Site Management Plan

Teodora Petrova

1925 Old Somerville Creek Rd. Garberville, CA 95542

APN: 222-083-007

By: ETA Humboldt

10/19/2021

Purpose

This Revised Site Management Plan (SMP) has been prepared on behalf of the cannabis cultivator for the Humboldt County property identified as assessor parcel numbers 222-083-007, by agreement and in response to the State Water Resources Control Board Cannabis Cultivation Policy (Cannabis Policy), in congruence with General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order). The General Order implements the Cannabis Policy requirements, specifically those requirements that address waste discharges associated with cannabis cultivation activities. Dischargers covered under the General Order are subject to the requirements of the Cannabis Policy in its entirety. The Cannabis Policy provides a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities, establishes a personal use exemption standard, and provides conditional exemption criteria for activities with a low threat to water quality.

Tier Designation

Tiers are defined by the amount of disturbed area. Tier 1 outdoor commercial cultivation activities disturb an area equal to or greater than 2,000 square feet and less than 1 acre (43,560 square feet). Tier 2 outdoor commercial cultivation activities disturb an area equal to or greater than 1 acre. Risk designation for Tier 1 and Tier 2 enrollees under the Cannabis Policy is based on the slope of disturbed areas and the proximity to a surface water body. Characterization is based on the risk designation summarized in Table 1 below.
Thorough assessment of the project area including roads, disturbed areas, legacy features, and cultivation areas put this enrollment into the classification of **Tier 1, Low Risk.**

Scope of Report

Tier 1 and Tier 2 cannabis cultivators are required to submit and implement a Site Management Plan that describes how they are complying with the Requirements listed in Attachment A. Cannabis cultivators within the North Coast Regional Water Quality Control Board jurisdiction are required to submit and implement Site Management Plans that describe how the Requirements are implemented property-wide, to include legacy activities. The Discharger shall ensure that all site operating personnel are familiar with the contents of the General Order and all technical reports prepared for the property. A copy of the General Order, and technical reports required by the General Order, shall be kept at the cultivation site.

Methods

The methods used to develop this SMP include both field and office components. The office component consisted of aerial photography review and interpretation, existing USGS quad map review, GIS mapping of field data, review of on-site photography points, streamflow calculations, general planning, and information gathered from the cannabis cultivator and/or landowner. The field component included mapping of all access roads, vehicle parking areas, Waters of the State, stream crossings, drainage features, cultivation sites, buildings, disturbed areas, and all other relevant site features within the project are and surrounding areas (as feasible). Cultivation areas, associated facilities, roads, and other developed and/or disturbed areas were assessed for discharges and related controllable water quality factors from the activities listed in the General Order.

General Site Information

Discharger: Teodora Petrova

Landowner: Dejan Petrusevski

GPS: 40.0854, -123.8943

Location: 1925 Old Somerville Creek Rd. Garberville, CA 95542

Parcel Number: 211-372-006

Parcel Size: 82 acres

Disturbed Area: approx. 20,000ft²

Cultivation Area and Type: currently 13,100ft² Outdoor light deprivation proposed expansion of 1,900ft² for a total of 15,000ft²

Tier Level:1

Risk Level: Low

Humboldt County Plot Plan

Located in the Briceland Area of Humboldt County
APN :222-083-007

Spring
Only Utilized for Domestic Use

Fertilizer, Pesticide, and Herbicide Storage
12' X 16' = 192sqft

Agricultural Structure 30' X 50' = 1,500sqft
Harvest Storage
Drying Processing
Administrative Hold

QTY(8) 2,500 Gallon Water Tank

1500 & 2500 Gallon Water Tank

QTY(2) - 3,000 Gallon Water Tank

Greenhouse #1
35' X 116' = 4,060sqft

Greenhouse #2
20' X 60' = 1,200sqft

Proposed
Greenhouse #8
20' X 50' = 1,000sqft

Proposed
Greenhouse #9
20' X 45' = 900sqft

222-083-007-000

614ft to property boundary

106ft to 50ft SMA, 20ft Drip Line

QTY
(1) 1100 Gallon Water Tank
(3) 3000 Gallon Water Tank

500 Gallon Water Tank

156ft to 50ft SMA, 20ft Dripline

Greenhouse #3
32' X 118' = 3,776sqft

Greenhouse #4
32' X 92' = 2,944sqft

280ft to 100ft SMA, 20ft Drip Line

Greenhouse #5
50' X 8' = 400sqft

Greenhouse #6
40' x 8' = 320sqft

Greenhouse #7
50' X 8' = 400sqft

Residence
(Not for Cannabis)

44ft to 50ft SMA
20ft Dripline Buffer

46ft to 50ft SMA
20ft Dripline Buffer

416ft to property boundary

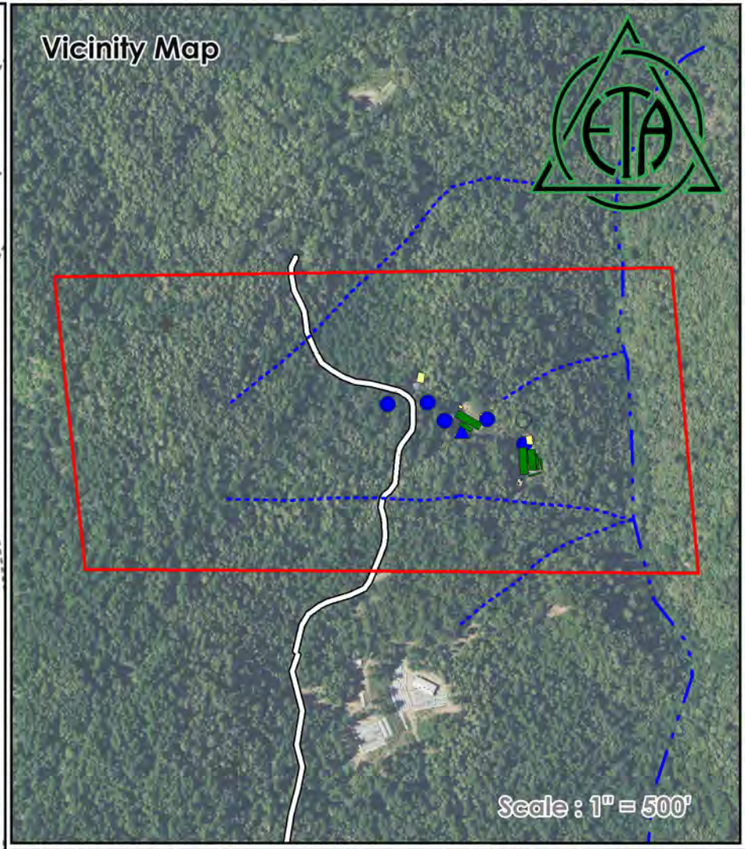
Well
Sole source of Agricultural Irrigation Water

Structure (Not for Cannabis)

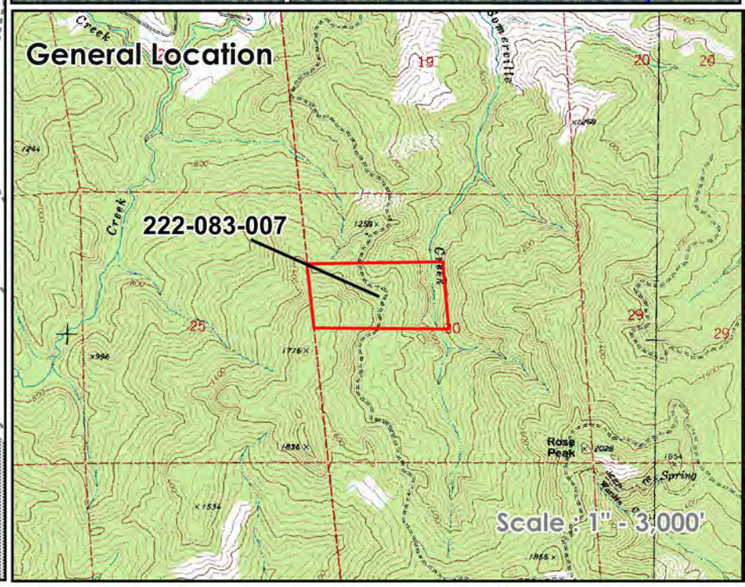
0 500
feet

Scale : 1" = 250'

Vicinity Map



General Location



Hilltop Ranch Cannabis

APN : 222-083-007

- Property Boundary
- Cultivation Area
- Measurement
- Topographic 40ft. Interval
- Stream Management Area
- Structure
- Road
- Spring Point of Diversion
- Water Tank
- Well

Watercourse

- Class I
- Class II
- Class III

Cultivation Area

Total Existing Cultivation = 13,100sqft
Proposed Cultivation Area = 1,900sqft
Propagation Area
Total Area 1,500 sqft

Cultivation Area Dimensions

Total Cultivation Area = 15,000sqft
Greenhouse #1 : 35' X 116' = 4,060sqft
Greenhouse #2 : 20' X 60' = 1,200sqft
Greenhouse #3 : 32' X 118' = 3,776sqft
Greenhouse #4 : 32' X 92' = 2,944sqft
Greenhouse #5 : 50' X 8' = 400sqft
Greenhouse #6 : 40' X 8' = 320sqft
Greenhouse #7 : 50' X 8' = 400sqft
Greenhouse #8 : 20' X 50' = 1,000sqft
Greenhouse #9 : 20' X 45' = 900sqft

Property Information

County:HUMBOLDT, CA
Parcel # (APN):222-083-007-000
Parcel Status:ACTIVE
Owner Name:PETRUSHEVSKI DEJAN
Mailing Address:PO BOX 2114 REDWAY CA 95560
Lot Acres:82.000

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1. Site Characteristics

1.1 General

This parcel consists of 82 acres of evergreen forest, mixed forest and grassland. Total disturbed area is approx. 20,000 square feet. Total cultivation area is 15,000². This is an expanded project that was originally 13,100ft² of cultivation with 20,000ft² of disturbed space.

The applicant is dedicated to minimizing any negative impact to the rural community and natural environment surrounding this parcel. This would include eliminating light pollution, noise pollution, or any other adverse effect to neighbors. The applicant adheres to BMP in protecting the environment and works closely with county and state agencies to keep in compliance and run a safe clean farm. The applicant's business functions with great regard for the ecosystem in which it operates.

A. The applicant's plans are to use the natural prime ag soils and only organic amendments to fortify the soil as needed.
B. Soil samples will be taken and analyzed to ensure proper balance of nutrients are being used.
C. Branches harvested during fuel reduction are composted and eventually used in swales, pathways, and remediation buffers to prevent nutrient runoff, reduce soil temperature, store carbon, and promote a healthy soil microbial community.
D. Soil fertility is closely monitored to prevent excess use of fertilizers.
E. Only organic products are used in the cultivation of cannabis.
F. Cultivated soils are cover cropped and mulched in the off season to enhance soil fertility and eliminate runoff; and
G. The entire site is monitored to identify and correct any potential sources of environmental degradation and maintain a protective riparian buffer

1.2 Structures currently on Site

Cultivation Areas

Greenhouse	Cultivation Type	Cultivation Area	Structure Sizing
1	Mixed Light Greenhouse	4,060 ft²	35' x 116' Greenhouse
2	Mixed Light Greenhouse	1,200 ft²	20' X 60' Greenhouse
3	Mixed Light Greenhouse	3,776 ft²	32' X 118' Greenhouse
4	Mixed Light Greenhouse	2,944 ft²	32' x 92' Greenhouse
5	Mixed Light Greenhouse	4000 ft²	8' x 50' Greenhouse
6	Mixed Light Greenhouse	320 ft²	8' x 40' Greenhouse
7	Mixed Light Greenhouse	400ft²	8' x 50' Greenhouse
8 (proposed)	Mixed Light Greenhouse	1,000ft²	20' x 50' Greenhouse
9 (proposed)	Mixed Light Greenhouse	900ft²	20' x 45' Greenhouse
Propagation Greenhouse (proposed)	Propagation Space	1,500 ft²	15' X 100' Propagation Greenhouse

1.2 Structures currently on Site (cont.)

Ancillary Cannabis Facilities

Facility	Size	Purpose
Drying/Processing/Secured Harvest storage	30' x 50' (1,500ft²)	used for drying, processing and storage of harvested cannabis
Pesticide/Nutrient Storage	12' x 16' (192ft²)	Storage of Pesticides and nutrients
Generator Shed	10' x 20' (200ft²)	Storage of Generator and associated fuels

1.3 Access Roads

The site is located on Old Somerville Creek Road off Old Briceland Road in the Briceland area. in the Garberville Area. Personal driveway is shared with no additional neighbors. To access property from Eureka CA, via Highway 101.

