



# SITE MANAGEMENT PLAN

(NCRWQCB Water Resource Protection Plan)

In fulfillment of  
Order WQ 2017-0023-DWQ & NCRWQCB Order No. 2015-0023  
General Waste Discharge Requirements and Waiver of Waste Discharge  
Requirements for Discharges of Waste Associated with Cannabis Cultivation

Prepared for:  
**Eubanks Farms, LLC**  
and  
State Water Resources Control Board



APN: 220-171-002

**Tier 2, Low Risk Discharger**  
**WDID: 1B171363CHUM, Tier 2**

Prepared by:



Derek Roelle  
Derek@NorthPointEureka.com  
(707) 798-6438

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## INTRODUCTION

This Site Management Plan (SMP)/Water Resource Protection Plan (WRPP) has been developed to satisfy conditions of the Tier 2 enrollment requirements in the State Water Resource Control Board (SWRCB) Order No. WQ 2017-0023-DWQ (Order), and Order No. 2015-0023 for the North Coast Regional Water Quality Control Board (NCRWQCB). The purpose of the Order is to implement the Cannabis Policy requirements for waste discharges associated with cannabis cultivation. The Policy provides a structure for managing water quality and instream flow impacts associated with cannabis cultivation. It also establishes criteria for personal use and site conditional exemptions and includes a tiered approach for permitting discharges of waste. All eligible dischargers developing land for cannabis cultivation activities are required to enroll in the program under the Order. Dischargers must implement Best Practical Treatment or Control (BPTC) measures and submit technical and monitoring reports to assure compliance with the Order. The SMP describes how the discharger is complying with the applicable BPTC measures listed in the Policy and how they are being implemented property-wide.

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## SITE INFORMATION

- Registrant:** Joseph Stafslie  
140 Eubanks Rd.  
Garberville, CA 95542
- Site Address:** APN: 220-171-002  
Garberville, CA 95542
- Parcel:** Assessor Parcel Number: 220-171-002  
Lat/Long: 40.0849°, -123.9714°
- Zoning:** General Plan: Residential Agricultural (RA40)  
Zone: Unclassified (U)
- Acres:** Approximately 41.0 acres (Humboldt County WebGIS)  
Disturbed Area: Approximately 1.5 acres
- Location:** The project site is in Whitethorn, approximately 80 miles south of Eureka. To reach the site from Eureka, take US-101 south for approximately 60 miles to exit 642, Redwood Drive. Travel on Redwood Dr. for 1.8 miles, turn right onto Briceland Thorn Rd., and travel for approximately 10 miles. Continue straight onto Ettersburg Rd. for 0.7 miles. Turn left onto Eubanks Rd. and travel for 1.8 miles. The project site will be on the left.

**Site Description:** The project is located in the Mattole River Watershed on 41 acres. The site is at an average elevation of 1,200 feet above sea level. There is a spring located on the property that feeds an unnamed class III tributary to Eubanks Creek. Eubanks Creek, a class I watercourse is approximately 350 feet away from the property line. The topography is mild to relatively steep, with prairie and forested areas. All cannabis cultivation activities are on mild slopes less than 30%.

The site has approximately 10,000 ft<sup>2</sup> of cannabis cultivation and uses an estimated 133,000 gallons of water for irrigation a year. Cannabis is cultivated in greenhouses which are located on two graded flats. Water for irrigation uses is sourced from a surface diversion (POD) and two wells, all of which are located within the project boundary. The spring diversion is from an unnamed, class III tributary to Eubanks Creek. Water from the spring diversion is stored in a series of water tanks, totaling 60,000 gallons, and there are plans to expand storage to increase capacity through the forbearance period. The site also has a 2,100 ft<sup>2</sup> drying facility, also located on a graded flat.

See Appendix F for detailed estimated water diversion, storage and use records.

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## **TIER AND RISK DESIGNATION**

The Cannabis Policy provides criteria for evaluating threats to water quality for cannabis cultivation sites based on three site characteristics: proximity to water body, total disturbed area, and slope of the disturbed area. Based on the criteria and site characteristics the subject property is designated as a **Tier 2 Discharger**. The total disturbed area is 1.4 acres (Table 1). The Disturbed Area Map in Appendix B shows all land that has been disturbed due to cannabis cultivation activities.

