## Water Irrigation and Storage Plan

**Bob Howard** 

Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valare Telephone: 760.613.6520/707.986.7815 Email: etahumboldt@gmail.com



#### Water Plan

## Water Storage and Usage

Overall the amount of water used by the Cannabis Gardens is 228,270 gallons per year, this is an estimate, to the best of my knowledge. The domestic use water is an estimate, to the best of my knowledge, to which I based my estimate on around 80 gallons a day per person for the caretaker's residence. Maximum of water stored on-site at anytime is 2,500 gallons for domestic and 13,000 gallons for cultivation. Water is moved from the pond to POU#1 using a solar powered pump. From POU#1 water is pumped to POU#2. Once water reaches its point of use, water is moved by gravity to the cannabis cultivation areas. If something goes wrong with solar pumps water is carried by truck with water tank to the cannabis cultivation areas. The caretaker's residence has a domestic spring S027931.

#### **Irrigation Plan**

All immature plants in nursery are hand watered.

All irrigation for greenhouses is done by a drip water system which is implemented by hand, ensuring the minimal amount of water necessary to water the plants.

## Water Discharge

Water storage is separate from all cannabis feeding tanks. Feeding tanks are at least 200 ft from nearest water source and is flat. Hay is spread on top soil to help with evaporation and runoff. Heavy amounts of peat moss and coco coir are also amended into soil periodically to help with runoff of fertilizer. No run-off from cultivation watering flows into the ground. Cannabis cultivation occurs at least 200 feet away from the Class II watercourse. All poly-flex irrigation water lines are anchored, located up and out of drainages, and sited in a responsible way so as not to impede water flow through stream channels.

## Projected Water Usage for Cannabis Garden.

Overall the amount of water used by the Cannabis Gardens is maximum 228,270 gallons per year.

Total estimated water usage for household/ domestic usage 70,000 gallons per year. Total estimated water usage for property approx 298,270 gallons per year gallons per year. This is an estimate, to the best of my knowledge, The domestic use water is an estimate, to the best of my knowledge. Maximum of water stored on-site in above ground tanks for cannabis is 13,000. This water comes from the Pond which has 4 and ½ acres of water storage from rain catchment only. Tanks used as intermediary between pond and cultivation. Water stored for less than 30 days. The tanks then feed the gardens by gravity. I have added the map and information I have submitted to State Water Resources Control Board and Enrollment Notice of Intent Form for Waiver of Waste Discharge Requirements Order Number R1-2015-0023

Daily Rate at 1 gallon a day per 10 sq ft of cultivation in greenhouses. Daily rate at 1.5 gallons a day for open air cannabis.

Spring on property is for domestic use only and services the caretaker's residence.

**Monthly Water Use Table** 

Month	Total water	POU#1	POU#2-	POU#2	POU#2	Domestic Use
	Use in	1500	GH	GH	Open Air	
	Gallons	sqft	3850	1500	2525	
			sqft	sqft	sqft	
Jan	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	6,000
Feb	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	0 (Zero)	6,000
Mar	2,250 veg	0 (Zero)	0 (Zero)	2,250 veg	0 (Zero)	6,000
Apr	15,975	2,250	5,775	2,250	5,700	6,000
May	33,015	4,650	11,935	4,650	11,780	6,000
June	31,950	4,500	11,550	4,500	11,400	5,000
July	33,015	4,650	11,935	4,650	11,780	5,000
Aug	33,015	4,650	11,935	4,650	11,780	5,000
Sept	31,950	4,500	11,550	4,500	11,400	5,000
Oct	33,015	4,650	11,935	4,650	11,780	6,000
Nov	15,975	2,250	5,775	2,250	5,700	8,000
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Total	228,270 + 70,000 dom	32,100	82,390	32,460	81320	70,000

Total estimated water usage for cannabis cultivation 199,270 gallons per year

I have read and keep a copy in my binder of the "Best Management Practices of Waste Resulting from Cannabis Cultivation and Associated Activities or operations with Similar Environmental Risk", "Performance Standards for all CMMLUO Cultivation and Processing Operations" and the "Legal Pest Management practices for Marijuana Growers in California". I intend to practice the guidelines set forth by these documents to help ensure my compliance with laws. I also intend to be flexible with county and state officials, make changes as necessary and upgrade my property to comply. Please feel free to contact me for any more information.

