

# ***Fantastic Gardens Humboldt LLC***

APN: 210-141-008 | HCPB APPS# 11966 | WDID: 1\_12CC424328



## ***CULTIVATION & OPERATIONS PLAN***

*prepared for:*

***Humboldt County Planning Department***

***Application under Ordinance No. 2559***

**•Revision Date: 12/28/20•**

*~prepared by Verdant Bridge Enterprises~*

### **STATEMENT OF RELEVANCE AND COHESION TO PREVIOUS VERSION(S):**

Please be advised that as this is a living document, operational changes may have occurred since the initial Cultivation & Operations Plan was submitted. As such, and because the requirements from multiple governing agencies have evolved over time, there may be inconsistencies in format and content of the Cultivation & Operations Plan on file when compared to other submitted documents. Because this application was initially submitted under a previous version of the Ordinance, the cultivation plan is constantly being updated to accurately encompass all aspects as required by the current County Ordinance and will be submitted as necessary.

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# *Cultivation and Operations Plan*

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## **APPENDICES**

**Appendix A:** Plot Plan for 210-141-008 by Omsberg & Preston dated 9/22/20

**Appendix B:** Quitclaim Deed - Fantastic Gardens Humboldt LLC

**Appendix C:** LSAA 1600 Application prepared by NRM 6/18/20

**Appendix D:** LSAA Final Agreement dated 12/14/20

**Appendix E:** Road Evaluation Report by NorthPoint Consulting dated 2/18/19

**Appendix F:** State Water Board - Notice of Applicability dated 7/28/20

**Appendix G:** State Water Board - SIUR Certificate dated 5/20/20

**Appendix H:** Fantastic Gardens Humboldt LLC Articles of Organization filed with CA SOS

**Appendix I:** Fantastic Gardens Humboldt LLC Statement of Information filed with CA SOS

**Appendix J:** Fantastic Gardens Humboldt LLC Operating Agreement - P. Jivanov & M. Dimitrov

**Appendix K:** Revised Botanical Survey by NRM dated July 2020

**Appendix L:** Relocation Plan by NRM dated 9/14/20

**Appendix M:** HCPB CAV performed 4/5/18 and Related Email Correspondence dated 6/6/18

**Appendix N:** Independent CAV by Verdant Bridge performed 9/16/19

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## **1. PROJECT OVERVIEW**

### **1.1. Project Summary & Site Location**

The project requires a Zoning Clearance Certificate for pre-existing total cultivation footprint of 9500 sq. ft. and has been issued an Interim Permit through HCPB for 3500 sq. ft. of Outdoor and 6000 sq. ft. of Mixed Light cultivation. The operation generally produces two harvest cycles per season. Please see Section 2.1 for more information on operational information and schedule of activities.

The property is a 40 acre parcel (42.83 GIS acres) located within the Little Van Duzen River watershed, approximately 4.5 miles southeast of the town of Dinsmore, in an unincorporated area of Humboldt County near Buck Mountain and Swayback Ridge. Access to the parcel is from Burr Valley Road and/or Buck Mountain Road, off Highway 36. More information about parcel access roads can be found in the Road Evaluation Report by NorthPoint Consulting, attached to this document as Appendix E. The parcel is zoned FR-B-5 with a General Plan designation of RA20-160. The site has no postal address.

According to current GIS data, the parcel contains no Prime Ag soils. The general slopes across the parcel range from gentle to moderate (more info on Plot Plan, included as Appendix A). No cultivation sites have a slope of 30% or greater. Parcels surrounding the property are listed as either Improved Rural Residential or Vacant Rural on Humboldt GIS and are also zoned FR-B-5. The cultivation areas are over 200 feet from the nearest property boundaries, the nearest being the middle site which is approximately 215 feet from the western border.

### **1.2. Right to Occupy and Company Members**

The property is owned by Fantastic Gardens Humboldt LLC and the QuitClaim Deed is attached to this document as Appendix B. Peter Jivanov and Mario Dimitrov are the two members of Fantastic Gardens Humboldt LLC, with each partner owning 50% of the company. Please find company documents filed with the CA SOS as Appendices H and I, with the Operating Agreement attached as Appendix J.