Table 1: Disturbed Area Size, Slopes, and Setbacks

Disturbed Area Type	Area (ft <sup>2</sup> )	Disturbed Area Slope	Distance to Water Body (ft.)	Water Body Type
Graded Flat #1 (includes drying facility)	18,000	13%	450	Class III
Graded Flat #2 (includes 4,000 ft <sup>2</sup> cultivation)	20,000	5%	530	Class III
Graded Flat #3 (includes 6,000 ft <sup>2</sup> of cultivation)	16,000	11%	320	Class III
Access Road	9,000	13%	450	Class III
<b>Total Disturbed Area</b>	63,000 ft <sup>2</sup> or 1.4 acres			

There is a smaller access road that is used to access the subject parcel off from Eubanks Road. The access road is approximately 760 feet long, 12 feet wide and is included in the total disturbed area. See the Disturbed Area Map in Appendix B for specific areas included in the total disturbed area.

In addition, a risk designation is assigned based on the slope of the disturbed areas and proximity to a waterbody. Based on these parameters, the subject property is designated as a **Low Risk**. The total disturbed area of 1.4 acres remains outside of the riparian setback requirements and on slopes less than 30 percent.

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### **BEST PRACTICAL TREATMENT OR CONTROL (BPTC) MEASURES**

BPTC measures are being utilized as part of the road maintenance program to protect water quality. The *Solid Waste Management, Construction Site Best Management Practices Manual* by the CA Department of Transportation (Caltrans) is referenced for the correct installation, maintenance, and monitoring of all applicable erosion control and sediment capture BPTC measures.

All straw mulch must be free of noxious weeds and all seed/plants must be non-invasive. A list of prohibited species can be found in the CA Invasive Plant Council’s database. Erosion control measures shall not include synthetic monofilament netting, including photo- and

biodegradable plastic netting. All netting shall be made of jute, coir fiber, hemp, or another product without welded weaves.

A schedule of BPTC measures to be implemented and maintained throughout the site is shown in Appendix C, and Appendix D includes specifications for BPTCs.

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## **1. SEDIMENT DISCHARGE BPTC MEASURES**

### **1.1. SITE CHARACTERISTICS**

#### **1.1.1. SITE MAP**

The Site Map shows all relevant site features: streams, stream crossings, storage areas, roads, buildings, domestic wastewater treatment system, cultivation areas, and other disturbed areas related to cultivation activities. Erosion prevention and sediment control BPTC measures are identified on the map (see Appendix A).

#### **1.1.2. ROAD CONDITIONS**

The subject parcel is accessed via private access road leading off of Eubanks Road. The access road is in good condition and does not show signs of erosion. The access road receives approximately four daily vehicle trips in the peak season (April - October) and no vehicle trips in the winter season. The access road is constructed on a mild gradient and much of the road surface consists angular gravel. Much of the road is outloped, which drains the road surface flow downslope from the road. Sections of the is insloped, draining surface water into inboard ditches. The access road is in good condition and has been rocked to prevent surface erosion. Currently, road maintenance activities consist of clearing inboard ditches of debris. Additional road maintenance is prescribed in section 1.2.1.

#### **1.1.3. WATER BODIES, STREAM CROSSINGS, RIPARIAN SETBACKS**

There are no waterbodies or stream crossings within the project. There is a class III watercourse that travels through the southern portion of the parcel. All disturbed areas comply with riparian setback requirements in the Order.

#### **1.1.4. SOIL DISTURBANCE**

The project site has no areas of active soil disturbance. All historic graded areas are stable and vegetated, and there are no active slides or earth movement on site.

### **1.2. SEDIMENT EROSION PREVENTION AND SEDIMENT CAPTURE**

#### **1.2.1. EROSION PREVENTION BPTC MEASURES**

##### **1.2.1.1. ROADS**

Any sections of bare road surfaces will be rocked to control surface erosion. Erosion prevention measures roads will be implemented

during the dry summer months. The road construction standards described in the “Road Handbook” will be adhered to for all road improvements. See Appendix C for the Schedule of BPTC Implementation and Maintenance.

1.2.1.2. DISTURBED AREAS

All exposed soil in disturbed areas will be seeded and mulched with straw and existing live mulch will be maintained. Any areas for planned disturbance/development will be surveyed for sensitive species, wildlife, and communities.