Follow US-101 S to Redwood Dr. Take exit 642 from US-101 S, (63.2 mi.) Continue onto Redwood Dr. (1.8 mi.) Turn right onto Briceland Road. Follow Briceland road for 5.7 miles to Briceland. Turn left onto Old Briceland Rd. (0.2 mi. Turn right onto Old Somerville Creek Rd. Follow Old Somerville Creek rd. 2.3 mi. to destination. 1925 Old Somerville Creek Rd.

1.4 Stream Crossings

There is one Class II Tributary (Somerville Creek) to Redwood Creek on the parcel. There are two Class III ephemeral watercourses that are tributary to Somerville Creek and to Redwood Creek. There is currently one culvert on the parcel, and another culvert is slated to be added to convert an existing rock ford crossing.

1.5 Electricity

Power for this parcel will be provided in the by a diesel 25kw generator. There is also a 45kw generator for back up purposes only. Please see Energy Consumption Plan

1.6 Artificial Lighting

This is a Mixed Light operation. All Cultivation greenhouses and propagation greenhouses have artificial lights in them. Flowering light assistance is limited to weather conditions. All greenhouse light is shielded to prevent injury to wildlife. Please see Energy Consumption Plan.

1.7 Species of Concern

The following species that have been recorded within the quadrat (Briceland)

Foothill Yellow- Legged Frog
Southern Torrent Salamander
Red-Bellied Newt
Northern Spotted Owl
Coho Salmon- Southern Oregon Northern California ESU
Steelhead Northern California DPS
Summer Run Steelhead Trout
Chinook Salmon California Coastal ESU
Obscure Bumblebee
Western Bumblebee
Sonoma Tree Vole

2. Cultivation Plan

2.1 Cultivation Area

This project will consist of eleven (9) mixed light greenhouses totaling 15,000 ft². These mixed light greenhouses consist of one (1) 4,060ft² greenhouse, two (2) 400ft² greenhouses, one (1) 1,200 ft² greenhouse, one (1) 3,776 ft² greenhouse, one (1) 2,944 ft² greenhouse, one (1) 320 ft² greenhouse, one (1) 1,000 ft² greenhouse, and one (1) 900 ft² greenhouse. An additional 1,500 ft² propagation greenhouse will also be utilized. All cannabis is harvested and dried on site.

The following areas are designated for cultivation activities:

- Nine (9) existing mixed light flowering greenhouses totaling 15,000ft².
- One (1) Drying/processing/secured harvest storage building (1,500ft²) used for drying, curing, and storage of pesticide and nutrients
- One (1) Pesticide/Nutrient Storage Building (192ft²) for storage of Pesticides and nutrients
- One (1) shed (200ft²) used to store generator and associated fuel
- One (1) propagation greenhouse (1,500 ft²).

2.2 Processing Plan

Harvest
Cannabis will be harvested using gloves and clean tools. All cannabis will be hung to dry in the drying room. Dehumidifiers and fans will aid drying in the building. Cannabis will be dried for 10-14 days on lines in these areas depending on weather. The rooms will have proper ventilation, fans, and dehumidifiers to maintain proper environment. Moldy cannabis will be removed and destroyed using county and state approved procedures for holding and destroying unwanted product.

Curing
Curing will take place after cannabis is dried on the lines. Cannabis will be visually checked for mold then placed into plastic totes for curing. During this time the bins with be checked for mold and moisture consistency. Curing cannabis will be stored in drying/processing building. Moldy or defective cannabis will be removed and destroyed using county and state approved procedures for holding and destroying unwanted product.

Processing
Cannabis Trimming will occur as cannabis becomes ready from curing process. Trimming will physically take place in drying/processing building (see on map) with plenty of ventilation and fresh air. The Applicant plans to process the cannabis himself with the aid of trim machines. If needed, he will hire 1-3 employees or contractors to help. Processed cannabis will be bagged into turkey bags or sealed bags to be held until a distributor is ready. The trim or remaining leaves from processed cannabis, will be bagged into contractor bags to be stored until needed, sold, or destroyed in the legal manner.

Processing- Employees and Contractors
Employees will be seasonal and subcontracted as possible. Employees and contractors will have access to parking, spacious work zone, clean supplies for task, hand washing areas with soap, bathroom with sink and flushing toilet and break area. Fresh spring water is available, but workers are encouraged to bring their own drinking water. All areas are kept clean and in good condition All employees and/ or contractors will have access to personal safety equipment to meet the needs of the job for example, face mask, gloves, Tyvek suits, safety glasses, rubber boot covers etc. There are no worker sleeping quarters on site. Workers are encouraged to carpool to work daily, and applicant intends to mitigate any additional traffic on Old Somerville Creek Rd., by reducing his own travel during times he has workers.

Worker Safety Practices

Safety protocols will be implemented to protect the health and safety of employees. All employees shall be provided with adequate safety training relevant to their specific job functions, which may include:

Employee accident reporting
Security breach
Fire prevention
Emergency Numbers

Materials handling policies

Use of protective clothing such as long sleeve shirts, brimmed hats, and sunglasses. Each garden site and or processing area have the following emergency equipment:

Personal protective equipment including gloves and respiratory protection are provided where necessary
Fire extinguisher
First Aid Kit
Snake Bite/Bee Sting Kit
Eye Washing Kit

Comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers, which may include federal and state wage and hour laws, CAL/OSHA, OSHA, California Agricultural Labor Relations Act, and the Humboldt County Code (including the Building Code).

2.3Monthly Cultivation Site Activities

Month	Activities
January	Finish processing of fall harvest, trimming and storage. Plan new year. Mow cover crop. Check greenhouses for issues/fix. Check water lines, tanks and all equipment for repairs or damages. Make plan for repairs.
February	Work on trenches/and holes for plants layer more compost in beds. Treat compost if necessary. Finishing processing last year's crop if still necessary.
March	Get clones from other permitted grow operation. Transplant and move into greenhouse with seedlings. Amend beds, fix fences, service equipment, make plan for independent contractors i.e.; painting, fence building, greenhouse fixing, etc.
April	Amend and start turning beds, prep dirt and supplies for greenhouse plants Add nematodes compost for pest prevention. Mid- April move first round of plants to greenhouses. Weed whacking, mowing, and brush cleanup.
May	Spray with preventive sulfur. Treat with biodynamic preparations for pest control and mold control. Greenhouse plants switched into flower using a blackout cover mid-late May. Turn beds, fix/ replace and clean drip emitters, check timers. Double check all water systems for leaks and clogs. Put out sound sensors for rodents.
June	Regular feeding schedule of compost teas adhered to. Pests are dealt with as they arise with oils, nematodes and predator mites from compost. Procure next round of plants from licensed nursery.
July	Harvest greenhouse mid-month, replant with new clones from a permitted nursery. Treat plants with preventive measures. Harvested flowers to hang in drying area then to be cured and hand trimmed per processing plan.
August	Finish processing July's harvest. Monitor water supply, check lines and all areas for insect/ animal disturbance.
September	Prepare for Harvest. Clean and prepare lines and drying spaces in drying room. Clean all supplies and purchase new items needed. Harvest, cure and trim as outlined above in processing plan.
October	Harvest greenhouses. Process as outlined above. Pull all root-balls, pack hay and cover crop seeds on beds. Pull drip system. Check all equipment and tools for leaks and damages before storing for winter. Store all supplies possible, cleanup site.
November	Finish harvesting plants if necessary. Winterize water system, greenhouses, and sheds. Clean up drying rooms remove all lines and debris. Put away all supplies i.e. fans, dehumidifiers. Continue processing cannabis as outlined above.
December	Start amendments for winter. Prep all water and water storage system for shut down. Clean all garden implements. Put all left over supplies away. Driveway fixing, other farm/garden maintenance.

3. Water

3.1 Source and System

Current Water use for this site is approximately 203,167.5-gallons. The current water use for the cannabis is approx. 128,667.5-gallons. Domestic water use is expected to be approx. 74,500-gallons. This water use is an estimate to the best of my knowledge. Projected irrigation water use for the project is 171,467.5-gallons for completed project with additional greenhouses.

The irrigation water source for this operation is an existing groundwater well. Domestic water is sourced from domestic spring S025403.

3.2 Use

The water is used for onsite irrigation and foliar spraying. The irrigation systems employed include drip irrigation and hand watering. Domestic water is used for handwashing stations and drinking water, as well as for the residence.

Monthly Water Use Table

Month	**Current Cannabis Use in Gallons**	**Projected Cannabis Use In Gallons**
January	0	0
February	0	0
March	0	0
April	10,667.5	16,467.5
May	13,500	21,000
June	19,000	25,500
July	23,500	30,500
August	23,500	30,500
September	22,000	24,500
October	16,500	23,000
November	0	0
December	0	0
Total	**128,667.5**	**171,467.5**

3.3 System Maintenance

Entire water system including manifolds and fittings are inspected weekly for leaks, and drip system is inspected daily for leaks and damage.

3.4 Storage

There is currently a total of 16 (sixteen) HDPE water storage tanks on the parcel. There are 9 (nine) 2,500-gallon HDPE Water storage tanks, 5 (five) 3,000-gallon HDPE water storage tanks, 1 (one) 1,500-gallon HDPE water storage tank, and 1 (one) 1,100-gallon HDPE water storage tanks for a total of 40,100-gallons of water storage. Tank configuration will be one 2,500-gallon HDPE water storage tank for Firefighting use, (filled from well), one 1,100-gallon HDPE water storage tank for Domestic use (filled from domestic spring) eight 2,500-gallon HDPE water storage tanks, five 3,000-gallon HDPE water storage tanks, and one 1,500-gallon HDPE water storage tank (filled from well) for Irrigation use.

Storage Facility	**Capacity**	**Type**
Water Tank	1,100 gallons	HDPE Storage Tank
Water Tank	2,500 gallons	HDPE Storage Tank
Water Tank	1,500 gallons	HDPE Storage Tank
Water Tank	5 qty @ 3,000-gal. ea. 15,000 gallons total	HDPE Storage Tanks
Water Tank	8 qty@ 2,500-gal.ea. 20,000-gallons total	HDPE Storage Tanks

3.4 Water Conservation Infrastructure

The applicant will utilize drip irrigation throughout this cultivation sites. Float valves will be installed on every water tank to ensure no overflow occurs. A water meter will be installed on the well to monitor water usage, and logs will be kept regularly. The slow rate of drip irrigation provides water at a rate that runoff will be preventable. Drip emitters are set to output the lowest amount of water possible over a period of time to minimize excess water use and eliminate runoff personalities. The entire irrigation system, all water lines, drip emitters and connections will be inspected for water leaks regularly, and any damaged equipment is replaced immediately to prevent water loss.

4. Erosion and Sedimentation

4.1 Points of Concern

There is one culvert that needs to be upgraded to an adequate size for the 100-year stormflow expectations, and one new culvert needs to be installed in area of existing rock ford water crossing. There are no other current erosion concerns on this parcel.

4.2 Soil Management

The soil used onsite consists of a premixed soil blend in combination with coco coir. Soil deficiencies are determined by testing the soil, observation of the crop health and comparison of crop yields. Soils on site are reused and amended, rather than disposed of. This site has no problems with soil erosion.

4.3. Maintenance

Some of the soil conservation measures employed include the use of firebreaks, the encouragement of winter cover crops and general maintenance of the wildlife habitat.