### **1.3. Regulatory Agencies and Compliance Status**

Fantastic Gardens Humboldt LLC is committed to becoming fully compliant with all local and state cultivation regulations. We realize that in this burgeoning industry there are many laws and/or agencies that have not fully come into play, as well as constant changes to existing regulations. As such, we are dedicated to remain in good standing with all regulatory departments and guidelines through this integrational period.

The following sections (1.3.1.-1.3.4.) outline compliance status and progress with some of the main regulatory agencies as of the winter of 2020. As this is a living document, the information contained herein will change as time passes, our operation matures, and as the regulatory process evolves.

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## **1.3.1. Humboldt County Building Department**

We understand that in addition to any proposed structures or developments, all pre-existing structures with a nexus to the cannabis operations will need to be retroactively permitted. Fantastic Gardens Humboldt LLC has enlisted the help of Omsberg & Preston, Engineers to oversee the process of attaining any building, septic, and/or grading permits that may be necessary to achieve approval of our cannabis permit from the County of Humboldt.

As mentioned in Section 1.4 below, we intend to retain the mixed light status for the northern and southern greenhouses, and continue with light deprivation in the middle greenhouse, in accordance to Humboldt County's definition of "outdoor." Ag-exempt building permits will be sought upon project approval for all three cultivation areas.

## **1.3.2. CA Dept. of Fish & Wildlife (CDFW)**

An LSAA application was prepared by NRM Corp. of Eureka and submitted to CDFW on 6/18/20. Other than the point of diversion water source, the 1600 points addressed are mostly concerned with ford and culvert crossings that need improvement or decommission. Please see the initial LSAA application, attached to this document as Appendix C. The Final LSAA Agreement is attached to this document as Appendix D, and only asks for pond spillway modification in addition to the items listed on the application. The pond is not connected to surface water, so no additional permits are needed. NRM has all relevant documentation and correspondence regarding CDFW compliance on file at their office in Eureka.

## **1.3.3. State Water Resources Control Board (SWRCB)**

This property was enrolled under the Statewide Cannabis Order WQ 2017-0023-DWQ as Tier 1 effective as of 3/9/20. The registration number for the Division of Water Rights is H509338 and the SIUR Certificate H100676 was issued on 5/20/20. The Notice of Applicability from the State Water Quality Control Board dated 7/28/20 is attached to this document as Appendix F, and the SIUR Certificate as Appendix G. NRM has all relevant documentation and correspondence regarding State Water Board Enrollment on file at their office in Eureka.

## **1.3.4. CalFire SRA Requirements**

The property is located within a State Responsibility Area (SRA) for fire protection. Several improvements are proposed in order to meet SRA requirements, including designating fire turnarounds and pull-out areas for emergency vehicles at each cultivation site as well as management of trees and ladder-fuel vegetation around existing structures to maintain the required 100-foot defensible space. All structures on the property meet the required 30-foot SRA setback from property lines. As shown on the Plot Plan, a 150,000 gallon rainwater pond is centrally located on the parcel for easy access and availability to CalFire should fire-fighting measures ever be needed.

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## **1.4. "Pre-Existing" Cultivation & Area Verification**

As shown on the independent CAV (Cultivation Area Verification) dated 6/29/15 which was prepared by Verdant Bridge, all three cultivation sites were light deprivation greenhouses prior to January 1, 2016. Because the CAV performed by HCPB dated 8/11/15 shows the middle area to be uncovered on the satellite imagery date, the Interim Permit was issued for 6000 Mixed Light and 3500 Outdoor.

We intend to retain the mixed light status for the northern and southern greenhouses, and continue with light deprivation in the middle greenhouse, in accordance with Humboldt County's definition of "outdoor." The CAV by HCPB is attached to this document as Appendix M, and VB's CAV is Appendix N.

