

MEMORANDUM



WALLACE GROUP®

Date: August 11, 2020

To: Giovanni DiGarimore
PO Box 4730
Paso Robles, CA 93447

From: Shannon Jessica, PE
Wallace Group

Subject: Water Use Evaluation for Proposed Cannabis Cultivation (3520 Creston Road, Paso Robles, 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 3520 Creston Road, Paso Robles (APN: 033-011-026), includes the following:

- Outdoor/Hoop House Cultivation – 3 acres total

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 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. The industry standard season for outdoor cultivation is 180 days.

Table 1 outlines the proposed water demand for this project. Table 2 outlines the proposed monthly water use, based on the total water demand for cultivation. Local evapotranspiration data was used to extrapolate the annual water demand into monthly estimates during the growing season.

Table 1: Annual Water Demand Estimate			
Use	Rate	Gross Demand (gallons/ year)	Gross Demand (AFY)
Outdoor Cultivation: 130,680 sf	130,680 square feet canopy area x 0.03 gal/sf/day x 180 days	705,672	2.17

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Month	ET _o (in)**	Outdoor ET _o During Growing Season (%)	Outdoor Cultivation Water Use/Month (AF)	Total Water Use/month (AF)
October	3.50	-	-	-
November	2.02	-	-	-
December	1.51	-	-	-
January	1.69	-	-	-
February	2.24	-	-	-
March	3.72	-	-	-
April	4.76	13.5	0.29	0.29
May	6.03	17.1	0.37	0.37
June	6.56	18.6	0.40	0.40
July	6.60	18.8	0.41	0.41
August	6.30	17.9	0.39	0.39
September	4.94	14.0	0.30	0.30
Total	49.87	100%	2.17	2.17

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

Water Offset

The project site is located within an area of severe decline within the Paso Robles Groundwater Basin and therefore the water demand associated with the cannabis cultivation will require a 2:1 offset of the new 2.17 AFY demand. The owner will be utilizing an existing water offset credit from previous removal of an existing ornamental pond and irrigated turf (see Attachment A), which provides the property with a water credit of 14.19 AFY. Therefore, applying the current 2:1 offset (2.17 AFY x 2 = 4.34 AFY) will result in a remaining credit of 9.85 AFY available for future development.

Water Supply

The proposed project will utilize an on-site groundwater well to supply water for crop irrigation. Water used for cannabis irrigation will be metered daily and monitored closely to ensure the system is operating efficiently and without leaks or line breaks.



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 outdoor 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.

Attachment A – Water Credit Letter





COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
MARVIN A. ROSE, INTERIM DIRECTOR

June 25, 2018

Francisco Vargas
Kirk Consulting
8830 Morro Road
Atascadero, CA 93422

Subject: CON2018-00004 – Response to 6/12 Krumal Water Offset Application

Dear Mr. Vargas,

On June 4, 2018, the county issued a denial letter for the proposed ag offset application (CON2018-00004) to convert existing turf and ornamental pond into an 11.3 acre vineyard. This letter is to inform you that based on the Department's review of your firm's response to that letter, received on June 12, 2018 (attached), the Department has reconsidered the initial decision and, in this case, accepts the proposed conversion of the landscape related non-commercial-level crop components (e.g. pond, turf) for the establishment of approximately 11.3 acres of a non-commercial level operation/vineyard. The Department's decision was based on the following:

- The scale of the application (11.3 acres of vineyard) does not meet the definition of commercial crop production.
- The resulting crop production of the 11.3 acres of vineyard cannot be used as a source of commercial-level agricultural offset clearance credits in the future.
- The total amount of water usage cannot exceed the converted +/- 14.19 AFY.

This approval is tentative pending the following:

- A well meter and inspection is required. A well meter shall be placed on the well that will serve the new plantings pursuant to Public Works direction. Contact Ray Dienzo at (805)788-2110 for detailed specifications and to schedule a well meter inspection.
- Schedule a pre-inspection with the Department of Planning and Building prior to removal of the turf and pond.
- Schedule a final site inspection with the Department of Planning and Building once planting is complete pursuant to the attached application approved with this decision.



