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Water Availability Analysis



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Napa County Planning, Building
& Environmental Services

WATER AVAILABILITY ANALYSIS APPLICATION

Project Name: Beau Vigne Winery Use Permit Modification

Site Address/Location: 4057 Silverado Trail
Napa, CA 94558

Assessor's Parcel Number: 039-390-016

Existing Parcel Size: 7.96 acres +/-

Property Owner/Applicant: Ed Snider
Beau Vigne
P.O. Box 6412
Napa, CA 95481
707.265.7781

Representative: Land Use Planning Services
2423 Renfrew Street
Napa, CA 94558
707.255.7375

Project Description

Ed and Trish Snider, the owners of Beau Vigne recently purchased the Van der Heyden Winery on Silverado Trail. The winery has a processing capacity of 8,000 gallons per year, authorized in 1984. Beau Vigne, a small boutique winery founded in 2002 currently produces about 4,000 cases. Its signature vineyard, Stags Ridge Vineyard & Ranch is comprised of nine (9) acres of vines located in the Atlas Peak appellation at the top of Soda Canyon Road. Principally a producer of cabernet, Beau Vigne sources fruits from some of the county's most notable vineyards including Bacigalupi, Dutton Ranch, and Lewelling. Beau Vigne is presently making wine at a custom crush facility but purchased the Van der Heyden property to provide a location where its wines can be made under strict quality control. The property is also proximate to its signature vineyard.

The existing winery, residence, modular home and out buildings will be demolished and replaced with a modern wine making facility and hospitality building. Production levels

will increase from 8,000 to 14,000 gallons per year. Daily visitation would be comparable to other wineries of similar production levels, 10 per day weekdays and 15 per day on the weekends. The total square footage of the new buildings is proposed to be approximately 7,580 square feet (sf) with outdoor crush pad and production areas totaling 8,279 sf. Three (3) full-time employees and one (1) part-time employee will operate the new winery. The property currently contains 5.93 acres of vines; approximately 0.6 acres will be removed following completion of the project.

A new water supply well is proposed to be installed that will be used for winery use. The existing well will be used for irrigation only.

The following improvements are proposed:

- Demolish existing winery, residence, second modular home and out buildings;
- Construct 5,807 sf. production building;
- Construct outdoor production areas including 2,673 sf covered crush pad, 1,133 sf covered shipping and receiving area, and a 4,473 sf bin/pallet storage area;
- Construct 3,689 sf administration/hospitality building, including entry way and private terrace;
- Construct eleven (11) visitor and three (3) employee parking spaces;
- Construct commercial driveway to conform to county standards;
- Install site landscaping; and
- Install water, wastewater and fire suppression systems.

The attached Civil Improvement Plan (Sheet UP3) provides the location and description of existing and proposed improvements.

Existing Site Map

The attached Existing Site Map shows the project site, adjoining parcels, and the location of the existing project well. Also shown are the approximate locations of existing non-projects wells on other parcels within 500 feet of the existing project well and surface waters within 1,500 feet of the existing project well. The locations for the existing non-project wells were obtained from the State of California Department of Water Resources.

An existing well currently serves the project parcel located as shown on the Existing Site Map. This well has a yield of 20 gpm (after four hours) and is proposed to be used for irrigation only with the proposed project. A new well is proposed to be installed for winery use. Neither well will be used for heat or frost protection.

Existing Water Use

<i>Residential:</i> 0.5 to 0.75 ac-ft/yr (use 0.62 ac-ft/yr)	=	0.62 ac-ft/yr
<i>Winery Process Water:</i> 2.15 ac-ft per 100,000 gal. of wine	=	0.17 ac-ft/yr
<i>Vineyard Irrigation:</i> 0.35 ac-ft/yr average for 5.93 acres	=	<u>2.08 ac-ft/yr</u>
Total Estimated Existing Water Use	=	2.87 ac-ft/yr

Proposed Water Use

<i>Winery Process Water:</i> 2.15 ac-ft/yr per 100,000 gal. of wine	=	0.30 ac-ft/yr
<i>Vineyard Irrigation:</i> 0.35 ac-ft/yr average for 5.3 acres	=	1.86 ac-ft/yr
<i>Domestic and Landscaping:</i> 0.50 ac-ft/yr per 100,000 gal. of wine	=	0.07 ac-ft/yr
<i>Employees:</i> 3 full time emp. X 15 gpd/emp.	=	45 gpd
1 part time emp. X 7.5 gpd/emp.	=	7.5 gpd
Total Daily Employee Use	=	52.5 gpd

Assume that employee water use is for 365 days per year.
Actual will be lower due to peak employees representing only harvest and peak employees not working 7 days a week.

