Water Availability Analysis

This analysis evaluates the water usage impacts of the proposed conversion of approximately 8.2 acres of vineyard grapes to 51,500 square feet (1.182 acres) flowering canopy cannabis cultivation at 6445 Kelseyville Drive and 6245 Gold Dust Drive, Kelseyville CA. The remaining area is to be developed into a 100' fire protection and security buffer, four 30'x120' barns, and supporting ancillary nursery areas.

The water source is a permitted well (WE1775) on APN 07-013-22 at Lat 38.963964, Long -122.844347

Baseline Water Demand

Agricultural Demand

The existing area to be developed consisted of grape vineyard. Vineyard water usage in this region of Lake County, California was studied by the University of California Cooperative Extension in 2014 which published a summary of vineyard water usage. Approximately 10.8 acre-inches (0.9 acre feet) of water per acre of vineyard was utilized in this region.

The total water usage to be displaced by the proposed operation is thus 0.9 acre-feet per acre X 8.2 acres = 7.38 acre-feet (2,404,780 gallons) of water usage per year

Domestic Demand

Based on 50 gallons per day per bedroom with a 3 bedroom residence and a 1 bedroom studio yields a daily demand of 200 gallons per day. Total water usage estimate of 73,000 gallons per year.

Proposed Project Demand

Domestic Demand

Evaluation based on 50 gallons per day per bedroom with a 3 bedroom residence and a 1 bedroom studio yielding a daily demand of 200 gallons per day and employee usage of 15 gallons per day per employee. See appended water usage estimate table.

Total domestic demand of 126,000 gallons per year.

Irrigation Demand

See appended water usage estimate table. Approximately 700,000 gallons of water usage per year for the proposed project. This translates to approximately 2,415 gallons per day on average over the entire season. Watering generally occurs every two to three days for a peak daily usage of approximately 9,000 gallons during June-September. Water usage is reduced by utilizing both drip irrigation systems on timers as well as planting directly into native soil which reduces surface area for run-off and evaporation compared to above ground pots. The use of greenhouse structures also helps trap moisture and maintain hire humdity levels which reduce plan transpiration losses.

Well Pump Test

A pump test was performed by Pete's Tractor and Pump. The well demonstrated an approximately 8' drawdown over the course of a 6 hours of pumping with a yield of 1000 gallons per minute. Approximately 345,000 gallons of water was pumped over that test period. The well recovered within 24 hours of the start of the test.

Summary

A proposed project water usage demand of 826,000 gallons per year compared to a baseline water usage demand of 2,477,780 gallons per year from the existing agricultural operation to be displaced. A net reduction in aquifer demand of approximately 1,650,000 gallons is expected.

Lake and Mendocino Counties



890 N. Bush Street Ukiah, CA 95482 (707) 463-4495 office (707) 463-4477 fax gtmcgourty@ucdavis.edu http://celake.ucdavis.edu



Vineyard Water Use in Lake County, California December 1, 2014

Glenn McGourty, Winegrowing and Plant Science Advisor

UCCE Mendocino and Lake Counties

Ryan Keiffer, Agricultural Technician UCCE Mendocino

Dr. Broc Zoller, PCA, Kelseyville

Introduction

In 2013, wine grapes were the most widely planted $(8,719 \text{ acres})^1$ and highest farm gate value crop $(\$61,3440,390)^2$ in Lake County, California. Nearly all of these vineyards are irrigated, and many vineyards in lower areas are also frost protected with water applied by sprinklers. This is a brief summary of vineyard water use in the two most important wine grape production areas in Lake County.

Big Valley:

Principle wine grape variety: Sauvignon blanc

Frost protection: Average 10.4 frost protection events per year, with overhead sprinklers, 5.88 hours of frost protection @ .1 inches precipitation per hour = 6.12 acre inches

*Note: This is highly variable based on data from 1999 to 2014 in which there were 171 events total where temperatures were 33 degrees F or lower. Range of frost events per year were 1 (2014) to 20 (1999). (Source: UC IPM Weather Data Web Site). Grower records indicate that average duration of frost protection=5.88 hours per event. (Source: LCWGC Survey, Grower Practices and Records, 2014)

Irrigation: Based on 691 vines per acre (7' x 9' spacing) drip irrigation, July 1-September 9, 9 hours per week, 0.229 inches per week = 2.29 acre inches

Post harvest irrigation (optional): 24 hours of overhead sprinkling, 0.1 inches precipitation per hour = 2.4 acre inches

TOTAL: 10.81 acres inches or 0.9 acre feet

The University of California working in cooperation with Mendocino County and the USDA

Note regarding frost protection: Many years the vineyards' soil profiles are at field capacity or saturation in the spring from winter precipitation when frost protection water is applied. In those cases, water is likely to percolate through the soil profile, eventually helping to recharge the water table, and will be available for reuse. If the soil is below field capacity, the application of frost protection water will charge the soil reservoir (available water holding capacity) and be utilized by the vine for plant growth.