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
MARVIN A. ROSE, INTERIM DIRECTOR

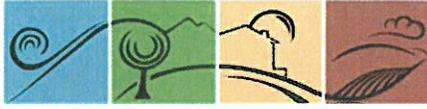
Please be advised that no new or expanded crop production shall occur at this site, unless approved through the Ag Offset Clearance with the Department of Planning and Building.

If you have any questions or concerns regarding this determination, please contact me at (805)781-4163.

Sincerely,

A handwritten signature in blue ink that reads "Megan Martin".

Megan Martin, Supervising Planner
mamartin@co.slo.ca.us
(805) 781-4163



ON-SITE AGRICULTURAL OFFSET CLEARANCE

(PRGWB)

PLANNING & BUILDING DEPARTMENT • COUNTY OF SAN LUIS OBISPO
 976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

This application is for an on-site Agricultural Offset Clearance as required in Title 22 Section 22.30.204. Please refer to the ordinance text for full eligibility information and requirements, which is available online at www.sloplanning.org or available at the front counter.

Parcel Information (Applicant)

Note: receiving parcel cannot be located in the area of severe decline

APN (s) 033-011-026 Size of Site (acres): +/- 110 acres

Owner/Applicant Name: Philip Krumal Francisco Vargas -Kirk Consulting (agent)

Contact Phone: (805) 461-5765 Contact Email: francisco@kirk-consulting.net

List any adjacent parcels that are under the same ownership: _____

Existing Crops on Site (If any)			
Crop Type	Acreage	Water Duty (From Table 2 and 3)	Water Demand
Pond (100% full)	0.5	4.7	2.35 AFY
Pond water loss from percolation & evaporation	29,400 gal/day		6.59 AFY
Irrigated Turf	1.5	3.6	5.25 AFY
Total Existing Water Demand on Site:			14.19 AFY
Proposed Crops on Site			
Crop Type	Acreage	Water Duty (From Table 2 and 3)	Water Demand
Vineyard	11.3	1.25	14.13 AFY
Total Proposed Water Demand on Site:			14.13 AFY

Proposed Crops

The property owner is proposing to plant 11.3 acres of vineyard. Using the water duty factor for vineyards of 1.25 AF/Ac/Yr the estimated water demand of the proposed 11.3 acre vineyard is 14.13 AFY. The table below demonstrates that the proposed 11.3 acres of vineyard is essentially offset at a 1:1 based on the removal of 1.5 acres of irrigated turf and discontinuing the use of the existing 0.5 AF pond (14.19 AFY).

Existing vs. Proposed Water Demand			
Crop Group	Acres	Water Duty Factor	AFY (Ac X factor)
Existing Turf & Pond removal	Refer to memorandum	Refer to memorandum	14.19 AFY
Proposed Vineyard	11.3	1.25	14.13 AFY
Net water demand			1:1