1.2.1.3. STREAMS AND STREAM CROSSINGS

There is a small class III stream that runs through the southern portion of the subject parcel. The class III stream is an unnamed tributary to Eubanks Creek. There are no stream crossings on the subject parcel.

All cultivation operations comply with setbacks from streams and riparian areas. The existing riparian vegetation has been preserved and the buffer width maintained.

1.2.1.4. WINTERIZATION

Winterization measures will be implemented annually by November 1<sup>st</sup> and interim erosion prevention BPTC measures will be utilized as needed throughout the year. To prevent erosion and sediment transport to streams, numerous measures for soil stabilization, runoff management, erosion and sediment prevention/retention are utilized throughout the seasonally dry period and prior to the onset of winter. Section 5 “Winterization BPTC Measures” has more information on proposed actions to protect water quality in the winter season.

1.2.2. SEDIMENT CAPTURE BPTC MEASURES

1.2.2.1. ROADS, STREAM CROSSINGS, AND SOIL DISTURBANCE

Spoils and spent potting soil are stabilized and composted in a location outside of riparian setbacks and are surrounded with straw wattles and a tarp or mulch for cover. The composted material will be mulched back into the garden beds. The composting area can be seen on the Site Map in Appendix A.

During road construction, sediment control devices (e.g. straw wattles, gravel bag berms) will be installed during the dry season

around culvert inlets and outlets to prevent sediment delivery to the streams. Stockpiled materials for construction and road maintenance will be stored in stable locations and contained using appropriate BPTC measures. Other sediment control measures may be installed as needed to prevent discharges from entering waters of the state. See Appendix C for the schedule of all sediment control BPTC measures being employed on site.

**1.2.3. MAINTENANCE ACTIVITIES – EROSION PREVENTION AND SEDIMENT CAPTURE**

**1.2.3.1. MONITORING**

All long-term and interim erosion prevention and sediment capture BPTC measures that have been implemented will be monitored for effectiveness on a monthly basis at a minimum (Table 1.2.3.1). Any vegetation planted on previously disturbed areas will be monitored for success and replanted if necessary. The cultivator will monitor erosion and sediment control measures during and after each storm event that produces at least 0.5 in/day or 1 in/7 days of precipitation. In addition, winterization measures that are implemented will be monitored for effectiveness (inspected during the first major winter storm event) before the site is closed for the winter. See Appendix H for a log of monthly BPTC monitoring and maintenance records.

Table 1.2.3.1. BPTC Effectiveness Monitoring

Observations	Description	Monitoring Frequency
<b>Erosion Prevention and Sediment Capture Maintenance</b>	Report activities for maintaining the effectiveness of erosion prevention and sediment retention/capture measures	Monthly
<b>Active Erosion</b>	Report any indications of soil erosion	Monthly
<b>Surface Water Runoff Maintenance</b>	Report the conditions of any surface water (stormwater, irrigation) and include the location, source of runoff, duration	Monthly
<b>Materials Storage Erosion/Spills Prevention</b>	Report materials delivered or stored on site that have the potential to degrade water quality if discharged	Monthly
<b>Septic, Holding Tank, or Chemical Toilet Servicing</b>	Report the name of the servicing company, dates, and activity	Monthly

1.2.3.2. MAINTENANCE

Year-round maintenance of all erosion prevention and sediment capture measures is required. All existing measures shall be maintained, repaired, or replaced as needed. Exotic or invasive species found in revegetated or disturbed areas shall be removed. Remaining exposed soil shall be reseeded/revegetated and have 2-4" of weed-free mulch reapplied. Any captured sediment in inboard ditches/drainageways, or against silt fences/straw wattles will be removed and stabilized on a designated flat area. The sediment may be used for site improvement where it will not threaten water quality. Interim measures for sediment retention, such as mulching and wattling, require more regular monitoring and maintenance. See Appendix H for a log of monthly BPTC monitoring and maintenance records.

**2. FERTILIZER, PESTICIDE, HERBICIDE, AND RODENTICIDE BPTC MEASURES**

2.1. CULTIVATION PRODUCT STORAGE, USE, AND DISPOSAL

2.1.1. STORAGE

All dry fertilizers, bulk materials and soil amendments are stored within the drying facility. Liquid fertilizers are stored in secondary containment within the drying facility (see Site Map in Appendix A for location of the drying facility). Bulk material, soil amendments and fertilizers may be temporarily stored in or near the greenhouses prior to being applied. Pesticides and herbicides are stored in secondary containment within the drying facility. Fertilizers and pesticides are being stored in a separate location from petroleum products. No rodenticides are currently being used on site.

