

MEMORANDUM



Date: December 23, 2019

To: RP Agrochimex, Inc.
248 Carrisa Highway
Santa Margarita, CA 93453

From: Shannon Jessica, PE

Subject: Water Use Evaluation for Proposed Cannabis Cultivation (248 Carrisa Hwy, Santa Margarita, CA)

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WATER RESOURCES

Wallace Group has been retained to estimate the water demand for a proposed cannabis cultivation operation in San Luis Obispo County. The proposed cultivation, located at 248 Carrisa Highway in Santa Margarita (APN: 037-391-030), includes the following:

- Outdoor/Hoop House Cultivation – 3 acres total
- Administration office space - 900 sf
- Barn for processing – 2400 sf
- Nursery – 5,760 sf

The recently adopted Cannabis Land Use Ordinance for San Luis Obispo County requires that applicants submit a detailed water management plan as part of the application package. The water management plan shall include proposed water supply, proposed conservation measures, and any water offset requirements. The following memorandum has been developed to outline the proposed water demand, and associated offset, if required, for the proposed development.

While published water use values have not yet been consistently established in the industry, the Central Coast Regional Water Quality Control Board (RWQCB) cannabis development team uses an estimate of 0.03 gal/sf canopy/day for outdoor cannabis plants and an application rate of 0.1 gallons per square foot of canopy for indoor cultivation operations. As defined in the San Luis Obispo County Cannabis Ordinance, hoop houses are considered outdoor cultivation whereas greenhouses are considered indoor cultivation. According to the SLO County Ordinance, nursery cultivation is categorized as indoor and therefore the indoor water application rate is used. The outdoor cultivation season is proposed to be 150 days. 260 days per year is used as the indoor growing season, corresponding with a 5-day per week watering schedule. The water use values presented in this report are estimates based on the above-mentioned application rates. Actual water use will be monitored daily and reported, as required by the County.

Table 1 outlines the proposed annual water demand for this project. Table 2 extrapolates the annual values into proposed monthly water use estimates, based on local evapotranspiration data.

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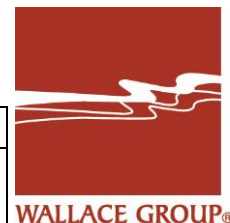
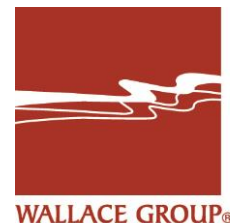


Table 1: Annual Water Demand Estimate			
Use	Rate	Gross Demand (gallons/ year)	Gross Demand (AFY)
Outdoor Cultivation: 3 Acres (130,680 sf)	130,680 square feet canopy area x 0.03 gal/sf/day x 150 days	588,060	1.80
Nursery: 5,760 sf	5,760 sf canopy area x 0.1 gal/sf/day x 260 days	149,760	0.46
Administration/Office	5 full-time employees x 10 gpcd x 365 days	18,250	0.06
Total Water Demand			2.32 AFY

Table 2. Estimated Monthly Water Demand for Cannabis Cultivation

Month	ETo (in)**	Outdoor ETo During Growing Season (%)	Outdoor Cultivation Water Use/Month (AF)	Indoor Cultivation Water Use/Month (AF)	Admin water use/month (AF)	Total Water Use/month (AF)
October	3.33	-	0.00	0.04	0.005	0.04
November	2.19	-	0.00	0.04	0.005	0.04
December	1.36	-	0.00	0.04	0.005	0.04
January	1.44	-	0.00	0.04	0.005	0.04
February	1.78	-	0.00	0.04	0.005	0.04
March	2.78	-	0.00	0.04	0.005	0.04
April	3.35	9.5	0.17	0.04	0.005	0.21
May	6.13	17.3	0.31	0.04	0.005	0.36
June	6.15	17.4	0.31	0.04	0.005	0.36
July	8.15	23.0	0.42	0.04	0.005	0.46
August	6.15	17.4	0.31	0.04	0.005	0.36
September	5.47	15.5	0.28	0.04	0.005	0.32
Total	48.28	100%	1.80	0.46	0.06	2.32

**California Irrigation Management Information System (CIMIS) Weather Station #163; Templeton (active 2000 to March 2018)



Water Supply & Offset

The proposed project will utilize an on-site groundwater well to supply water for crop irrigation. Water used for irrigation will be metered daily and monitored closely to ensure the system is operating efficiently and without leaks or line breaks. The location of this project is outside the boundary of the Paso Robles Groundwater Basin, therefore water offset is not required for the increased water demand corresponding to the development.

California Department of Fish and Wildlife

Because the project will be using an existing groundwater well for water supply, the owner will not need to obtain a General Agreement or Lake or Streambed Alteration (LSA) permit through California Department of Fish and Wildlife (CDFW). However, annual licenses for cannabis cultivation issued by California Department of Food and Agriculture (CDFA) will require the owner to demonstrate by written verification from CDFW that an LSA Agreement is not required. This is accomplished by submitting a self-certification application on the CDFW webpage and obtaining written correspondence from CDFW verifying that the LSA is not required for this project.

Regional Water Quality Control Board

Some cultivation activities can generate wastewater such as hydroponic solutions, irrigation tail water, and sanitation activities, etc. Typically, wastewater will be discharged either into a community collection system or to an onsite wastewater treatment system (septic tank/leachfield). These activities will be monitored through the Regional Water Quality Control Board for on-site disposal systems.

Regardless of the process wastewater discharge strategy, the RWQCB will require that cultivation operations enroll in the General Waste Discharge Requirements for Waste Associated with Cannabis Cultivation Activities (Cannabis General Order). The Cannabis Policy and General Order apply to commercial cannabis cultivation activities and enrollment in the General Order will be required for all commercial cultivation activities. Based on the proposed cultivation area and the characteristics of the property, it is likely this project will be categorized as a Tier 2, Low Risk according to RWQCB regulations. The tier determination will need to be finalized by the RWQCB once an application has been submitted and reviewed by Board staff. Tier 2 dischargers are required to submit a technical report to the RWQCB, due March 1 annually.

Coverage under the General Order is obtained by applying through the online application portal on the Regional Water Quality Control Board website. After the application is submitted and the application fee paid, the RWQCB will issue a Notice of Applicability (NOA). The NOA can be presented to the CDFA to obtain a commercial cannabis cultivation license. The application portal is located at: www.waterboards.ca.gov/cannabis.