



# WATER AVAILABILITY ANALYSIS

BOMMARITO WINERY  
1109 GALLERON LANE, ST. HELENA, CA 94574  
APN: 030-080-003

MARCH 18, 2019



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## I. Introduction & General Overview

### A. Introduction

Madrone Engineering has prepared this report to assist the Bommarito Winery project with compliance with Napa County Water Availability Analysis requirements. As of May 13, 2015, a water availability analysis is required for any discretionary project that may utilize groundwater or will increase the intensity of groundwater use of any parcel through an existing, improved, or new water supply system (Napa County Code 13.15.010).

### B. Project Description

Bommarito Winery is requesting a new Use Permit to develop a new winery on a ~23.39 acre parcel located at 1109 Galleron Lane, St. Helena. Proposed wine production is 30,000 gallons annually. The property will be improved as follows: remodel of an existing residence to become a tasting room/office building, construction of a new winery production building and new covered crush pad, and construction of a new water tank, fire pump house, and a trash enclosure; construction of a new driveway and parking areas, and all required infrastructure.

Based on the proposed marketing plan for the winery, the maximum number of winery staff on-site on any given day is estimated to be three (3) full-time and three (3) part-time employees. In addition to the employees, the proposed marketing plan allows for up to fifteen (15) visitors per day in addition to winery special events. Other water use on the parcel includes vineyard irrigation. Currently there are six existing residences on the parcel. One is served by an existing well, and will be converted to a winery tasting room/office building. The remaining five existing residences are currently served and will continue to be served by City of St. Helena water.

There are two wells available for project use, and all are shown on the well exhibit (Appendix B). One well (well #01), drilled in 1973, has a 30' sanitary seal, and well #02, drilled in 2001, has a 24' sanitary seal. The total number of visitors and employees on a peak day (more than 60 days per year) will be 21, so the project is not proposing to construct a public water system. The winery parcel is zoned AP (Agricultural Preserve), and is on the Napa Valley Floor. Based on Table 1, below, the project will be subject to Tier 1 analysis requirements.



**Table 1: Project Screening Criteria Applicability**

Tier	Criteria Type	Napa Valley Floor	MST	All Other Areas
1	Water Use	Yes	Yes	Yes
2	Well and Spring Interference	No <sup>1</sup>	No <sup>1</sup>	Yes
3	Groundwater/Surface Water Interaction	No <sup>1</sup>	No <sup>1</sup>	No <sup>1</sup>

1. Further analysis may be required under CEQA if substantial evidence, in the record, indicates a potentially significant impact may occur from the project.

## II. Tier 1 Analysis

Tier 1 of the WAA requests the applicant to estimate the proposed water usage for the project, and then compare the estimated parcel usage for the property to the applicable water use criteria. As noted in Table 2A of the WAA guidelines (see below), the water use criteria is subject to the parcel location.

**Table 2A: Water Use Criteria**

Project parcel location	Water Use Criteria (acre-feet per acre per year)
Napa Valley Floor	1.0
MST Groundwater Deficient Area	0.3 or no net increase, whichever is less <sup>1</sup>
All Other Areas	Parcel Specific <sup>2</sup>
1. Does not apply to the Ministerial Exemption as outlined in the Groundwater Conservation Ordinance 2. Water use criteria for project shall be considered in relation to the average annual recharge available to project property, as calculated by the applicant or their consultant.	

### A. Water Use Guidelines

Appendix B of the WAA guidelines includes recommendations for determining the estimated water use for specified land uses. A summary of these guidelines, including the values applied in this report, are identified in the table below:



**Table 3: Water Use Guidelines per WAA Appendix B**

Use	Recommended Water Use Values	Applied Water Use Values	Unit
<b>Residence</b>	0.5 to 0.75	0.75	AF per Year
<b>Winery</b>			
Process Water	0.0215	0.0215	AF per 1,000 gal Wine Produced per Year
Domestic Water	0.005	0.005	AF per 1,000 gal Wine Produced per Year
Employees	15	15	Gallons Per Shift
Tasting Room Visitation	3	3	Gallons Per Visitor
Events and Marketing	15	15	Gallons Per Visitor
<b>Vineyards</b>			
Irrigation Only	0.2 to 0.5	0.3	AF per Acre Planted per Year
Heat Protection	0.25	not used	AF per Acre Planted per Year
Frost Protection	0.25	not used	AF per Acre Planted per Year
<b>Landscaping</b>	-	6	Gallons per square foot per Year

**B. Existing Water Usage**

The current water uses on the Bommarito Winery property include the following:

**Table 4: Existing Property Uses**

Use	Value	Unit
<b>Residence(s)</b>	1	Main Residence
<b>Winery</b>		
Wine Produced	0	Thousand Gallons per Year
Employees (Full + Part Time)	0	Employee Shifts per Day
Employees (Full + Part Time)	0	Employee Shifts per Year*
Visitors	0	Visitors per Day
Visitors	0	Visitors per Year**
Event Visitors per Year	0	Visitors per Year
Landscaping	1000	square feet
<b>Vineyards</b>		
Acres Planted	21.3	Acres (irrigated by well)
Heat Protection	N/A	
Frost Protection	N/A	



Based on Table 4, the existing water usage of the parcel is estimated as follows:

**Table 5: Existing Water Usage**

<b>Residence</b>	0.75	AF per Year
<b>Winery</b>		
Process Water	0.000	AF per Year
Domestic Water + Landscaping	0.018	AF per Year
Employees	0.000	AF per Year
Visitors	0.000	AF per Year
Event Visitors per Year	0.000	AF per Year
<b>Vineyards</b>		
Irrigation Only	7.455	AF per Year
Heat Protection	0.000	AF per Year
Frost Protection	0.000	AF per Year
<b>Total Water Usage</b>	<b>8.223</b>	<b>AF per Year</b>

C. Proposed Water Usage

The proposed water uses under this Use Permit for the Bommarito Winery property include the following:

**Table 6: Proposed Property Uses**

Use	Value	Unit
<b>Residence</b>	0	Main Residence
<b>Winery</b>		
Wine Produced	30	Thousand Gallons per Year
Employees (Full + Part Time)	3 FT, 3 PT	Employee Shifts per Day
Employees (Full + Part Time)	1050	Employee Shifts per Year*
Visitors	10/15	Visitors Per Day (avg/peak)
Visitors	3950	Visitors Per Year*
Event Visitors	1900	Visitors Per Year
Landscaping	1850	square feet
<b>Vineyards</b>		
Acres Planted	20.2	Acres (irrigated by well)
Heat Protection	N/A	
Frost Protection	N/A	

\* 5-day work weeks for Full-Time, 45 total days for Part-Time (harvest)



The purpose of the Use Permit Modification is to establish a new winery with production of 30,000 gallons per year. An existing residence will be remodeled into a tasting room/office building. Approximately 1.1 acres of vineyard will be removed as part of the project.

Based on Table 6, the proposed water usage of the parcel is estimated as follows:

**Table 7: Proposed Water Usage**

<b>Residence</b>	0	AF per Year
<b>Winery</b>		
Process Water	0.645	AF per Year
Domestic Water + Landscaping	0.184	AF per Year
Employees	0.048	AF per Year
Visitors	0.036	AF per Year
Event Visitors per Year	0.087	AF per Year
<b>Vineyards</b>		
Irrigation Only	7.070	AF per Year
Heat Protection	0.000	AF per Year
Frost Protection	0.000	AF per Year
<b>Total Water Usage</b>	<b>8.071</b>	<b>AF per Year</b>

See Table 8, below, for a summary of the change in water use from the existing condition to the proposed Use Permit condition.

**Table 8: Proposed Increase in Water Usage**

Existing Water Usage	8.223	AF per Year
Proposed Water Usage	8.071	AF per Year
<b>Expected Usage Increa</b>	<b>-0.152</b>	<b>AF per Year</b>

The establishment of a small winery on this parcel has the potential to decrease the water usage by ~0.152 acre-feet per year relative to existing usage. With a parcel size of 23.39 acres, and a water use criterion of 1.0 acre-feet per year per acre, the total allowable water usage could be as high as 23.39 acre-feet per year. The total proposed usage of 8.071 acre-feet per year is significantly less than allowable water usage for the parcel.

#### D. Water Supply Capacity

Both wells are available for use by the winery (see Appendix B, Wells #01 and #02). The well log for Well #01, drilled in 1973, notes an estimated pumping capacity of 100 gallons per minute. The well log for Well #02, drilled 2001, notes an estimated pumping capacity of 400 gallons per minute.

The proposed winery water use of 8.001 acre-feet per year equates to an average of ~7,142 gallons per day. At a constant rate of 10 gpm and pumping 50% of the time (only 10% of Well #01 capacity and 2.5% of Well #02 capacity), approximately 7,200 gallons of water would be



available each day. Therefore, project water use is well within the physical capabilities of either of the project wells.

### III. Tier 2 Analysis

As required by the WAA guidelines, the project must be evaluated for the potential for well and/or spring interference, if the project is outside the Napa Valley Floor. However, the project wells (#01 & #02) is on the Napa Valley Floor, therefore no evaluation of well/spring interference is proposed.

