

ATTACHMENT 1B

Cultivation and Operations Plan

Cultivation and Operations Plan

Jesse Carnes
APN: 314-191-014

Section 1. Description of Cultivation Activities

Cultivation Practices

The Applicant cultivates cannabis in both an outdoor and mixed light setting and will pursue a combination permit for 18,000 square feet of Outdoor cultivation area 1 outdoor cultivation area and one outdoor greenhouse (20 x 40) and 3,800 square feet of mixed light greenhouses (one 30 x 100 and one 20 x 40). The Applicant cultivates outdoors from May 15th through October and concurrently cultivates in mixed light greenhouses, as well as outdoor greenhouses from March to November.

Each spring the Applicant buys clones or seeds takes cuttings or clones from mother plants and rears them in outdoor and mixed light greenhouses (Cultivation Areas 1). In the middle of June the Applicant takes cuttings from existing plants, when plants are approximately 24 inches tall. Plants are grown up to 24 inches in gallon pots 12 inches high. No cover crops are planted.

Section 2. Schedule of Activities During Each Month, Including Projected Generator Use (hours)

January: No activity

February: No activity

March: Raising plants in Mixed Light greenhouses – 336 hrs. generator use.

April: Raising plants in greenhouses – 105 hrs. generator use.

May: May 15th lights finished. Outdoor cultivation begins – 105 hrs. gen. use.

June: Mixed Light and Outdoor cultivation.

July: Mixed Light and Outdoor cultivation.

August: Mixed Light and Outdoor cultivation. Fans and Drying. 168 hrs. gen. use.

September: Mixed Light and Outdoor cultivation. Fans and Drying. 168 hrs. gen. use.

October: Mixed Light and Outdoor cultivation. Fans and Drying. 168 hrs. gen. use.

November: Mixed Light and Outdoor cultivation. Fans and Drying. 168 hrs. gen. use.

December: No activity.

Section 3. Mixed Light Cultivation Cycles

Greenhouses

The Applicant has up to 3 mixed light cultivation cycles. The first cycle is from March to May, the second cycle is from roughly May 15th to August, and the third cycle is from August to November. The Applicant utilizes 2 Mixed Light Greenhouses, one (1) - 30 x 100 greenhouse and one (1) 20 x 40 greenhouse. The Applicant uses supplemental light to start plants flowering the first three weeks of March and then again in the first three weeks of July.

Equipment

The Applicant uses two Honda generators, two exhaust fans, 200 watt and 1500 watt, 6 small rotator fans, Kenmore KM50 Pint Dehumidifier and a Dri-EAZ Dehumidifier, as well as T5 Compact Fluorescent Lights hung on tubes.

Section 4. Description of Water Source, Storage, Irrigation Plan, and Projected Water Usage

Water Source

Per the attached WRPP and under an agreement with the California Department of Fish and Wildlife (CDFW), the Applicant sources water from two water diversions. Point of Diversion One (POD-1) is fed using a screened submersible pump from the Mad River. Point of Diversion Two (POD-2) is also fed from a screened submersible pump located within an off-stream Class II pond which fills with rainwater. The pond holds approximately 400,000 – 800,000 gallons of rainwater.

Water Storage

Water for cultivation is fed from POD#1 is through one inch poly line to a 3600-gallon storage tank, which is stored in an 3600 gallon storage tank that gravity feeds to a 4100-gallon storage tank and 300 gallon nutrient mixing tank. above ground, vertical water storage containers. Water from POD#2 is also fed to the 3600-gallon storage tank where The containers are located on flat level ground in the western portion of the parcel. All storage tanks are equipped with a float valve to shut off diversion when tanks are full to prevent overflow from being diverted when not needed.

Irrigation Plan

The Applicant applies water at agronomic rates and only applies as much water as needed and supplements any water needs with hand water to prevent overwatering. Implementing water conservation measures, irrigating at agronomic rates, applying fertilizers at agronomic rates and 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

Water for irrigation is connected through a series of planned water lines and water storage containers. Drip lines are used for irrigating all beds, outdoor pots, and greenhouses on a one inch line feeds from the nutrient tanks to the greenhouse. Storage containers are filled through pumping or gravity fed diversion.

In the event that irrigation runoff occurs, measures shall be in place to treat, control, and contain the runoff to minimize the pollutant loads in the discharge. Irrigation runoff shall 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.

Water Usage

The Applicant has an efficient water usage plan designed to conserve as much water as possible. Watering can occur once every 3 days, or once every 4 days, depending on plant size and need.

