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Operations/Cultivation Plan
APN:208-341-011/APP#12020
Lizard Ranch Farms LLC

Revised 3/28/2024

Project Description

Lizard Ranch is a 9,325 square foot cannabis cultivation site, using light deprivation technique with an Special Outdoor Cultivation Permit pending. Current State License is CLL18-0002737 (Small Outdoor), annual renewal date is September 8th. Special permit application submitted in 2016 is on APN 208-341-011 in the Dinsmore area of Humboldt County.

This applicant is a social equity Trellis recipient. Eight 5,000 gallon water tanks were installed with Trellis funding in 2023. Through the Humboldt County Environmental Compliance Renewable Energy Grant, this applicant also received funding for a 4.32kW solar array consisting of (12) 360 Kw solar panels and four 371 amp-hour batteries, allowing for 1,484 amp hours of renewable energy storage.

Lizard Ranch Farms has been a contributing member of the Cobb Road Maintenance Association since 2020 and has contributed funds in the amount of $9,479 since joining the Road Association.

1. Water Use

The amount of water used for the cultivation of cannabis will va9,4799,ry widely throughout the season, with peak periods of use, up to 6,000 gallons per week, occurring during the summer months. Details of the grower's cultivation activities and water usage is described below.

All water used for cannabis cultivation is sourced from primarily rain catchment and an onsite well. An electric pump directs water to the storage tanks which are then gravity fed to the garden. Site is then watered with manual watering. All irrigation will be dispersed agronomically to maximize water conservation. The site has the capacity to store water in tanks. Rain will be collected from 1,472 square feet of surface areas. Annual water use is approximately 120,000 gallons. On site water tank storage is 93,500 gallons for irrigation storage and 3,000 gallons for fire suppression storage.

During the cultivation season, irrigation starts with watering every four days, increasing to every other day during the summer. Enclosed potted planting, along with careful manual irrigation, are used to improve water retention and reduce the possibility of irrigation runoff.

Water use by month in gallons:

Jan	Feb	Mar	Apr	May	June
0	0	1,000	3,000	6,000	14,000

July	Aug	Sept	Oct	Nov	Dec
24,000	24,000	24,000	24,000	0	0

2. **Watershed Protection**

The parcel has one class II watercourse running through it, with another near the property line. However, the cultivation areas are not within 100 ft of these watercourses.

The applicant, designated as the “Discharger”, is enrolled in the NCRWQCB Waiver of Waste Discharge as a Tier II Discharger. The cultivation site includes a Water Resource Protection Plan (WRPP) and Site Management Plan (SMP) for the property. A copy of the WRPP and the SMP are kept onsite for site management and regulatory inspections.

Applicant has a Streambed Alteration Agreement with Fish & Wildlife dated September 9, 2020. Notification No. 1600-2019-0085-R1. All Cobb Road culverts have been replaced and the decommissioning of the 18” failing culvert has been decommissioned.

3. **Rain Catchment System**

EXAMPLE PHOTOS

Roof mounted rain gutters to a downspout into water storage tanks

Rain gutters on the roof connect to drain pipes going down to the holding tank, pumped up to storage tanks (and gravity fed to irrigation lines. The Irrigation line is gravity fed to eight 5,000 gallon storage tanks.
The rain catchment systems will be on the 22’x32’ shed roof, and the 24’x32’ shed roof.

<u>System analysis</u>**:**

Total Sq Footage: 1472 sqft
Average Rainfall: 69 in/year
Average Gallons/in: 917 gallons
Annual collection: 63,075 gallons

4. **Energy Source**

The farm is not connected to the electrical grid and will currently rely on the new solar system for primary power with a Honda EU 6500 needed for backup.

The applicant received a grant for a solar system. Building permits required for submission are in the process of being developed. The system consists of 12 panels, 4 batteries, and an inverter in a manner to fit the CA code of standards. This project will add a 4.32 kW solar array, allowing for 1,484 amp hours of renewable energy storage. This will greatly reduce the gallons of fuel used to operate the farm activities.

