



**HUMMER CONSULTING
ENGINEERING**

CIVIL | STRUCTURAL

To: Michael Taylor, Lake County Planning Department
From: Sean Hummer, PE
Date: September 16, 2021
Subject: Drought Management Plan –
Use Permit Number: UP20-81
Project Applicant: RHRP1, LLC

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 requiring a CEQA analysis of water use to provide a DMP specifying how the applicant proposes to reduce water use during a declared drought emergency to ensure both the success of the project while decreasing impacts to surrounding areas.

In addition to the DMP, Ordinance 3106 requires a hydrology report addressing water usage, water supply, and cumulative impacts to surrounding areas. A hydrology report, dated September 2021 has been submitted as a separate document for this proposed Project.

Project Description

Applicant RHRP1, LLC, proposes 26-acres of full sun, outdoor cultivation, planted in native amended soil. An existing permitted agricultural well owned by the landowners located on APN 00902283 is the source of irrigation water; Drip irrigation will be used to irrigate each plant. The irrigation water will be pumped from the ag well, via PVC piping, to three 60,000-gallon water storage tanks adjacent to the cultivation site and then delivered to the irrigation system. Drip

lines will irrigate the cultivation area at a rate to maximize absorption and prevent runoff.

Operations Water Monitoring and Conservation

As part of standard operating procedures, the applicant proposes to implement ongoing water monitoring and conservation measures to reduce the overall use of water. These measures are provided in the Water Use Management Plan section of the RHRP1, LLC's Property Management Plan. The Water Use Management Plan includes information on water sources, metering, estimated water use, water conservation, and irrigation System details. Conservation measures will be followed regardless of presence and absence of a County/regional drought emergency.

Water Conservation Measures

- No surface water diversion;
- Selection of plant varieties 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 adjusted from soil moisture meters and weather monitoring data;
- Shutoff valves on hoses and water pipes;
- Daily visual inspections of irrigation systems;
- Immediate repair of leaking or malfunctioning equipment.

Water Monitoring Measures

Water level monitoring is also required by the Lake County Zoning Ordinance. Ordinance A Section 27.11 (at) 3.v.e. requires a meter for measuring the amount of water pumped from the well to monitor water levels. Well water level monitoring and reporting will be performed as follows:

Seasonal Static Water Level Monitoring

Seasonal monitoring of well water levels provides information regarding long-term groundwater elevation trends. The water level in the irrigation supply well will be measured and recorded once in the Spring (March/April) before cultivation activities begin, and once in the fall (October) after cultivation is complete. Data reported to the County as part of the Project's annual reporting requirements shall include a hydrograph plot of all seasonal water level measurements for the

irrigation well. Seasonal water level trends will aid in the evaluation of the recharge rate of the well. For example, if the water level in water well during Spring remains relatively constant from year to year, then the water source is likely recharging each year.

Water Level Monitoring During Extraction

The purpose of monitoring the water level in a 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. Data shall be used to determine the capacity and yield of the irrigation well for 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. Elevations shall be 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.

The well owner/operator shall work with a well expert to determine the appropriate methodology and equipment to measure the water level in their wells(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.

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 or not use of the project wells 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 will be prepared and submitted to the County, for review and approval, demonstrating how the project will mitigate the impacts in the future.

Additional Conservation Measures during Drought Emergency or Water Scarcity

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 of the cultivation operations and decreased impacts to surrounding areas:

- Install additional water storage;
- 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;
- 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 that 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;
- If any well experiences significant drawdown or loses capacity, water will be diverted from one of the other on-site wells for irrigation purposes;
- Install additional storage; and/or
- If possible, develop an alternative, legal water source that meets the requirements of Lake County Codes and Ordinances.

If there are any questions or concerns, please feel free to contact me at the number below.

Thank you.



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