MEMORANDUM

Date:

January 27, 2020

To:

Steven Herring

Rich Properties Management, LLC

From:

Shannon Jessica, PE

Wallace Group

Subject:

Water Use Evaluation for Proposed Cannabis Cultivation on

APN: 037-371-001

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 9110 Camatta Creek Road in Santa Margarita (APN: 037-371-001) and identified as SC1, includes the following:

Outdoor/Hoop House Cultivation – 3 acres total

The Cannabis Land Use Ordinance for San Luis Obispo County requires that applicants submit a detailed water management plan as part of the application. The water management plan is to 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 project.

Published water use values have not yet been consistently established in the industry or in San Luis Obispo County. Research and conversations with the Central Coast Regional Water Quality Control Board (RWQCB) cannabis development team has indicated that local agencies are using 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. These values are derived from the Santa Cruz County Draft Environmental Impact Report (EIR) for the Commercial Cannabis Cultivation and Manufacturing Regulations and Licensing Program (August 2017)¹. In section 3.0, pages 3-16 and 3-17 of the EIR, it is described that the water application rates used are derived from a study in Humboldt County by Milewide Nursery2. The Milewide Nursery study includes a breakdown of the per yield water use. The study based their results on a 90-day cycle and estimate that two growing cycles could be completed in a year for outdoor cultivation, and an estimated 270 days growing season, or 3 cycles per year, for indoor cultivation. As defined in the San Luis Obispo County Cannabis Ordinance, hoop houses are considered outdoor cultivation while nursery cultivation is considered indoor.

¹Santa Cruz County Draft Environmental Impact Report (EIR) for the Commercial Cannabis Cultivation and Manufacturing Regulations and Licensing Program (August 2017) http://www.sccoplanning.com/PlanningHome/Environmental/CEQAInitialStudiesEIRs/CannabisRegulationsEnvironmentalReview/CannabisEnvironmentalImpactReport(EIR).aspx



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WALLACE GROUP

612 CLARION CT SAN LUIS OBISPO CALIFORNIA 93401

T 805 544-4011 F 805 544-4294

www wallacegroup us

https://humboldtgrower.wordpress.com/2015/05/07/may-2015-humboldt-county-cannabis-water-use-study/



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.

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
T	otal New Water Demand		2.17

Table 2. Esti	mated Monthly Wa	ater Demand for Cannabis	Cultivation		
Month	ETo (in)**	Outdoor ETo During Growing Season (%)	Outdoor Cultivation Water Use/Mont (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		
May	6.03	17.1	0.37		
June	6.56	18.6	0.40		
July	6.60	18.8	0.41		
August	6.30	17.9	0.39		
September	4.94	14.0	0.30		
Total	49.87	100%	2.17		

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

Cannabis Cultivation Water Use January 2020 Page 3 of 4

Water Offset

The project site is located within the Paso Robles Groundwater Basin and therefore the new water demand will require an offset of 2.17 AFY. The owner will be using an irrigation credit from the removal of vegetable row crops. Table 3 outlines the irrigation records associated with the subject property for the past 5 years.



	Table 3. Irrigation History for SC1 (APN: 037-371-001)									
2019	2018	2017	2016	2015						
No irrigation	87 acres lettuce/spinach	87 acres lettuce/spinach	87 acres carrots	87 acres carrots						

According to the San Luis Obispo Off-Site Agricultural Offset Clearance Table 3. Existing Crop-Specific Applied Water by Crop Type, irrigation of vegetables is associated with a 1.9 AF/Ac/Yr water demand. Therefore, the owner needs to remove at least 1.14 acres of vegetable row crops from circulation to offset the proposed cannabis cultivation water demand.