5. **Materials Storage**

The current fertilizers utilized in the cultivation process include:

- Rainbow Mix Bloom
- American Hydroponics GroMagnom
- American Hydroponics Big, Bang, Bloom
- Liquid Bud Hardener
- Kelp Meal
- Neem Meal
- Earthworm Casting
- Bat Guano
- Green Sand
- Alfalfa Meal
- Bone Meal

The primary pesticides used to control mites and powdery mildew is:

- Neem Oil
- SM90
- Dr. Zyme
- Zerotol

Appropriate Material Safety Data Sheets (MSDS) are kept onsite as a component of the cultivator's Water Resource Protection Plan. A dedicated locked and secure indoor storage area is used for the storage of all amendments.

6. **Waste Management**

All plant waste saved for reuse is stored on a flat tarped area and covered. Unusable plant waste is composted after harvest is completed. Other solid waste is contained and stored in covered bins, then securely transported weekly to the Humboldt Waste Management facility. All materials intended for reuse or recycling are stored in a clean, sanitary, and secure manner.

Portable toilets exist temporarily onsite to manage human waste.

7. Primary Cultivation Activities

Jan-Feb	❏ Ensure off-season water storage has been completed ❏ Submit NCRWQCB enrollment report and fee ❏ Perform initial site inspection ❏ Plant clones ❏ Setup greenhouses ❏ Conduct and record inventory of amendments and verify proper storage ❏ Begin tilling amendments to prepare soil ❏ Transplant clones to greenhouse soil pots ❏ Make daily inspections ❏ Check water meters and begin recording monthly usage
Mar-Apr	❏ Maintain plants with pruning, topping, and thinning ❏ Adjust nutrients as needed
May-Jun	❏ Harvest (Crop #1) ❏ Dry with dehumidifiers and fans ❏ Package and store ❏ Plant second crop in greenhouses
Jul-Aug	❏ Maintain plants with pruning, topping, and thinning ❏ Adjust nutrients as needed
Sep-Oct	❏ Harvest (Crop #2) ❏ Dry with dehumidifiers and fans ❏ Package and store ❏ Disassemble temporary structures

8. Soil Management

At the beginning of the season soil is tilled and prepared for planting. During the season, plants are fertilized in small doses as needed throughout the cultivation cycle. Following the harvest, reusable soil is properly contained and covered for tilling in the next season.

9. Cultivation Cycles

There are two cultivation cycles annually. Clones are started in February, and repotted to larger containers as they mature. They are transplanted to fabric soil pots and placed in greenhouses in March and in June. Harvest begins in May and September.

10. Plant Management

During the two cultivation cycles, plants are inspected every day. Irrigation is monitored and adjusted based on impact of various factors, mainly heat and precipitation. Plants are pruned, thinned, and occasionally topped until ready for harvest.

11. Processing Practices

After being harvested, the cannabis is taken to an indoor area where it will be dried, bucked, and cured. All work surfaces and equipment are maintained in clean, sanitary conditions. Protocols are strictly followed to prevent the spread of mold and fungus. The final cannabis product is then packaged and stored in a secure location.

12. Staffing

The site is a co-owned farm currently not hiring part-time or full-time employees. Harvesting and processing is done with the support of LLC members.

13. Security Measures

Road access and the site's entry way are restricted by locked gates. Gates are of heavy steel construction with an electric keypad gate lock. The Cobb Road Maintenance Association has a strong neighborhood watch program with cameras throughout the road and visitor verification processes in place.

14. Health and Safety

The site currently has no employees and no plans of hiring any employees. In the future, if employees are hired this site will be operated as an "agricultural employer" as defined by the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code, and comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers.

15. International Dark Sky Standards

The farm is an outdoor farm with no artificial light being used within the canopy areas.The propagation area with supplemental lighting will be properly maintained to avoid being visible from any neighboring property between sunset and sunrise. The site will comply with International Dark Sky Association standards for Lighting Zone 0, and prevent light spillage which may impact local wildlife. Any and all complaints received in writing regarding light spillage will be corrected within 10 business days from the date of receipt.