Figure 3: Proposed Vineyard

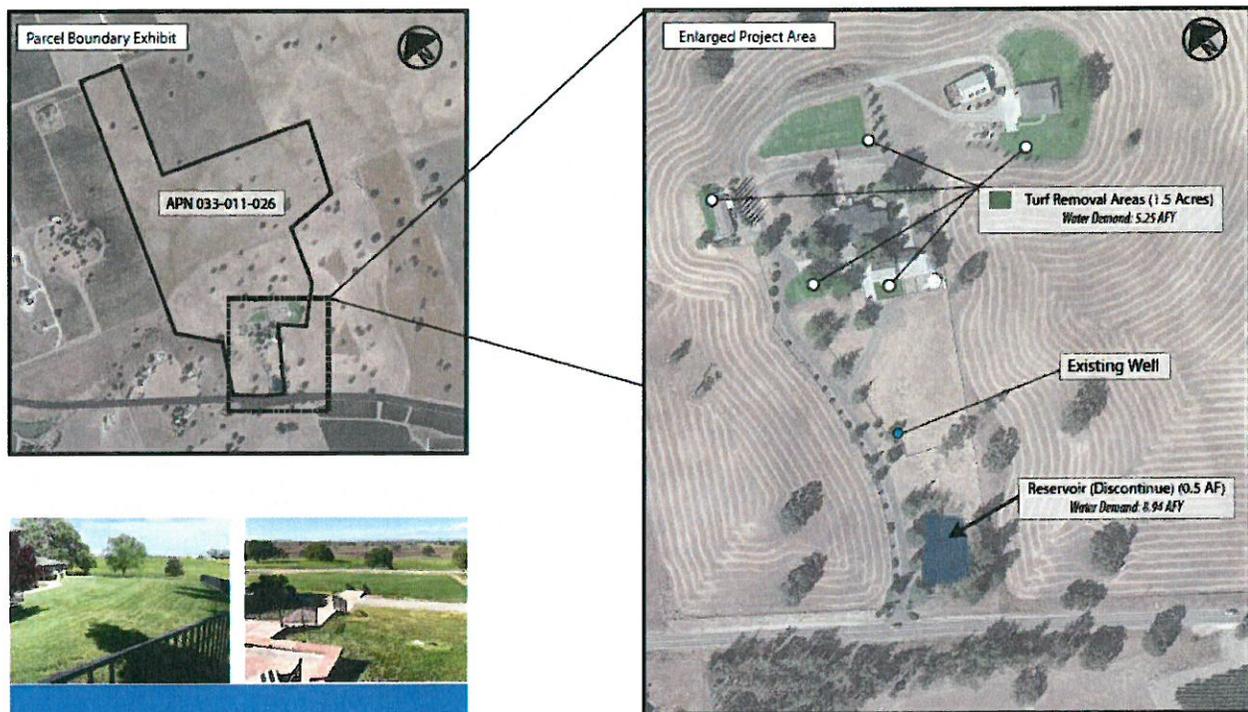


Total Proposed Vineyard: 11.3 acres

Water Reduction

The purpose of this application is to request an On-Site Agricultural Offset Clearance to allow the establishment of new irrigated agriculture on the site based on the removal of existing irrigated uses including over 1.5 acres of existing irrigated turf/landscaping and discontinuing the use of an existing 0.5 acre foot reservoir/water pond. Removing the existing irrigated uses and discontinuing the use of the reservoir will result in a reduction in water demand of 14.19 AFY. Refer to the memorandum included in this application developed by Rob Miller, Wallace Group, dated April 16, 2018 for more details on the net water reduction of 14.19 AFY. Figure 2 below demonstrates the existing irrigated areas to be removed and the location of the 0.5 AF reservoir. The 1.5 acres of turf area removed will not be replanted and will likely be covered with wood chips, mulch or other non-irrigated groundcover. The subsequent water demand table provides a breakdown of the water demand from each existing 'use' proposed to be removed/discontinued.

Figure 2: Existing Irrigated Areas and Reservoir



Existing Water Demand Table- Wallace Group

Existing Water Demand Description	Quantity	Water Factor	Annual Demand (ac-ft)	Comments
Evaporation from Decorative Water Feature / Pond	0.5 acre	4.7 ft/year	2.35	Estimated at 80% of Pan Evaporation
Losses from unlined, shallow percolation in decorative pond	29,400 gal/day (daily percolation)	20% of Percolated Quantity	6.59	Daily percolation based on winter period well records (14 hour/day fill at 35 gal/min). Balance of percolated water is assumed to recharge groundwater basin.
Turf area	1.5 acre	3.5 ft/year	5.25	
Total Proposed Offset (ac-ft/year)			14.19	



COUNTY OF SAN LUIS OBISPO
 DEPARTMENT OF PLANNING & BUILDING
 On-Site Agricultural Offset Clearance

LNG-1007
 06/06/2017

This application is for an on-site Agricultural Offset Clearance as required in Title 22 Section 22.30.204. Please refer to the ordinance text for full eligibility information and requirements, which is available online at www.sloplanning.org or available at the front counter.

