals by a licensed contractor. Work will occur at a distance no greater than 900-ft from the restroom facility.

2.5.5. ON SITE HOUSING

The existing single-family residence located on site is occupied by the property *Agent in Charge*. All other full-time and seasonal employees live off-site and commute daily to the cultivation site. No new residential structures are proposed as a part of this project.

2.5.6. PARKING PLAN

Thirty-four (34) parking is to be located on the northernmost portion of the property, behind a locked gate. Two (2) ADA parking will be available adjacent to the commercial building (see site map in Appendix A).

2.6. SECURITY PLAN AND HOURS OF OPERATION

2.6.1. FACILITY SECURITY

The property is fenced behind a locked access gate off of Applewood Road. Security cameras are set up around the property. The processing facility and residence will have an alarm system.

2.6.2. HOURS OF OPERATION

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

2.6.3. LIGHT POLLUTION CONTROL PLAN

Areas with supplemental lighting will be blocked with the use of blackout tarps or other materials to achieve Dark Sky standards. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise.

3. ENVIRONMENT

3.1. WATER SOURCE, STORAGE, AND PROJECTED USE

3.1.1. WATER SOURCE AND PROJECTED USE

Water for domestic purposes is provided by a stream point of diversion located off-property (lat/long 40.248100, -124.108500).

Water for cultivation purposes is sourced from an existing rainwater catchment pond with an approximate capacity of 2.5-million gallons. The irrigation demand for the existing and proposed

76,890-sf of cultivation is expected to be approximately 1,000,000 gallons of water. Table 3 outlines the estimated irrigation water usage for Xotic Flavorz, LLC during a typical year at full build-out. Irrigation water usage will be dependent on weather conditions.

Table 3: Estimated Annual Irrigation Water Usage (gallons)												
<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Total</u>
2,500	2,500	39,725	49,725	75,000	120,000	165,000	240,000	240,000	30,824	39,725	0	1,000,000

3.1.2. RAINWATER CATCHMENT CALCULATIONS

This section serves to demonstrate the rainwater catchment potential of the existing 2.5-million-gallon pond and other catchment surfaces. The pond was constructed in Fall of 2019, and has been collecting and storing water for the last three years. There has been ample water for existing onsite activities, and thus far more than half of the pond has remained full at the end of every season.

Table 4 below provides a summary of the estimated rainwater harvest volume from the catchment pond during an average and drought rainfall year. Historical precipitation depth data for the Honeydew area was obtained from PRISM Climate Group (Oregon State University Data, <https://prism.oregonstate.edu/explorer/>) and used to calculate an average annual rainfall depth of 91-inches (7.6-ft), based on averages from 1990 – 2020. Using Equation 1, on average, the pond is expected to accumulate an approximate volume of 2.15-million-gallons each year, more than double the projected demand.

Equation 1.

$$\text{Harvested rainwater (gal)} = \text{catchment area (ft}^2\text{)} \times \text{precipitation (ft.)} \times 7.48 \text{ (gal/ft}^3\text{)} \times \text{system efficiency}$$

Evaporation is included in the calculations for Table 4. Evaporation rates can vary widely by month and are influenced by a variety of factors, including temperature, humidity sun exposure, and wind velocity. To calculate evaporation, a Class A Pan evaporation rate was obtained from the Western Regional Climate Center (Evaporation Stations, Western Regional Climate Center, https://wrcc.dri.edu/Climate/comp_table_show.php?type=pan_evap_avg). No specific Class A Pan evaporation rate was available for Honeydew or areas in immediate proximity. The closest evaporation rate data location is Ferndale (31.64 inches of evaporation loss per year). Willow Creek had a Class A Pan Evaporation Rate of 38.69 inches of evaporation loss per year. As Honeydew typically has hotter temperatures than Ferndale, but is much more coastal and less warm than Willow Creek, estimated Class A Pan Evaporation Rate of 33 inches was used to estimate evaporation loss from the pond¹. To correct the Class A Pan Evaporation Rate for a natural surface (e.g., pond), the evaporation rate is multiplied by .75, as shown in Equation 2.