Water usage for cultivation activities varies by month with minimal usage during the early part of the year, increasing in May through October, and dropping back down in November and December (*see Table 1 – Cultivation and Water Usage*). Estimated usage is as follows: March and April approximately - 500 gallons a month, May through October 11,600 –gallons a month, and November – 5,000 gallons a month.

Table 1 - Cultivation and Water Usage

Month	Stage of Cultivation				Cultivation Space per Stage	Water Usage
	Flowering	Cloning	Vegging	Harvesting		
January						
February						
March			X[*ML]		From Cultivation Area 1 1 Greenhouses (30x100)–3,000 sq. ft.	500 gallons/month
April	X[*ML]		X[*ML]		From Cultivation Area 1 1 Greenhouses (30x100)–3,000 sq. ft.	500 gallons/month
May	X	X			Cultivation Area 2 – 13,800 Outdoor	11,600 gallons/month
June	X[*ML]		X		From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	11,600 gallons/month
July	X[*ML]		X		From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	11,600 gallons/month
August	X[*ML]		X		From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	11,600 gallons/month
September	X[*ML]		X		From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	11,600 gallons/month
October				X	From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	11,600 gallons/month
November		X[*ML]		X	From Cultivation Area 1 3 Greenhouses (30x100)–3,000 sq. ft. (20x40) – 800 sq. ft., (20x100) – 2,000 sq. ft. Cultivation Area 2 – 13,800sq. ft.	5000 gallons/month
December		X[*ML]		X		

*ML – Mixed Light

Section 5. Soil Management

Per that attached WRPP, the applicant contains all soils spoils within the greenhouses located on the property. The spoils are stored here during winter and amended for use in the spring.

Fertilizers, potting soils, compost, and other soils and soil amendments are stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater.

Section 6. Description of Site Drainage, Including Runoff and Erosion Control Measures

Per the attached WRPP, an assessment of all road surfaces and fill prisms found the road network on the property intact and adequately drained. The cultivation sites are not hydrologically connected with any watercourse. There are no unstable features within the property boundaries. All construction materials were found organized and stored away from watercourses.

The Applicant piles and shields cultivation related waste for burning. Non-organic cultivation waste is treated as domestic trash.

Section 7. Measures Taken to Ensure Protection of Watershed and Nearby Habitat

The applicant is enrolled in the Regional Water Quality Control Board's Waiver of Waste Discharge program to bring the Applicant's parcel into compliance and a Water Resource Protection Plan (WRPP) has been prepared and included with along with other permits.

There are no stream crossings within the property. All cultivation sites, Cultivation Areas 1 and 2 are setback appropriate distances from the nearby Mad River.

Mixed Light greenhouses (located in Cultivation Areas 1) shall be shielded so that little to no light escapes at a level that is visible from neighboring properties between sunset and sunrise. A black out tarp and or other suitable measures will be designed to regulate light spillage onto neighboring properties resulting from backlight, uplight, or glare minimize from the greenhouse and reduce light pollution to be in compliance with the International Dark Sky Association standards for Lighting Zone 0 and Lighting Zone 1.

Section 8. Protocols for Proper Storage and Use of Fertilizers, Pesticides, and Regulated Products

Storage

All soil amendments and fertilizers are stored in the large greenhouse (*see Plot Plan*) in their original containers and with original product labels on storage racks. Bagged and boxed materials are stored on pallets and will not be allowed to accumulate on the ground.

The Applicant does not use any pesticide or herbicide.

Usage and Regulated Products

Fertilizers and soil amendments are applied and used per packaging instructions and at proper agronomic rates. Cultivation areas are maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest.

Per the attached WRPP, petroleum products and other chemicals are stored in their original container on shelves in the large greenhouse. The Applicant stores small amounts, 10-20 gallons, of gasoline on the property. This fuel is stored in 5-10 gallon plastic containers stored in a 7 foot by 20 foot storage shed. The Applicant will store fuel canisters in plastic secondary containment tubs to prevent spillage.

Section 9. Processing Plan & Employee Safety Protocols

Processing

The Applicant is currently determining the location for the correct building for processing which will be brought up to Humboldt County building code standards. Drying and cutting are currently occurring in the barn and greenhouse adjacent to the residence. (*see attached Site Plan*). Cannabis trimming is done in house, by hand. This occurs at the end of July for first mixed light cycle and then again in the end of October and November for the second mixed light cycle and outdoor cultivation.

