Attachment 7

Drought Management Plan

For

Canna Factory LLC

APN: 049-290-01

17900 Cantwell Ranch Road, Lower Lake CA 95457

Prepared for:

Lake County Community Development Department

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May 2022

A. Purpose

The purpose of this Drought Management Plan (DMP) is to meet the requirements of Lake County Ordinance 3106, passed by the Board of Supervisors on July 27, 2021. The Ordinance requires all projects that require a CEQA analysis of water use to provide a DMP depicting how the applicant proposes to reduce water use during a declared drought emergency to ensure both the success [of the project] and decreased impacts to surrounding areas. In addition to the DMP, Ordinance 3106 requires a Hydrology Report addressing water usage, water supply, water source recharge rate, and cumulative impacts to surrounding areas. The Hydrology Report, dated May 2022, for this project has been submitted as a separate document.

B. Project Description

Canna Factory LLC is seeking discretionary approval from Lake County for a Major Use Permit (MUP) for commercial cannabis operations at 17900 Cantwell Ranch Road (APN: 049-290-01). The total property area is 56.36 acres, as per the Lake County Parcel Viewer web application. The project property is accessed by a private driveway off Cantwell Ranch Rd. There are multiple existing buildings on the project property. The topography of the subject property is comprised of rolling hills/montane in the northern portion of the property and relatively low-gradient grassland in the southern portion of the property, with elevations ranging from 1,440 to 1,510 feet and an ephemeral, Class III watercourse (HUC12-180201160601) that flows into Copsey Creek, tributary to the Cache Creek watershed.

Proposed cultivation activities are to permit commercial cannabis cultivation in accordance with the Lake County Zoning Ordinance (Article 27). The proposal is for two (2) Type-3B small mixed light permits for a total of 40,500 sq. ft. of cultivation canopy area, distributed amongst fifteen (15) 30' x 100' greenhouses ('hoop houses'). The proposal includes the development of facilities appurtenant to cultivation, including facilities for storage of harvested cannabis, storage sheds, water storage tanks, and the appropriate irrigation infrastructure. The remainder of the property would continue to operate as it has operated in the past, as undeveloped land.

Irrigation water for the cultivation system will be provided by an onsite, permitted groundwater well. Water will be pumped to ten (10) 5,000-gallon water storage tanks located adjacent to the cultivation area, from which irrigation systems will distribute water to cultivated cannabis.

C. Operational Water Monitoring and Conservation Measures

As part of the project's standard operational procedures, the project will implement ongoing water monitoring and conservation measures that would reduce the overall use of water. These measures should be incorporated into the Water Use Management section of the project's Property Management Plan. The Water Use Management Plan should include information on Water Sources and Metering, Estimated Water Use, Water Conservation, and the Irrigation System. Recommended on-going water conservation measures may include, but may not be limited to, the following:

- No surface water diversion;
- Selection of plant varieties that are suitable for the climate of the region;

- The use of drip irrigation (instead of spray irrigation);
- Cover drip lines with straw mulch or similar to reduce evaporation;
- Water application rates modified from data from soil moisture meters and weather monitoring;
- Shutoff valves on hoses and water pipes;
- Daily visual inspections of irrigation systems;
- Immediate repair of leaking or malfunctioning equipment; and
- Water use metering and budgeting – a water budget will be created every year and water use efficiency from the previous year will be analyzed.

In addition to water use metering, water level monitoring is also required by the Lake County Zoning Ordinance. Ordinance Article 27 Section 27.11(at) 3.v.e. requires the well to have a meter to measure the amount of water pumped as well as a water level monitor. In addition to the above measures, well water level monitoring and reporting shall be performed as follows:

Seasonal Static Water Level Monitoring: The purpose of seasonal monitoring of the water level in the well is to provide information regarding long-term groundwater elevation trends. It is recommended that the water level in the well be measured and recorded once in the Spring (March/April), before cultivation activities begin, and once in the fall (October) after cultivation is complete. (note: The California Statewide Groundwater Monitoring Program (CASGEM) monitors semi-annually around April 15 and October 15). Records shall be kept, and elevations reported to the County as part of the project's annual reporting requirements. Reporting shall include a hydrograph plot of all seasonal water level measurements to-date, beginning with the initial measurement. Seasonal water level trends will aid in the evaluation of the recharge rate of the well. For example, if the water level measured during the Spring remains relatively constant from year to year, then the water source is recharging each year.

Water Level Monitoring During Extraction: The purpose of monitoring the water level in the well during extraction is to evaluate the performance of the well to determine the effect of the pumping rate on the water source during each cultivation season. This information shall be used to determine the capacity and yield of the well to aid the cultivators in determining pump rates and the need for water storage. The frequency of water level monitoring will depend on the source, the source's capacity, and the pumping rate. It is recommended that initially the water level be monitored twice per week or more, and that the frequency be adjusted as needed depending on the impact the pumping rate has on the well water level. Records shall be kept, and elevations reported to the County as part of the project's annual reporting requirements. Reporting shall include a hydrograph plot of the water level measurements during the cultivation season and compared to prior seasons. Measuring a water level in a well can be difficult and the level of difficulty will depend on site-specific conditions. As part of the well monitoring program, the well owner/operator shall work with a well expert to determine the appropriate methodology and equipment to measure the water level in their well(s) as well as who will conduct the monitoring and recording of the well level data. The methodology of the well monitoring program shall be described and provided in the project's annual report to the County.

In addition to monitoring and reporting, an analysis of the water level monitoring data shall be provided and included in the project's annual report, demonstrating whether use of the well is causing significant drawdown and/or impacts to the surrounding area and what measures were taken to reduce impacts. If there are impacts, a revised Water Management Plan shall be prepared and submitted to the County, for review and approval, demonstrating how the project will mitigate the impacts in the future, including, for example, additional water sources and possibly a reduction in cultivation, if a reduction in water availability has occurred.

D. Drought Emergency Water Conservation Measures

Drought can reduce both water availability and water quality necessary for productive farming, ranches, and grazing lands, resulting in significant negative direct and indirect economic impacts to the farm. To plan and prepare for drought conditions, the project will follow recommendations for monitoring, planning, and preparedness provided by the National Integrated Drought Information System - https://www.drought.gov/sectors/agriculture.

In addition to the above ongoing water metering and conservation measures, during times of drought emergencies or water scarcity, the project may implement the following additional measures, as needed or appropriate to the site, to reduce water use and ensure both success and decreased impacts to surrounding areas:

- Install additional water storage and/or implement a rainwater catchment system;
- Install moisture meters to monitor how much water is in the soil at the root level and reduce watering to only what is needed to avoid excess;
- Cover the soil and drip-lines with removable plastic covers or similar to reduce evaporation;
- Irrigate only in the early morning hours or before sunset;
- Cover plants with shaded meshes during peak summer heat to reduce plant water needs; and/or
- Use a growing medium that retains water in a way to conserve water and aid plant growth. Organic soil ingredients like peat moss, coco coir, compost and other substances like perlite and vermiculite retain water and provide a good environment for cannabis to grow.

In the event the well cannot supply the water needed for the project, the following measures may be taken:

- Reduce the amount of cultivation and/or length of cultivation season;
    - The amount of cultivation would be determined based on available water
    - Crop could be harvested early if water becomes limited
- Install additional storage and/or implement a rainwater catchment system; and/or
- If possible, develop an alternative, legal, water source that meets the requirements of Lake County Codes and Ordinances.