5. Fertilizers, Herbicides and Pest Management

The applicant will follow best organic operation practices. Fertilizers, amendments, or other agro-chemicals will be stored in dedicated locations within the pesticide and nutrient storage building. All fertilizers or other regulated and non-regulated agro-chemicals shall be stored within covered areas with secondary containment. Fertilizers, potting soils, compost, and other soils and soil amendments are currently stored in structures on the property in a manner in which they will not enter or be transported into surface waters and so that nutrients or other pollutants will not be leached into groundwater. Fertilizers and soil amendments are applied and used per the manufacturers guidelines. Cultivation areas are currently maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest.

5.1 Herbicides/Weed Control

Biological, physical, and cultural methods of weed control are employed. Hand-pulling weeds and weed eating are the primary methods used onsite for weed reduction.

Herbicides and fertilizers present on site will be stored in a shed with a locked door

5.2 Pest Management

This Pest Management Plan was prepared to comply with California Department of Food and Agriculture requirements for CalCannabis cultivation licensing. This plan describes various pest management options that the applicant will employ depending on conditions and circumstances. All pesticides and practices used will comply with California Department of Pesticide Regulation and the Humboldt County Agricultural Commissioner's enforcement the use and sale of pesticides under Divisions 6 and 7 of the California Food and Agricultural Code, and Title 3 of the California Code of Regulations. The use of pesticide products is consistent with product labeling and all products on the property are to be currently stored in closed structures to ensure that they do not enter or are released into surface or ground waters.

The applicant will be utilizing proper crop spacing, using proper nutrient levels and pH balance to minimalize the spread of insects. The applicant will choose plant strains with genetics that have resistance to pest. Timing crop planting will also be utilized.

If deemed beneficial, the applicant will utilize lady bugs to control mite infestations, or any other predator insect that is approved for use.
The applicant will be utilizing chemicals as a preventative. The chemicals will be applied as a foliar spray. All products are OMRI listed and are organic.

Product Name	Active Ingredients
Neem Oil	Azadirachtin
Micro-ionized Sulfur	Sulfur
Green Cleaner	Soybean Oil, Sodium Lauryl Sulfate, Citric Acid, Isopropanol Alcohol

5.3 Storage

All chemicals shall be stored and handled according to the manufacturers recommendation and as outlined by the DCC or any other best practices as outlined by a cannabis licensing bureau.

Pesticides, fungicides, and other biocides on site will be stored in a shed with a locked door.

6. Petroleum, Gas and Oil

Project site will not store any Hazardous Waste in threshold beyond domestic use. If any additional storage of hazardous waste becomes necessary, an appropriate application will be filed with DHHS.

Any above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. All Diesel tanks on site are double walled technology providing their own secondary containment. All five-gallon gasoline cans are stored with secondary containment inside of shed or similar enclosure on flat, stable areas. The applicants will implement spill prevention, control, and countermeasures (SPCC). There are no underground storage tanks on the property. All petroleum products on property are stored with secondary containment inside of a shed or similar enclosure on flat, stable areas.

7. Waste

7.1.1 Cultivation Waste

CERCC (Clean Energy Resource Conservation Commission) requires that the project comply with the California Integrated Waste Management Act (CIWMA). In addition to cannabis waste, which is regulated by CERCC, the CIWMA requires that the project manage recycling of commercial solid waste and organic waste. The following project policies are regulated by local and state requirements:

A. All cannabis waste shall be stored in a secure waste receptacle, or secured area, and disposed of in accordance with local and state regulations. "Secure waste receptacle" or "secured area" means that physical access to the receptacle or area is restricted to the licensee and its employees, or the local agency, or waste hauler franchised or contracted by a local agency.

B. Public access to the designated cannabis waste receptacle or area shall be strictly prohibited.
C. All commercial solid waste shall be stored separately from cannabis waste in disposal bins secure from wildlife and watershed discharge, divided out from trash and recyclables, and disposed in accordance local and state regulations.

D. All hazardous waste regulated by the Integrated Pest Management Plan shall be dispose of properly utilizing protocols within that plan in compliance with all local and state regulations.

7.2 Tracking, Records, and Inspections

CERCC requires that the project comply with the Track-and-Trace System and local requirements. The following policies shall be implemented to ensure compliance with the local and state requirements:

A. In addition to all other tracking requirements, disposal of cannabis waste shall use the Track-and-Trace System with documentation to ensure cannabis waste is identified, weighed, and tracked while on premises and when disposed.

B. All cannabis plant material identified as cannabis waste shall be reported in the Track-and-Trace System made within three (3) business days of the change in disposition from cannabis plant material into cannabis waste scheduled for destruction or disposal.

C. Review of on-site cannabis, Track-and-Trace System records, cannabis waste, commercial waste, and any other records shall be available for CDFA (California Dept of Food and Agriculture) inspection or their designated representative. Inspections shall occur at standard business hours from 8:00am to 5:00pm. Prior notice for inspections is not required by the inspecting agency.

7.2 Tracking, Records, and Inspections (cont.)

D. No person shall interfere with, obstruct, or impede inspection, investigation or audit. This includes, but is not limited to, the following actions: Denying the department access to the licensed premises. Providing false or misleading statements. Providing false, falsified, fraudulent or misleading documents and records, and failing to provide records, reports, and other supporting documents.

E. Accurate and comprehensive records shall be maintained on-site for seven (7) years regarding cannabis waste which are subject to CDFA inspection that account for, reconcile, and evidence all activity related to the generation or disposition of cannabis waste.

7.3 Internal Waste Management Policies

The following waste management policies shall be implemented to ensure compliance with the local and state regulations, as well as CIWMA, CERCC and, CWMP (Cannabis Waste Management Plan):

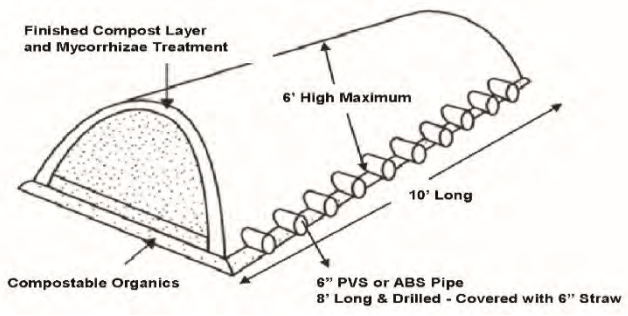
A. The CWMP shall be always be retained onsite. B. Each new laborer that comes onto the site shall be provided with a copy of the CWMP and it shall be their responsibility to read the CWMP.
C. The operator shall instruct all laborers as to the location and proper disposal of cannabis waste.
D. The operator shall monitor the process of waste management and reuse of cannabis waste to ensure compliance with the CWMP, local requirements, Integrated Waste Management Act, and CERCC.
E. The operator shall ensure that all supporting documentation which demonstrates compliance with the CWMP is provided to the local or state enforcement agency upon request or when required.
F. Waste reduction and recycling strategies shall be periodically reviewed.
G. Every effort shall be made to use to reduce the amount of cannabis waste sent to landfills by on-site composting and reuse.
H. Any person hauling away cannabis waste shall notify the operator of the materials, location of disposal, and provide written record.
I. The waste hauler shall track the total amount of cannabis waste leaving the project by weight or by volume and supply the operator with copies of tickets or detailed receipts from all loads of cannabis waste removed from the site

7.4 On Site Cultivation Waste Disposal

The CWMP identifies one or more of the following approved methods for cannabis waste and organic waste according to the CIWMA, CERCC and, CWMP:

On-premises disposal of cannabis and organic waste: Composting cannabis waste shall comply with title 14 of the California Code of Regulations Division 7 Chapter 3.1 (commencing with Section 17850) by one or more of the following methods:

Passive Aerated Static Pile: a composting process that is similar to the aerated static pile except that the air source may or may not be controlled.



Land Application: final deposition of compostable material shall be spread on-site land (i.e., compost used within gardens).

7.2 **Solid Waste/ Recycling**

Solid waste and recycling shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters. All solid waste and recycling are stored in cans with lids on a stable, flat area. The cans are secured to exclude wildlife. Solid waste and recycling shall be disposed of at an authorized municipal waste transfer station. It will be taken to by personal vehicle, i.e., truck, 1-3 times per week depending on garbage accumulation.

Solid Waste and Recyclables Disposal

Redway Transfer Station
California Conservation Camp Rd.
Redway, CA 95560707-923-3944
https://www.recology.com/recology-eel-river/redway-transfer-station/

7.3 Domestic Wastewater

Portable toilets are utilized for handling domestic wastewater. Portable toilets are cleaned regularly by septic disposal company.

Monitoring Plan

Cannabis cultivators shall regularly inspect and maintain the condition of access roads, access road drainage features, and watercourse crossings. At a minimum, cannabis cultivators shall perform inspections prior to the onset of fall and winter precipitation and following storm events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation. Cannabis cultivators are required to perform all of the following maintenance:

- Remove any wood debris that may restrict flow in a culvert.
- Remove sediment that impacts access road or drainage feature performance.
- Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment.
- Maintain records of access road and drainage feature maintenance for annual reporting.

Cannabis cultivator that are operating in areas that are, or may become, inaccessible during winter months due to extreme weather such as snow, road closures, seasonal access roads to the property, or any other such conditions shall make additional efforts to enhance winterization measures in the absence of monitoring during storm events.

Monitoring Requirements

(Tier 1, Low Risk, < 1 acre of cultivation)

Monitoring Requirement	Description
Winterization Measures Implemented	Report winterization procedures implemented, any outstanding measures, and the schedule for completion.
Tier Status Confirmation	Report any changes in the tier status.
Third Party Identification	Report any change in third party status as appropriate.

Annual Reporting

Annual Reports shall be submitted to the North Coast Regional Water Quality Control Board by March 1st following the year being monitored. The first Annual Report for this enrollment shall be submitted by March 1st, 2019 and report on monitoring done during the 2018 calendar year. Annual reporting is required each subsequent year of enrollment.

General Recommendations

- Frequent use of un-surfaced roads should be avoided, particularly when road surfaces are soft/saturated.

- Existing or newly installed road surface drainage structures such as water bars, rolling dips, ditch relief culverts, and intentionally in/out-sloped segments of road shall be maintained to ensure continued function of capturing and draining surface runoff.
- All culverts should be inspected regularly during the winter months to check for plugging, blockage, or other issues.
-
- All generators and petroleum powered pumps shall be located out of riparian setbacks, and are required to have spill trays or secondary containment placed underneath them when using, fueling, or changing oil on them to prevent the potential for leeching, seepage or spillage of petroleum products. All spill trays and containment structures require cover from precipitation. See BMPs: See BMPs: Generator, Fuel, Oil Management and General Recommendations - Petroleum products and hazardous materials specifications.
- Keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, and hazardous materials.
- Fertilizer, soil amendments, and pesticide use it to be recorded in such a manner that cumulative annual totals are recorded for annual reporting.
- Store in-use fertilizers in a small storage container, such as a tote or deck box, adjacent to the mixing tanks. For the winter period, store fertilizers in enclosed structures with concrete or wooden floors. Do not store fertilizers and flammable petroleum fuels in the same storage structure or area.
- All water storage tanks shall be located out of riparian setbacks.
- Water use shall be designed and metered such that water used for the irrigation of cannabis will be recorded separately from domestic use. Water use for the irrigation of cannabis is to be recorded monthly for annual reporting.
- Install float valves, or implement another equivalent system, on all applicable water storage and transfer tanks to prevent unnecessary water diversion and the overflowing of water tanks.
- Ensure lids are secured on all water storage tanks to prevent wildlife from becoming entrapped within the tank.

Winterization

- Any exposed soils or disturbed land resulting from summer operations or winterization activities shall be seeded with native grass seed and mulched with weed free straw and/or wood chips.

-All disturbed ground and exposed soils around the pond will be treated with erosion control measures including: seeding with native grass seed, mulching with weed free straw and/or wood chips, and installing erosion control measures such as straw wattles, and jute netting.

-All existing culvert inlets shall be cleared of any potential obstructions.