The Applicant intends to have employees working on site. Processing operations will be maintained in a clean and sanitary condition including all work surfaces and equipment, this includes clean tables, chairs, and lamps.

The Applicant uses dehumidifiers as well as approximately fans to keep drying conditions optimal inside greenhouses and the drying structure. These include: two exhaust fans, 200 watt and 1500 watt, 6 small rotator fans, Kenmore KM50 Pint Dehumidifier and a Dri-EAZ Dehumidifier.

The Applicant hangs product from ceilings in the barn to dry. When the product is considered dry it is put inside totes with a label including date strain name. These totes will stay in dry room and be opened up twice a day for another week before being considered ready for transport to a processing facility.

Storage sheds

The existing barn and 7x20 shed are the current storage area. The shed consists of a wooden floor a top a post foundation.

Bathroom

The Applicant currently has a permitted bathrooms with indoor permitted plumbing in the existing living quarters. If possible the Applicant intends to bring the existing barn in compliance. Human refuse is collected within a septic system installed into the house located on the property. The septic system is 190 feet away from the Class II off-stream pond.

Safety Protocols

Jesse Carnes wants to keep all employees working in the safest possible environment. To achieve this goal, employees must do their part by following these safety rules.

1. All persons shall follow these practices and render every possible aid to safe operations.
2. Horseplay, scuffling, fighting and other acts which tend to have an adverse influence on the safety or well-being of the employees are prohibited.
3. Work shall be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.
4. During trimming, keep hands out of the line of the trimming scissors.
5. Keep your work area clean, free of debris, electrical cords and other hazards.
6. Immediately clean up spilled liquids.
7. Always notify all other individuals in your area who might be endangered by the work you are doing.
8. Do not operate equipment that you are not familiar with. Do not attempt to use such equipment until you are fully trained and authorized.
9. Do not block exits, fire doors, aisles, fire extinguishers, first aid kits, emergency equipment, electrical panels, or traffic lanes.
10. Do not leave tools, materials, or other objects on the floor that might cause others to trip and fall.
11. Do not stretch any cords across aisles that may present a tripping hazard.
12. Always follow safe lifting procedures when lifting any object and get help for heavy loads.
 - Bend your knees, not your back.
 - Keep the load close to body.
 - Keep your back straight.
 - Lift with your legs. Do not lift and twist.

EMERGENCY PROCEDURES

In Case of a Fire

- Call 911 or nearest fire district. The responsibility for fighting fires is with professional fire fighters.
- Confine the fire by closing doors
- Do not break windows.
- Alert anyone in danger. Check all work areas to ensure that everyone has been alerted.
- Activate alarm, if there is one.
- Evacuate the building via the nearest safe exit.
- Meet at the pre-designated location after evacuating the building.
- Account for all coworkers.

- Be alert for approaching emergency vehicles. If you think they may not be able to find the farm, post someone on the road.
- Use a fire extinguisher only if you have been trained in safe use.
- Fire extinguishers are properly located for easy access in all greenhouses, the main house and storage sheds.

In Case of Earthquake

- DUCK & COVER – under a heavy table, desk or in a doorway, away from glass.
- Crouch and protect your head.
- Stay away from windows and doors.
- Stay outdoors if you are outdoors.
- *After an earthquake:*
- Weigh the risks before you do anything.
- Be prepared for aftershocks.
- Minor quakes - Stay where you are.
- Major quakes. – Exit calmly. Meet at the designated location. If evacuation if not possible, stay where you are until help arrives.
- Do not use telephone, except in an emergency.

Section 10. Security Plan

Security

Currently all sheds and structures are pad lockable. Entrance to the property is through a locked gate and the property is fenced there are multiple people on site at any given time.

Megan Marruffo

From: Teisha Mechetti <teisha@agdynamix.com>
Sent: Monday, August 29, 2022 2:47 PM
To: jesse carnes; Megan Marruffo
Subject: Re: APPS #11919 (Jesse Carnes) - Project Questions

1. Please confirm if the below Project Description is accurate and revised as needed.

Project Description: A Conditional Use Permit for 22,000 square feet (SF) of existing outdoor cannabis cultivation (18,200 SF of outdoor and ~~3,800 SF of mixed light~~), in addition to 2,064 SF of ancillary propagation. Irrigation water is sourced from a 700,000-gallon rainwater catchment pond located on the subject property. Existing available water storage is 715,000 gallons total in the ~~700,00 gallons~~ pond and three (3) 5,000-gallon hard-sided tanks. Estimated annual water usage is ~~75,600 gallons~~ 175,000. A maximum of 2 people may be onsite during peak operations. Power is provided by two (2) generators.