Appropriate BPTC measures are being utilized when storing, handling, mixing, applying, and disposing of all fertilizers, pesticides, herbicides, and rodenticides. Each year an inventory is conducted prior to the beginning of the grow season and necessary products are delivered to the site as needed. See Appendix G for a list of fertilizers and pesticides/herbicides used on site.

2.1.2. APPLICATION

Mixing of liquid fertilizers occurs in small 500-gallon storage tank and is conducted in a designated area where the mix will not enter surface waters. For young plants, the mix is applied via watering wand and mature plants are fertigated at agronomic rates by drip emitters. Spent soil is amended as needed throughout the year and reused. Soil amendments are mixed in by hand. The application of any agricultural chemical products will be conducted according the manufacturer's recommendation.

2.1.3. DISPOSAL AND SPILL PREVENTION/CLEANUP

Trash and recycling containers are located near the existing drying facility and are contained to prevent surface water contamination and wildlife intrusion. Excess soil not slated to be reused or mulched will be disposed of properly along with other cultivation products, and the disturbed area will be seeded and covered with straw to prevent erosion. Spent product containers are carefully transferred from the mixing area to the refuse area. A spill kit with plenty of sorbent pads is kept on site in the event of a spill. All trash, empty product containers, and other recycling are hauled off-site weekly to the Redway waste management facility.

3. PETROLEUM PRODUCT BPTC MEASURES

3.1. PETROLEUM STORAGE, USE, AND DISPOSAL

Table 3.1. Petroleum Product List, Storage, and Use

Petroleum Product	Delivery Period	Storage Method	Use Type
Gasoline	As needed throughout the cultivating season (April – October)	5-gallon gas tanks stored near the drying facility	Generators, ATV's, vehicles, maintenance equipment
Propane Tank	As needed throughout the cultivating season (April – October)	(2) 100-lb. metal propane tanks	Backup 12KW propane generator
Lubricants	As needed throughout the cultivation season (April – October)	In drying facility within secondary containment	Generators, ATV's, vehicles, maintenance equipment

3.1.1 STORAGE

The discharger has two (2) 100-lb. propane cylinders that are used for a backup propane generator, located adjacent to the drying facility (see Site Map in Appendix A). The main power supply is a 4,500-W solar array. The propane generator has a secondary containment apparatus built-in to contain any spills. 5-gallon gas cans, lubricants, and other petroleum products that are used for small equipment are being stored in secondary containment when not in use. Vehicles and machines are regularly monitored for leakage and when not in use are being stored in a location outside riparian setbacks.

3.1.2. APPLICATION

Fueling and maintenance of the generators, cars, and other machines is conducted in a designated area that prohibits discharge to waters of the state.

**3.1.3. DISPOSAL AND SPILL PREVENTION/CLEANUP**

Special care is taken when transporting and handling all petroleum products. Spill prevention/cleanup BPTC measures are being utilized; a spill kit with plenty of sorbent pads is kept on site in the event of a spill. Spent petroleum products and related trash are kept in secondary containment, specifically for hazardous waste, before being transferred to the Redway waste management facility.

**4. TRASH/REFUSE AND DOMESTIC WASTEWATER BPTC MEASURES**

**4.1. HOUSEHOLD TRASH AND CULTIVATION-RELATED WASTE**

All trash/refuse generated on site will be stored in a designated area near the drying facility (see the Site Map in Appendix A) where it will not migrate or leach into waters of the state, and where it is secure from animal intrusion. Cultivation-related organic waste is composted in a designated area and is reincorporated into greenhouse beds. Soil is also reused in the greenhouse beds each season and is topped off at the beginning of the cultivation season when necessary. Spent potting soil that is not reused is stored in a secure location and stabilized using appropriate sediment control BPTC measures. All refuse and cultivation waste are then transported to the Redway transfer station facility at least once per week. Growing medium will not be incorporated into the native soils.

**4.2. RESIDENTS, EMPLOYEES, AND VISITORS**

There are no residence structures on site. During the cultivation season there are an estimated four (4) employees on site. All employees live off site and commute to the project site daily. There are no residence or employees onsite in the winter season, and no visitors come to the site.