Table 4. Proposed Water Offset								
	Area x Irrigation	Water Demand						
New Cannabis Cultivation	3 acres canopy area x 0.03 gal/sf/day x 180 days	2.17 AFY						
Removal of Previous Irrigation Demand: Vegetables	1.14 acres x 1.9 AFY/ac	-2.17 AFY						
Net Zero Water Dema	nd	0 AFY						

Water Supply

The proposed project will utilize an on-site groundwater well to supply water for crop irrigation. The existing well is 483 feet deep and is estimated to yield 1000 gpm (See Attachment A for pump test results). Water level was determined to be 63.3 feet below ground surface. This well will be shared by two other neighboring properties for additional cannabis cultivation projects. At 1000 gpm, the well has potential capacity of 1,613 AFY supply. Therefore, the well has sufficient capacity to serve all three properties at their maximum cultivation potential per the SLO County Cannabis Ordinance.

Water used for cannabis irrigation will be metered separately by each property being supplied water from the well. Water demand will be recorded daily and monitored closely to ensure the system is operating efficiently and without leaks or line breaks.

Cannabis Cultivation Water Use January 2020 Page 4 of 4

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.

WALLACE GROUP®

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 - WELL PUMP TEST



State License No. C57 432680 P.O. BOX 845 ATASCADERO, CA 93423 805-466-1271

Name	BOB MORRISON			Date	11/2/2015
Mailing Address	9110 CAMATTA CREE	K ROAD - SANTA MA	ARGARITA, CA	Phone	238-9509
	FLORIDA WELL			Fax	
Well Size	14" STEEL	Depth	483.3'	Duration	4 HOUR + RECOVERY
Tested by	C. HALL	Rate of Flow (gpm)	1000	Static Level	63.3'
. Colca by				•	

Well Test Report

Date	Time	Water Level (FT)	<u>G.P.M.</u>
10/26/2015	8:15AM	63.3	1000.0
	8:20	97.8	1000.0
	8:25	99.6	1000.0
	8:30	100.5	1000.0
	8:35	101.4	1000.0
	8:45	102.5	1000.0
	8:55	103.3	1000.0
	9:05	104.0	1000.0
	9:15	104.6	1000.0
	9:30	105.0	1000.0
	9:45	105.5	1000.0
	10:00	105.9	1000.0
	10:15	106.2	1000.0
	10:30	106.5	1000.0
	10:45	106.8	1000.0
	11:00	107.0	1000.0
	11:15	107.2	1000.0
	11:30	107 <i>.</i> 4	1000.0
	11:45	107.6	1000.0
	12:00PM	107.7	1000.0
i	12:15	107.8	1000.0

Recovery

Date	Time	Water Level (FT)
10/26/2015	12:15PM	107.8
	12:20	74.0
	12:25	72.3
	12:30	71.2
	12:35	70.6
	12:45	69.7

Additional Comments: PUMP WAS SET @ 260'

Thank you,

Ned M. Thompson

March 2, 2021

SHELL CREEK ROAD WATER USE ADDITIONAL INFORMATION

County of SLO Applied Water use for Barley (Small Grains) is 1.7 Acre Feet /Acre/Year.

Field 4 of APN 037-371-002 (Shell Creek 2 Project DRC2020-00011) has 39.6 acres as documented and filed with the CDFA as under irrigation in 2012, immediately prior to adoption of the Water Urgency Ordinance and therefore putting those irrigation practices and associated water use in compliance with the historical use requirement allowing existing irrigators exemption from the ordinance requirements.

Calculating the acreage of 39.6 times the use factor of 1.7 acre feet/acre /year, Field 4 used a total of **67.32 AFY** of water use in the preceding year ahead of the ordinance adoption.

Irrigated crop information is also provided for flood irrigated crops in subsequent years after 2012.

The cannabis water usage for each project 2.17 AFY. If all three cannabis projects were under production, the total water use is 6.51 AFY, ten times less than historical usage on the lower farm field of APN 037-371-002, which will not be irrigated during the life of any of the three cannabis cultivation projects.

