

CULTIVATION AND OPERATIONS PLAN
APPLICATION# 12088
APN # 108-026-006-000

CannaDreams LLC
Philip Kreider
8700 King Peak Road

1. Water Source – Unnamed Stream, tributary to Bear Creek, thence to the Mattole River.
Primary POD: Latitude: 40.131703 Longitude -124.077987
Right to Divert and Use Water: California State Water Resources Control Board Cannabis SIUR:
Registration H502405 Certificate H100255
see attachment:

Site Drainage and Erosion Control Plan: See Water Resource Protection Plan and
Site Management Plan, Winterization Plan

Storage – Cultivation: 29 (3000 gallon) water tanks	Fire: 1 (4000 gallon) water tank
1 (2000 gallon) water tank	1 (2500 gallon) water tank
1 (500 gallon) water tank	
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Total 89500 gallons	Total 6500 gallons

Irrigation Plan: Hand watering and Drip Irrigation in early morning or evening. Compost and mulch to increase organic content of soil and enhance water retention. Watering will be done so as to not cause runoff. Soil in beds will be inspected to determine if watering is needed.

Projected Water Usage: Tanks are filled during the rain season diversion period and used during forebearance period. More water tanks will be added each year to increase capacity.

Monthly Water Budget:

March – Approximately 500 gallons used for starting plants in greenhouse area
April - 1500 gallons, depending on weather conditions
May - 5000 gallons, depending on weather conditions
June - 12000 gallons
July- 15000 gallons
August- 18000 gallons
September- 15000 gallons
October- 5000 gallons

Details of measures taken to protect watershed and nearby habitat. See Attached WRPP, Management Plan, and Biological Survey. Roads and impacted areas will be monitored for erosion and necessary action taken to reduce velocity of water, channelization, and sediment transport. Noise and light will be controlled. No tree harvesting except firewood and some thinning outside of riparian buffer zones.

Material Management Plan - A recycling and waste shed exists. Material waste hauled to a transfer station in Redway, Fortuna, or Eureka. Cannabis waste is composted on site. Fuel and fuel related equipment is contained. The permit holder has enrolled in the CERS program and participated with the County Health Department in hazardous waste training (see attachment).

Invasive Species Control Plan: The Site is almost totally covered with forest canopy. Most of the site has not been disturbed since logging in 1962. Invasive species are not present. If invasive species are encountered, they will be removed and destroyed in a manner preventing recurrence. If invasive species are encountered, the location will be listed in the WRPP monitoring section and monitoring will recur at future dates to insure eradication is successful. Hay used for erosion control will not contain seeds of possible invasive species. Seeding for erosion control shall be local native species and not contain invasive species such as rye grass.

Description of Cultivation Activities - Cultivation will occur in hoop houses, open areas, and a greenhouse as shown on the site map, total canopy area of 9500 square feet. A number of cultivation practices have been utilized and it is expected that other techniques may be employed in the future. Currently, cuttings and seeds are started in the Spring, sometimes using artificial light, at other times natural light. In the past, only one planting cycle has been done but in 2019, an attempt will be made to do two cycles using the light deprivation method to induce early flowering.

Schedule of Activities during each month of growing and harvesting season:
January – Filling water tanks and winter monitoring of roads and erosion points.
February – Continue filling tanks and winter monitoring and erosion control.
March – Seeds are started. Some artificial light is supplied by hydro-electric generation.
Clones and cuttings can be made at this time
April – Some small plants can be transferred to a hoop house, weather permitting. Continue propagating seeds and clones. Water plants if needed.
May – continue planting and transferring plants to hoop houses. Watering plants.
June - Watering and fertilizing. Use light deprivation.
July – Harvest 1st cycle if mature. Processing harvest. Watering plants. Pest control
August – Plant second cycle if possible, water and fertilization. Pest control.
September – Water and Pest controlled
October – Harvest and Processing. Use of generator may be needed.

Protocols for Pesticide Use and Storage:

Pesticides and Agricultural Chemicals are stored in a secured shed as shown on the Site Map. Regulated pesticides inside the shed are locked in a cabinet. Materials are kept dry and used in accordance to instructions on the labels. Only organic biological control products are used at this time. See attached labels from Marrone Bio Innovations are used at

and have been successful in preventing mite infestation and powdery mildew.

Personal Protective Equipment (PPE) including coveralls, goggles, gloves and masks are worn during preparation and application. Warning signs at the site are posted and reentry periods into site respected.

The permit owner has attended training at the Humboldt County Agricultural Department and holds a current Restricted Materials Permit/ Operator Identification Number. See attachment

Processing Plan - A Processing and Packaging structure is planned to be built during the Summer of 2019. It will be located as shown on the Site Map. It is expected that two independent contractor workers will be on site at different times during the year corresponding to harvests.

The Processing Area will be kept clean and tidy. Workers shall have access to and use handwashing facilities. PPE such as face masks and gloves are available for use. Work surfaces and equipment are kept clean and sanitary. Mildew and mold prevention, detection, control strategies are to be implemented and reviewed.

Septic System

A septic system is scheduled to be installed during the summer of 2019. Civil Engineer David Nicoletti (PE #76814) has made some preliminary work. A septic system is scheduled to be installed during the summer of 2019.

Drinking Water

A Spring on the property supplies water for drinking. Bottled water is also available.

Road Evaluation

Civil Engineer David Nicoletti has performed a road evaluation(attachment) It is expected that the increased traffic will not cause a significant impact.

Housing

At present, there is no housing for workers. Small cabins are being planned.

Parking- There are 5 parking spots near the residence and 2 parking spots near the planned processing and packaging location.

Energy Plan – The site is off-grid. The largest percentage of energy used onsite is provided by hydro-electric from late October -June. Solar electric is used from May – September. In October, a generator is sometimes used during harvest.