-All fertilizers and petroleum products will be completely sealed and placed in the Storage Structures.

-The chemical toilet will be removed from the property until need resumes the following cultivation season.

-Water storage tank lids shall be appropriately closed to prevent the access of wildlife.

-All refuse/trash shall be removed and disposed of appropriately.

-All inorganic material capable of being transported by wind or rain shall be secured and stored appropriately.

-Any exposed soils resulting from winterization activities shall be seeded and straw mulched.

8. Appendix

8.1 Best Practical Treatment or Control Measures

BMP procedure measures to be implemented

- List of record keeping, monitoring, and other measures needed for compliance.
- Install flow meters for Install flow meters water use and record water use weekly.
- Use log pages and provide additional documentation as needed.
- Record water use.
- Read flow meters weekly and record irrigation use by water source.
- Use log pages provide additional documentation as needed.
- Wet weather road inspection.
- Inspect road during wet weather annually.
- Observe water and sediment discharge.
- Document observations, apply corrective measures to prevent erosion as needed based on observations.
- Pre and post season inspection, conduct self- assessment twice annually.
- Use log pages provide additional documentation as needed.
- Keep chemical storage and use logs
- List chemicals stored onsite and information about quantities used and frequency applied.
- Record annual fertilizer and amendment use.

8.2 Emergency Contact Information

Mayers Flat Farms shall visibly post and maintain an emergency contacts list which will include at a minimum:

1. Managerial and property owner contact(s):
2. Property Owner/Manager- Teodora Petrova/David Marr (805) 708-2484
3. Emergency responder contact(s):
    a. EMERGENCY CALL 911

        Site Address: 1925 Old Somerville Creek Rd. Garberville, CA 95542

    b. Nonemergency Sheriff: (707) 445-7251
4. Hazardous Material/Poison control contact(s):
    a. EMERGENCY CALL 911

        Site Address: 1925 Old Somerville Creek Rd. Garberville, CA 95542

    b. Poison Control Centers 1-800-222-1222
    c. Humboldt County HazMat: (707) 445-6215
    d. Humboldt County Ag Dept: (707) 441-5260

Print and Display in an accessible location.

8.3 Attachments

- Pre-season Self-Assessment
- Post season Self-assessment
- Chemical/Pesticide/Herbicide Inventory Log
- Chemical/Pesticide/Herbicide Application Log
- Soil Amendments and Fertilizer Log
- Water Use Log
- Plot Plan
- Pesticide Information Pamphlet
- Generator, Fuel and Oil Best Management Practices
- General Best Management Practices
- Erosion Control Best Management Practices
- Used Oil Generator Requirements
- Managing Used Oil Filters for Generators Best Management Practices
- Energy Generation and Consumption Plan

Pre-season Self-Assessment (to be completed after March and before April 15 each year)

Person Reporting: _____

Date: _____

☐ Yes ☐ No

All stockpiles, soil amendments, pesticides, and fertilizers have remained properly stored and/or contained and have not discharged from their storage/containment facility(ies).

Comments:

☐ Yes ☐ No

Implemented erosion and sediment controls have remained in place and functioning throughout the winter wet weather period, preventing sediment and turbid stormwater from discharging to surface water bodies.

Comments:

☐ Yes ☐ No

All access roads appear to be in good condition and drainage structures have been effective in preventing road surface and fill material from discharging to any surface water bodies.

Comments:

☐ Yes ☐ No

Watercourse crossing structures remain functioning throughout the winter wet weather period and there is no evidence of crossings being plugged, overtopped, and/or discharging sediment or fill material. Comments:

☐ Yes ☐ No

All water containment structures/ponds/dams have remained effective and in good condition.

Additional Findings: Please describe pre-winter BMPs applied to the site including location and methods (attach additional pages as necessary):

_____

_____

_____

_____

_____

_____

_____

_____

_____ Comments:

Post-Season Self-Assessment (to be completed by October 15th each year)

Person Reporting: _____

Date: _____

☐ Yes ☐ N/A

All stockpiles, soil amendments, pesticides, and fertilizers have been properly stored and/or protected per Best Management Practices (BMPs).

Comments

☐ Yes ☐ N/A

Erosion and sediment controls have been properly installed and are functioning, and all areas of exposed soil have been stabilized in preparation for the winter wet weather period. Comments

☐ Yes ☐ N/A

Drainage structures (waterbars/rolling dips) have been installed and are functioning on all access roads, and all access roads intended for use during the winter wet weather period have been weatherproofed. Comments

☐ Yes ☐ N/A

Watercourse crossing structures have been correctly installed/maintained, all fill material/exposed soil has been stabilized, and are free of debris that could plug crossings over the winter wet weather period. Comments

☐ Yes ☐ N/A

All trash/refuse has been cleaned up where it cannot pass into or be transported into any water body and empty/used containers have been properly disposed per manufacturer's instructions. Comments

☐ Yes ☐ N/A

All water containment/storage ponds/dams have been inspected and appear to be in good, stable condition.

Additional Findings/Comments:

Chemical/Pesticide/Herbicide *Inventory Log*

List all chemicals that you have in storage. When any new pesticides, herbicides, or chemicals are brought onto the property enter the product information in this form. An example entry is provided.

Name of Product	Pest/Herb/Other	Quantity (gal/lbs)	Date	Recorded By

Chemical/Pesticide/Herbicide *Application Log*

Anytime a pesticide, herbicide, or any other chemical is applied to the cannabis it will be recorded on this form. An example entry is provided.

Name of Product	Pest/Herb/Other	Quantity (gal/lbs)	Date	Recorded By

Soil Amendments and Fertilizer Log

Anytime an amendment or fertilizer is used in soil building, top dressing, foliar spray, or any other application - fill out this log. An example entry is provided.

Name of Product	Quantity (gal/lbs/etc)	Date Applied	N-P-K Ratio	Recorded By

Water Usage Log

Every week record the water used for cultivation using water meters. Fill out the annual total usage on the backside of this form at the end of the year. To calculate annual total, subtract the first meter reading of the year from the last reading of the year. An example entry is provided.

Water Source	Meter#	Quantity (gal/cf)	Date Recorded	Recorded By

CANNABIS

PESTICIDES THAT CANNOT BE USED

Protecting workers, the public, and the environment
California Cannabis Cultivation

Protecting workers, the public, and the environment from adverse effects of pesticide use in cannabis cultivation is critical to the mission of the California Department of Pesticide Regulation (DPR). DPR and the County Agricultural Commissioners (CAC) enforce the use and sale of pesticides under Divisions 6 and 7 of the California Food and Agricultural Code (FAC), and Title 3 of the California Code of Regulations (CCR). These laws and regulations apply to all pesticide use; cannabis is no exception.

All pesticide product labels include a warning statement, precautionary statements for protecting human and environmental health, storage and disposal statements, and directions for use. By law, all pesticide users must follow these statements.

When using pesticide products in cannabis cultivation, applicators must not use a rate that is higher than the rates listed on the label and follow the agricultural use requirements including method of application, restricted entry interval, personal protective equipment, and pre-harvest interval.

Always read the label prior to using any pesticide.

Some pesticides cannot be used in cannabis cultivation.

While there are some pesticide products that are legal to use on cannabis under state law, (see DPR's document: Pesticides that are Legal to Use on Cannabis) other products are never allowed in cannabis cultivation. The following criteria identify pesticide products that cannot be used in California cannabis cultivation under any circumstances. The use of any pesticides meeting any one of these criteria on cannabis will be strictly enforced as a violation of the FAC and could result in civil or criminal penalties (FAC sections 12996 and 12999.5):

- Not registered for a food use in California
- California Restricted Material including Federal Restricted Use Pesticides (3CCR section 6400)
- Signal word “DANGER”
- On the groundwater protection list (3CCR section 6800)

Cannabis cultivators who are licensed by the California Department of Food and Agriculture are required to comply with pesticide laws and regulations as enforced by DPR and the CAC's.

For more information:
www.cdpr.ca.gov/cannabis

California Environmental Protection Agency
dpr Department of Pesticide Regulation

PESTICIDES THAT CANNOT BE USED ON CANNABIS

The following are criteria for identifying pesticides that cannot be used in cannabis cultivation and examples of active ingredients meeting these criteria. This is a representative list of active ingredients and not intended to be exhaustive. The fact that an active ingredient is not listed does not authorize its use on cannabis in California.

Pesticides Not Registered for Food Use in California

If a pesticide product does not have directions for use on a food crop, it cannot be used in cannabis cultivation. Examples of active ingredients that do not have food uses include:

- Aldicarb
- Carbofuran
- Chlordane
- Chlorfenapyr
- Coumaphos
- Daminozide
- DDVP (Dichlorvos)
- Etofenprox
- Fenoxycarb
- Imazalil
- Methyl parathion
- Mevinphos
- Paclobutrazol
- Propoxur
- Spiroxamine
- Thiacloprid

California Restricted Materials

DPR designates certain pesticides as California restricted materials (3 CCR section 6400). A pesticide can be considered a restricted material for many reasons including designation as a federal Restricted Use Pesticide. Many of these products have product labels that clearly state "Restricted Use Pesticide." Consult your local CAC to determine whether a product is a restricted material. Examples of California restricted materials include:

- Abamectin
- Bifenthrin
- Brodifacoum
- Bromodiolone
- Cyfluthrin
- Difenacoum
- Difethialone
- Fipronil
- Naled

Pesticides on the Groundwater Protection List

Active ingredients that are on the Groundwater Protection List (3CCR section 6800) have chemical characteristics that make them likely to move into groundwater. Examples of active ingredients on the groundwater protection list include:

- Acephate
- Azoxystrobin
- Boscalid
- Carbaryl
- Chlorantraniliprole
- Diazinon
- Dimethoate
- Dimethomorph
- Ethoprop(hos)
- Fludioxonil
- Imidacloprid
- Malathion
- Metalaxyl
- Methiocarb
- Methomyl
- Myclobutanil
- Propiconazole
- Tebuconazole
- Thiamethoxam

Pesticide Products with the Signal Word “DANGER”

CANNABIS

PESTICIDES THAT ARE **LEGAL** TO USE

Protecting workers, the public, and the environment
California Cannabis Cultivation

Protecting workers, the public, and the environment from adverse effects of pesticide use in cannabis cultivation is critical to the mission of the California Department of Pesticide Regulation (DPR). DPR and the County Agricultural Commissioners (CAC) enforce the use and sale of pesticides under Divisions 6 and 7 of the California Food and Agricultural Code (FAC), and Title 3 of the California Code of Regulations (CCR). These laws and regulations apply to all pesticide use; cannabis is no exception.

All pesticide product labels include a warning statement, precautionary statements for protecting human and environmental health, storage and disposal statements, and directions for use. By law, all pesticide users must follow these statements.

When using pesticide products in cannabis cultivation, applicators must not use a rate that is higher than the rates listed on the label and follow the agricultural use requirements including method of application, restricted entry interval, personal protective equipment, and pre-harvest interval.

Some pesticide products are never allowed in cannabis cultivation under any circumstances (see DPR's document: Pesticides that Cannot be Used on Cannabis).

Always read the label prior to using any pesticide.

PRODUCTS THAT CAN BE LEGALLY APPLIED TO CANNABIS IN CALIFORNIA

A pesticide product can legally be applied to cannabis under state law if the active ingredients found in the product are exempt from residue tolerance requirements and the product is either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis.

Residue tolerance requirements are set by U.S. EPA for each pesticide on each food crop and are the amount of pesticide residue allowed to remain in or on each treated crop with “reasonable certainty of no harm.” Some pesticides are exempt from the tolerance requirement when they are found to be minimal risk.

Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil.

Cannabis cultivators who are licensed by the California Department of Food and Agriculture are required to comply with pesticide laws and regulations as enforced by DPR and the CAC's.

For more information:
www.cdpr.ca.gov/cannabis

California Environmental Protection Agency
dpr Department of Pesticide Regulation

PESTICIDES THAT ARE **LEGAL** TO USE ON CANNABIS

The following are examples of pesticide active ingredients that are exempt from tolerance requirements and either exempt from registration requirements or have labels broad enough to include use on cannabis. This is not an exhaustive list of active ingredients that may fit the legal use criteria. The active ingredients are organized by the intended target.