DRC2020-00012 (Shell Creek 1 APN 037-371-002)
WATER USE 2.17 AFY

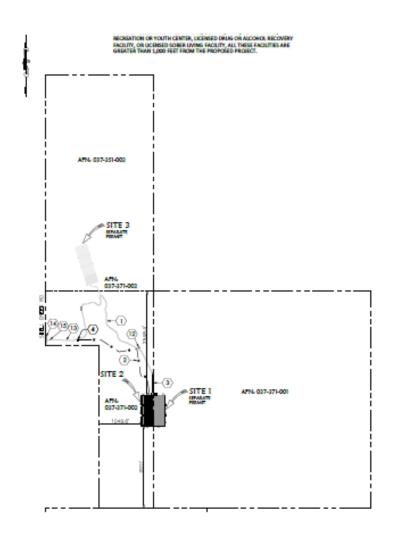
DRC2020-00011 (Shell Creek 2 APN 037-371-002

WATER USE 2.17 AFY

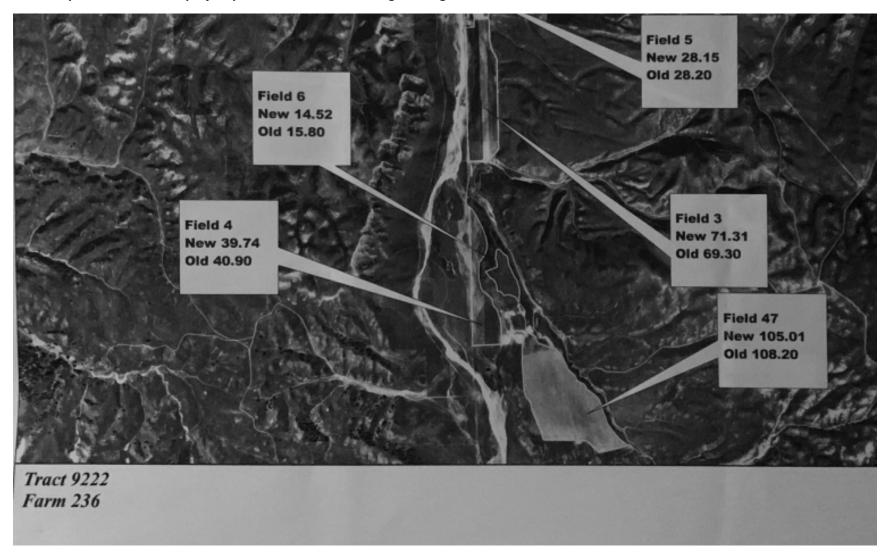
DRC2020-00179 (Shell Creek 3 APN 037-351-002)

WATER USE 2.17 AFY





CDFA map below shows the project parcels and defined acreage of irrigated lands.



CDFA documentation referencing 39.6 acres of irrigated Barley on Field 4 (APN 037-371-002) in 2012.

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9222	47	Barley	IR	I	105										1,2	50				
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	DETERMINED				144.										PI					
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PGE Receipts 2014



, 1000unt 110. 0000 10,000 Statement Date: 10/20/201 **Due Date:** 11/06/201

Service For:

FSB FARMING INC 3 MI N/O HWY 58 MORRISON RANCH SHANDON, CA 93461

Questions about your bill?

24 hours, 7 days/wk 1-877-311-3276 Agricultural Specialist available: Monday thru Friday, 7am - 7pm www.pge.com/MyEnergy

Local Office Address

406 HIGUERA ST SAN LUIS OBISPO, CA 93401



Current Electric Charges	\$1,920.1
Previous Unpaid Balance	\$4,647.1
Payment(s) Received Since Last Statement	0.0
Amount Due on Previous Statement	\$4,647.1

Total Amount Due by 11/06/2014 \$6,567.24

Electric Monthly Billing	History Daily Usage Comparis	or
\$5000	1 Year Last Curr Ago Period Per	en
\$3750	805.16	
\$2500	N/A 157 8	Ĺ,
\$1250	Electric kWh / Da	y
\$0		
2014 Visit www.pge.com/l	5/20 6/19 8/05 8/21 9/19 10/20 2014 MyEnergy for a detailed bill comparison	

ENERGI STATEMENT www.pge.com/MyEnergy

Statement Date:

09/19/2014

Due Date:

10/06/2014

Your Account Summary

FSB FARMING INC 3 MI N/O HWY 58 MORRISON RANCH SHANDON, CA 93461

Questions about your bill?

