

MATTOLE VALLEY ORGANICS
Cultivation and Operations Manual
Humboldt county, CA

Proposed Commercial Cannabis
Cultivation Facilities



MAY 2020

Cultivation and Operations Manual

For
MATTOLE VALLEY ORGANICS

Proposed Commercial Cannabis Cultivation Facilities

APN No. 107-091-003

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OPERATIONS MANUAL

MATTOLE VALLEY ORGANICS - 1 ACRE OUTDOOR CULTIVATION

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1. PROJECT SUMMARY

1.1. PROJECT OBJECTIVE

MATTOLE VALLEY ORGANICS Is Proposing To Permit Commercial Cannabis Cultivation Activities In Accordance With The County Of Humboldt Commercial Cannabis Land Use Ordinance (CCLUO). The project is seeking an expansion of 33,560 square feet over the 10,000 square feet of previously approved light deprivation outdoor cultivation for a total of 43,556 SF of outdoor cultivation canopy. Dry farming techniques will be used for the expanded cultivation area. Water for the new operation is sourced from rain catchment from the existing 30'x60' barn and will be stored on site in hard water storage tanks with an approximate capacity of 100,800 gallons which will supplement the existing 125,000 gallons of rain catchment tanks used for the existing operation.

1.2. SITE DESCRIPTION

The Project is located in Humboldt County on APN 107-091-003 in the Petrolia area, along the bank of the Mattole River River.

The subject parcel is approximately +/- 59 acres in size (per the County of Humboldt's WebGIS), having varying topography and slopes less than 15% and generally the property is characterized as flat grasslands. The western and southern parcel boundaries are defined by the Mattole River buffered by a treeline. There is one access point for the parcel, Lindley Road runs North from the northeastern portion of the parcel towards Mattole Road. The property is developed with one existing permitted residence. Proposed Cultivation Areas are located on natural flats and plants are planted directly into soil.

1.3. LAND USE

The subject property has a General Plan designation of (AG) as identified by the Humboldt County General Plan and has zoning designations of Unclassified (U). Land uses surrounding the parcel are AE and TPZ.

1.4. STATE AND LOCAL COMPLIANCE

1.4.1. STATE OF CALIFORNIA COMMERCIAL CANNABIS ACTIVITY LICENSE

MATTOLE VALLEY ORGANICS has a Commercial Cannabis License from CalCannabis for the existing operation and will secure a Commercial Cannabis Activity license from the State of California for the added square footage once approved.

1.4.2. STATE WATER RESOURCES CONTROL BOARD

MATTOLE VALLEY ORGANICS has obtained coverage with the SWRCB under the Cannabis Cultivation General Order (Order No. WQ 2019-0001-DWQ) *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for the Discharges of Waste associated with Cannabis Cultivation.*

1.4.3. CAL-FIRE

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

1.4.4. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

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

1.4.5. HUMBOLDT COUNTY PLANNING AND BUILDING DEPARTMENT

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

1.4.6. CULTURAL RESOURCES

If buried archaeological or historical resources are encountered during construction or cultivation activities, the applicant or contractor shall call all work in the immediate area to halt temporarily, and a qualified archaeologist is to be contacted to evaluate the materials. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, 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.

2. CULTIVATION AND PROCESSING

2.1 PROPAGATION AND INITIAL TRANSPLANT

Seeds for the operation are sprouted in April in the nursery greenhouse and transplanted to pots in the nursery greenhouse

Immature Plants are also sourced from a Licensed Nursery and transported to site. They are transplanted into larger pots and allowed to “bump up” to appropriate size for transplanting into the gardens within the 1,900 square foot nursery greenhouse.

Once plants are the appropriate size, they are planted in the flowering greenhouses or placed in the 20'x50' fenced nursery area to acclimate to greater outdoor exposure prior to being planted in the hugelkultur beds or raised rows.

2.2 CULTIVATION PLAN AND SCHEDULE

Existing Greenhouse Schedule

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Area												
Ghs	Cover	Cover	Cover	Prep	Veg/Blm	Blm	Blm	Blm/Veg	Blm	Blm	Cover	Cover

Proposed Outdoor Schedule

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Cover	Cover	Cover	Sprout Cover	Nursey Plant May 15	Veg	Veg	Veg	BLM	Harvest	Cover	Cover

"Cover" means cover cropping.

"Sprout" means sprouting and propagating seeds

"Veg" means plants are in a vegetative (growth) state.