Insecticides and Miticides

- Azadirachtin
- *Bacillus thuringiensis* sub. *kurstaki*
- *Bacillus thuringiensis* sub. *israelensis*
- *Beauveria bassiana*
- *Burkholderia* spp. strain A396
- Capsaicin
- Cinnamon and cinnamon oil
- Citric acid
- Garlic and garlic oil
- Geraniol
- Horticultural oils (petroleum oil)
- Insecticidal soaps (potassium salts of fatty acids)
- Iron phosphate
- *Isaria fumosorosea*
- Neem oil
- Potassium bicarbonate
- Potassium sorbate
- Rosemary oil
- Sesame and sesame oil
- Sodium bicarbonate
- Soybean oil
- Sulfur
- Thyme oil

Fungicides and Antimicrobials

- *Bacillus amyloliquefaciens strain D747*
- Cloves and clove oil
- Corn oil
- Cottonseed oil
- *Gliocladium virens*
- Neem oil
- Peppermint and peppermint oil
- Potassium bicarbonate
- Potassium silicate
- Rosemary and rosemary oil
- Sodium bicarbonate
- Reynoutria sachalinensis extract
- Trichoderma harzianum

Vertebrate Repellants

- Castor oil
- Geraniol

BMP: Generator, Fuel, and Oil Management (General Requirements and Used Oil and Oil Filters)

All bulk fuel storage or petroleum products, any/all future petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. Storage tanks and containers shall be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature. Above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient cover shall be provided to prevent any/all precipitation from entering said secondary containment vessel.

If the volume of a fuel container is greater than 1,320 gallons, a Spill Prevention, Control, and Countermeasures (SPCC) plan will be required for the use the fuel tank.

On-site storage of petroleum products, or other fuels used for commercial activities may require registration as hazardous materials through the California Environmental Reporting System (CERS). Additionally, the waste oil generated from commercial activities (generators) and their used oil filters are considered hazardous waste and requires addition reporting. The discharger is advised to contact local agencies to find out if such reporting is applicable to currently operations

Used motor oil is required to be stored in sealed containers that the oil was originally packaged in, e.g. sealed buckets/quart or gallon jugs, or other sealed containers designed to store motor oil. Stored used oil is required to be regularly disposed of at hazardous waste disposal sites. Used oil filters are also required to be stored in sealed containers, e.g. sealed plastic totes/buckets, for later disposal at a hazardous waste disposal site. These storage containers are required to be stored in structures where they are protected from precipitation.

Further information regarding the State of California's requirements for the managing of Used Oil and Oil Filters can be found by entering the links below or searching the corresponding titles to the links.

California Department of Toxic Substances Control - Used Oil Generator Requirements

- https://www.dtsc.ca.gov/InformationResources/upload/RAG-UsedOilforGenerators.pdf

Department of Toxic Substances Control - Managing Used Oil Filters for Generator

- https://www.dtsc.ca.gov/InformationResources/upload/RAG_Used-Oil-Filters_Generators1.pdf

BMP: Generator, Fuel, and Oil Management (Generators and Pumps)

All generators and petroleum powered pumps are required to have spill trays or secondary containment placed underneath them when using, fueling, or changing oil on them to prevent the potential for leeching, seepage or spillage of petroleum products. All spill trays and containment structures require cover from precipitation. All generators and petroleum powered pump locations are also required to have spill cleanup kits on hand.

Pre-fabricated secondary containment structures and spill trays can be purchased online or from local wholesalers of petroleum products. As an alternative to pre-fabricated secondary containment structures, structures can be constructed from wooden, cinderblock, concrete, or metal frames lined with PVC liners, e.g. pond liner/water bladder material, as long as the containment is fully sealed and constructed in a similar manner to examples of pre-fabricated containment structures found below. Ensure that diked areas are sufficiently impervious to contain discharged chemicals. All containment structures require cover from precipitation to prevent the containment from filling with water. Secondary containment for fuel tanks shall not be constructed.

As an alternative to pre-fabricated spill kits, kits can consist of sealed trashcans or buckets with industrial absorbent material (e.g. cat litter) and shovels, placed nearby any location where generators, pumps, or other petroleum products or chemicals are used.

Examples of industry standard pre-fabricated spill containment and clean-up kits can be found following or entering the links below. Pre-fabricated spill containment and clean-up kits can be purchased online, from Renner Petroleum, or other similar industry providers.

Ultratech Spill Containment

- http://www.spillcontainment.com/categories/spill-containment/

New Pig Portable and Collapsible Spill Containment

- https://www.newpig.com/collapsible-berms/c/5142?show=All

BMP: Generator, Fuel, and Oil Management

Example of a small, portable, and compact containment berm.

Example of a portable utility spill tray.

BMP: Generator, Fuel, and Oil Management

Example of secondary containment for a fuel tank. This container requires cover from precipitation.

Example of spill pallets for unused or used oil drums and other petroleum products.

BMP: General BMPs

- If operations require moving of equipment across a flowing stream, such operations shall be conducted without causing a prolonged visible increase in stream turbidity. For repeated crossings, the operator shall install a bridge, culvert, or rock-lined crossing.

- During construction in flowing water, which can transport sediment downstream, the flow shall be diverted around the work area by pipe, pumping, temporary diversion channel or other suitable means. When any dam or artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain fish life below the dam. Equipment may be operated in the channel of flowing live streams only as necessary to construct the described construction.

- Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. The disturbed portion of any stream channel shall be restored to as near their original condition as possible. Restoration shall include the mulching of stripped or exposed dirt areas at crossing sites prior to the end of the work period.

- Structures and associated materials not designed to withstand high seasonal flow shall be removed to areas above the high-water mark before such flows occur.

- No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washing, oil or petroleum products, or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high-water mark of any stream.

BMP: General Erosion Control

- Timing for soil stabilization measures within the 100 feet of a watercourse or lake: For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface. For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days, whichever is earlier.

- Within 100 feet of a watercourse or lake, the traveled surface of logging roads shall be treated to prevent waterborne transport of sediment and concentration of runoff that results from operations. Treatment may consist of, but not limited to, rocking, out sloping, rolling dips, cross drains, water bars, slope stabilization measures, or other practices appropriate to site-specific conditions.

- The treatment for other disturbed areas within 100 feet of a watercourse or lake, including: (A) areas exceeding 100 contiguous square feet where operations have exposed bare soil, (B) approaches to road watercourse crossings out to 100 feet or the nearest drainage facility, whichever is farthest, (C) road cut banks and fills, and (D) any other area of disturbed soil that threatens to discharge sediment into waters in amounts deleterious to the quality and beneficial uses of water, shall be grass seeded and mulched with straw or fine slash. Grass seed shall be applied at a rate exceeding 100 pounds per acre. Straw mulch shall be applied in amounts sufficient to provide at least 2- 4-inch depth of straw with minimum 90% coverage. Slash may be substituted for straw mulch provided the depth, texture, and ground contact are equivalent to at least 2 – 4 inches of straw mulch. Any treated area that has been subject to reuse or has less than 90% surface cover shall be treated again prior to the end of operations.

- Within 100 feet of a watercourse or lake, where the undisturbed natural ground cover cannot effectively protect beneficial uses of water from operations, the ground shall be treated with slope stabilization measures described in #3 above per timing described in #1 above.

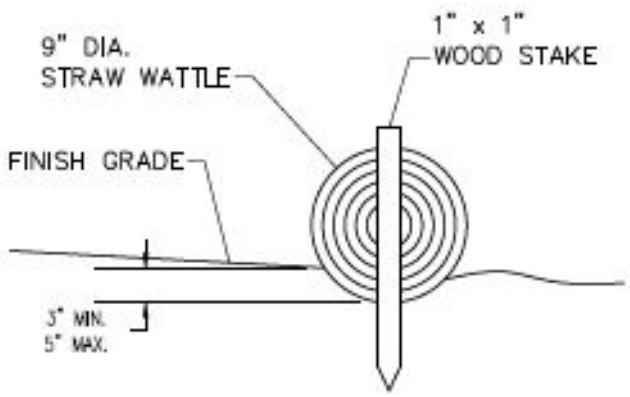
- Side cast or fill material extending more than 20 feet in slope distance from the outside edge of a landing which has access to a watercourse or lake shall be treated with slope stabilization measures described in #3 above. Timing shall occur per #1 above unless outside 100 feet of a watercourse or lake, in which completion date is October 15.

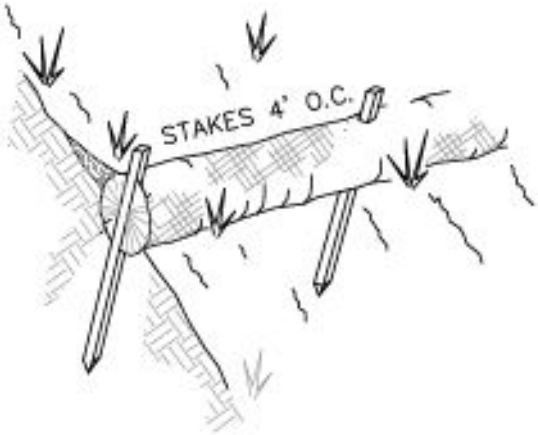
- All roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following operations and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within 100 feet of a watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

BMP: General Erosion Control (Cont.)

- Erosion control and sediment detention devices and materials shall be incorporated into the cleanup/restoration work design and installed prior to the end of project work and before the beginning of the rainy season. Any continuing, approved project work conducted after October 15 shall have erosion control works completed up-to-date and daily.
- Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
- Approved project work within the 5-year flood plain shall not begin until all temporary erosion controls (straw bales or silt fences that are effectively keyed-in) are installed downslope of cleanup/restoration activities.
- Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
- Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
- Soils exposed by cleanup/restoration operations shall be seeded and mulched to prevent sediment runoff and transport.
- Straw Wattles (if used) shall be installed with 18 or 24-inch wood stakes at four feet on center. The ends of adjacent straw wattles shall be abutted to each other snugly or overlapped by six inches. Wattles shall be installed so that the wattle is in firm contact with the ground surface.

BMP: General Erosion Control (Cont.)



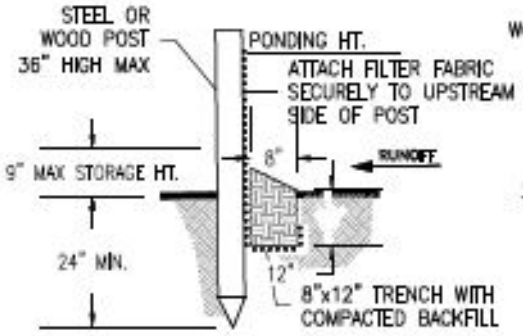


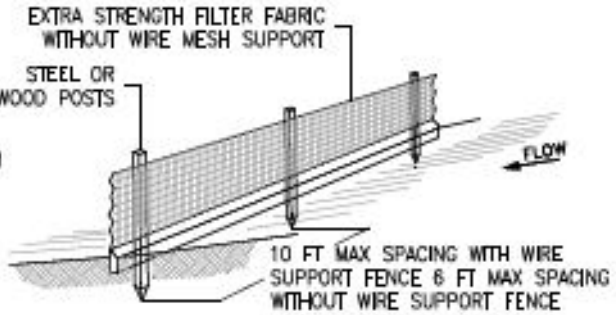
STRAW WATTLE NOTES:

1. STRAW WATTLES SHALL BE INSTALLED WITH 18 OR 24 INCH WOOD STAKES AT FOUR FEET ON CENTER. THE ENDS OF ADJACENT STRAW WATTLES SHALL BE ABUTTED TO EACH OTHER SNUGLY OR OVERLAPPED BY SIX INCHES.
2. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"–5" DEEP. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND THE ROLL.