24 hours, 7 days/wk 1-877-311-3276 Agricultural Specialist available: Monday thru Friday, 7am - 7pm www.pge.com/MyEnergy

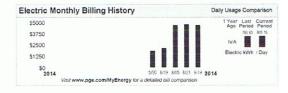
Local Office Address

Service For:

406 HIGUERA ST SAN LUIS OBISPO, CA 93401



\$4,647.11 Total Amount Due by 10/06/2014



ENERGY STATEMENT www.pge.com/MyEnergy

Statement Date: 08/21/2014

Due Date: 09/08/2014

FSB FARMING INC 3 MI N/O HWY 58 MORRISON RANCH SHANDON, CA 93461

Questions about your bill?

24 hours, 7 days/wk 1-877-311-3276 Agricultural Specialist available: Monday thru Friday, 7am - 7pm www.pge.com/MyEnergy

Local Office Address

Important Maccagae

Service For:

406 HIGUERA ST SAN LUIS OBISPO, CA 93401

Your Account Summary

Your Account Summary

\$4,641.16 Amount Due on Previous Statement 0.00 Payment(s) Received Since Last Statement \$4,641.16 Previous Unpaid Balance Current Electric Charges \$4,736,78 \$9,377,94

Total Amount Due by 09/08/2014

ENERGY STATEMENT www.pge.com/MyEnergy

ACCOUNT NO: 855348/53U-8 Statement Date: 08/05/2014

Due Date: 08/22/2014

Service For:

FSB FARMING INC 3 MI N/O HWY 58 MORRISON RANCH SHANDON, CA 93461

Questions about your bill?

24 hours, 7 days/wk 1-877-311-3276 Agricultural Specialist available: Monday thru Friday, 7am - 7pm www.pge.com/MyEnergy

Local Office Address

406 HIGUERA ST SAN LUIS OBISPO, CA 93401

Your Account Summary

\$2,067.07 Amount Due on Previous Statement -2.067.07 Payment(s) Received Since Last Statement \$0.00 Previous Unpaid Balance Current Electric Charges \$4,641.16

Total Amount Due by 08/22/2014

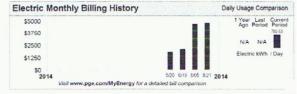
\$4,641.16



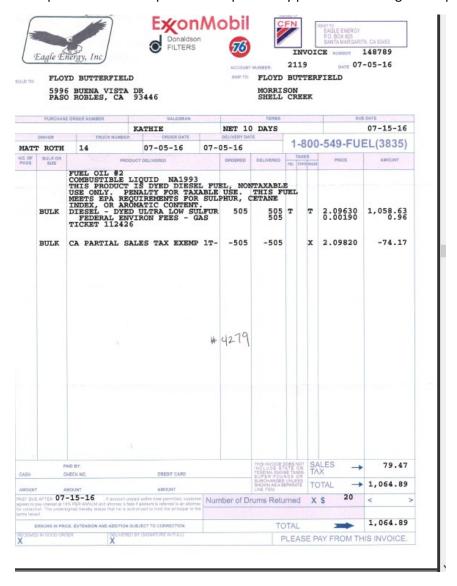








Example of Diesel Receipts for 2016 previously provided showing use of power for irrigation prior to installation of new well pump.



Farm Lease from 2017

Farm Lease

This lease is between Bob Morrison (Landlord), whose address is 9110 Camatta Creek Road, Santa Margarita, CA 93453 and Floyd Butterfield, dba FSB Farming Inc. (Tenant) whose address is 5996 Buena Vista Drive, Paso Robles, CA 93446.