"Blm" means plants have transitioned into the flower (blooming) phase and are directing energy towards producing buds instead of growth.

The existing approved cultivation occurs in raised beds within 9,956 square feet of greenhouse.

Approximately 1,600 square feet of cultivation will occur within existing "Hugelkultur" beds that will be 2 to 4 years old by the 2021 cultivation season. These beds were previously developed over the past years for domestic vegetable gardening and proof of concept. 6,000 square feet of cultivation will occur on top of new proposed Hugelkultur beds.

Hugelkultur involves developing raised mounds built from the bottom up with logs, sticks, branches, woodchips manure and other organic material. The buried logs and organic materials slowly decay take on a spongy consistency within 1 to 2 years and retain water to the point that it reduces the need to water plants daily to

weekly or longer. The quality of the beds and water retention capabilities continue to improve and can last 5 years (using softwood logs) to 20 years (hard wood logs). Furthermore, the use of this technique allows the beds to be built over the existing native slopes, greatly minimizing the need to disturb the soil. The beds will be built on contour and terraced which allows the beds down slope to trap and infiltrate rainwater and any sediment or nutrient runoff.

The remaining 26,000 square feet of cultivation will be row cropped. A tractor and associated implements will allow for mechanical tilling, amending (compost, manure), row forming, planting and cover cropping that greatly minimizes labor requirements and traffic to the property. The farm is adjacent to the Mattole River which allows for dry farming techniques that minimize the need to irrigate the cannabis crop. The proximity to this perennial flowing water infuses the soil with water vapor that will sustain the crop even in the summer months. Furthermore, the restricted amount of water combined with the winds that blow up and down the river valley creates shorter, stout, strong cannabis plants that do not require trellising further reducing labor and material requirements.

Proper strain selection will allow the full sun outdoor crop harvest to be staggered over 2 to 4 weeks to minimize labor needs.

Nitrogen fixing cover crops will be used to stabilize the beds and cultivation area over winter. A small herd of alpaca are maintained on the property. Waste leafy material and the cover crops are used to feed the herd which generates high quality fertilizer. Similar to rabbit manure, alpaca manure is "cold" and can be immediately applied to plants without damaging them. "Hot" manure (horse, cattle, etc) has too much nitrogen and will cause damage to the root systems if applied directly without first being composted. The manure builds topsoil on the property and is collected to brew compost tea for the crop during the season.

A herd of sheep is also maintained on the property. Manure from the sheep builds topsoil and is also composted onsite to use as amendments.

2.3 IRRIGATION PLAN AND SCHEDULE

MATTOLE VALLEY ORGANICS recognizes water conservation as one of the most important water management techniques. We work with professionals to maintain high organic matter content in our soils to help improve moisture holding content. Rainwater Catchment tanks will be used exclusively for cannabis irrigation water. Dry Farming techniques will be implemented on this site

See section 4 for water usage and storage estimates.

2.4 PROCESSING PLAN

Drying to occur in the existing barn. Plants will be hung to dry, bucked (buds removed from branches) into totes for wholesale or for processing at an off-site licensed processing facility. The barn will also be used to dry cannabis from APN 107-091-002 (owned and operated by Mattole Valley Organics). Estimated maximum of 1 round trip per day, 3 trips per week, twice per year.

2.5. EMPLOYEE PLAN

2.5.1 STAFFING REQUIREMENTS

MATTOLE VALLEY ORGANICS 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.

2.5.1.1 JOB DESCRIPTIONS AND EMPLOYEE SUMMARY

- Agents in Charge: Responsible for business oversight and management of the MATTOLE VALLEY ORGANICS. Responsibilities include, but are not limited to: inventory and tracking, personnel management, record keeping, budget, and liaison with State and County inspectors as needed. Owner operators.
- Seasonal Laborer: Provides cultivation and harvesting support. This is a part-time to full-time, seasonal position.

In addition to the Agent positions, up to two (2) full-time seasonal labor positions are employed. The number of seasonal laborers varies based on the needs of the farm during the cultivation, harvest and processing seasons. During the peak harvest and processing season, there are an estimated total of four (4) employees on site.

2.5.2 EMPLOYEE TRAINING AND SAFETY

On site cultivation and harvesting are 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; proper use of scale and cleaning. All cultivation staff are provided with proper hand, eye, body and respiratory Personal Protective Equipment (PPE). Access to the onsite cultivation areas 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.