STRAW WATTLE INSTALLATION DETAIL

NTS





SILT FENCE NOTES:

1. THE CONTRACTOR SHALL INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT.
2. CONTRACTOR SHALL REMOVE SEDIMENT AS NECESSARY. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF–SITE AND IN AN AREA THAT CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAILS

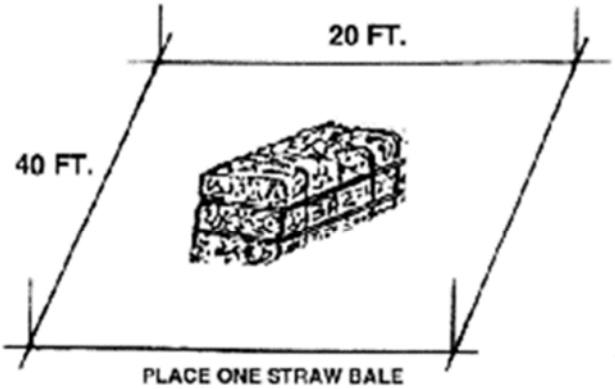
NTS

BMP: General Erosion Control (Cont.)

BMP: General Erosion Control (Cont.)

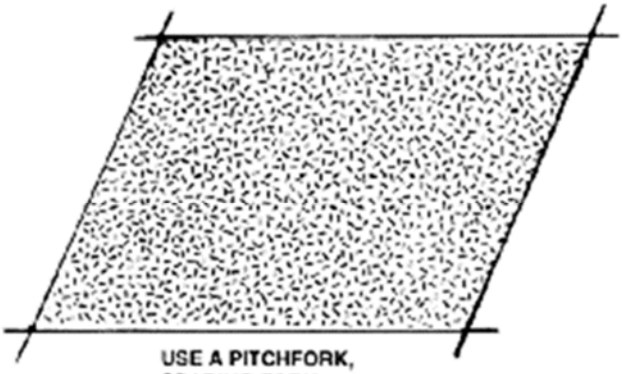
SPREAD THE STRAW

MARK OFF 800 SQ FT. PLOTS



PLACE ONE STRAW BALE PER PLOT (~74 POUNDS). THIS IS EQUIVALENT TO 2 TONS PER ACRE.

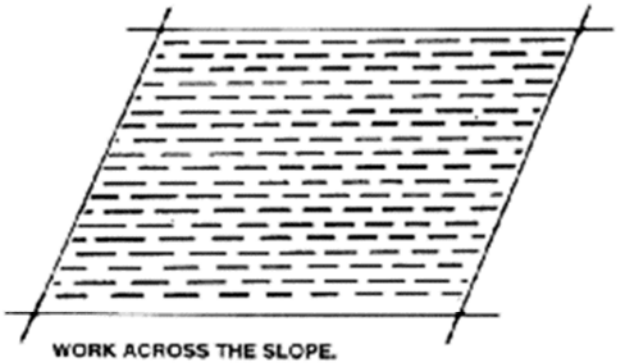
SPREAD EVENLY



USE A PITCHFORK, SPADING FORK, OR BY HAND

ANCHOR THE STRAW

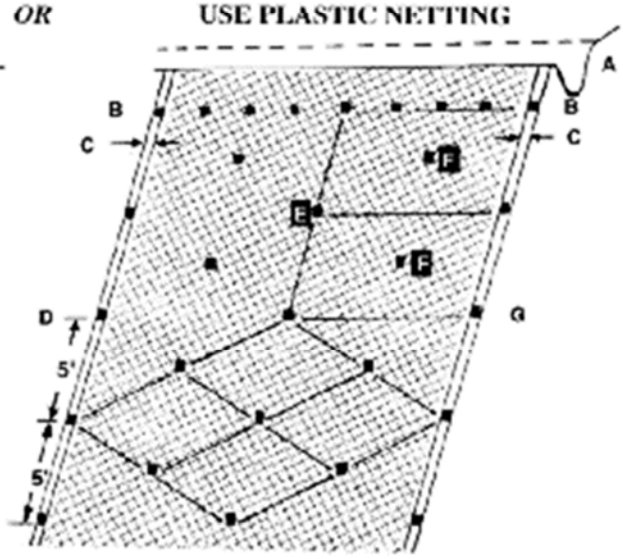
CRIMP BY HAND



WORK ACROSS THE SLOPE. PUNCH STRAW 4 INCHES DEEP. A SQUARE END SPADE WORKS WELL. MAKE PUNCH EVERY 12 INCHES.

OR

USE PLASTIC NETTING



A. LAY BIRD CONTROL NETTING OR SIMILAR MATTING IN STRIPS DOWN THE SLOPE OVER THE STRAW. BURY UPPER END IN 6-8 INCH DEEP AND WIDE TRENCH.. MOST NETTING COMES IN 14 TO 17 FT. WIDE ROLLS.

B. SECURE THE UPPER END WITH STAKES EVERY 2 FEET.

C. OVERLAP SEAMS ON EACH SIDE 4-5 INCHES.

D. SECURE SEAMS WITH STAKES EVERY 5 FEET.

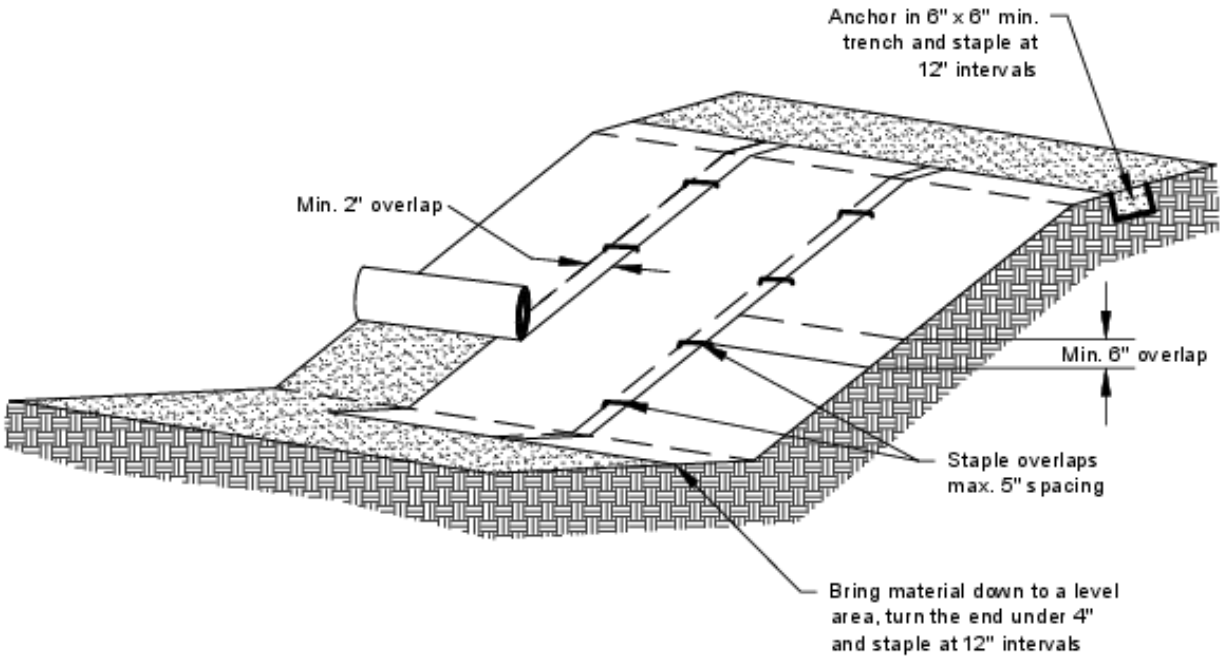
E. STAKE DOWN THE CENTER EVERY 5 FEET.

F. STAKE MIDDLES TO CREATE DIAMOND PAT TERN THAT PROVIDES STAKES SPACED 4-5 FEET APART.

G. USE POINTED 1X2 INCH STAKES 8 TO 9 INCHES LONG. LEAVE 1 TO 2 INCH TOP ABOVE NETTING, OR USE "U" SHAPED METAL PINS AT LEAST 9 INCHES LONG.

NOTE: WHEN JOINING TWO STRIPS, OVERLAP UPPER STRIP 3 FEET OVER LOWER STRIP AND SECURE WITH STAKES EVERY 2 FEET LIKE IN "B" ABOVE

BMP: General Erosion Control (Cont.)



Notes:

1. Slope surface shall be smooth before placement for proper soil contact.
2. Stapling pattern as per manufacturer's recommendations.
3. Do not stretch blankets/mattings tight - allow the rolls to mold to any irregularities.
4. For slopes less than 3H:1V, rolls may be placed in horizontal strips.
5. If there is a berm at the top of the slope, anchor upslope of the berm.
6. Lime, fertilize, and seed before installation. Planting of shrubs, trees, etc. should occur after installation.

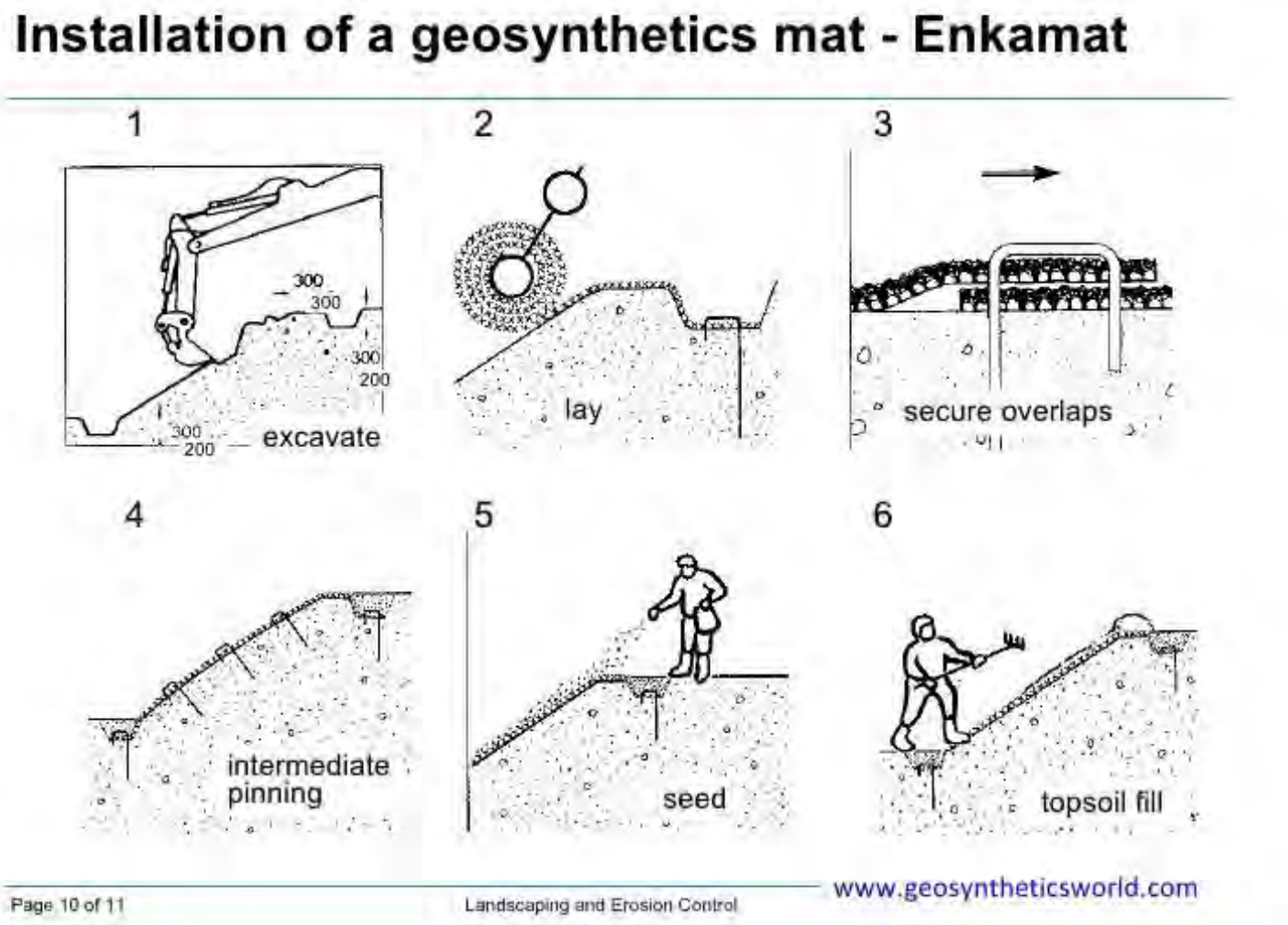
NOT TO SCALE

DEPARTMENT OF ECOLOGY
State of Washington

Slope Installation

Revised June 2016

BMP: General Erosion Control (Cont.)