Equation 2.

$$\text{Corrected Class A Pan Evaporation Rate} = 35 \text{ inches} \times .75 \text{ Correction Factor} = 24.75 \text{ inches}$$

¹https://wrcc.dri.edu/Climate/comp_table_show.php?type=pan_evap_avg

	PERIOD															
	OF RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR		
FERNDALE 2 NW	1963-1973	0.70	1.17	2.26	3.21	3.95	4.38	4.49	4.07	3.59	2.06	1.04	0.72	31.64		

The corrected Class A Pan Evaporation Rate was then converted to feet (2.062 feet), and then multiplied by the pond surface area and the estimated pond capacity subject to evaporation to obtain the estimated volume of water lost at full, as shown in Equation 3.

Equation 3

$$\text{Projected Evaporation Loss (gal)} = \text{Catchment Area of 38,000 (ft}^2\text{)} \times \text{Pond Capacity Subject to Evaporation (\%)} \times \text{Corrected Class A Pan Evaporation Rate of 2.062 (ft.)} \times 7.48 \text{ (gal/ft}^3\text{)}$$

As shown in Table 4, sufficient rainwater can be captured and stored in the pond for existing and proposed cultivation activities during a high, average, and low water year.

Table 4: Rainwater Catchment Pond Harvest Volumes, incorporating Evaporation Rates, in an Above-Average, Average, and Extreme Drought Rainfall Year							
<u>Catchment Surface</u>	<u>Catchment Area (sf)</u>	<u>Rainfall Year</u>	<u>Annual Rainfall (in.)</u>	<u>Potential Harvest Volume (gal)</u>	<u>Estimated Pond Capacity Subject to Evaporation (%)</u>	<u>Annual Volume Loss from Evaporation (in.)</u>	<u>Pond Harvest Volume After Evaporation (gal)</u>
Pond	±38,000	Above-Average (Highest Year on Record of Last 30 years)	134.6	3,186,520	100%	586,103	2,600,417
Pond	±38,000	Average (Average Rainfall Data of Last 30 years)	89.6	2,121,190	84%	492,326	1,628,864
Pond	±38,000	Low (Average Low Rainfall Data of Last 30 years)	55.3	1,309,172	52%	304,773	1,004,399
Pond	±38,000	Extreme Drought (Lowest Year on Record of Last 30 years)	24.1	570,543	23%	134,804	435,739

During an extreme drought year, however, calculations show that the pond would not collect enough water for the full 1,000,000-gallon demand. This calculation does not take into account unused water remaining in the pond from the prior year (over 600,000 gallons of water would left in the pond during an average rainfall year, so this scenario is unlikely).

However, in the event that there are multiple drought years in a row and no unused water remains in the pond, the applicant can collect and store enough water by capturing rain off of the existing 45,900 sq. ft. of existing greenhouses and conveying it into the pond. See Table 5, below. This table only included analysis for extreme drought years, as during an above-average, average, and low water year the demand is met with existing facilities.

Table 5: Secondary Rainwater Catchment Surfaces and Harvest Volumes for Drought Preparation				
<u>Catchment Surface</u>	<u>Catchment Area (ft²)</u>	<u>Drought Annual Rainfall (in.)</u>	<u>Rainfall Capture Potential (gal)</u>	<u>Adjusted Rainfall Capture Potential (gal)</u>
<E> (9) 34' x 150' Greenhouses	45,900 (5,100 each)	24.1	689,156	654,698
Total				654,698

Results in table 3 were calculated using Equation 1. The capture efficiency of the catchment surfaces is estimated to be approximately 95% due to potential breaks in the guttering or other unforeseen complications. If needed, the proposed greenhouses could also convey water toward the pond.

Therefore, the applicant will have enough rainwater to supply all existing and proposed project components during both an average and extreme drought year.

3.2. SITE DRAINAGE, RUNOFF, AND EROSION CONTROL

The applicant has enrolled with the State Water Resources Control Board (SWRCB) for coverage under the General Order. A Site Management Plan (SMP) has been produced detailing erosion control and sediment capture measures for existing site conditions, as well as road maintenance and runoff activities.