Parcel Information (Applicant)

APN (s) 033-011-026 Size of Site (acres): ~110 acres

Owner/Applicant Name: Philip Krumal

Contact Phone: 805)471-9315 Contact Email: lisa@questplanning.net

List any adjacent parcels that are under the same ownership:

Existing Crops on Site (If any)			
Crop Type	Acreage	Water Duty (From Table 2 and 3)	Water Demand
Irrigated Turf	1.5	3.6	5.25 AFY
Total Existing Water Demand on Site:			
Proposed Crops on Site			
Crop Type	Acreage	Water Duty (From Table 2 and 3)	Water Demand
cannabis	3	0.723*	2.17 afy
vineyard	2.46	1.25	3.08
Total Proposed Water Demand on Site:			5.25

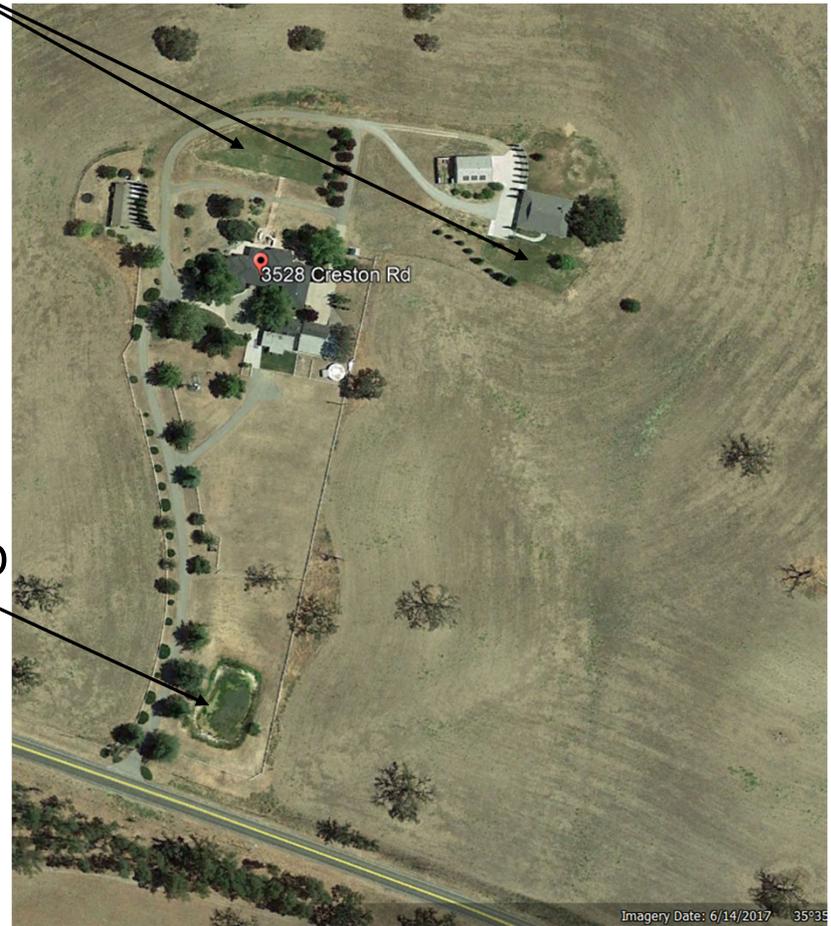
*Refer to Wallace Group Analysis for cannabis project, August 11, 2020