2. Are light deprivation techniques utilized for the outdoor area?

Yes, however, in the 2022 year only a part of the cultivation was grown under light deprivation. Applicant is in the process of consolidating all of his Mixed Light Tier 1 into his Outdoor State license in the hopes that he will continue to conduct light deprivation in the future under his outdoor license.

3. Does processing occur onsite? If so, please indicate where this occurs on the subject property.

Owner-family operated onsite processing using a trim machine.

4. What is the maximum number of people that will be onsite during peak operations?

2 Persons.

5. What are the sizes and ratings of the generators?

2 - (7kw) Honda EU7000 Gas Powered Generators

6. Are there any long-term plans to switch to an alternative power source (i.e., solar, PG&E, etc.)?

Yes the applicant is applying for the funding under the Renewable Energy Program and has specifications for a system design he can grow into in the future.

7. Do you have an agent you'd like me to contact and coordinate with?

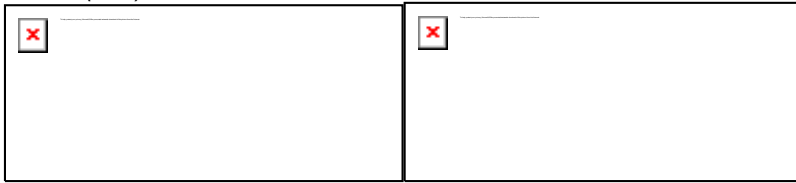
Teisha Mechetti, Universal Enterprises Solutions, 707-798-6199

Please let us know if you have any additional questions.

Best,
Teisha M. Mechetti (She/Her/Hers)
Compliance Specialist
Universal Enterprise Solutions, LLC.

Professional Office of Teisha Mechetti

Office: (707)798-6199



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On Mon, Aug 29, 2022 at 9:00 AM jesse carnes <jcarnes21@hotmail.com> wrote:

I am going to forward a few things to you to get started getting info to you if that's ok.

Sent from my iPhone

Begin forwarded message:

From: Megan Marruffo <marruffom@lacoassociates.com>

Date: August 23, 2022 at 8:45:13 AM PDT

To: jcarnes21@hotmail.com

Subject: APPS #11919 (Jesse Carnes) - Project Questions

Good morning, Jesse,

I am the assigned planner who will be preparing the staff report for your cannabis permit application (APPS #11919) through the County of Humboldt. I have been reviewing the project materials and have some initial questions I'm hoping you can help answer regarding the project:

1. Please confirm if the below Project Description is accurate and revised as needed.

Project Description: A Conditional Use Permit for 22,000 square feet (SF) of existing cannabis cultivation (18,200 SF of outdoor and 3,800 SF of mixed light), in addition to 2,064 SF of ancillary propagation. Irrigation water is sourced from a 700,000-gallon rainwater catchment pond located on the subject property. Existing available water storage is 715,000 gallons in the pond and three (3) 5,000-gallon hard-sided tanks. Estimated annual water usage is 75,600 gallons. A maximum of ## people may be onsite during peak operations. Power is provided by two (2) generators.

2. Are light deprivation techniques utilized for the outdoor area?
3. Does processing occur onsite? If so, please indicate where this occurs on the subject property.
4. What is the maximum number of people that will be onsite during peak operations?
5. What are the sizes and ratings of the generators?
6. Are there any long-term plans to switch to an alternative power source (i.e., solar, PG&E, etc.)?
7. Do you have an agent you'd like me to contact and coordinate with?

Any information you can provide is appreciated and will be helpful for preparing the staff report. Thank you for your help.

Thank you,

Megan

LACO



Megan Marruffo

Senior Planner / Project Manager

LACO Associates

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Megan Marruffo

From: Teisha Mechetti <teisha@agdynamix.com>
Sent: Friday, October 7, 2022 2:18 PM
To: Megan Marruffo
Cc: jesse carnes
Subject: Re: APPS #11919 (Jesse Carnes) - Project Questions
Attachments: 11919 Annual Compliance Inspection Letter 11.02.2021.pdf; 11919 Revised Site Plan 6.6.2022.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Megan,

Happy to assist in getting this wrapped up for this Project. I took a second look at the map from GRC and updated the labels accordingly to meet the project description changes being reflected below. There was also an inspection report from November, 2, 2021 which included a plethora of items that supposedly were not in compliance, however, the claims being made were not being accurately represented. We wanted to confirm that this report has been resolved in its entirety so we don't have any unexpected surprises. Jesse reports that he completed the Wetland Delineation and submitted to his last planner but we wanted to confirm that you had this on file. If there is anything outstanding on this inspection report please let us know.