### IV. Conclusion

This report demonstrates that the proposed project is in compliance with current County Code related to groundwater usage per the Napa County Water Availability Analysis guidelines.





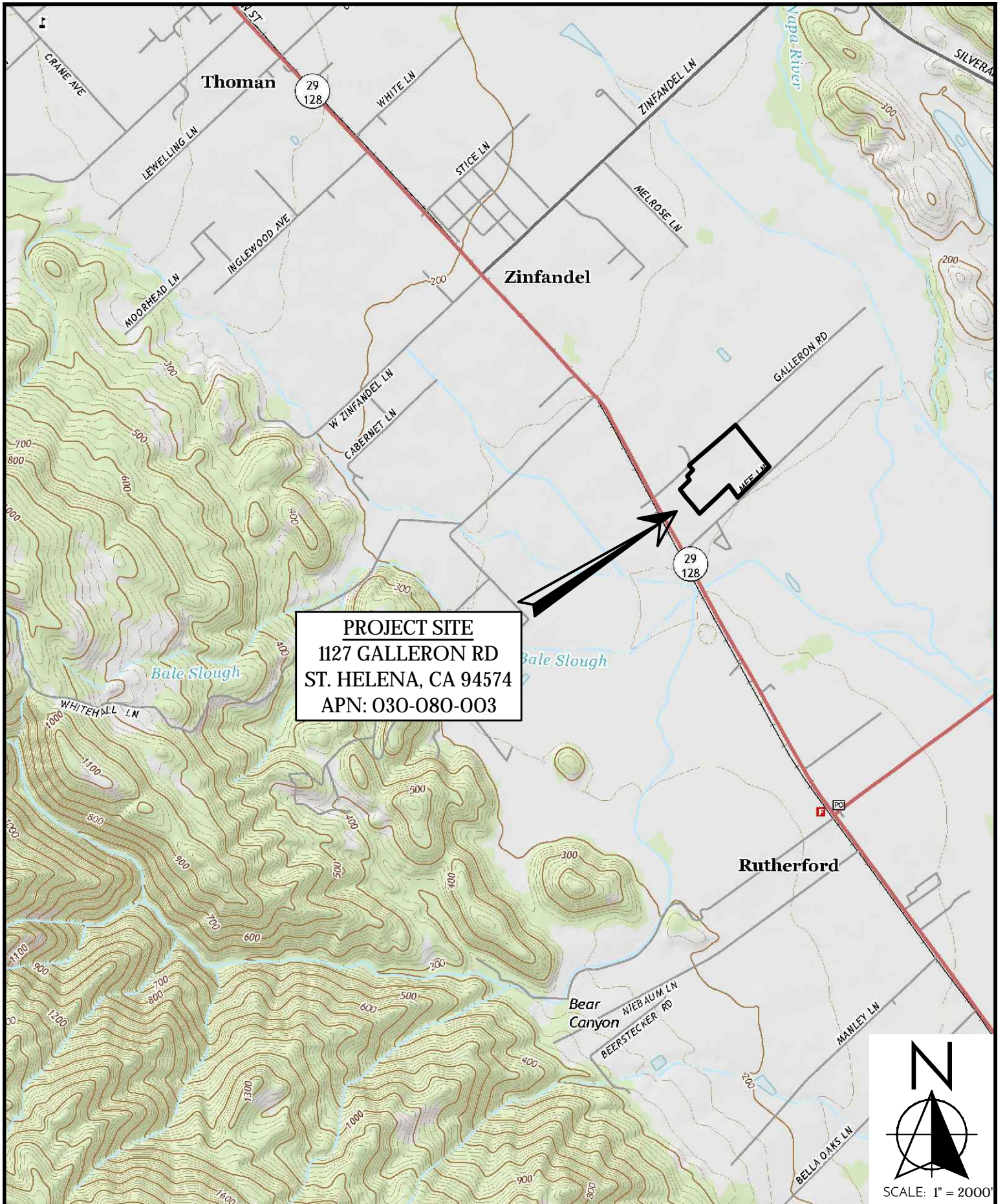
# APPENDICES

**APPENDIX A: VICINITY MAP**

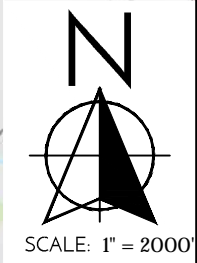
**APPENDIX B: WELL EXHIBIT**



# APPENDIX A VICINITY MAP



**PROJECT SITE**  
 1127 GALLERON RD  
 ST. HELENA, CA 94574  
 APN: 030-080-003