## **Light Pollution Control Plan**

## **Bob Howard**

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## **Light Pollution Control**

The only light applicant uses is supplemental light for immature plants. Immature plants will be located in a small 900 sq ft greenhouse.

Greenhouse will be covered with black plastic before dusk to ensure no light leaks occur. Black plastic completely covers the exterior of the greenhouse, including sides and all doors, and is held down with sand bags and 2x4s to insure that wind cannot disturb placement of the cover.

Area is well maintained and inspected for light leaks everyday that plants are under this light. The light is small supplemental light 15-20 22w light bulbs. Applicant guarantees that there are no light leaks coming from the greenhouse.

## **Processing Plan**

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#### Harvest

Cannabis will be harvested using gloves and clean tools. All cannabis will be hung to dry in the greenhouses which would be covered with blackout tarp. Fans are never used in the drying. Cannabis will be dried for 10-21 days on lines in these areas depending on weather. 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 (2) weeks to two (2) months for curing. The bins are stored at the secure shop behind caretaker's home. During this time the bins with be checked for mold and moisture consistency. Moldy or defective cannabis will be removed and destroyed using county and state approved procedures for holding and destroying unwanted product.

#### **Processing**

Ideally a processing center will be available to contract processing of cannabis from harvested cured product to a shelf-ready product. If not plan below would be implemented until facility became available.

Cannabis Trimming, trimming will occur as cannabis becomes ready from curing process. Trimming will physically take place in processing at a licensed Processing Facility. If that does not become available applicant intends to trim with the aid of a trim machine. The trim machine is used in this shop. Some distributors will take the product bucked and trimmed by machine. If needed applicant may hire 2-3 independent contractors with a processor's license to help. Processing will occur in building located near caretaker cabin that has a bathroom for daily helpers. 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 brown lawn bags and into contractor bags to be stored until needed, sold or destroyed in the legal manner. Using a processing center for trimming would be ideal scenario in future. As soon as option is available I intend to utilize it.

## **Processing-Independent Contractors**

Beyond the caretaker who is the lead cultivator and main employee of the cultivation, the applicant will need help, so he intends to independent contractors will be hired to help in their respective fields. Independent 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. All areas are kept clean and in good condition. All independent 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. Additionally, the following practices will be implemented and only employ persons for hire as allowable by law. At all times workers shall have access to safe drinking water, via the caretakers residence, fed by domestic spring. (See attached statement of use), toilets and handwashing facilities. There is no onsite worker housing aside from caretaker residence.

#### Road use

# 4.1 Average Daily Traffic (ADT) Estimate

Average daily trips were estimated based on traffic observations during owner travel. Road use associated with culitvation practices is estimated to be limited to two trips per day during cultivation season, and three trips daily during processing time. Road is regularly maintained by property owner and neighbors.

## **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
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).

## **Human Waste Water Disposal**

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#### **Domestic Waste Water**

Wastewater is handled with an Onsite wastewater system in the form of a septic tank and leach field. Septic has been perk tested, designed and engineered by PWA. Report can be added if needed. Septic tank for grey and black water. Septic Tank is 10 ft from residence and is in installed according to design schematic and parameters. Leach field behind septic.

This septic tank collects waste from kitchen sink, shower and bathroom sinks, toilet in caretakers residence and in processing shop that has one bathroom and one sink. This shop bathroom is for use by the seasonal workers or independent contractors. Waste tanks are serviced as necessary and checked once a year.

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## **Energy Plan**

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## Equipment/ Power

There is no power at the cultivation Site. Power for fans, power tools, surge protectors, cannabis trimming machine and all electrical supplies and equipment are on solar system with backup generator that is tied to the caretaker's residence There are 6 (four) 200 watt solar panels and 4 (four) L-16 marine deep-cycle batteries with a 2,500kw inverter. All power for entire property on this system. Generator usage is dependent on people in household, weather and month of the year. Solar system provides enough power from Feb- Oct with generator supplement from Nov-Jan. When generator backup is require a 2,000 watt Honda generator is utilized. Water is moved from the pond to POU#1 using a solar powered pump. From POU#1 water is pumped to POU#2. Once water reaches its point of use, water is moved by gravity to the cannabis cultivation areas. If something goes wrong with solar pumps water is carried by truck with water tank to the cannabis cultivation areas. No power is used during harvest. All cannabis dried inside greenhouses in natural wind with black out covered pulled halfway to keep out light leaks. Harvested cannabis is transported by roads owned by applicant to caretaker's residence where the adjacent shop serves as a cultivation support area. This area is powered adequately by home system. The trim machine is used in this shop. Some distributors will take the product bucked and trimmed by machine, when this is not enough cannabis will go onto processing facility. No power need for processing center or crew. Applicant would like to add an additional eight (8) solar panels. Four (4) batteries and one 2,500kw inverter to add to POU#2 in the event that fans would need to be added in the future. Historically no power utilized on POU#1 or POU#2.