$$52.5 \text{ gpd} \times 365 \text{ days/year} = 19,162 \text{ gal/yr} = 0.06 \text{ ac-ft/yr}$$

Tasting Room Visitors:

10 visitors per day weekdays x 3.0 gpd/visitor	=	30 gpd
15 visitors per weekend x 3.0 gpd/visitor	=	45 gpd
30 gpd x 260 days/yr plus 45 gpd x 104 days/yr	=	0.04 ac-ft/yr

Events:

25 person event: 25 visitors x 5 gpd/visitor	=	125 gpd
30 person event: 30 visitors x 5 gpd/visitor	=	150 gpd
125 gpd x 12 events/yr plus 150 gpd x 2 events/yr	=	0.01 ac-ft/yr

Total Estimated Proposed Water Use	=	2.34 ac-ft/yr
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Water Use Criteria:

Location: Napa Valley Floor = 1.0 ac-ft/yr per acre

Parcel Size: 7.96 acres

Allowable Water Allotment = 7.96 ac-ft/yr

Conclusions:

The total estimated existing water use is estimated to be 2.87 ac-ft/yr, with the total estimated proposed water use estimated at 2.34 ac-ft/yr. It should be noted that the proposed water use estimate represents a worst-case water use, rather than expected average annual water use because, in most cases, peak use was assumed for 365 days per year. The maximum estimated water use for the project is 2.34 ac-ft/yr, which is approximately 29% of 7.96 ac-ft/yr threshold for the project site parcel. This maximum estimated proposed water demand will be served by both the existing and proposed wells.

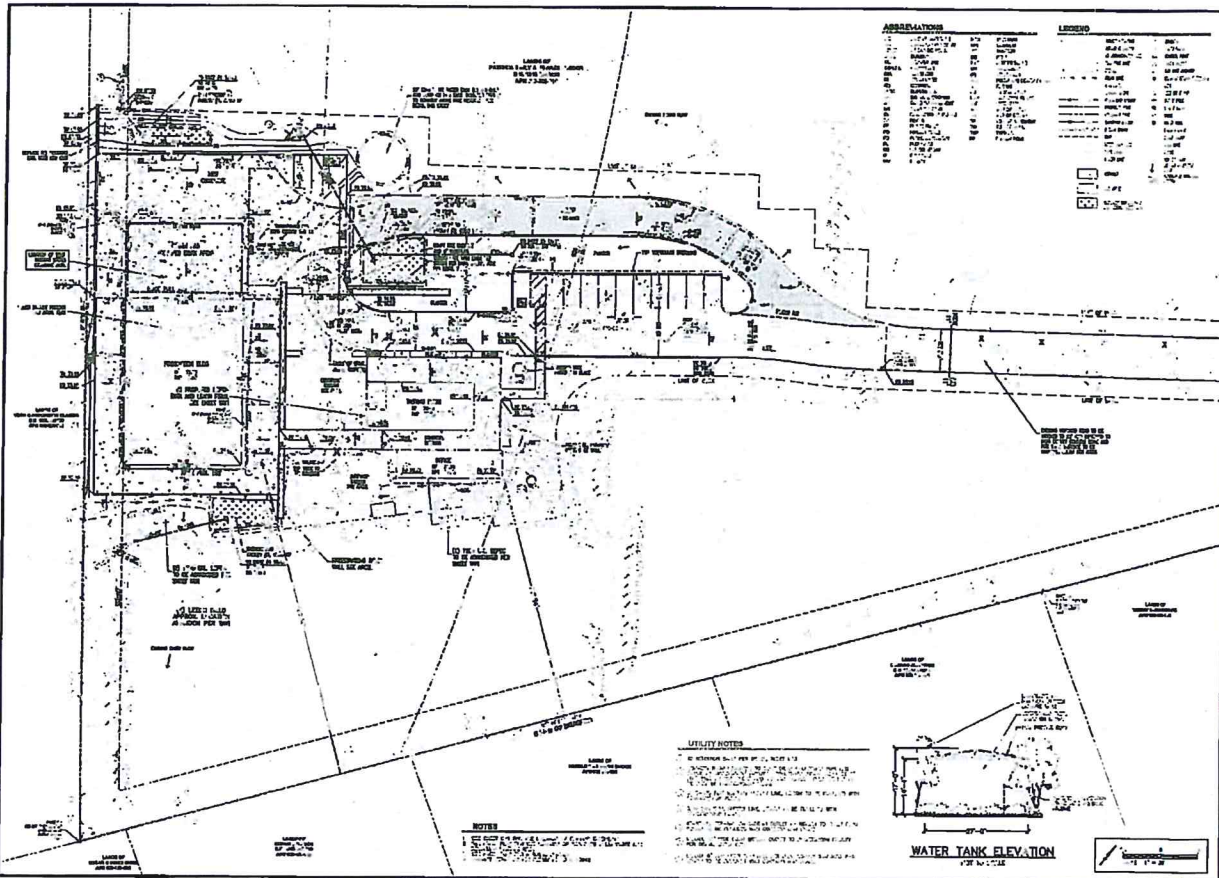
Prepared By:

EBA Engineering
825 Sonoma Avenue
Santa Rosa, CA 95404



Dale Solheim, P.E.
Principal Engineer





ABBREVIATIONS		LEGEND	
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PROPOSED CONDITIONS
 BEAU VIGNE WINERY
 4087 SILVERADO TRAIL
 NAPA, CALIFORNIA

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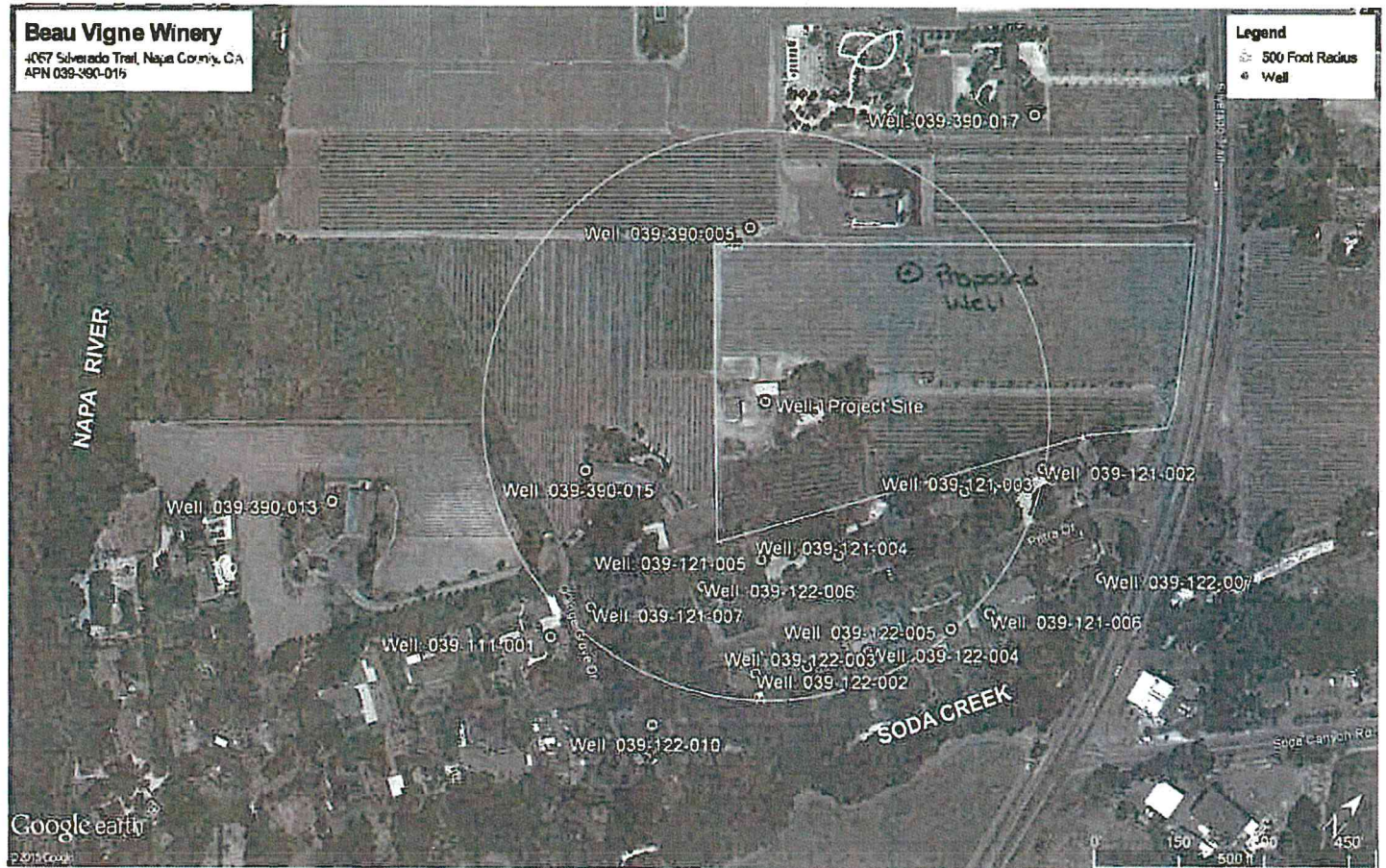

UP3

Beau Vigne Winery

4067 Silverado Trail, Napa County, CA
APN 039-390-015

Legend

- 500 Foot Radius
- Well



Google earth
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Scale: 1"=150'