2018

2017

TURF

POND

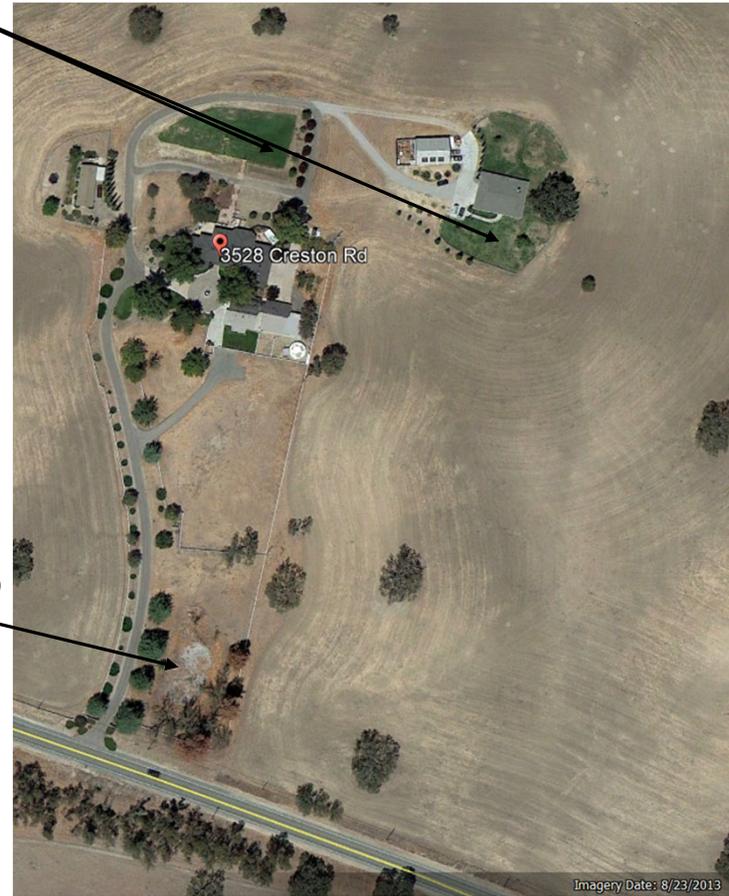


2015

2013

TURF

POND



Imagery Date: 4/2/2015

Imagery Date: 8/23/2013

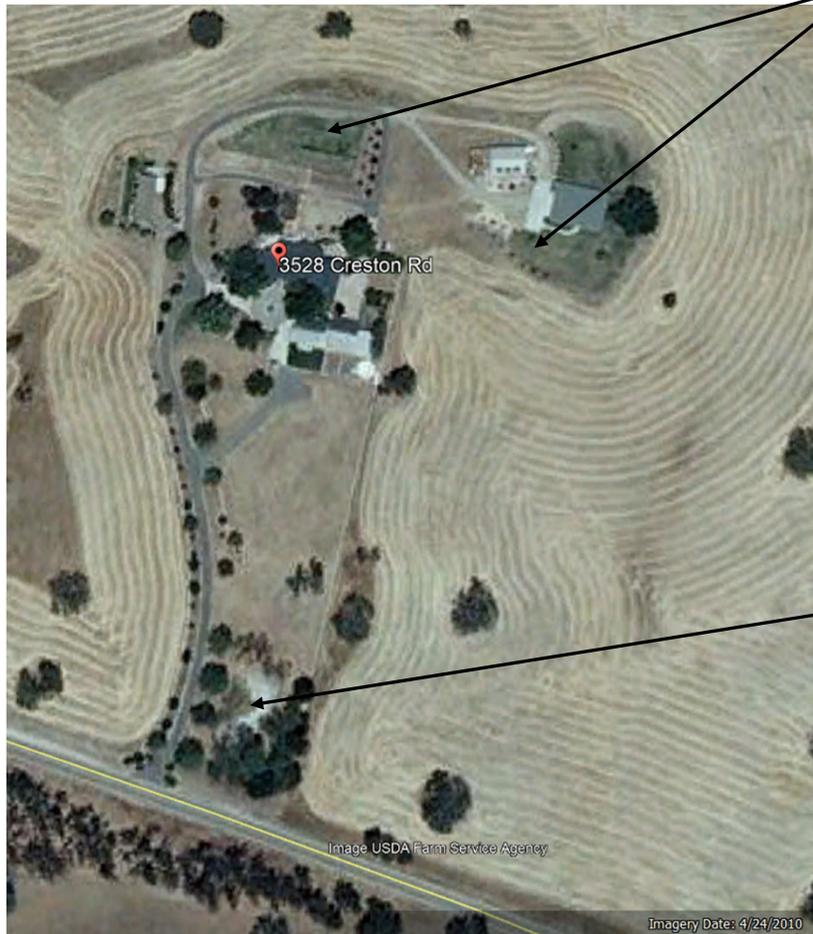
2012

TURF

2011



2010



TURF

2009



POND