Red Hills:

Principle variety: Cabernet sauvignon

Frost protection: 0 inches, most places have no overhead sprinklers and limited water for irrigation.

Irrigation: Based on 908 vines per acre (6' x 8' spacing), irrigation is done from mid-June to late September, 17 hours per week (.57 acre inches), 14 weeks = 8 acre inches (includes post harvest applications)

TOTAL: 8 acre inches or 0.66 acre feet

Crop	Location	Amount of water used in
		acre inches/ year
Wine Grapes	Red Hills, Lake County	8
Wine Grapes	Big Valley, Lake County	11
Wine Grapes	San Joaquin County	18
Table Grapes	San Joaquin Valley	36
Walnuts	Sacramento Valley	36
Almonds	Sacramento Valley	38
Alfalfa	Sacramento Valley	42
Avocados	Riverside/San Diego Co.	42
Peaches	San Joaquin Valley	44
Rice	Sacramento Valley	60

Comparative Use of Water (Average) of Irrigated Crops Around California*

*Source: Most current UC Davis Agricultural Economics Department/ UC Cooperative Extension Cost Studies <u>http://coststudies.ucdavis.edu/</u>

Data Sources:

1. UC IPM Weather Data Web Site, <u>http://ipm.ucdavis.edu/WEATHER/index.html</u>, and grower records of actual frost protection, 2007-2014.

2. Survey, Grower Practices and Records, 2014, Lake County Winegrape Commission.

Literature Cited:

1. California Grape Acreage Report, 2013 Crop. California Department of Food and Agriculture, Sacramento, California. Table 12, page 42.

2. 2013 Lake County Crop Report. Lake County Department of Agriculture, Lakeport, California. Page 2.

Water Usage Estimates

Domestic usage estimate based on 50 gallons per day for the 3 bedroom residence and studio cabin and 15 gallons per day per employee.

ESTIMATED MONTHLY WATER USAGE (GALLONS)					
	Cultivation	Approximate			
Month	(Irrigation)	Daily Use	Domestic		
January	5000	161	8,000		
February	20000	714	12,000		
March	45000	1,452	8,000		
April	65000	2,167	8,000		
May	80000	2,581	12,000		
June	90000	3,000	12,000		
July	90000	2,903	12,000		
August	90000	2,903	12,000		
September	90000	3,000	9,000		
October	75000	2,419	12,000		
November	45000	1,500	9,000		
December	5000	161	12,000		
Total	700,000	22,962	126,000		



Pete Lucchesi: 707 272-0474 Luke Lucchesi: 707 272-2661 petestractor@yahoo.com

E-Mail: zarrosabev@gmail.com **Customer: Zarro Sabev Contact: Zarro Sabev** Cell Phone: 224-595-6686 Job Address: 6245 Gold Dust Drive ~ Kelseyville, CA 95451

Turbine

14"

120

MAX PUMP TOTAL PUMP CASING STATIC PUMP VOLTAGE DRAWDOWN DED HEAD AMPS TYPE SETTING OUTPUT LEVEL WELL DEPTH SIZE Propane 8' 1000GPM 46' Line Shaft 100'

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	12:30pm		50'				
	01:00pm		50'				
	01:30pm		51'				
	02:00pm		52'				
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	03:30pm		54'				
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RECORDING REQUESTED BY: Orange Coast Title Company of Southern California

WHEN RECORDED MAIL DOCUMENT AND TAX STATEMENT TO:

Svetozar Sabev 710 West Ladd St Arlington Heights, IL 60004

APN: 007-013-230-000 and 007-013-220-000 TITLE ORDER NO .: 100-2120594-01 ESCROW NO .: 2120594-LF

2020009147 Doc # Page 1 of 6 7/29/2020 01:15P Date: Filed by: SYNRGO Filed & Recorded in Official Records of COUNTY OF LAKE RICHARD A. FORD COUNTY RECORDER Fee: \$1459.00