3.2.1. STORMWATER MANAGEMENT PLAN

The proposed cultivation activities will take place on a flat, already-disturbed ground on slopes less than 7%. The area proposed for cultivation is a compacted gravel area currently used for materials storage. The addition of covered greenhouses will increase onsite impervious surfaces by approximately 36,000 sq. ft., however the site has an existing functional drainage system, including a drainage ditch on the western side of the property that conveys water offsite, that successfully manages current stormwater runoff. Additionally, the site is relatively flat.

Stormwater management for the remainder of the property is addressed in the SMP, which will also includes recommendations for road network maintenance. Existing and proposed structures are located over 50-ft from any watercourses, providing a sufficient buffer to prevent potential sediment or nutrient delivery.

3.2.2. EROSION CONTROL

The SMP will include erosion and sediment control best practicable treatment controls (BPTCs) designed to prevent, contain, and reduce sources of sediment. Additionally, the SMP will include site-specific corrective actions to reduce sediment delivery from the legacy logging roads on the property. BPTC prescriptions may include rocking roads, maintaining rolling dips/water bars, and unplugging ditch relief culverts.

3.3. WATERSHED AND HABITAT PROTECTION

A Biological Assessment was prepared for the project by Timberland Resource Consultants (2021). The proposed project will follow all recommendations outlined in the Biological Assessment. All proposed cultivation activities will meet setbacks should provide a suitable buffer between the cultivation operation and sensitive habitat. Proposed cultivation is located adjacent to existing cultivation, and no new ground disturbance is proposed as all cultivation is located on already-disturbed ground. No major grading is proposed; only scraping.

All light shall be attenuated so that it does not create a new source of light or glare that could adversely impact local wildlife. Proposed activities would not increase ambient noise by greater than 3 decibels. Additionally, adherence to the Site Management Plan will ensure that erosion control and sediment capture BPTC measures are in place to prohibit water quality degradation of the nearby river.

3.4. INVASIVE VEGETATIVE SPECIES CONTROL PLAN

The cultivation area will be monitored for invasive species. If invasive species are located, hand tools (shovels, weed wrenches, trowels, or hand saws) may be used to remove them. The exact rate and method of invasive species removal will be determined based on the species identified. The areas of

disturbance shall be surveyed and maintained twice each year, at a minimum, as part of the invasive species control plan.

The following is a partial list of websites to be used for proper identification and treatment:

1. <https://calflora.org/>
2. <https://plants.usda.gov/java/>
3. <https://www.cal-ipc.org/>
4. <https://www.cal-ipc.org/solutions/>
5. <http://www.rareplants.cnps.org/>
6. <https://www.wildlife.ca.gov/Conservation/Plants#22064102-california-native-plant-information>
7. <http://ucjeps.berkeley.edu/>
8. http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html
9. <https://www.fws.gov/invasives/partnerships.html>

3.5. MATERIALS MANAGEMENT PLAN

Cultivation, harvesting, and drying shall be performed by employees trained on each aspect of the procedure, including cultivation and harvesting techniques, the use of pruning tools, and proper application/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 cultivation, drying and processing facilities are limited to authorized and trained staff. Mixing of fertilizers in small storage tanks is solely conducted in a designated area where the mix will not enter surface waters. For both young and adult plants, the mix is applied via watering wand. Spent soil is amended and reused as needed. The application of any agricultural chemical products will be conducted according the manufacturer's recommendation.

Employees are trained on usage and handling procedures of associated equipment and cleaning procedures. Chemicals and hazardous materials are only used with equipment as recommended by manufacturers. Cleaning will occur regularly with instructions based on the manufacturer's recommendations. All cleaning materials will be put away and stored properly within secondary containment when not in use and hazardous containers will be properly disposed of. Additionally, if there are any spills on site, there will be a spill kit with sorbent pads will be accessible.