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

2.5.3 TOILET AND HANDWASHING FACILITIES

Portable toilets with hand washing stations will be installed adjacent to the proposed cultivation sites.

2.5.4 DRINKING WATER SOURCE

MATTOLE VALLEY ORGANICS will also provide safe, clean, purified drinking water via store bought individual sealed bottled water bottles as well as water dispensing coolers on site. Clean disposable paper cups will be made available to all employees.

2.5.4 ONSITE HOUSING

No on-site housing for employees. Owner-operators resign on site.

2.5.5 PARKING PLAN

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

3. SECURITY PLAN

3.1 FACILITY SECURITY

The cultivation premises are accessed at a private driveway via Lindley Road. The entry gate remains locked at all times and access to the cultivation area is limited exclusively to employees. The code will be changed regularly. The site will have game cameras and motion sensed lighting at the entrance.

3.1.1 UNAUTHORIZED ACCESS PREVENTION

3.1.1.1 PERIMETER

The perimeter of the cultivation premise is defined and protected by the natural landscape in addition to Gates at each of the access points. The entry gates remain locked at all times and only accessible by Authorized Personnel or authorization through Authorized Personnel for Transporters and Sub- Contractors.

3.1.1.2 CONSTRUCTION

The storage areas will include motion activated security lights. All lighting will be designed and located so that direct rays are confined to the property.

3.1.1.3 AUTHORIZED PERSONNEL

All Authorized Personnel, Suppliers and Visitors, upon first arrival will be required to register with the Facility and receive a Laminated Identification if required. Access Levels throughout the Premises will vary on persons responsibility to corresponding processes. All Authorized Personnel are required to wear the Identification Badge assigned by company at all

times while on property and any Contractors or Subcontractors, vendors or distributors must at minimum wear a visible name tag while in Limited Access Areas (if required).

3.1.1.4 SECURITY MONITORING MAINTENANCE

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

3.1.1.5 SUSPICIOUS ACTIVITY

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

3.1.2 THEFT AND DIVERSION MEASURES

3.1.2.1 INVENTORY & PERSONNEL TRACKING

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

3.1.2.2 ACCESSIBILITY TO LIMITED ACCESS AREAS

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

3.1.2.3 DIVERSION RISKS

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

3.1.2.4 SECURING OF ELECTRONIC RECORDS

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

3.1.3 VIDEO SURVEILLANCE MEASURES

3.1.3.1 SYSTEM REQUIREMENTS

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

3.1.3.2 REMOTE ACCESS

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

3.1.3.3 INTERFERENCE PREVENTION

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

3.1.3.4 SPECIFIED CANNABIS ACTIVITY AREAS

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

- 1.) Cultivation Sites
- 2.) Weigh Stations

3.2 FACILITY HOURS OF OPERATION

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

4. ENVIRONMENT

4.1 WATER SOURCE & PROJECT WATER USE

4.1.1 SOURCE

Water for *cultivation* irrigation will be sourced from rainwater catchment from the roof of the existing 125,000 gallon catchment tanks and from the roof of the existing 30'x60' building. Average rainfall in Honeydew, CA region of 100 inches per year. Total catchment off the roof is estimated to be approximately :

$1,800 \text{ SF} * 100 \text{ inches} / 12 \text{ inches per cubic foot} * 7.48 \text{ gallons per cubic feet} \approx 112,200 \text{ gallons.}$

An existing well will be utilized for domestic purposes.

An additional twenty one 4,800 gallon tanks will receive water from the roof of the existing barn. (100,800 gallons of water storage)

4.1.2 USE

Cultivation Techniques and Water Management for the proposed outdoor cultivation are unique as they apply dry farming techniques that utilize water that is naturally present in the soil along the riverbeds. Benefits of planting directly into the soil allow for the cultivator to use a minimal amount of water usage.

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.