**4.2.1 DOMESTIC WASTEWATER - GENERATION**

The drying facility has a restroom facility in place that generates domestic wastewater.

**4.2.2 DOMESTIC WASTEWATER - DISPOSAL**

Wastewater generated from the onsite restroom facility is disposed into an unpermitted septic system, which is comprised of a 500-gallon septic tank and leach field. The property owner will have a septic inspection performed and will fully permit the system. See the site map in Appendix A for locations of wastewater treatment locations. The cultivator shall make sure that no substances that are hazardous to fish and wildlife (e.g. trash, paint, concrete washings, treated wood) are used, located, or disposed of where they can contaminate waters of the state.

## 5. WINTERIZATION BPTC MEASURES

### 5.1. ACTIVITIES AND MAINTENANCE

#### 5.1.1. ROADS AND STREAM CROSSINGS

Appropriate erosion prevention and sediment control measures will be installed, maintained, and monitored for effectiveness prior to the winter season. Road work requiring heavy machinery, such as outslowing, shall be conducted only during the dry season, unless the cultivator is authorized by an agency with jurisdiction to make emergency repairs. Temporary access roads also need to be closed to traffic prior to the onset of winter. All winterization BPTC measures will be monitored and maintained prior to site closure for the winter. Any debris and sediment found to be clogging drainageways will be removed and appropriately stored, reused, or disposed of.

#### 5.1.2. DISTURBED AREAS

Areas that have exposed soil shall be seeded/hydroseeded and mulched to prevent erosion and sediment delivery to a waterbody. Any revegetation shall take place at the onset or at the end of the precipitation season to ensure establishment. Exposed slopes shall have linear sediment controls, such as wattles or silt fences, to interrupt sheet flow lengths. All disturbed areas will be inspected for potential and active erosion issues. Such sites will be repaired/controlled as needed using appropriate BPTC measures. For all areas of concern, if any BPTC measures cannot be installed prior to winter, the Regional Water Board must be contacted to establish a compliance schedule to protect water quality.

#### 5.1.3. STORAGE AND STOCKPILED MATERIALS

##### 5.1.3.1. CULTIVATION-RELATED PRODUCTS AND WASTE

All fertilizers, pesticides, herbicides, and rodenticides need to be stored where they will not enter surface waters or pose a threat to wildlife. The cultivator will have all liquid products stored in secondary containment and stored along with all other cultivation-related products, protected from the elements. Waste associated with cultivation will be removed from the site and taken to the Redway waste management facility prior to closing the site for winter.

##### 5.1.3.2. VEHICLES, MACHINES, AND PETROLEUM PRODUCTS/WASTE

Prior to winter, any remaining vehicles or machines on-site will be stored out of the elements where any potential leaks will not enter surface waters or pose a threat to wildlife. Petroleum products will be kept in compatible secondary containment within their own storage container. Any spent petroleum containers and related trash will be removed and

appropriately disposed of at the Redway waste management facility.

5.1.3.3. STOCKPILED MATERIALS

Appropriate BPTC measures shall be used for all stockpiled materials that have the potential to migrate to surface waters or that may be hazardous to wildlife. Stockpiled materials include bark, sawdust, potting soil, amendments, rock, compost, treated wood, polytube and other irrigation equipment, greenhouse plastic sheeting, and any other materials used for cultivation and site development, improvement, and management. They shall be stabilized in an upland area, covered, and/or stored in a storage shed/container.

# Nitrogen Management Plan

# NITROGEN MANAGEMENT PLAN

In fulfillment of  
Order WQ 2017-0023-DWQ  
General Waste Discharge Requirements

Prepared for:  
**Eubanks Farms, LLC**  
and  
State Water Resources Control Board



APN: 220-171-002

**Tier 2, Low Risk Discharger**  
**WDID: 1B171363CHUM, Tier 2**

Prepared by:



Derek Roelle  
Derek@NorthPointEureka.com  
(707) 798-6438

July 2018

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## **APPENDICES**

Appendix A: Site Map

Appendix B: Disturbed Area Map

Appendix C: BPTC Implementation and Maintenance Schedule

Appendix D: BPTC Measure Specifications

Appendix E: References

Appendix F: Water Use Records

Appendix G: Fertilizer, Pesticide, Herbicide, and Rodenticide Product List and Records

Appendix H: Monthly BPTC Monitoring and Maintenance Records

Appendix I: Nitrogen Reporting Forms

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## INTRODUCTION

This Nitrogen Management Plan (NMP) has been developed to satisfy conditions of the Tier 2 enrollment requirements in the State Water Resource Control Board (SWRCB) Order No. WQ 2017-0023-DWQ (Order). This NMP describes how nitrogen containing materials are stored, used, and applied to crops in ways that are protective of water quality.