## **2. OPERATIONAL PROCEDURES**

### **2.1. Seasonal Schedule of Activities**

#### March -April

- Season begins: site preparation, maintenance of water lines, tilling in cover crops or amending of soil for the season as needed
- Property maintenance as the weather permits
- Begin vegging clones, creating mothers for second crop

#### May

- Amend soil and begin to transplant and transition first crop into greenhouses
- Second crop propagation & preparation - vegetative stage
- Water, fertilizer, and pesticide use monitoring and recording

#### June

- First crop transitions into blooming stage, crop maintenance
- Maintenance of vegetative second crop
- Water, fertilizer, and pesticide use monitoring and recording

#### July

- Begin harvest phase of first crop, drying stage begins
- Transition into second crop planting & maintenance
- Water, fertilizer, and pesticide use monitoring and recording

#### August

- Harvest: Continued drying and processing of first crop
- Second crop maintenance - blooming stage begins
- Water, fertilizer, and pesticide use monitoring and recording

#### September

- Second crop bloom stage maintenance
- Water, fertilizer, and pesticide use monitoring and recording

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## October

- Second crop bloom stage ends near end of month
- Harvest begins: drying and processing of second crop
- Water, fertilizer, and pesticide use monitoring and recording

## November

- Harvest, drying and processing of second crop continues
- Skins are removed from greenhouses and season wrap-up commences

## December

- Pots and beds covered and secured for winter
- Supplies stored for winter
- Water lines prepared for winter

## **2.2. Greenhouses & Other Operational Structures**

As shown on the Plot Plan, this application concerns 9500 sq. ft. total between three greenhouses, that are constructed out of lumber and metal piping, (see Plot Plan which has been included as Appendix A for locations and dimensions). The existing greenhouses have unimproved flooring and the footpaths are bare ground covered with weed fabric.

There is also a proposed 545 sq. ft greenhouse in the southernmost cultivation area that will be the receiving site for relocated areas lost due to shortening the other two greenhouses so that they clear SMA's. The proposed "recovery" greenhouse will also have unimproved flooring and the footpath will be bare ground covered with weed fabric.

The ancillary structures included in the operational nexus are as follows: one 20'x50' nursery greenhouse, an 800 sq. ft storage shed where pesticides, nutrients, and farm supplies are kept, and the 1485 sq. ft. residence which was constructed prior to 2015, has functional bathroom and kitchen facilities and houses the seasonal workers. There is also a 144 sq. ft. shed on the northern side of the property which is in the SMA; this has been slated for removal.

## **2.3. Propagation & Transplant Protocols**

As stated above, there is a 1000 sq. ft. greenhouse that we use for a nursery. (see Plot Plan for location). In recent years, we have purchased clones in the spring and propagated the second cycle from the first cycle while still in the vegetative state.

In the future we may transition to creating our clones in-house, so that we can control the propagation quality, timing, strain integrity, and avoid contamination with pests and disease. It is also highly cost-effective to create our own cloned crops from mothers that we house during the winter rather than purchasing plants at the beginning of the season.

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Our workers use gloves and keep the environment very clean when handling our genetics. Our supplies are cleaned and stored properly to avoid cross contamination, and we keep safety and cleanliness protocols posted at the work site.

## **2.4. Nutrient/Amendment Protocols & Storage**

Fertilizer is bought and used as needed. Very little is stored onsite. Any unused fertilizer and amendments is kept in the 800 sq. ft. shed on the eastern side of the parcel (See Plot Plan for location).

We primarily use the following nutrients/amendments:

- Vitamin B1 liquid supplement
- Humic Acid
- Max Sea Grow & Bloom
- Superthrive
- Cal-Mag Plus by Botanicare
- Molasses
- Canna PK by House & Garden
- Top Booster by House & Garden
- Clearex by Botanicare

Before fertilizer application, operators are required to evaluate weather conditions, equipment, the site to be treated as well as the surrounding area in order to determine the likelihood of substantial drift or harm to non-target areas, cross-contamination, equipment malfunctions, or creation of any health hazards. Care is taken that plants are not over watered to minimize runoff in order to prevent nutrients from entering any watercourses.