## **Waste Management Plan**

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Address: PO BOX 909 Garberville CA, 95542

Contact Name: Vanessa Valare

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## **Integrated Waste Management Plan**

CERCC requires that the project be in compliance 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 the CWMP to be in compliance with the CERCC, CIWMA, and other 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,
- CERCC, and CWMP. "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, CERCC, and CWMP.
- 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.

# Tracking, Records, and Inspections

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

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 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.
- 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.

## **Internal Waste Management Policies**

The following waste management policies shall be implemented to ensure compliance with the CIWMA, CERCC and, CWMP:

- A. The CWMP shall be retained on-site at all times. 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.

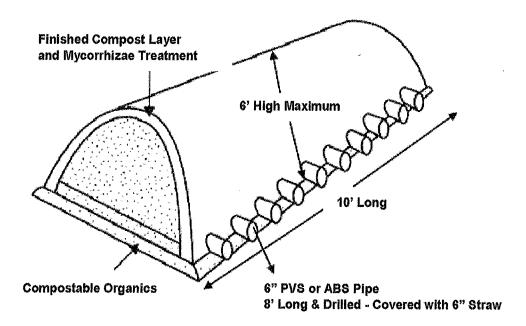
## **Cannabis and Organic Waste Management**

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 be in compliance 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).

#### AND/OR

Self-haul cannabis waste to a manned fully permitted transfer/processing facility or manned transfer/processing operation.

# Solid Waste and Recyclables Management

The CWMP identifies one or more of the following methods for managing solid

waste and recyclables according to the CIWMA, CERCC and, CWMP: Self-haul cannabis waste to a manned fully permitted transfer/processing facility or manned transfer/processing operation.

Redway Transfer Station
Recycling center in Humboldt County, California
Conservation Camp Rd, Redway, CA 95560
707-923-3944
https://www.recology.com/recology-eelriver/redway-transfer-station/

## **Hazardous Waste Management**

The CWMP identifies one or more of the following methods for managing solid waste and recyclables according to the CIWMA, CERCC and, CWMP:

Self-haul solid waste and recyclables to the following; A manned fully permitted transfer/processing facility or manned transfer/processing operation.

Humboldt Waste Management Authority

1059 W Hawthorne St, Eureka, CA 95501 707-268-8680

# Soils Management Plan Access Road Conditions

There are two roads used in conjunction with this cultivation site. The first road is a county road Benbow Rd. to Fish Canyon Dr. which leads to the private driveway.

Fish Canyon Rd is gravel and dirt and is shared with neighbors and has a shared locked gate. Private driveway is shared with no additional neighbors. The private driveway has one culvert it is in good condition and is passable by fire truck. The

entire road segment is developed to be equivalent of a road category four standard. An equivalent road category four standard is defined as a roadway that is generally 20 feet and width, but had pitch points that narrow the road. Pinch points include, but are not limited to, one lane bridges, trees, large rock outcroppings, culverts, est. Pinch points provide visibility where a driver can see oncoming vehicles. Regular daily traffic to site very minimal. In spring and fall traffic will be greater. Commercial delivery includes diesel gas, supplies for cultivation, and building supplies as needed.

Roads are and will be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to nearby soils and surface waters. Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind shall have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlets.

Roads and other features shall be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system shall be installed to ensure that surface flows will not cause slope failure. Roads are maintained so that the flow is directed out to vegetated areas and dispersing water. Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces shall be maintained to promote infiltration/dispersal of outflows and have no apparent erosion or evidence of soil transport to receiving waters. Rock armor at the inlets and outlets of all ditch relief should be enhanced and inspected regularly. Develop a regular protocol and inspect all ditch relief drains and rolling dips periodically. Maintain clear of debris and enhance rock armor as necessary. Stockpiled construction materials are stored in a location and manner so as to prevent their transport to receiving waters. Permanent roads consist of a main access road to the property, water infrastructure, and adjacent properties. This main access road is unsurfaced and affected by erosion and concentrated surface runoff in several locations. requiring treatment. Approximately 1,900 feet of this permanent road is located within the Stream Management Area (SMA) of a Class II watercourse. Seasonal roads are unsurfaced and used to access water infrastructure and cultivation areas. Seasonal roads are being affected by erosion and concentrated surface runoff in a few locations, requiring treatment. A Lake and Streambed Alteration Agreement with the California Department of Fish and Wildlife has been filed for the replacement and/or installation of culverts in watercourses. (Notification number 1600-2017-0393 R1). Any additional guidelines, treatments, or restrictions set forth under the finalized Lake and Stream Agreement shall be followed.