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## SITE INFORMATION

**Registrant:** Joseph Stafslie  
140 Eubanks Rd.  
Garberville, CA 95542

**Site Address:** APN: 220-171-002  
Garberville, CA 95542

**Parcel:** Assessor Parcel Number: 220-171-002  
Lat/Long: 40.0849°, -123.9714°

**Zoning:** General Plan: Residential Agricultural (RA40)  
Zone: Unclassified (U)

**Acres:** Approximately 41.0 acres (Humboldt County WebGIS)  
Disturbed Area: Approximately 1.5 acres

**Location:** The project site is in Whitethorn, approximately 80 miles south of Eureka. To reach the site from Eureka, take US-101 south for approximately 60 miles to exit 642, Redwood Drive. Travel on Redwood Dr. for 1.8 miles, turn right onto Briceland Thorn Rd., and travel for approximately 10 miles. Continue straight onto Ettersburg Rd. for 0.7 miles. Turn left onto Eubanks Rd. and travel for 1.8 miles. The project site will be on the left.

**Site Description:** The project is located in the Mattole River Watershed on 41 acres. The site is at an average elevation of 1,200 feet above sea level. There is a spring located on the property that feeds an unnamed class III tributary to Eubanks Creek. Eubanks Creek, a class I watercourse is approximately 350 feet away from the property line. The topography is mild to relatively steep, with prairie and forested areas. All cannabis cultivation activities are on mild slopes, less than 30%.

The site has approximately 10,000 ft<sup>2</sup> of cannabis cultivation and uses an estimated 133,000 gallons of water for irrigation a year. Cannabis is cultivated in greenhouses which are located on two graded flats. Water for irrigation uses is sourced from a surface diversion (POD) and two wells, all of which are located

within the project boundary. The spring diversion is from an unnamed, class III tributary to Eubanks Creek. Water from the spring diversion is stored in a series of water tanks, totaling 60,000 gallons, and there are plans to expand storage to increase capacity through the forbearance period. The site also has a 2,100 ft<sup>2</sup> drying facility, also located on a graded flat.

See Appendix F for detailed estimated water diversion, storage and use records.

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## **1. FACILITY DESCRIPTION**

### **1.1. LOCATION AND CONFIGURATION**

#### **1.1.1. SITE DESCRIPTION AND CANNABIS GROWING METHODS**

Cannabis is grown in raised garden beds located in greenhouses. The cultivator has a total of five (5) greenhouses, located on two separate graded flats, Cultivation Areas #1 and #2 (See Site Map in Appendix A). Cultivation Area #1 contains two (2) 100×20 foot greenhouses, totaling 4,000 ft<sup>2</sup> of cultivation. Cultivation Area #2 contains three (3) 100×20 foot greenhouses, totaling 6,000 ft<sup>2</sup> of cultivation. The greenhouses are “Low Profile Quonset” produced by Oregon Valley Greenhouses Inc. They are constructed of heavy gauge steel pipe, poly carbonite centers, 2×4 lumber ends, and are covered with woven poly film. The greenhouses are ventilated by pulling the poly film up from the grounds surface as needed.

#### **1.1.2. CANOPY AREA DESCRIPTION**

At plant maturity, the canopy does not exceed the footprint of the greenhouses. The total footprint of all greenhouses on site total 10,000 ft<sup>2</sup>, or 0.23 acres.

#### **1.1.3. SITE LOCATION MAP**

The project is located in Whitethorn California, approximately 80 miles south of Eureka California. Appendix A contains a USGS topographic site map that shows the location of the project, location of nearby waterbodies and all access roads.

#### **1.1.4. FACILITY PLAN**

Appendix A contains a scaled drawing of the facility all disturbed areas, cultivation areas, greenhouses, buildings, access roads, material and water storage areas, and the source of irrigation water.