BMP: General Erosion Control (Cont.)

TABLE 34. Guidelines for erosion and sediment control application

Timing of application	Technique	Portion of road and construction area treated
Erosion control during construction	Hydromulching, hydroseeding	Road fill slopes, cut slopes, bare soil areas
	Dry seeding	Road fill slopes, cut slopes, bare soil areas
	Wood chip, straw, Excelsior or tackified mulch	Road fill slopes, cut slopes, bare soil areas
	Straw wattles	Road fill slopes and cut slopes
	Gravel surfacing	Road, landing and turnout surfaces
	Dust palliative	Road surfaces
	Minimize disturbance (soil and vegetation)	All areas peripheral to construction
Sediment control during construction	Sediment basin	Roadside ditches, turnouts and small stream crossings
	Sediment traps (e.g., silt fences, straw bales barriers, woody debris barriers)	Road fill slopes, cutbanks, bare soil areas and ditches
	Straw bale dams	Ditches and small streams
	Sumps and water pumps	Stream channels and stream crossings
	Streamflow diversions (e.g., temporary culverts, flex pipe, etc.)	Stream channels and stream crossings
	Surface diversion and dispersion devices (pipes, ditches, etc.)	All disturbed bare soil areas
Permanent erosion control	Road shaping	Road and landing surfaces
	Gravel surfacing	Road, landing and turnout surfaces
	Bituminous or asphalt surfacing	Road surface
	Rolling dips	Road surface
	Ditch relief culverts	Roadbed and road fill
	Downspouts and berm drains	Road fill slopes
	Waterbars	Road and landing surfaces
	Berms	Road surface and roadside areas
	Ditches	Road and landing surfaces
	Riprap	Road fill slopes, stream crossing fills, cutbanks, stream and lake banks
	Soil bioengineering	Road fill slopes, cut slopes, stream crossings, streambanks
	Tree planting	Road fill slopes, cutbanks, bare soil areas, stream crossings, streambanks

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

Regulatory Assistance Guidance Document, November 2008

Used Oil Generator Requirements

Regulatory Assistance Officers Notes:

This guidance provides an overview of requirements for generators managing used oil in California. For a complete legal description of requirements specific to used oil, consult California Health and Safety Code (Health & Saf. Code), chapter 6.5, division 20, article 13 (commencing with section 25250), and California Code of Regulations title 22, division 4.5 (Cal. Code Regs.), including chapter 29 (used oil) commencing with section 66279.1.

Used Oil Management

Legal Definition of Used Oil:
Health and Safety Code section 25250.1 defines used oil as "any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities".

Used oil includes, but is not limited to, the following:

Used motor oils:	**Used industrial oils:**	**Other oils:**
Vehicle crankcase oils	Hydraulic oils	Transformer oils
Engine lubricating oils	Compressor oils	Refrigeration oils
Transmission fluids	Turbine oils	Metalworking oils
Gearbox and differential oils	Bearing oils	Railroad oils
Gear oils	Vegetable oils used for lubrication	

Waste synthetic oils that may be managed as used oil include:
Oil derived from coal, oil shale, or polymers;
Water-soluble petroleum-based oils;
Vegetable or animal oil used as a lubricant;
Hydraulic fluid;
Heat transfer fluid.

Used oil does NOT include:
Antifreeze,
Brake fluid,
Other automotive wastes,
Fuels,
Solvents.

Substances which are not regulated as used oils include:
Oils with a flashpoint below 100°F;
Oils mixed with hazardous waste;
Wastewater containing small amounts of used oil;
Oily wastes that are not used oil;
Oily wastewaters that are not used oil;
Tank bottoms;
Used oil processing bottoms;
Used oil re-refining distillation bottoms;
Cooking oils (edible);
Grease;
Oils containing 5 parts per million (ppm) polychlorinated biphenyls (PCBs) or greater;
Oils containing more than 1,000 ppm total halogens *;

**** See rebuttable presumption guidance and*** Health and Safety Code section 25250.1, subdivision (a)(1)(B)(v) and California Code of Regulations, title 22, section 66279.10

Used Oil Management
Health and Safety Code section 25250.4 requires that used oil be managed as a hazardous waste in California unless it has been recycled and is shown to meet the specifications for recycled oil in Health and Safety Code section 25250.1(b), or qualifies for a recycling exclusion under Health and Safety Code section 25143.2.

Used Oil Generator Requirements

For Households
Householders who change their own oil must manage their used oil appropriately (e.g., by taking it to a used oil collection center, etc., and never disposing of it to land, water, storm drains, etc.) Householders are allowed to transport their own used oil to a used oil collection center or to a used oil recycling facility without needing an EPA Number or using a hazardous waste manifest. Some communities have a curbside used oil pickup program for residents. Check with your local solid waste or environmental health agency to see if a recycling program is offered in your area.

For Everybody Else
Under Health and Safety Code section 25250.11, businesses generating used oil as well as used oil collection centers are required to meet all hazardous waste generator requirements operating. These requirements are found in California Code of Regulations, title 22, sections 66279.20 and 66279.21 which refer the reader directly to section 66262.10 (Hazardous Waste Generator Requirements).

DTSC has a guidance document Generator Requirements that give detailed explanation of the requirements. Below are some basic requirements applicable to most used oil generators.

EPA ID Numbers

Each non household generator of used oil needs to have an EPA Identification Number issued by DTSC or US EPA for each site where used oil is generated, accumulated or stored. See the Regulatory Assistance Guidance "EPA Identification Numbers."

Accumulation/Storage Requirements

Containers

The definition of container is given in California Code of Regulation, title 22, section 66260.10. Containers by definition are portable. A "portable" tank that can be moved while it contains waste is regulated as a container. The references to container management requirements are found in California Code of Regulations, title 22, section 66262.34 subsection (a)(1) which directs the reader to Article 9 Use and Management of Containers commencing with California Code of Regulation, title 22, section 265170.

In brief, Article 9 states that containers (including portable tanks) that are used for the accumulation of used oil must be kept in good condition and have adequate structural support to contain the used oil. There must be no severe rusting, no apparent structural defects or deterioration, and no leaking. All containers must have tight-fitting lids that are kept closed except when used oil is being added or removed. If a funnel is used in the bung hole of a container, it must either be removed when the container is not being added to (and the container closed), or be equipped with a valve or cover of some sort to prevent leakage if the drum should be turned over. Regular inspection and routine maintenance of all containers is required. Faulty containers must be repaired or replaced.

According to California Code of Regulation, title 22, section 66262.34 subsection (f), Containers accumulating used oil must be labeled with the must be labeled with the name and address of the generator and the words "Used Oil," "Hazardous Waste". In addition the container must be labeled with the initial date of accumulation.

Everybody Else (Generator >1,000kg/month)

The references to tank management requirements are found in California Code of Regulations, title 22, section 66262.34 subsection (a)(1) which directs the reader to Article 10 Tank Systems commencing with section 66265.190.

In brief, Article 10 states that tanks that are used for the accumulation of used oil must be kept in good condition. Tanks must be made of non-earthen, non-absorbing, rust-resistant material such as steel or oil-resistant plastic, and have adequate structural support to contain the used oil. There must be no severe rusting, no apparent structural defects or deterioration, and no leaking. Regular inspection and routine maintenance of all storage tanks is required. Faulty tanks must be repaired or replaced.

For those generators that must comply with Article 10, secondary containment (Cal. Code Regs., tit. 22, § 66265.193) and tank certifications (Cal. Code Regs., tit. 22, §§ 66265.191 and 66265.192) are required for storage tanks.

Secondary containment is a backup system designed to prevent the release and migration of wastes or accumulated liquids out of a storage tank or a storage tank system. Examples of secondary containment systems include an impervious bermed area or liner, a vault, or a double-walled tank.

Above-ground storage tanks and fill pipes used to transfer used oil into underground storage tanks must be labeled with the words "USED OIL," "HAZARDOUS WASTE," and the initial date of accumulation. In addition, containers must be labeled with the name and address of the generator. (Cal. Code Regs., tit. 22 § 66262.34(f))

Transporting Used Oil

Prior to transporting individual containers of used oil, regulations ((Cal. Code Regs., tit. 22 §§66262.31 and 66262.32) require that the generator must label shipping containers for used oil as follows:

HAZARDOUS WASTE - State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency or the California Department of Health Services.

- Generator's name and address
- Proper Department of Transportation (DOT) shipping name
- Uniform Hazardous Waste Manifest number and the shipping identification number (if an individual manifest is used).

An example is pictured to the right

Self Transport

Any generator of used oil is allowed to self transport, in a vehicle under the control of the generator, up to 55 gallons of used oil in containers of not greater than 55-gallon capacity to a used oil collection facility operating pursuant to Health and Safety Code section 25250.11. No hazardous waste manifest is required nor do you need to be a registered hazardous waste transporter. The statute gives the upper limit of the amount of used oil that may be accepted by a used oil collection facility. Since handling 55 gallon drums requires special equipment, many used oil collection facilities will not accept more than 20 gallons. Therefore the generator must first call the collection facility and ensure the facility can accept more than 20 gallons of used oil.

Hire Someone Else

If you hire somebody else to transport your used oil, California law requires that the used oil be transported by a registered hazardous waste transporter using a hazardous waste manifest. In order to be managed under the less restrictive used oil regulations, the used oil must be transporter to an authorized recycling facility.

Hazardous Waste Manifests

Consolidated Manifesting

Most business that generate used oil contract with a used oil collection service that uses a consolidate provide the generator (at the time of used oil pickup) with a legible copy of a receipt for each quantity of used oil received. The generator must maintain these receipts for 3 years. Each receipt must contain the following information:

- Generator's name, address, EPA Identification Number, contact person and telephone number. Generator's signature or signature of generator's representative,
- Date of shipment,
- Manifest number (pre-printed on the manifest),
- Volume, waste code(s) and shipping description of each type of used oil received,
- Name, address and identification number of the authorized facility to which the used oil is being transported,
- The transporter's name, address and identification number,
- The driver's signature,
- A statement, signed by the generator, certifying that the generator has established a waste minimization program to reduce the volume or quantity and toxicity of the hazardous waste to the degree, as determined by the generator, to be economically practicable.

- When using a consolidated manifest, the transporter is required to make a copy of the "generator copy" of the manifest and send it to DTSC. The transporter must also prepare and submit a quarterly report.

Full Hazardous Waste Manifests

Some used oil generators ship their used oil using a full hazardous waste manifest. When you give the used oil to the transporter for shipping, you must also complete a hazardous waste manifest. At the time of shipment, you and the transporter sign off on the manifest and keep one copy (the "generator copy"). As the generator, within 30 days of shipment, you must make a copy of the manifest with the generator and first transporter signatures and mail it to DTSC at:

DTSC Generator Manifests
P.O. Box 400
Sacramento, CA 95812-0400

The remaining manifests go with the transporter, who either delivers the waste to another transporter or a destination facility. Each transporter keeps a copy of the manifest. When the used oil is delivered to the destination facility, the destination facility signs off on the manifests and sends a copy to DTSC at:

DTSC Facility Manifests
P.O. Box 3000
Sacramento, CA 95812

Specific requirements for used oil transporters are contained in the statutes and regulations cited at the beginning of this guidance as well as guidance developed specifically for transporters.