- 1. Premises. Landlord does hereby lease to Tenant approximately 60 acres of farmland (Premises) located in San Luis Obispo County and shown on Exhibit A as "Mesa Field, 60 acres". Landlord warrants that he has the power and authority to enter into this lease.
- **2. Rent.** Rent payable by Tenant to Landlord for the term hereof shall be \$250 per farmable acre, representing a total due of \$15,000.00, and shall be due and payable within 30 days of the signing of this lease.
- **3. Term.** The term of this lease shall be for the period beginning upon execution and ending on November 30, 2017.
- **4. Water.** Water necessary for the irrigation of crops to be grown on the Premises will be available to Tenant during the term of this lease from those wells, pumps and pipelines located on the Premises.

Tenant acknowledges and agrees that the State of California has enacted the Sustainable Groundwater Management Act (SGMA), the implementation of which has yet to be determined, but which may result in additional fees, assessments, or costs for use of groundwater on or under the Premises and/or any water received and used on the Premises, including, without limitation, water received from a water district or similar entity. Tenant shall be responsible, at its sole cost and expense, for all fees, assessments, and costs implemented now or in the future, as a result of SGMA implementation, including, without limitation, fees levied by any water district or related entity providing water to the Premises, now or in the future, and Tenant's use of the Premises and the groundwater thereon.

Tenant will comply with the Central Coast Region water quality monitoring and reporting requirements for irrigated lands as specified under Order No. R3-2012-00011, as the same may be amended, replaced or superseded from time to time, and any other law, rule, or regulation that may be enacted, now or in the future, regarding water quality monitoring and reporting for the Premises. Tenant shall be responsible, at its sole cost and expense, for all fees, assessments, and costs implemented now or in the future, as a result of such water quality monitoring.

- 5. Utilities. Tenant shall pay all utility costs associated with Tenant's use.
- 6. Maintenance and Repair. Tenant shall keep fields clean of weeds and shall maintain the above-ground portion of the irrigation system serving the Premises in good condition. Landlord shall have the obligation to maintain and repair the below-ground portions of the irrigation system serving the Premises.
- 7. Farming Operation. Tenant shall utilize the Premises only for the growing of the crop and uses incidental thereto. Tenant has expressly informed Landlord, and Landlord has agreed, that

19. Attorney's Fees, Arbitration and Venue. Any controversy between the parties regarding the performance or interpretation of this lease, or any claim arising therefrom or as a result of a breach thereof, shall be submitted to binding arbitration on the written request of one party after service of the request on the other party. Arbitration shall be settled in accordance with the Commercial Arbitration Rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction.

If any party to this lease shall bring any action or initiate arbitration for relief against the other, declaratory or otherwise, arising out of this lease, the losing party shall pay to the prevailing party, a reasonable sum for attorney's fees incurred in arbitration, bringing a suit and/or enforcing any judgment granted therein. Any judgment or order on such action or arbitration award shall contain a specific provision providing for the recovery of attorney's fees and costs incurred in enforcing such judgment. Any arbitration or action shall be brought in San Luis Obispo County.

- 20. Time Is Of The Essence. Time is hereby expressly declared to be of the essence in this lease and all terms and conditions herein.
- 21. Ambiguity. Each party acknowledges and agrees that this lease has been negotiated and prepared jointly by each party and that in the event of ambiguity, it shall not be construed against either party, but rather each term herein shall be given a reasonable interpretation.
- 22. Modifications. These provisions constitute the entire agreement between the parties as to the subject matter of this lease and may not be altered or modified except in writing and execution by each party hereto.

This lease is executed in San Luis Obispo County on April 10, 2017.

Landlord Tenant

FSB Farming Inc.

Floyd Butterfield, President

By: Man By: My

USDA Report of Acreage- 2018. Field 4 (APN 017-371-002) and Field 47 (APN 017-371-001) previous irrigation

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