Security Plan – A locked gate is used at the only entry road to the property. Security cameras and motion detectors are also used. Dogs help watch guard.

Noise Control Plan: Noise will be controlled following guidelines of Biological Survey. Combined noise levels of cultivation activities and ambient levels will not exceed 50 decibels at the edge of Special Species Status habitat.

Light Pollution Control – Blackout plastic will cover any artificial light emissions between sunset and sunrise.

Revisions: October 2023

Power Supply

A grant was received to install renewable sources of energy. Thirty two 400 watt solar panels with a total production capacity of 12800 watts/hour are in the process of being installed at this time. A 12000 watt inverter and battery pack of 92 kwh is also being installed. This should produce sufficient energy for the nursery in the Springtime. Circulation fans in the Summer, and energy for fans and possibly dehumidifiers at harvest time. Drying the harvest can be, and often is done by wood heat. It is not expected that any more solar capacity will be needed. If any generator produced electricity is needed, it will be below 20% guidelines established by the State of California that will go into effect by 01/01/2026.

The panels are planned to be installed on the hillside behind the large flat where most of the cultivation occurs. A small battery shed (8'x8') will be located nearby. The panel rack will be constructed on piers sunk into the ground. The footprint for the solar energy system is not requiring any further soil disturbance.

The hydro electric system is still in the permitting process. I have hired an engineer and biologist who will be working in cooperation with the Department of Fish and Wildlife and the criteria set forth in the LSAA agreement. The hydro system doesn't normally begin operating until late November or December. Depending on rainfall, the hydro can operate into April or May. The system could be helpful in the Spring for lighting in the nursery.

Water Storage

A grant was also received for additional water storage. Twenty-seven 3000 gallon plastic water tanks have been purchased and in the process of being installed. This will almost double the current capacity. The tanks are being installed next to the other tanks, on an old skid road. No new ground disturbance is necessary for the installation.

Processing Plan

The planned processing facility that was to be built in 2019 has not been built yet.

Septic System

The Septic System that was being designed by Engineer David Nicoletti near the Cultivation area has not been built yet. Soil samples were taken. The Septic System that serves the residence was repaired.

Philip Kreider
CannaDreams LLC
8700 King Peak Road
Humboldt Parcel#108-026-006
PO Box 2127
Redway, CA. 95560
philkreider@hotmail.com

Lake and Streambed Alteration Program
Notification #1600-2018-0718-R1
R1LSA@wildlife.ca.gov
619 Second St.
Eureka, CA. 95501

Water Diversion and Use Report for 2023

POD 3- Domestic Use from Spring

January-	1550 gallons
February-	1940
March-	2800
April-	3750
May-	4200
June-	5200
July-	5680
August-	6150
September-	5300
October-	4950
November-	3500
December-	2150
total-	44170 gallons

POD 2- Irrigation from Class 2 Watercourse

	Diversion to Storage	Usage
January-	35000 gallons	0 gallons
February-	59000	0
March-	0	0
April-	0	0
May-	0	2100
June-	0	15600
July-	0	21500
August-	0	31000
September-	0	18500
October-	0	0
November-	0	0
December-	0	0
Totals	94000 gallons	88700 gallons

Philip Kreider

January 1st, 2024

12/15/2023

Philip Kreider
CannaDreams LLC
Permit Application #12088
Parcel 108-026-006-000
8700 King Peak Road
PO Box 2127, Redway CA 95560
cannadreamshumboldt@gmail.com
(707) 223-2906

Michael Holtermann
mholtermann@co.humboldt.ca.us

Hi Michael,

I apologize for not getting back to you sooner about these updates to the Operation Plan.

As we discussed in our phone call, I was under the assumption that “nursery area” was part of the 9500 square feet that the farm has applied for in the permit process. If it is allowed 10% of the 9500 sq ft for a nursery, I would like to keep the 500 sq ft that has already been listed as the nursery located by the residence, and add an additional 450 sq ft of nursery on the big flat where most of the cultivation takes place. That would **total 950 sq ft of nursery area.**

The big flat can also hold the additional 500 sq ft of flowering plants that would bring the total of flowering plants to 9500 sq ft, between the big flat and the smaller flat. **The small flat has 1634 sq ft of cultivation and the big flat has 7866 sq ft of cultivation,** for a total of 9500 sq ft. This can be done without any further disturbance of land or removal of trees.

I have attached a **Premises Map showing the Big and Small flats.** The cultivation area for flowering plants is shown in black ink. **The yellow ink shows the nursery area on the big flat and near the residence.**

Renewable Energy

Another topic we discussed in our phone conversation was the **possibility of expanding the solar system.** There is space on the hillside behind the flat for

more panels. This would provide more energy in case the hydro electric project runs into problems. There also is the possibility of generating energy from wind.

I have been researching the possibility of using a container like structure placed on a cement slab at ground level as a trimming room. There are containers being sold on the market that have been adopted and meet commercial code standards. Do you think this would be possible? We could also have an ADA approved porta-pottie.

In 2019, I met with a Planning and Building Staff member by the name of Mary Jane, to discuss the possibility of obtaining a micro business license under the 2.0 code. The State has this option for cultivators under 10,000 sq feet. It would be non storefront sales. It seemed like once I had everything I needed to get for the existing permit application, there wouldn't be much more to do than resubmit everything for the micro-business license and pay some additional fees. If this is still a possibility, I would be very interested in it.

I can't remember what else we may have talked about on the phone, if I am missing something, please let me know. Things have slowed down here after the harvest and I should be able to get any additional work done quicker than before.

Attached is the premise map showing the cultivation areas and square footage. The new water tanks are going in. The solar is on hold for the moment but still planned to be worked on after the water tanks.

Sincerely,

Philip Kreider