THIS SPACE FOR RECORDER'S USE ONLY

GRANT DEED

The undersigned Grantor(s) declare(s) that the DOCUMENTARY TRANSFER	R TAX IS: \$1, 430,00	conty MA
way any the full value of the interest of property conveyed. Of		7
<u>computed on the full value less the value of liens or encumbrances remain</u>	ning thereon at the time of	1 Salo.
OR transfer is EXEMPT from tax for the following reason:	Exempt from the fee per This document	GC 27388.1 (a) (2); is subject to

strucus Signature of declarant or agent determining tax

Firm Name

Documentary Transfer Tax

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, Burton Ranch Vineyards LLC, a California limited liability company

HEREBY GRANT(S) to Svetozar Sabev, a married man as his sole and separate property

All that real property situated in the Unincorporated area of Kelseyville, County of Lake, State of California, described as: COMPLETE LEGAL DESCRIPTION IS ATTACHED HERETO AND MADE A PART HEREOF AS EXHIBIT "A"

Commonly Known As: 6267 Kelsey Creek Drive and 6245 Gold Dust Road, Kelseyville, CA 95451

Burton Ranch Vineyards LLC

By:

Michael Harlan, Member

516med Enterport

By:_

Arden Burt Harlan, Member

The David and Cynthia Runstrom Trust, established February 3, 2004

By: Dem & Riegens mee David B. Runstrom, as Co-Trustee

By: Cynthia H. Runstrom, as Co-Trustee

July 4, 2020

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is
attached, and not the truthfulness, accuracy or validity of that document
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STATE OF GALIFORNIA Washington	}
COUNTY OF Clallam	
On July 20, 2020	before me, Charlton Konneth Golding, a Notary Public
personally appeared David B. Runstrum	and Cynthia H. Rungtrown

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS	my hand and official seal.	
Signature _	Miph	

(SEAL)

	CHARLTON KENNETH GOLDING
4	Notary Public
	State of Washington
	Commission # 19110555
	My Comm. Expires Oct 26, 2023

Burton Ranch Vineyards LLC

By Michael Harlan, Member

By:_____ Arden Burt Harlan, Member

510med In Counterpart

The David and Cynthia Runstrom Trust, established February 3, 2004

By:

David B. Runstrom, as Co-Trustee

By:

Cynthia H. Runstrom, as Co-Trustee

July 4, 2020

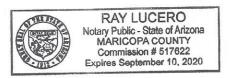
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A notary public or other officer completing this certifi attached, and not the truthfulness, accuracy or validit	cate verifies only the identity of the individual who sign of that document	
STATE OF CALIFORNIA AZ. COUNTY OF MAINER	}	, a Notary Public
personally appeared Michael Harlan		in the dimensional and
who proved to me on the basis of satisfactory evide acknowledged to me that he/she/they executed the the instrument the person(s), or the entity upon beh	same in his/her/their authorized capacity (ico), and	(nace) menter g

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

(SEAL)



Page 2 of 2 Grant Deed dated July 20, 2020 6267 Kelsey Creek Drive and 6245 Gold Dust Road Kelseyville, CA 95451/Sabev/Burton Ranch Vineyards LLC

Burton Ranch Vineyards LLC

By:	5 loved Therport
Michael Harlan, Member	Colin
Arden Burt Harian, Member	

The David and Cynthia Runstrom Trust, established February 3, 2004

By: _____ David B. Runstrom, as Co-Trustee

By:_

Cynthia H. Runstrom, as Co-Trustee

July 4, 2020

A notary public or other officer completin attached, and not the truthfulness, accura	ig this certificate verifies only the identity of the individu acy or validity of that document	al who signed the document to which this certificate is
STATE OF CALIFORNIA COUNTY OF	}	
On	, before me,	, a Notary Public
personally appeared		

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my han	d and official seal.			
Signature	All	allathe	*	(SEAL)

ACKNOWLEDGMENT					
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.					
State of California					
On 7 20 22 before me, Grace Lee, Notary Public (insert name and title of the officer)					
personally appeared <u>Arden Butt Railan</u> , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.					
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.					
WITNESS my hand and official seal.					
Signature (Seal)					

Exhibit "A"

Parcel One: APN 007-013-230-000

The North half of the Southeast quarter of the Northeast quarter of Section 22, Township 13 North, Range 9 West, M.D.B.

Parcel Two: APN 007-013-220-000

The South half of the Southeast quarter of the Northeast quarter of Section 22, Township 13 North, Range 9 West, M.D.M.

Also the East half of the Southwest quarter of the Northeast quarter of Section 22, Township 13 North, Range 9 West, M.D.M.

Savings and excepting therefrom the South 144 feet thereof, described as beginning at the Southeast corner of the Southwest quarter of the Northeast quarter of said Section 22, and running thence North 144 feet; and: thence West 660 feet; and thence South 144 feet; and thence East 660 feet to the place of beginning.

Up.