#### **Vehicle Stream Crossing**

Private driveway has one culvert that is in good condition and passable by fire trucks. Culvert is

checked by visual inspection once a month and more frequently during severe weather. Driveway comes directly into cultivation site with plenty of parking for up to 6 vehicles. Driveway is maintained with annual additions of gravel, grading, and liming of the trees.

The culvert and stream crossing shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.

We are implementing a regular protocol to inspect the culvert and stream crossing periodically. Maintain clear of debris and enhance rock armor as necessary. The culvert and stream crossing allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams if applicable to the best of our knowledge. Stream crossing is being maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks. Culvert align with the stream grade and natural stream channel at the inlet and outlet where feasible. Stream crossing shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible.

## **Sediment Erosion Prevention and Sediment Capture**

Daily inspections

from all personal to verify that spoils are not be stored or placed in or where they can enter any nearby soils and surface water. Spoils will be adequately contained or stabilized to prevent sediment delivery to surface waters. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be sidecast in any location where they can enter or be transported to surface waters. We will use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. Weed-free straw mulch is used on exposed soils and, if warranted by site conditions, shall be secured to the ground. We will not plant or seed noxious weeds. Prohibited plant species, only locally native, non-invasive, and non-persistent grass species will be used for temporary erosion control. We will incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of all cannabis cultivation activities. Measures to limit or prevent erosion, include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings if needed, road outsloping and rolling dip installation where safe and suitable as needed, installing ditch relief culverts and overside drains if prescribed, stabilizing unstable areas, reshaping cutbanks, and rocking native-surfaced roads.

### **Sediment Control BPTC Measures**

Implementing water conservation measures, irrigating at conservative rates, applying fertilizers at conservative rates, applying chemicals according to the label specifications, and maintaining stable soil and growth media should serve to minimize the amount of runoff and the concentration of chemicals in that water. In the event that irrigation runoff occurs, measures shall be in place to treat/control/contain the runoff. We try to be water conservative and use no more then what is

required. Irrigation runoff will be contained so that any pollutant are trapped in the ditch relief. Irrigation runoff will be managed so that any entrained constituents, such as fertilizers, fine sediment and suspended organic particles, and other oxygen consuming materials are not discharged to nearby watercourses. We will do our best to ensure that irrigation tailwater is not discharged towards or impounded over unstable features or landslides.

## **Spoils Management**

Riparian and Wetland Protection and Management Assessment of the property concluded that cultivation areas and associated facilities are not located or occurring within 100' of any Class I or II watercourse or within 50' of any Class III watercourse or wetland, buffers maintain natural slopes with native vegetation, and buffers are of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances.

Currently, no spoils are stored or placed in or where they can enter any surface water or pollute nearby lands. Any and all spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters. Any and all spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas have not been sidecast in any location where they can enter or be transported to surface waters.

If any further spoiling material is required, such as from stream crossing installation or other grading, the discharger shall follow the BMPs in Appendix B of the Order, under Spoil Management. Spoil sites shall be located outside any standard width riparian area (50' for Class III and 100' for Class III) and shall be stabilized and contained as per the BMPs.

## Procedures for spill prevention and cleanup.

Spills shall be cleaned up immediately following discovery. Spills shall be cleaned up using proper material to soak up hazardous materials. Spilled materials will be put into proper container, labeled and transported to a facility that will take the materials A spill kit will be maintained on site.

#### **Petroleum Product BPTC Measures**

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 nearby soils or receiving waters. Storage tanks and containers must be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature. These fuels are used for generator, weed whacker, lawn mower and other garden tools. In process of filing Generator Plan through Humboldt Dept of Health and Human Services. 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 five gallon gasoline cans are stored with secondary containment inside of a shed or similar enclosure on flat, stable areas. We will implement spill prevention, control, and countermeasures (SPCC) and will There are no underground storage tanks on the property.