Water usage is estimated to be:

TABLE 4.1 ESTIMATED ANNUAL IRRIGATION WATER USAGE EXISTING GREENHOUSES (GAL/ ACRE)											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
---	---	---	500	7500	12,000	20,000	20,000	12,000	8,000	---	---

TABLE 4.2 ESTIMATED ANNUAL IRRIGATION WATER USAGE FULL SUN OUTDOOR (GAL/ ACRE)											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
---	---	---	1,000	4,000	20,000	20,000	20,000	20,000	15,000	---	---

4.2 WATER STORAGE

Water storage for irrigation is stored as follows:

- (1) Existing 25,000 gallon tank (irrigation)
- (2) Existing 50,000 gallon tank (irrigation)
- (1) Existing 5,000 gallon tank (fire protection)
- (21) Proposed 4,800 gallon tanks (irrigation) = 100,800 gallons

Total water storage = 225,800 gallons

4.3 SITE DRAINAGE, RUNOFF, AND EROSION CONTROL

MATTOLE VALLEY ORGANICS is enrolling with the California State Water Resource Control Board (SWRCB) in accordance with the Cannabis Cultivation General Order as a Tie site. See the Water Resource Protection Plan (WRPP). Below is a summary of WRPP items to be addressed and their status:

ZCC AND WRPP COMPLIANCE

According to the WRPP prepared by Pacific Watershed Associates (PWA), the following are items that have been or need to be addressed.

Standard Condition #3 - Riparian and Wetland Protection and Management

a.) Mattole Valley Organics, with the support of CDFW determined the best course of action was to relocate Cultivation Area #? away from the riverbar and up onto the fluvial terrace that the house is located on. This has been completed.

Standard Condition #5 - Water Storage and Use

c.) Mattole Valley Organics, has completed the Corrective Actions for Off-Stream Water Storage to minimize surface water diversion and increased it's onsite Water Storage. See above section 4.2 for Water Storage details.

Standard Condition #9 - Petroleum Products and Other Chemicals

b.) Mattole Valley Organics is on schedule to complete corrective actions recommended by PWA by October 2020. The 200 gallon above ground gasoline tank will be relocated to a covered area and placed in a secondary containment structure that can hold a minimum of 200 gallons to ensure prevention of discharge or seepage into the watercourse or groundwater.

d.) Mattole Valley Organics is on schedule to complete corrective actions recommended by PWA by October 2020 to acquire spill prevention clean up kits onsite and have a spill prevention response plan developed.

4.3.1 SITE DRAINAGE

The slope of the cultivation area is between 0% and 10%. Because of the lack of slope, there will be minimal cultivation related drainage or discharge. Any watercourse that may be influenced by cultivation drainage or discharge is over 150-feet away.

The gravel roads on the property are armored. The proposed cultivation areas are located away from riparian zones. Fertilizers and pesticides will be stored in a storage container with secondary containment to prevent contamination with runoff. Sites have been identified for storage/disposal of spoils and cultivation waste. (See Appendix A - Site Plan) See Roads Assessment Report and WRPP for existing drainage facilities, features, sizing and upgrade recommendations.

Culverts and Crossings

No culverts or crossings are present on the property.

4.3.2 SITE RUNOFF

MATTOLE VALLEY ORGANICS cultivation site is on a natural flat of alluvial soil, which allows for groundwater recharge and eliminates groundwater runoff.

Cultivation areas will meet all required setbacks from the nearest water course, providing a sufficient buffer to prevent sediment and nutrient delivery. There is a stable, vegetated buffer between the cultivation area and riparian zone. No alteration of on-site and off-site drainage flows other than upgrades recommended in the Roads Assessment Report.

4.3.3 EROSION CONTROL

MATTOLE VALLEY ORGANICS will utilize best management practices including but not limited to:

1. Maintenance of roads, including rocking and armoring.
2. Proper management of solid, liquid and cultivation waste (see section 3.8)
3. Cultivation facilities and spoil stockpiles will meet all required setbacks from riparian and wetland areas.
4. Irrigation and application of fertilizers will be applied at agronomic rates.
5. Regulated products will be safely stored with secondary containment (see section 3.7)

4.4 WATERSHED AND HABITAT PROTECTION

The cultivation area is at least 150 feet at its closest point from the Mattole River, ensuring it is far outside of the required 100-foot streamside management area and providing several hundred feet of lush vegetation for any discharge to filter through.

Adherence to the proposed best management practices ensures that the watershed and surrounding habitat are protected. The cultivation activities and associated

structures meet all required setbacks from the nearest watercourse, providing a suitable buffer between the cultivation operation and habitat. Additionally, site development and maintenance activities utilize BMP's in accordance with the SWRCB's recommendations. Any grading and earthwork activities will be conducted by a licensed contractor in accordance with approved grading permits.

An Invasive Species Control plan was conducted, the appended technical report from a biologist. (See Appendix C)

4.5 MONITORING AND REPORTING

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

Onsite monitoring shall occur:

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

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

4.6 ENERGY PLAN

A solar energy system has been developed for the existing operation. A back up generator is only triggered if extended cloudy days deplete battery reserves.