On-site inventory is kept for all chemical. Chemicals are used and stored based on manufacturer's recommendations and requirements. Any materials required for use of chemicals will be provided to employees. The material safety data sheets (MSDS) are kept on site and accessible to employees.

Fertilizers and pesticides are stored separately location from petroleum products, in the shed north of the cultivation greenhouses. Nutrients and amendments used include Aurora: Roots Organics Big Worm, Earth Juice: Rainbow Mix Pro, Earth Juice: Hi-Brix Molasses, Sunshine Mix 4: Aggregate Plus, and Sparetime Supply: Mocha Bat Guano. Liquid fertilizers have been placed in bins, or other container for secondary containment. Neem Oil is used as Pesticide/ Herbicide and is stored in an enclosed shed along with the fertilizers and soil amendments. No rodenticides will be used on site.

At the end of the season, any unused liquid products are stored in secondary containment and will be applied the following year. Before unused products are stored at the end of the season, an employee will take inventory on the volumes and products. Additionally, all waste will be properly disposed of off-site and the correct facility. All trash, empty product containers, and recycling are hauled off-site bi-weekly to nearest licensed waste management facility. All hazardous waste will be stored within secondary containment in a shed north of the cultivation greenhouses. Additionally, a log will be kept in order to keep p the volume of hazardous waste accounted for.

Appropriate BPTC measures are being utilized when storing, handling, mixing, applying, and disposing of all fertilizers, pesticides, herbicides, rodenticides, or any other hazardous materials. Each year an inventory is conducted prior to the beginning of the grow season and necessary products are delivered to the site as needed.

3.6. SOILS MANAGEMENT PLAN

The applicant is proposing to plant all cultivation in the ground, as the cultivation The applicants will account for and keep records of annual and seasonal volumes of soil imported and exported on and off site. Any purchased soils will be reamended for use the following year. During the wet season, any soil piles will be located in a flat area outside of riparian setbacks and winterized, likely with a tarp underneath the pile and straw wattles located around the pile to prevent leachate from entering surface waters. Potential spent soils will be properly disposed of off-site at an appropriate facility.

3.7. HAZARDOUS WASTE STATEMENT

There are no hazardous materials mapped onsite. The site has been historically utilized for a residential property. No industrial activities have occurred on site. A search of the EnviroSTOR database shows no GeoTracker Cleanup Programs on-site.

3.8. ENERGY PLAN

PG&E will provide all cultivation and domestic energy needs, with generators used as back up only. A PG&E upgrade for the existing approved project is in processing. Energy demands from the proposed project include fans for the mixed-light greenhouses and string lights for propagation. The applicant will utilize the RCEA+ plan or similar through PG&E to meet 100% renewable energy standards. Solar-powered string lights will be used for propagation. Petroleum products will be limited to gas, oil, and other chemicals commonly used on vehicles and machinery. Use of the on-site generator is limited to power outage events, and follows all guidelines set up by Humboldt County and the State of California. When in use, the generator will be located away from the property line to ensure the noise level does not exceed 60 decibels at the property line. The generator and all petroleum and other chemicals on site will be stored in an adjoining shed to the processing facility (barn) with secondary containment to prevent spillage, discharge, or seepage. Emergency containment and clean up kits will be provided and accessible where petroleum products are stored.

Propane fuel is stored in a tank near the residence which is properly anchored and secured. Propane is used for cooking and heat within the home.

3.9. WASTE MANAGEMENT

3.9.1. CULTIVATION

Solid waste will be stored in garbage cans adjacent to the cultivation; waste will be transported to an appropriate facility weekly or as needed. Organic cultivation-related waste, including branches and leaves, will be composted and chipped or hauled off-site to a green waste management facility as needed. Trash and recycling from cannabis operations, including empty soil or fertilizer bags, liquid fertilizer bottles, cultivation supplies, etc., will be taken to the nearest waste management facility as needed.

3.9.2. SEWAGE DISPOSAL PLAN

Cultivation employees will have access to a portable restroom serviced by a licensed septic service. Two wastewater types will be generated by domestic and commercial. The domestic wastewater is disposed on site in the existing septic system (see site map in Appendix A). A proposed septic system is associated with the already-approved processing building as part of the original application. The

wastewater generated will be disposed of in a septic system in accordance with the Humboldt Environmental Health.