Off-grid solar power is the goal by 2020. All petroleum products on property are stored with

## secondary containment inside of a shed or similar enclosure on flat, stable areas.

#### Trash/Refuse, and Domestic Wastewater BPTC Measures

Refuse and garbage 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 trash and recycling is stored in cans with lids on a stable, flat area. The cans are secured to exclude wildlife and prevent discharge or contact with water or receiving waters. Garbage and refuse shall be disposed of at an appropriate waste disposal location. All garbage and refuse is disposed of at an authorized municipal waste transfer station. It will be taken to Redway Transfer station by personal vehicle, ie truck, 1-3 times per week depending on garbage accumulation. All soil will be reused and never dumped. Garbage from the grow is bags from amendments and fertilizer containers. All items will be cleaned out properly into a leach field or garden area, recycled if possible and if not removed to the transfer station. Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.

#### **Winterization BPTC Measures**

We will do our best to implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by the onset of the winter period (November 15).

We will do our best to block or otherwise close any temporary access roads to all motorized vehicles no later than the onset of the winter period each year.

We will not operate heavy equipment of any kind at the cannabis cultivation site during the winter period, unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction.

We will apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length at the frequency specified below.

We will maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The culverts will be inspected before to the onset of fall and winter precipitation and following precipitation events that produce a lot of rainfall. We will do our best to stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance.

We will cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being used as needed to prevent erosion by storm water. We will procure adequate cover and berm materials available onsite if

the weather forecast indicates a probability of precipitation.

We will do our best to apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to waters of the state.

## **Materials Management Plan**

#### **Bob Howard**

Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valare Telephone: 760.613.6520/707.986.7815 Email: etahumboldt@gmail.com



#### Petroleum Based/ Fuel Products

Gasoline, oil and oil/gasoline mix used for generator, weed whacker, lawn mower and other garden supplies are stored in shed located on site plan next to caretaker residence. This building has concrete flooring and a plastic covering for secondary containment of possible spills and leaks. All used oils are disposed of properly. Gasoline for generators stored in approved canisters in generator shed area with secondary containment. Propane is used for house appliances and water heater.

# Procedures for spill prevention and cleanup.

Spills shall be cleaned up immediately following discovery. Spills shall be cleaned up using proper material to soak up hazardous materials. Spilled materials will be put into proper container, labeled and transported to a facility that will take the materials A spill kit will be maintained on site.

#### **Petroleum Product BPTC Measures**

Petroleum products and other liquid chemicals, including but not limited to gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into nearby soils or receiving waters. Storage containers will be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature. These materials are used for generator, weed whacker, lawn mower and other garden tools maintenance and use. All five gallon gasoline cans are stored with secondary containment inside of generator shed or in garage on flat, stable areas. The applicant will implement spill prevention, control, and countermeasures (SPCC) and will There are no underground storage tanks on the property.

## Fertilizer

Fertilizer and other cannabis feeding supplies are stored in shed located on site plan next to caretaker residence. The shed has concrete flooring with a plastic covering for secondary containment of possible spills and leaks. Gloves, fresh water and soap are also next to feeding

tank with stored items Greenhouse also has small feeding barrels. Gloves, fresh water and soap are also located next to the barrels

## Fertilizer Usage

Fertilizers are used in accordance with package directions or from top dressing with soil amendments compost tea recipes. All gardening practices are guided toward biodynamic and organic preparations. All fertilizer stored in original container with labels intact. Weekly visual inspections are done to insure all containers are viable and not leaking.

## **Fertilizer Types**

All fertilizers qualify under Clean Green Certificate Program - Non Liquid Amendments -Stutzman's chicken manure, Biochar, Peruvian Seabird Guano, Earthworm Castings, Bat Guano, Organic Steer Manure, Omri listed Compost, and Diatomaceous Earth.

## Pesticide and Agricultural Chemicals

Prevention and management of pests achieved through companion planting of non-invasive plants, nematodes, biodynamic farm preparations, diatomaceous earth, organic and legal pesticides and visual inspection with hand removal of infested plants.