1. The Site Plan shows there is currently 4,851 sf of mixed-light cultivation on-site – is this no longer the case, based on the information you provided below? If so, has the mixed light infrastructure been removed? **To clarify on this, the mixed light was misclassified at the time the interim permit was issued for this Project. The applicant is requesting to move the total mixed light into the outdoor classification to total 22k SF of outdoor. The total SF for the total operation is updated on the attached plan. We did our best to update the map with the version we had available until we can get him into a cleaner draft format but it is a bit choppy.**
2. The IP was issued for 18,200 sf of outdoor and 3,800 sf of mixed light cultivation. Per the edits you provided below, is the applicant only requesting outdoor cultivation and no mixed light? **Correct, mixed light was never in place on this Project, the mixed light should have been classified under Outdoor.**
3. You noted below the applicant has plans for alternative power on-site – will this be solar? **Yes this Project is proposing to install Solar on the site, and has applied for Micro Grant funds for this. In the event that he does not get funded, he would have to seek alternative financing to offset his fuel use and ultimately cost, however, under 1.0 he is permitted to use his Generators for post-processing uses throughout the cultivation season and would like to reserve this language. Currently, he has solar for Domestic/Residential, Kohler 35kW Propane Generator for Domestic Use Only and 2- Honda EU7000's for cultivation uses.**
4. Where on-site does processing occur? **Processing occurs in the building labeled Harvest Storage Building on the updated diagram attached.**
5. Please provide updated monthly water use estimates based on the revised annual water usage estimate of 175,000 gallons. **The past two years the permit holder had an authorized management company leasing the property and they failed to report the MRP uses according to the agreement with the license holder. The 175,000 gallons was calculated based on tank fill frequency of the tanks throughout the cultivation season for the year. We are working with this client to update his MRP reporting along with other outstanding administrative items related to the business.**

Let me know if this resolves all of your questions.

Best,

Teisha M. Mechetti (She/Her/Hers)

Compliance Specialist

Universal Enterprise Solutions, LLC.

Professional Office of Teisha Mechetti

Office: (707)798-6199



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On Tue, Sep 20, 2022 at 7:43 AM Megan Marruffo <marruffom@lacoassociates.com> wrote:

Good morning, Teisha,

Thank you again for the information you previously provided regarding the Jesse Carnes project (APPS #211919). I'm working on wrapping up the staff report and had some additional clarifying questions I was hoping you could address:

1. The Site Plan shows there is currently 4,851 sf of mixed-light cultivation on-site – is this no longer the case, based on the information you provided below? If so, has the mixed light infrastructure been removed?
2. The IP was issued for 18,200 sf of outdoor and 3,800 sf of mixed light cultivation. Per the edits you provided below, is the applicant only requesting outdoor cultivation and no mixed light?
3. You noted below the applicant has plans for alternative power on-site – will this be solar?
4. Where on-site does processing occur?

Megan Marruffo

From: Teisha Mechetti <teisha@agdynamix.com>
Sent: Friday, November 4, 2022 3:42 PM
To: Megan Marruffo
Cc: jesse carnes; AgDynamix Administration
Subject: Re: APPS #11919 (Jesse Carnes) - Project Questions

Megan,

According to Jesse "pond is approx 206 ft long covering approx 17,000 sq ft. It is approximately 800,000 gal at full capacity." Let me know if this will work for your purposes.

Teisha M. Mechetti
Compliance Advisor
O: 707-798-6199
teishamechetti.com

On Fri, Nov 4, 2022, 3:31 PM Teisha Mechetti <teisha@agdynamix.com> wrote:
Nicole, can you please reach out to Jesse to get a call scheduled for this?

Teisha M. Mechetti
Compliance Advisor
O: 707-798-6199
teishamechetti.com

On Fri, Nov 4, 2022, 11:09 AM Megan Marruffo <marruffom@lacoassociates.com> wrote:

Hi Teisha,

Could you please provide the approximate dimensions of the rainwater catchment pond at Jesse Carnes' site (11919)? That will be very helpful for our analysis.

Thank you,

Megan

Megan Marruffo
Senior Planner / Project Manager
LACO Associates
Eureka | Ukiah | Santa Rosa | Chico