As we continue to streamline our operation under the new, evolving regulations, we will keep a detailed farm log of all products used in cultivation for more accurate records than were kept in the past. All officers and workers are required to follow labels and feeding charts as well as standard safety protocols when administering any nutrients.

As previously stated, Material Safety Data Sheets for all products used in our operation are kept onsite with our farm log and compliance paperwork.

## **2.5. Harvest, Drying & Processing**

As shown in Section 2.1. Seasonal Schedule of Activities, there are an average of two crop cycles per season. Harvesting is done in stages during July/August and October/November. All processing will take place off-site for the immediate future. Because of this, the product is taken in small batches and replaced with the second crop during the first cycle. The second harvest is also cut down in small batches and sent out to a licensed facility for processing.



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## **2.6. Staffing Requirements & Employee Safety Policies**

The existing cultivation operation requires two workers during the farming season. The workers stay in the residence onsite and (as stated previously in this document) have access to fully functional kitchen and bathroom facilities. We don't anticipate needing further laborers during harvest, as all processing takes place off-site, but in the event that we find ourselves understaffed, we will hire employees through a local, established staffing agency for temporary seasonal help.

All employees are provided with gloves and protective eyewear as needed. We keep bottled water, eye wash solution and basic first aid kits onsite for employees to use as needed. As stated elsewhere in this document, Material Safety Data Sheets for all nutrients, amendments, and other compounds used for the operation are kept on location so that employees can easily identify how to respond to any spills, accidents, or emergencies. Spill kits are kept in multiple locations on the premises.

## **2.7. Security Plan and Hours of Operation**

The parcel where this operation is located is in a very remote rural location near Buck Mountain in what is primarily thickly forested area, and to this point, no stringent security measures have been necessary. The cultivation area is isolated from view and cannot be easily accessed from any well-traveled public road or hiking paths. There is no foot traffic through or near the parcel except by the property owner and the employees who work for Fantastic Gardens Humboldt LLC, and the only vehicular access to the site is from the private drive through a locked gate. There is always at least one worker on-site for 24 hours a day during the farming season.

We are willing to employ any additional security measures that the governing agencies deem necessary for permit approval. Our hours of operation are generally 8:00am to 10:00am, Monday through Friday during the farming season. These hours change with weather and daylight throughout the farming year, so inspectors and contractors are encouraged to call the contact number at the bottom of this document to schedule appointments.

## **3. ENVIRONMENTAL CONSERVATION**

### **3.1. Water Source and Storage**

Water for the cannabis operation comes from two sources. There is a point of diversion for storage purposes to the east of the middle greenhouse that is used only from November 1st to March 31st. We will adhere to Water Board requirements of 3 gpm and 80% bypass when filling tanks from this source. The other water source is an off-stream pond used for rainwater catchment that holds approximately 150,000 gallons.

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There is an additional total of 30,000 gallons of water storage devoted to the operation in hard tanks (see Plot Plan for locations), which are all fitted with functional float valves that automatically shut off water flow when the tank is full. There are additional tanks for SRA and domestic use on the plot plan for a total of 32,500 gallons of tank storage on the property. The tanks are in addition to the 150,000 gallons held in the pond, so the total water storage capacity on the parcel is 182,500 gallons. We will implement more storage as needed to make sure we can adhere to forbearance periods and watershed protection.

## **3.2. Irrigation Plan & Projected Water Use**

The primary irrigation system is a combination of hand-watering, drip lines and gravity irrigation. Water usage is carefully monitored each month during the cultivation season. Our total water usage per year is approximately 280,000 gallons based on the table below.

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Gallons Used	0	0	20k	30k	40k	40k	40k	40k	40k	30k	0	0

## **3.3. Watershed and Habitat Protection**

Two of the cultivation areas need slight modifications to remove portions of the greenhouse footprints from within the edges of the SMA's. The total area that would be relocated is 545 sq. ft. and the location of the proposed greenhouse is shown on the Plot Plan by Omsberg & Preston. NRM Corp. is working closely with both CDFW and the State Water Board to make sure that the operation properly mitigates any threat to water quality and/or sensitive habitats and species. Please see Appendices D, K and L for more information about environmental impacts and remediation.