## Pesticide and Agricultural Chemical Storage Area

Pesticides and agricultural chemicals (fungicide and rodenticide) are stored in a secure location under roofed structure with secondary containment, the shed located on site plan next to caretaker residence. Pesticides and agricultural chemicals are stored in an orderly fashion on shelves and on the floor with original labels per manufacturers recommendations. The area is neat, orderly, and includes a table with measuring devices for calculating and mixing chemicals.

Measures to protect watershed All spraying of plants for any type of pest control, mildew/mold control or foliage feeding is done when winds are at 0 and sprayed directly onto plants without over spray. No generators or household projects of any sort happen within 200 ft feet of the watershed. No pumping or dumping ever occurs in watershed. All fertilization of plants is done while I am monitoring it. Fertilizer comes from separate 55 gallon barrels. The fertilizer system is piped into drip irrigation system propelled by gravity. This process is always monitored. Same for greenhouse crops, the food comes from a 50 gallon barrel and is always fed with supervision.

## **Cultural Pest Management Control Methods**

The applicant utilizes crop isolation, cultivations beds with optimum plant density, vegetative stripping, and spacing as a means to manage pests. A buffer around the cultivation beds is used as further means of isolation from the surrounding environment. Pest repellent companion plant species are also used in the vicinity such as marigolds, red

amaranthus, dill, cilantro, basil, chrysanthemum, and rosemary.

The applicant performs routine ongoing maintenance activities for management of pests including, pruning, defoliation, thinning and topping. Irrigation and drainage is designed to eliminate standing water and runoff/pooling. Sanitation facilities are designed and located to reduce pest attraction. Additional maintenance activities include crop residue destruction, maintenance of clean cultivation bed borders, and weed control. The timing of harvesting is also used to reduce exposure to powdery mildew infestations.

## Physical/Mechanical and Biological Pest Management Control Methods

The applicant utilizes physical/mechanical and biological pest management control methods. The table below contains potential pests and optional physical/mechanical and biological pest management control methods. Please note pest management options will be utilized depending on conditions and circumstances.

Table 1: Physical/Mechanical and Biological Pest Management Control Methods

Pest or Disease	Physical/Mechanical Practices	Biological Practices
Spider Mites	Keep dust down by watering off plants (if dust is a problem)	Release predatory mites
Broad Mites	Inspect plants; disinfest or dispose of infested plants	Release predatory mites and six-spotted thrips
Russet Mites		Release predatory mites
Whiteflies	Hang up yellow sticky cards, Use reflective plastic mulch	
Thrips	Hang up yellow or blue sticky cards	
Aphids	Hang up yellow sticky cards (alates), Hose off plants	
Leafminers	Remove older infested leaves	Release Diglyphus parasitoids
Cutworms	Use pheromone traps to detect adults. Remove	

	weeds, which serve as a reservoir for cutworms and other noctuidae	
Flea Beetles	Use reflective mulches Plant trap crops (e.g., radish or Chinese mustard)	

## **Chemical Pest-Management Control Methods**

The following table contains a list of all of the chemicals will be used for pest management. The active ingredients are exempt from residue tolerance requirements and either exempt from registration requirements or registered for a use broad enough to include use on cannabis.

**Table 2: Chemical Pest-Management Control Methods** 

Pest or Disease	Pesticide Active	Pesticide
1 est of Disease	Ingredient	resuctue
Mites, powdery mildew, leafhoppers, aphids, whiteflies, moth larvae	Soybean Oil (39%), Sodium Lauryl Sulfate (19%), Citric Acid, and Isopropyl Alcohol	Green Cleaner Spidermite Miticide
Mites, powdery mildew, leafhoppers, aphids, whiteflies, moth larvae	Soy Oil,, Peppermint Essential Oil, Citric Acid, Plant Based Surfactant (Soap), Alcohol, Sodium Citrate, and Water	Lost Coast Plant Therapy
Mites, powdery mildew, botrytis and other pests, and fungal/mildew	Thyme Oil 14%, Clove Oil 10%, Garlic Oil 9%, Peppermint Oil 4%, Corn Oil 3%, Geraniol 3%, Citric Acid 2%, Rosemary Oil 2%, 53% Filtered Water, Soap, Isopropyl Alcohol, and Vinegar	Trifecta Crop Control

## Rodenticide

Rodent control is limited to hardware cloth that lines the beds, noise activators, Tanglefoot Brand coating paste, and cayenne/cinnamon spray. Rodenticide supplies are stored as outlined above.

Rodenticide supplies are used in accordance with original labels per manufacturers recommendations.