Destination Facility

In order to be managed under the less restrictive used oil regulations, California law requires that the used oil be transported to an authorized (e.g. permitted) recycling facility. The recycling facility may be located outside of California, as long as the facility is authorized under the statutes and regulations of the state in which the facility is located.

When the used oil is delivered to the destination facility, the destination facility signs off on the manifests and sends a copy to DTSC at:

DTSC Facility Manifests
P.O. Box 3000
Sacramento, CA 95812

Useful Contact Information

DTSC Regulatory Assistance Officers

If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can call them at 800-728-6942, email them at RAO@dtsc.ca.gov, or contact them through the Regulatory Assistance Web page.

DTSC Regulatory Assistance Officers provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

Regulatory Assistance Guidance Document, November 2008

Managing Used Oil Filters for Generators

Regulatory Assistance Officers Notes:
This guidance provides an overview of requirements for managing used oil filters in California. Although certain fuel filters may be managed as used oil filters under certain circumstances please see separate guidance for fuel filters. For a complete legal description of requirements specific to used oil filters, consult California Health and Safety Code (HSC), chapter 6.5, division 20, article 13 §25250.22, and California Code of Regulations title 22, division 4.5, (22CCR) §66266.130.

Used Oil Filters
Used oil filters may exhibit hazardous characteristics for lead, other heavy metals and petroleum-derived compounds and are classified as hazardous waste in California. To encourage recycling of used oil filters, DTSC adopted reduced handling requirements for drained used oil filters that are sent for recycling as scrap metal.

If not sent for recycling, used oil filters are assumed to be hazardous waste unless they are proven to be non-hazardous by laboratory analysis. This means that, unless you can prove that they are not hazardous waste by chemical testing, used oil filters that are **not** recycled must be managed as fully regulated hazardous waste. Improper management of used oil filters can result in significant fines and penalties. Do not dispose of used oil filters in trashcans or at non-hazardous waste landfills.

Summary of Generator Management Requirements for Used Oil Filters and Fuel Filters:
- Drain and collect the free-flowing oil from the filters.
- The collected oil may be managed under the requirements for used oil.
- Properly contain, label and store the used filters.
- Store the filters within the allowed time limits.
- Transport under a bill of lading to an appropriate destination for eventual metal recycling.
- Keep a copy of the bill of lading for three years.

Draining: How much is enough?

Used oil and fuel filters must be drained of all free-flowing oil or fuel before they are placed in storage containers. The term "free-flowing" means a continuous stream of used oil from the filter when it is turned over. Used oil that flows drop-by-drop is not considered to be free-flowing. If the filter is equipped with a flapper valve or other device that blocks the drainage, the valve must be opened or the filter case punctured or opened to allow the residual used oil or fuel to drain freely.

Oil filter crushers are commonly used by oil filter generators to remove oil and compact oil filters for shipping. The used oil filter regulations allow generators to pierce and crush drained oil filters to prepare them for recycling, and this treatment does not require a hazardous waste treatment permit. The generator must properly manage all used oil and other residues that drain from the filters as a result of the crushing, puncturing or other activities. Used oil must be managed as hazardous waste.

Containers: What to keep them in?

Since oil filters can still drip oil after they have been drained, oil filters must be placed in a container that can capture all of the used oil that continues to drain from the filters.
The containers of used filters must be:

- Labeled as "Drained Used Oil Filters", clearly marked with the initial date of accumulation or receipt. The initial date of accumulation is the date when the first filter is placed in the container, or the date when a container of filters is received at a second location,
- Contained in rainproof, non-leaking, closed containers, and
- Closed and sealed containers during transportation so that used oil will not spill out if the containers are placed or fall on their sides.

Storage: How much and for how long?

Generators may store up to one ton of used oil filters for a period of up to one year, and storage of one ton or more of used oil filters is limited to 180 days, unless the storage facility has a hazardous waste permit authorizing longer storage. One ton of filters are approximately equivalent to nine drums of uncrushed filters or six drums of crushed filters.

Allowed Destinations: Where can I send them?

The purpose of the oil filter regulations is to encourage recycling of the metal cases and oil. Because of this, you may only send them to certain facilities. While anybody can collect properly drained used oil filters without a hazardous waste permit, the only allowed destinations for used oil filters are:

- to a used oil collection center that accepts used oil filters;
- to a smelter or scrap metal processor for recycling;
- to a municipal solid waste incinerator for energy recovery, only if the remaining metal casings then are sent to a smelter or scrap metal processor for recycling;
- to a storage or consolidation facility that then transfers the filters to a smelter, scrap metal processor or municipal solid waste incinerator as described above; or
- to an authorized hazardous waste facility including a household hazardous waste facility.

Transportation: Who and how?

You can either take your filters to a destination facility in your own vehicle, or you can hire a shipper to take them there for you. The shipper does not need to be a registered hazardous waste transporter. Before you ship, you need to be sure that you:

- only transport filters that have been properly drained;
- prevent any spillage of used oil by sealing the containers tightly before transportation and inspecting them to be sure that they do not leak;
- secure the containers in the transport vehicle to prevent movement or tipping during transportation;
- use a bill of lading with each shipment of used oil filters, and include the following information on the bill of lading:
    - Generator's name, address, and telephone number;
    - Transporter's name, address, and telephone number;
    - Name, address and telephone number of the receiving facility quantity and capacity of the containers in the shipment;
    - Date of transportation.

A copy of each bill of lading must be kept on file by the transporter, generator and receiving facility for at least 3 years. Unlike the hazardous waste manifest, copies of bills of lading are not sent to DTSC.

USEFUL CONTACT INFORMATION

DTSC Regulatory Assistance Officers

If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can contact them at 800-728-6942, through their email address RAO@dtsc.ca.gov, or contact them through the Department of Toxic Substances Control Web site.

DTSC Regulatory Assistance Officers provide informal guidance only regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

Energy Generation and Consumption Plan

Teodora Petrova, LLC PLN 11949-CUP
October 20th, 2021

The applicant, Teodora Petrova cultivates cannabis in greenhouses, using mixed light cultivation techniques. Greenhouse lighting, water and air pumps, atomizer (for foliage feeding and pest/disease), fans, power tools, surge protectors, dehumidifiers, cannabis trimming machine and all electrical supplies and equipment are run from two diesel generators at this time. Only one generator in operation at any time. Each generator has a different load capacity and is used only as necessary. There is an additional 75kilowatt generator on site for emergency back-up purposes. Generator is always monitored by someone at site while in operation.

Energy conservative method are employed throughout the property. Domestic generator purposes limited to actual use time and generators are never left running without power loads. Domestic generator use is year-round, from the residence daily in the morning and at night.

Cultivation activities and cultivation with light assist will occur seasonally with 2 harvests. The following energy information describes the current project as it is, while on generators. Lights are only used when weather conditions do not allow for natural light to be sufficient for growth. Drying and processing activities consume power but are executed quickly in an efficient manner to minimize time of generator use.

Generator #1 is 25kw diesel generator and is used primarily for domestic purposes and ancillary cannabis activities that have smaller energy requirements. It is used when the higher-powered generator is not necessary. See chart below for monthly rates.

Generator #2 is a 45kw Diesel Generator that is used for domestic, ancillary cultivation activities and cultivation when needed for cultivation activities. Applicant uses an average of 30 days of light assist per cultivation cycle. All usage weather dependent. Chart below based on average year where rainfall extends into May 15th and begins again on Oct 15th of the year. Sunny dry period from May 16th to Oct 14th of every year. See chart below for monthly usage.

Generator #3 is a 75kw diesel emergency back-up generator that is unused unless both primary generators are non-functional. In cases where the generator is used, it is only used short term, until necessary repairs on the primary generators can be made.

Current power requirement for mixed light greenhouses is 37,000 watts of power total for all seven existing greenhouses. Each mixed light greenhouse has 1,000-watt lights, and several industrial fans. The drying shed also has fans and dehumidifiers. Expanded power requirement for mixed light greenhouses is 43,000 watts of power total for all the nine greenhouses for the expanded project. All wattage less than 6 watts per square foot qualifying as a Tier 1 Mixed Light cultivation with Department of Cannabis Control. There propagation greenhouse has supplemental lighting fixtures. These fixtures are small string lights with LED bulbs. Maximum output of 400 watts at peak usage.

Total number of lights in each greenhouse may vary, depending and on sun position or shadowing from existing trees near the greenhouses. The total number of lights on the project will not change, only the number of lights in each greenhouse may vary. Total number of lights for this project is 39 or less for the current project or 45 or less for the expanded project.

Locations and Wattages

Greenhouse	Size of Greenhouse	Number of Lights (May Vary)	Current Wattage
Greenhouse 1	4,060ft²	10	1,000w/ea 10,000w total
Greenhouse 2	1,200ft²	3	1,000w/ea 3,000w total
Greenhouse 3	3,776ft²	10	1,000w/ea 10,000w total
Greenhouse 4	2,944ft	8	1,000w/ea 8,000w total
Greenhouse 5	400ft²	2	1,000w/ea 2,000w total
Greenhouse 6	320ft²	2	1,000w/ea 2,000w total
Greenhouse 7	400ft²	2	1,000w/ea 2,000w total
	Total	**37**	**37,000watts**
Proposed Greenhouse 8	1,000ft²	3	1,000w/ea 3,000w total
Proposed Greenhouse 9	900ft²	3	1,000w/ea 3,000w total
	Total	**43**	**43,000watts**

Cultivation occurs in two cycles. Cycle one begins in late February of every year and cultivation ends in early July. Cycle two begins in May and ends in late Oct/ early Nov depending on Cannabis strain choices. Propagation Space is utilized from Feb through April and vegetative plants are moved into flowering greenhouses in April. New vegetative plants are started in the propagation greenhouses in May and moved into Flowering Greenhouses in July.

Flowering greenhouses receive light assistance in April through early June and late September through October depending on weather. Flowering greenhouses only receive light assist June through September if needed due to unexpected, unusual weather. Fans and dehumidifies are used frequently in these greenhouses throughout the season and powered by the domestic generator. Only when light assist is necessary in flowering greenhouses will the 45kw generator be in operation. All other operations are carried out by the 25kw generator.

OSHA requirements have been met by the applicant and Hazmat training will be completed by the end of 2022. All hazmat materials are removed from site immediate and not stored in amounts that exceed threshold hold requirements for CUPA.

Energy Consumption Table

Type of Power Use	Hours per month												
Generator	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
45 kw Diesel Cannabis Operations	0	0	0	180	186	60	62	60	180	186	0	0	914 hours
25 kw Diesel Cannabis Operations (Hours in use while no domestic)	0	112	124	0	0	0	128	0	0	128	124	0	616 hours
25 kw Diesel Domestic Operations	196	178	196	190	196	190	196	196	190	196	190	196	1,530 hours
Total hours of energy generation Cannabis	**0**	**112**	**124**	**180**	**186**	**60**	**190**	**60**	**180**	**314**	**124**	**0**	**1,530 hours**
Total hours of energy generation Domestic	**196**	**178**	**196**	**190**	**196**	**190**	**196**	**196**	**190**	**196**	**190**	**196**	**2,310 hours**
Total hours of energy generation Property	**196**	**290**	**320**	**370**	**382**	**250**	**386**	**256**	**370**	**510**	**314**	**196**	

Calculations for 45 kw operations of light assist in Flowering greenhouses is 6 hours per day average April – June and September – October. Maximum light assistance June through August 2 hours per day average.

Calculations for 25 kw operations do not include time it is already in operations for domestic or light assist flowering to keep totals accurate. Energy calculations include fans, dehumidifiers, and trim machines. Trim machines only used during harvest in July, October, and November.

February through June propagation greenhouse will require an additional 4 hours a day of power. The 25kw will supply this power in addition to power used from domestic during the months of February and March. In April through June propagation greenhouse supplement will occur on the 45kw generator in conjunction with flowering lights.

In July, October and November drying and harvesting as well as processing will occur. Power usage will increase by 4 hours a day on 25kw domestic use generator.

Domestic Calculations based on 2 hours in the morning and 4 hours in the evening of generator use for domestic purposes. Additional 10 hours of emergency use added per month.