One additional set of string lights will be utilized in the expanded nursery.

The proposed cultivation project does not have any other activities that require any power.

4.7 NOISE CONTROL MEASUREMENTS

The existing operation does not utilize fans. A solar array with back up generator is utilized for drying operations.

No additional noise impacts are expected as part of the expanded operation. Full sun outdoor cultivation will not require any fans or generators or other static noise sources.

4.8 LIGHT POLLUTION CONTROL MEASURES

There are no lights used as part of the existing cultivation greenhouses nor the full term outdoor plants.

The nursery blackout tarp will be placed over the nursery when lights are being utilized.

4.9 BEST MANAGEMENT PRACTICES

4.9.1 USE AND STORAGE OF REGULATED PRODUCTS

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

4.10 FERTILIZERS, PESTICIDES AND FUNGICIDES

4.10.1 FERTILIZERS

Soil is tested and amended with manure. Cover crop over winter with nitrogen fixing seed mix.

Up to 5 gallons of fish emulsion will be kept on-site for mixing into compost teas along with manure gathered from on-site livestock.

4.10.2 PESTICIDES AND FUNGICIDES

Pesticides and fungicides used for cultivation include:

- Plant Therapy - 1 Gallon

4.10.3 FUELS AND OILS, OTHER REGULATED PRODUCTS

Fuels and oils stored on site include:

- 99% Isopropyl Alcohol –1 to 5 Gallon
- Bleach –1 to 5 Gallon
- Gasoline 200 Gallon in tank w/ secondary containment
- Diesel - 200 Gallons in tank w/ secondary containment

4.11 WASTE MANAGEMENT PLAN

4.11.1 CULTIVATION WASTE AND SOIL MANAGEMENT

MATTOLE VALLEY ORGANICS uses permaculture techniques such as Hugelkultur, mulching and cover crops, which will greatly reduce the need for chemical additives to the soil. The additives and fertilizers used are organic and every precaution is made to ensure zero runoff for protection of nearby watershed and habitat.

This is prime ag soil and very little nutrients will be used. Mulching, manure from the on-site alpaca herd and cannabis waste products are added to this used soil to enhance composting and rejuvenate the soil. Cultivation vegetative matter such as root balls chipped, composted on site or tilled into soil.

4.11.3 MATERIALS MANAGEMENT AND WASTE 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 shed and self-hauled off weekly to a licensed waste transfer station.

4.11.4 WASTEWATER MANAGEMENT PLAN

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

A septic system is part of the permitted residence and is used by the resident operator.

4.11.5 STORM-WATER MANAGEMENT PLAN

Stormwater discharges from the property will be limited because all stormwater run-off from the barn will be captured and stored. All other run-off shall be reduced because the operation will improve soil conditions and permeability by amending it into a rich top-soil in combination with cover crop to absorb more water than the existing conditions with un-developed soil with invasive plant cover. See Site Management Plan for road maintenance evaluation and recommendations and culvert/stream crossing improvement recommendations.

4.12 INVASIVE SPECIES CONTROL PLAN - See Attached Report

5. PRODUCT MANAGEMENT

5.1 PRODUCT TESTING AND LABELING

MATTOLE VALLEY ORGANICS will not be testing on site. Plant will be harvested and transported by a licensed Distributor where the product will be tested.

5.2 PRODUCT INVENTORY AND TRACKING

MATTOLE VALLEY ORGANICS will comply with all Track and Trace Regulations and participate in the California METRC system, as required by the California Department of Food and Agriculture. The Agent in Charge ensures all commercial cannabis from immature plants to packaged products is tracked, accounted for and inventoried. Records are kept at each phase of the harvest and processing operation for reporting and compliance with State and Local regulations. The information recorded for each harvest includes:

- Cultivation canopy area
- Wet Weight of Harvested Plant
- Product ID numbers and product weight
- Staff identification (at each step)
- Physical location of the plant material at all times

5.3 TRANSPORTATION AND DISTRIBUTION

Transportation will be handled by a third-party, contracted, licensed transporter/distributor in accordance with State and Local regulations. Prior to moving harvested plants into Distributors / Transporters freezer truck, a transport manifest will be created by the cultivator and will include:

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

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

Appendix A: Site Plan

Appendix B: Cultivation Activities Schedule

Appendix C: INVASIVE SPECIES REPORT

Appendix D: Road Assessment Report