# **Fungicides**

Mold and mildew pathogens controlled with sulfur, Actinovate, Safer Brand Garden Fungicide and visual inspection with removal of infected vegetative matter. Fungicides and other cannabis preventive and treatment supplies are used in accordance with original labels per manufacturers recommendations.

## Soils Management Plan

#### **Bob Howard**

Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valare
Telephone: 760.613.6520/707.986.7815
Email: etahumboldt@gmail.com

## Soils Management Plan

#### **Cultivation Soils**

All soil from cultivation site will be reused and never dumped. Reused meaning the applicant tills the soils in place in the garden areas or moves soils to a large pile for amending or later use see plot plan pg 8. Area is marked on map. No soils are removed or transferred off of the property. Applicant amends the garden soils every year with basic amendments. Greenhouses plants are planted in containers, reusable pots and raised beds. Protection from over use of inputs and reuse of these soils shall be a key component of operations.

Operations will protect the resources through the following means:

The Site management plan will be implemented, Cultivations will occur in beds, air pots, or in the ground. Mixing, tilling, and amending of soils will occur within the receptacles. Composting is in a secure dedicated area. Vegetative materials will be chipped back into the compost pile. Cover crops will be utilized when not in cultivation for a month or more to reduce soil loss. Garbage from the cultivation is limited to bags from amendments and fertilizer containers. All items will be cleaned out properly into the garden area, recycled if possible and if not removed to the transfer station. Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.

## **Hazardous Waste Statement**

## **Bob Howard**

Location: 000 Reed Mountain Rd Garberville, CA 95542

County: Humboldt APN: 223044010

Address: PO Box 909 Garberville, CA 95542

Contact Name: Vanessa Valare Telephone: 760.613.6520/707.986.7815 Email: etahumboldt@gmail.com

The property 223-044-010 or commonly known as 000 Reed Mountain Rd,, has not been used as a storage facility for Hazardous Waste. This was confirmed through EnviroStor database.

## **Pest Management Plan Information**

Location: 000 Reed Mountain Rd Garberville CA, 95542

County: Humboldt APN: 223044010

Address: PO BOX 909 Garberville CA, 95542

Contact Name: Vanessa Valare
Telephone: 760.613.6520/ 707.986.7815
Email: etahumboldt@gmail.com

## **Pest Management Plan**

This Pest Management Plan (PMP) was prepared to be in compliance with California Department of Food and Agriculture (CDFA) requirements for CalCannabis cultivation licensing. This plan describes various pest management options that The Humboldt Cure will employ depending on conditions and circumstances. All pesticides and practices used will comply with California Department of Pesticide Regulation (DPR) and the Humboldt County Agricultural Commissioners (CAC) enforcement 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).

# **Cultural Pest Management Control Methods**

The applicant utilizes crop isolation, cultivations beds with optimum plant density, vegetative stripping, and spacing as a means to manage pests. A buffer around the cultivation beds is used as further means of isolation from the surrounding environment. Pest repellent companion plant species are also used in the vicinity such as marigolds, red amaranthus, dill, cilantro, basil, chrysanthemum, and rosemary.

The applicant performs routine ongoing maintenance activities for management of pests including, pruning, defoliation, thinning and topping. Irrigation and drainage is designed to eliminate standing water and runoff/pooling. Sanitation facilities are designed and located to reduce pest attraction. Additional maintenance activities include crop residue destruction, maintenance of clean cultivation bed borders, and weed control. The timing of harvesting is also used to reduce exposure to powdery mildew infestations. Prevention and management of pests achieved through companion planting of non-invasive plants, nematodes, biodynamic farm preparations, diatomaceous earth, organic rosemary and thyme spray, ladybugs, Safer Soap Sulfur Spray 3-1 and visual inspection with hand removal of infested plants.

# Physical/Mechanical and Biological Pest Management Control Methods

The applicant utilizes physical/mechanical and biological pest management control methods. The table below contains potential pests and optional physical/mechanical and biological pest management control methods. Please note pest management options will employed depending on conditions and circumstances.