**1127 GALLERON RD  
 VICINITY MAP**



1485 MAIN ST., SUITE 302  
 ST. HELENA, CA 94574  
 (707) 302-6280

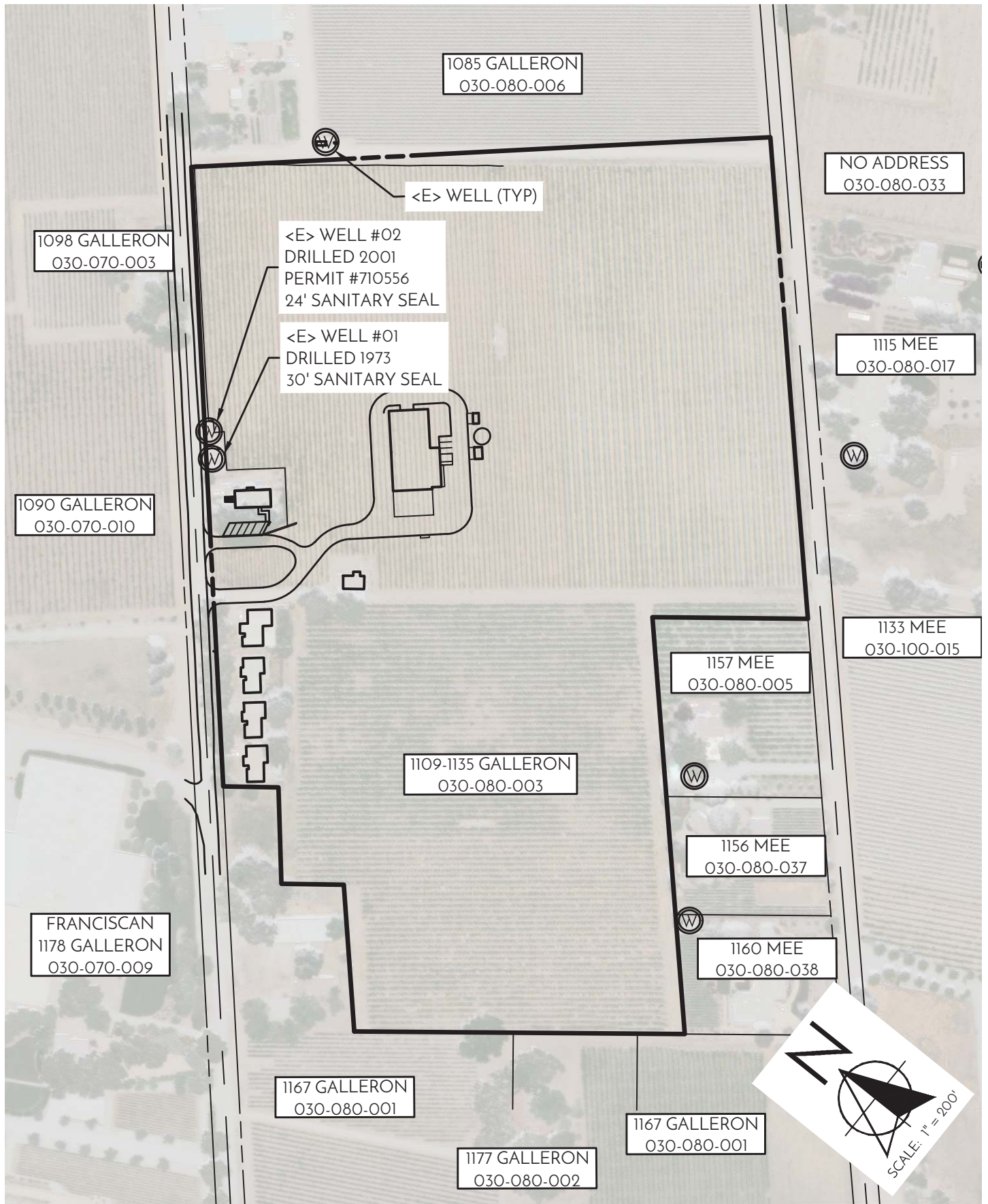
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JOB #	16.014
APN:	030-080-003

SHEET  
 1  
 OF  
 4



# APPENDIX B

## WELL EXHIBIT



# BOMMARITO WINERY WELL EXHIBIT



1485 MAIN ST., SUITE 302  
ST. HELENA, CA 94574  
(707) 302-6280

DATE:	03/19/19	SHEET	1
SCALE:	1"=200'	OF	1
JOB #	16.014		
APN:	030-080-003		