## **2. SOURCES OF NITROGEN**

### **2.1. BULK MATERIAL**

Table 1 below contains all the bulk materials that are used for cultivating cannabis. Bulk materials include growing mediums and any amendments that are added to the soil. The table lists the brand of material, the N-P-K percentages, and the amount used per year. Appendix G contains a more detailed nitrogen application rate record for 2017.

*Table 1: Nitrogen containing Bulk Materials*

<b>Brand</b>	<b>N-P-K</b>	<b>Amount Used per Year</b>
Aurora Innovations Roots Organics Formula 101 potting soil	-	200-1,000 ft <sup>3</sup> (used as needed to top off garden beds)

**2.2. DRY FERTILIZERS**

Table 2 below contains all the dry fertilizers that are used for cultivating cannabis. Dry fertilizers include any dry material that is added to growing medium or mixed with irrigation water. The table lists the brand of fertilizer, the N-P-K percentages, and the amount used per year. Appendix G contains a more detailed nitrogen application rate record for 2017.

*Table 2: Nitrogen containing Dry Fertilizers.*

<b>Brand</b>	<b>N-P-K</b>	<b>Amount Used per Year</b>
Stutzman Farms Sup'R Green Chicken Manure	3-2-2	270 lbs.
Down to Earth Oyster Shell flour	Calcium	100 lbs.

**2.3. LIQUID FERTILIZERS**

Table 3 below contains all the liquid fertilizers that are used for cultivating cannabis. Liquid fertilizers include any liquid material that is added to irrigation water, or that is applied directly to the crop. The table below lists the brand of fertilizer, the N-P-K percentages, and the amount used per year. Appendix G contains a more detailed nitrogen application rate record for 2017.

*Table 3: Nitrogen containing Liquid Fertilizers.*

<b>Brand</b>	<b>N-P-K</b>	<b>Amount Used per Year</b>
General Hydroponics FloraGro	2-1-6	36 gallons

### **3. NITROGEN STORAGE, USE, AND DISPOSAL PRACTICES**

#### **3.1. NITROGEN DELIVERY SCHEDULE**

All nitrogen containing materials needed are delivered to the site at the beginning of the cultivation season, approximately early April. The products are delivered to the site via private automobile.

#### **3.2. FERTILIZER STORAGE**

All fertilizers are stored in the existing drying facility on site. Liquid and dry fertilizers are stored in a locked storage room and contained within watertight, labeled containers. Bulk materials and fertilizers are immobilized and temporarily stored in a designated area while being used in cultivation areas.

#### **3.3. FERTILIZER MIXING METHODS**

Mixing of liquid nitrogen containing products is conducted in a small 500-gallon mixing tank in a designated area where the mix will not enter surface waters. Water containing mixed liquid fertilizer is applied to the garden beds via hand watering.

#### **3.4. "SPENT" GROWING MEDIUM SCHEDULE**

Spent growing medium that is no longer used or amended is removed from the site and is disposed of properly at the Redway Transfer station. Growing medium will not be incorporated into the native soils.

#### **3.5. "SPENT" GROWING MEDIUM AMENDING METHODS**

Spent soil that is to be reused is amended. Soil amendments are hand tilled into the soil at the start of each vegetative cycle and new potting soil is added if needed.

### **4. NITROGEN APPLICATION RATES**

#### **4.1. MONTHLY APPLIED NITROGEN**

The General Order monitoring and reporting program (MRP) requires annual submittal of amounts of nitrogen used. The application rates shall be reported as pounds of nitrogen applied per canopy acre. Typically, the cultivation area acreage will be larger than the canopy area. Use the anticipated canopy acreage at plant maturity for the calculations. Appendix I contains Nitrogen Reporting Forms for monthly nitrogen application reporting for 2018 and 2019, along with instructions on how to calculate nitrogen application rates. Once the nitrogen application rates are calculated, the Nitrogen Reporting Forms are to be filled out monthly and submitted annually. Appendix G also contains nitrogen application rates for 2017, which can be used to project nitrogen application rates for following years.

4.2. LIMITED NITROGEN AVAILABILITY

Due to natural process, some crops may be nitrogen limited despite applying 1.4 times the crop uptake rate. If plant tissue is ever collected to determine limited nitrogen availability, the results shall be submitted with the nitrogen reporting forms.



Eubanks Farms, LLC  
Disturbed Area Map  
APN: 220-171-002