Table 1: Physical/Mechanical and Biological Pest Management Control Methods

Pest or Disease	Physical/Mechanical Practices	Biological Practices
Spider Mites	Keep dust down by watering off plants (if dust is a problem)	Release predatory mites
Broad Mites	Inspect plants; disinfest or dispose of infested plants	Release predatory mites and six-spotted thrips
Russet Mites		Release predatory mites
Whiteflies	Hang up yellow sticky cards, Use reflective plastic mulch	
Thrips	Hang up yellow or blue sticky cards	
Aphids	Hang up yellow sticky cards (alates), Hose off plants	
Leafminers	Remove older infested leaves	Release Diglyphus parasitoids
Cutworms	Use pheromone traps to detect adults. Remove weeds, which serve as a reservoir for cutworms and other noctuidae	
Flea Beetles	Use reflective mulches Plant trap crops (e.g., radish or Chinese mustard)	

# **Chemical Pest-Management Control Methods**

The following table contains a list of all of the chemicals will be used for pest

management. The active ingredients are exempt from residue tolerance requirements and either exempt from registration requirements or registered for a use broad enough to include use on cannabis.

Table 2: Chemical Pest-Management Control Methods

Pest or Disease	Pesticide Active Ingredient	Pesticide
Mites, powdery mildew, leafhoppers, aphids, whiteflies, moth larvae	Soybean Oil (39%), Sodium Lauryl Sulfate (19%), Citric Acid, and Isopropyl Alcohol	Green Cleaner Spidermite Miticide
Mites, powdery mildew, leafhoppers, aphids, whiteflies, moth larvae	Soy Oil,, Peppermint Essential Oil, Citric Acid, Plant Based Surfactant (Soap), Alcohol, Sodium Citrate, and Water	Lost Coast Plant Therapy
Mites, powdery mildew, botrytis and other pests, and fungal/mildew	Thyme Oil 14%, Clove Oil 10%, Garlic Oil 9%, Peppermint Oil 4%, Corn Oil 3%, Geraniol 3%, Citric Acid 2%, Rosemary Oil 2%, 53% Filtered Water, Soap, Isopropyl Alcohol, and Vinegar	Trifecta Crop Control

## Pesticide and Agricultural Chemical Storage Area

Pesticides and agricultural chemicals (nutrients) are stored in a secure location under a roofed structure. Pesticides and agricultural chemicals are stored in an orderly fashion on shelves and on the floor with original labels per manufacturers recommendations. The area is neat, orderly, and includes a table with measuring devices for calculating and mixing chemicals.

## **Pesticide Training and Compliance Activities**

The Applicant shall undertake the following:

- 1. Apply for an Operator Identification Number from the Department of Pesticide Regulations.
- 2. Staff responsible for mixing and application of pesticides will be trained and certified as a Private Applicator.
- 3. Written Pesticide Training Program will be prepared and utilized at the site.
- 4. Hazardous Communications Program for Pesticides will be developed and available for all cultivation staff to review.

- 5. If pesticides used have requirements for respiratory protection Respirator Protection Plan will be developed and implemented at the cultivation site.
- 6. The Cannabis Waste Management Plan lists the location of hazardous waste disposal and shall hold all records of discarding at a licensed facility.

#### Rodents

Rodent control is limited to hardware cloth that lines the beds, noise activators, Tanglefoot Brand coating paste, and cayenne/cinnamon spray. Rodenticide supplies are stored in a secure location under a roofed structure. Rodenticide supplies are stored in the shed in an orderly fashion on shelves and on the floor with original labels per manufacturers recommendations.

#### Mold and Mildew

Mold and mildew pathogens controlled with sulfur, Actinovate, Safer Brand Garden Fungicide and visual inspection with removal of infected vegetative matter. Fungicides and other cannabis preventive and treatment supplies are stored in the shed, in an orderly fashion on shelves and on the floor with original labels per manufacturers recommendations.

## Solid Waste/ Recycling

Solid waste and recyclables on the property will be not be stored or collected. They will be taken to Redway Transfer station by personal vehicle, ie truck, 1-3 times per week depending on garbage accumulation. All soil will be reused and never dumped. Garbage from the grow is bags from amendments and fertilizer containers. All items will be cleaned out properly into a leach field or garden area, recycled if possible and if not removed to the transfer station. All recycling is sorted in a can with lids in the yurt until it is removed. No garbage is stored outside or unattended where animals can access.

## Solid Waste and Recyclables Disposal

Redway Transfer Station
Recycling center in Humboldt County, California
Conservation Camp Rd.
Redway, CA 95560
707-923-3944
https://www.recology.com/recology-eel-river/redway-transfer-station/

## **Hazardous Waste Disposal**

Humboldt Waste Management Authority 1059 W Hawthorne St. Eureka, CA 95501 707-268-8680