4. PRODUCT MANAGEMENT

4.1. PRODUCT TESTING AND LABELING

Samples will be selected from individual harvested cannabis strains and tested by a licensed third-party lab in accordance with State and local standards. The finished product is labeled and will include tracking ID's provided by the California Cannabis Track-and-Trace (CCTT) METRC system.

4.2. PRODUCT INVENTORY AND TRACKING

The applicants will follow all regulations and requirements set by the CCTT-METRC system. After approval of state licenses related to the proposed cultivation, the applicants will request credentials and order unique identifiers (UIDs) which will be assigned to each immature lot, flowering plant, and distinct cannabis product.

4.3. TRANSPORTATION AND DISTRIBUTION

Transportation will be handled by a licensed transporter/distributor in accordance with State and Local regulations. All merchantable product will be distributed through licensed commercial cannabis dispensaries. The CCTT-METRC system will be used for all transactions with distributors or transporters.

APPENDIX B: CULTIVATION ACTIVITIES SCHEDULE

Item	Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Drainage, Runoff, and Erosion Control	Winterization (storage of pots)												
	Temporary Erosion Control BMP's (straw, seeding, fiber rolls, etc.)												
	Road maintenance												
	Culvert and inboard ditch maintenance/inspection												
	Cover soil beds and seed / straw with cover crop												
Irrigation Activities	Irrigation of juvenile plants/clones												
	Irrigation of flowering plants												
Pre-cultivation Activities	Transplant clones into beds												
	Amend soil in beds												
	Import new cultivation soil												
Outdoor Cultivation and Harvest Schedule	Outdoor Cultivation Cycle												
	Harvest activities												
	Drying Activities												
Staffing Presence	Agent in Charge												
	Lead Cultivator												
	Assistant Cultivator												
	Seasonal Laborers												

APPENDIX C: REFERENCES

- California Code of Regulations. Health and Safety Code Section 11357-11362.9.
<<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=11001-12000&file=11357-11362.9>.>
- California Department of Fish and Wildlife. 2022. *California Natural Diversity Database (CNDDB)*.
<https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>.
- County of Humboldt. *Commercial Cannabis Land Use Ordinance (CCLUO) – Phase IV, Commercial Cultivation, Processing, Manufacturing and Distribution of Cannabis for Medical Use* (Staff Report to the Board of Supervisors). January 26, 2016. <<https://humboldt.legistar.com/Calendar.aspx>.>
- Google Earth. 2022. <https://www.google.com/earth/>.
- Humboldt County Planning and Building Department. 2018. *Ordinance No. 2599 – Commercial Cannabis Land Use Ordinance*. <https://humboldt.gov.org/DocumentCenter/View/63734/Ord-No-2599-CCLUO-inland-certified-copy-PDF>.
- Humboldt County. 2022. *Humboldt County Web GIS*. Available at:
<http://webgis.co.humboldt.ca.us/HCEGIS2.0/>.
- Humboldt County. *Streamside Management Area Ordinance*. Title 3: Land Use and Development; Division 1, Planning Zoning Regulations; Chapter 6 – General Provisions and Exceptions; Section 314-51.1.
- North Coast Regional Water Quality Control Board. 2016. *Cannabis Cultivation Waste Discharge Regulatory Program*. http://www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/.
- State Board of Equalization. Information on the Sales and Registration for Marijuana Sellers. June 2007.
<<http://www.boe.ca.gov/news/pdf/173.pdf>.>
- State of California. Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use. August 2008.
http://www.ag.ca.gov/cms_attachments/press/pdfs/n1601_medicalmarijuanaguidelines.pdf
- State Water Resources Control Board. 2019. SWRCB Cannabis General Order No. 2019-0001 – General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Dischargers of Waste Associated with Cannabis Cultivation Activities. Available at:
https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2019/wqo2019_0001_dwq.pdf
-