We will work closely with our team of licensed professionals on the design and development of the property as we upgrade and improve the existing conditions. We care very much for preservation of the environment and are committed to proper land stewardship in our agricultural practices.

## **3.4. Energy and Generator Usage**

Power for the operation comes from three small, mobile generators. As stated previously, the northernmost and southernmost greenhouses are mixed light, and the middle greenhouse is light deprivation only. Two of the generators are Honda 3000's and the third is a Honda 2000. All three use gasoline as fuel and have noise rating levels of less than 50 decibels, and run for approximately 200 hours each per season. These figures also include usage for the residence and domestic needs. Upon project approval, we will make plans to invest in alternative energy sources such as solar or hydroelectric power for our long term primary power usage.

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## **3.5. Lighting & International Dark Sky Standards**

All greenhouses using early-season, low-impact lighting (like string-style work lights) are covered carefully with blackout tarps and inspected daily to ensure that no light escapes the structures. We use both tarp clips and weighted chains to make sure that the greenhouse coverings stay in place and shield all light from the outside.

We take special care to make sure that our supplemental light does not disrupt any nearby wildlife, or neighboring properties from one hour before sunset until one hour after sunrise. We use the lowest wattage feasible for our operations to conserve energy as well as to prevent unnecessary glow for all other outdoor lighting such as work lights, security/motion lights, etc.

## **3.6. Use and Storage of Pesticides**

We are educated on the Department of Pesticide Regulations' guidelines for products that are acceptable to use on cannabis, and we rarely have any fungal or pest problems needing treatment. On the rare occasion that we develop powdery mildew or mites, we purchase and use one or more of the following products:

- Green Cleaner - Active Ingredients: Soybean Oil, Sodium Lauryl Sulfate, Citric Acid
- Organicide - Active Ingredients: Sesame Oil
- Potassium Bicarbonate (Baking Soda)
- Neem Oil

Any unused portions are kept in their original containers in the 800 sq. ft. storage shed with the other nutrients and pesticides.

## **3.7. Use and Storage of Fuels & Other Regulated Products**

No diesel fuel is kept on the property. We have a 200 gallon gasoline tank which is serviced regularly by Renner Fuel. There are a few small metal cans with unleaded gasoline for weed eaters and chainsaws. The cans are kept safely out of the elements in a storage shed where the tools and equipment is kept. The shed has a fuel-safe liner. All fuel-powered tools and equipment such as tillers, chainsaws, and string trimmers are maintained off-site at Scotty's Cutters Edge in Fortuna as needed.

All basic cleaning compounds like bleach, vinegar, window cleaner, etc. are kept in the house with the other household supplies. We do not use any hazardous substances, and all of our chemical bottles are properly labelled. As stated previously, we keep MSDS on site for employee reference and safety, and have spill kits handy in multiple locations in case of fuel or nutrient spills.

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## **3.8. Waste Management Plan**

Our trash is kept in a cage enclosure near the residence and taken to Eel River Recology in Fortuna every week on average. Most of our supplies are reusable and we strive to create very little waste. The majority of the garbage generated on the property is domestic in nature (like food packaging and recyclables). There is also a 10'x10' compost area due east of the residence for clippings, food spoils, and green waste.

## **3.9. Soil Management Plan**

All of our soil remains in the planting containers during the year (both before and after the season), and we do not replace our soil or discard used soil. We add soil each year during transplantings in the total amount of approximately two pallets of ProMix 3.8 cu. ft bales.

During the winter, the soil that was used during the previous season remains in the containers inside the greenhouses, which are surrounded by straw wattles. We do not have extra soil piles on the premises.

## **3.10. Wastewater Disposal System**

The septic system for the residence was installed prior to 2015 and is fully functional and capable of supporting the two workers who use the facilities during the cultivation season. Please contact Omsberg & Preston, Engineers for more information about the current septic system.

Due to the fact that our processing takes place off-site, no additional workers are needed during that time and there will be no additional wastewater flow.