

“E”

Water Availability Analysis



WATER AVAILABILITY ANALYSIS

FOR THE
TAPLIN CELLARS WINERY
USE PERMIT

PROJECT LOCATION

1677 LEWELLING LANE
ST. HELENA, CA 94574

COUNTY: NAPA
APN: 027-100-005

MARCH 27, 2020

PREPARED FOR REVIEW BY:

NAPA COUNTY PLANNING, BUILDING
AND ENVIRONMENTAL SERVICES
1195 THIRD STREET
NAPA, CA 94559



TABLE OF CONTENTS

I.	<u>BACKGROUND & PROJECT DESCRIPTION</u>	1
II.	<u>TIER 1 ANALYSIS</u>	1
	A. PARCEL WATER USE	2
	B. EXISTING WATER USAGE	2
	C. PROPOSED WATER USAGE	3
	D. WATER USAGE SUMMARY	4
	E. WATER USE AND RECHARGE SUMMARY	5
III.	<u>REPORT CONCLUSION</u>	5
IV.	<u>APPENDIX</u>	6

I. BACKGROUND & PROJECT DESCRIPTION

This water availability analysis was prepared to support the use permit application for the Taplin Cellars Winery. It has been prepared in accordance with the outline as described in the Water Availability Analysis (WAA), Adopted May 12, 2015, as provided by the County of Napa Planning Building, and Environmental Services Department.

According to the WAA criteria, all discretionary (non-ministerial) projects fall within three tiers of screening when determining the level of groundwater analysis required by the County of Napa for permitting. See Table 1 from the WAA below:

Table 1: Project Screening Criteria Applicability

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

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

The subject parcel is zoned Agricultural Preserve (AP) and located on the Napa Valley Floor. A vicinity map of the parcel is provided in Appendix A. Based on the screening matrix presented in Table 1, this project is subject to Tier 1 analysis. Tier 2 or 3 screening are not anticipated to be required for this project.

II. TIER 1 ANALYSIS

Tier 1 of the WAA requires the applicant to provide an estimate of the existing and proposed water usage for the subject parcel and compare the estimated parcel water usage to the applicable water use criteria. As noted in Table 2A of the WAA (shown below), the water use criteria is based on the parcel location and size.

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 ¹
All Other Areas	Parcel Specific ²
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.	

The project parcel is located on the Napa Valley Floor and therefore allotted one acre-foot per acre per year. Based on the overall parcel size of 20-acres, the project parcel is allotted 20-acre-feet per year. An overall site map of the parcel is provided in Appendix B of this report.



A. Parcel Water Use

Appendix B of the WAA includes standardized guidelines for determining the estimated water use for various specified land uses. A summary of these guidelines, including the values applied in this report, are identified in the Figure 1 below:

<i>Base Input Variables (Range per County of Napa)</i>			
<i>Water Use Guidelines per Appendix B of WAA</i>			
Use	Recommended Water Use Values	Applied Water Use	Unit
Residential			
Primary Residence ¹	0.5 to 0.75	0.5	AF per Year
2nd unit or Farm Labor dwelling	0.20 to 0.30	0.2	AF per Year
Guest Cottage ²	-	0.05	AF per Year
Pool (Covered)	0.05	0.05	AF per Year
Pool (No Cover)	0.1	0.1	AF per Year
Landscaping	0.1	0.1	AF per 1,000 ft ²
Winery		8	gal to gal of wine (County min: 7)
Process Water	0.0215	0.0246	AF per 1,000 gal Wine Produced per Year
Domestic and Landscaping	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 ³	3	3	Gallons Per Visitor
Vineyards			
Irrigation	0.2 to 0.5	0.5	AF per Acre Planted per Year
Heat Protection	0.25	0.25	AF per Acre Planted per Year
Frost Protection	0.25	0.25	AF per Acre Planted per Year
¹ Includes minor to moderate landscaping			
² Not included in guidelines			
³ With off-site catering and dishwashing			

B. Existing Water Usage

The existing site features on the parcel consist of a residence, guest cottage, landscaping, and vineyards. The estimated water use values are itemized in Table 1 below:



Table 1: Existing Water Uses

Use	Value	Unit	Details				Use
Residential							
Primary Residence	1	each				0.50	af/yr
Second or Farm Labor dwel	0	each				0.00	af/yr
Guest Cottage	1	each				0.05	af/yr
Pool (No Cover)	0	each				0.00	af/yr
Landscaping	7000	ft ²				0.70	af/yr
Residential Total:						1.25	af/yr
Winery							
Wine Produced	0	x10 ³ (gpy)				-	af/yr 0.0%
Employees (Full + Part Time)							
Full-Time	0	ppd	-	gpd 5 dpw	-	gpy	- af/yr 0.0%
Part-Time	0	ppd	-	dpw 3 dpw	-	gpy	- af/yr 0.0%
Tasting Room Visitation	0	ppw	52	wk/yr	-	ppy	- af/yr 0.0%
Events and Marketing							
events at	0	ppe	0	epy	-	ppy	- gpy 0.000 af/yr 0.0%
events at	0	ppe	0	epy	-	ppy	- gpy 0.000 af/yr 0.0%
events at	0	ppe	0	epy	-	ppy	- gpy 0.000 af/yr 0.0%
Kitchen	0	gpd				-	gpy 0.00 af/yr 0.0%
Winery Total:						0.00	af/yr 0%
Vineyards							
Irrigation	17.5	Acres				8.75	af/yr
Heat Protection	No					0.00	af/yr
Frost Protection	No					0.00	af/yr
Vineyard Total:						8.75	af/yr
Parcel Existing Water Use Total:						10.00	af/yr
Abbreviations							
dpw = days per week							
epy = events per year							
ppd = persons per day							
ppe = persons per event							
ppw = persons per week							

Applying the water usage values identified in Appendix B of the WAA to the existing uses on the parcel, the existing water usage for the parcel is estimated at 10.00 acre-feet per year.

C. Proposed Water Usage

The proposed winery will be the only added water use to the parcel. The estimated water use from the proposed winery is itemized in Table 2 below:



Table 2: Proposed Water Uses

Use	Value	Unit	Details				Use	
Residential								
Primary Residence	1	each					0.50 af/yr	
Second or Farm Labor dwel	0	each					0.00 af/yr	
Guest Cottage	1	each					0.05 af/yr	
Pool (No Cover)	0	each					0.00 af/yr	
Landscaping	7000	ft ²					0.70 af/yr	
Residential Total:							1.25 af/yr	
Winery								
Wine Produced (Permitted)	20	x10 ³ (gpy)				160,000 Gal/yr	0.49 af/yr	4.6%
Employees (Full + Part Time)								
Full-Time	2	ppd	30 gpd	6 dpw		9,000 gpy	0.03 af/yr	0.3%
Part-Time	2	ppd	30 gpd	3 dpw		4,500 gpy	0.01 af/yr	0.1%
Tasting Room Visitation	90	ppw	52 wk/yr	4,680 ppy		14,040 gpy	0.04 af/yr	0.4%
Events and Marketing								
events at	30	ppe	8 epy	240 ppy		720 gpy	0.002 af/yr	0.0%
events at	0	ppe	0 epy	- ppy		- gpy	0.000 af/yr	0.0%
events at	0	ppe	0 epy	- ppy		- gpy	0.000 af/yr	0.0%
Kitchen	0	gpd				- gpy	0.00 af/yr	0.0%
Winery Total:							0.58 af/yr	5%
Vineyards								
Irrigation	17.5	Acres					8.75 af/yr	
Heat Protection	No						0.00 af/yr	
Frost Protection	No						0.00 af/yr	
Vineyard Total:							8.75 af/yr	
Parcel Proposed Water Use Total:							10.58 af/yr	
Abbreviations								
dpw = days per week								
epy = events per year								
ppd = persons per day								
ppe = persons per event								
ppw = persons per week								

The estimated water usage on the parcel including the proposed winery and utilizing the Appendix B values is 10.58 acre-feet per year.

D. Water Usage Summary

The proposed winery will increase the annual water use by an estimated 0.58 acre-feet (5.5% increase). See Table 3 below for the comparison between the existing and proposed water use:

Table 3: Water Use Summary

Water Use Comparison	Comparison	% Allotment		
	Existing Use	10.00	AF/Year	50.0%
	Proposed Use	10.58	AF/Year	52.9%
	Calculated Water Usage Increase:	0.58	AF/Year	
	Calculated Water Usage % Increase:	5.5%		
	Parcel Allotment:	20.00	AF/Year	

E. Water Use and Recharge Summary

Based on the **parcel's** Napa Valley Floor location and its area of 20-acres, its water allotment is 20-acre-feet per year. The parcel currently consists of a one-bedroom main residence, one-bedroom guest cottage, landscaping, and vineyards. These existing uses consume approximately 10.00 acre-feet per year of water. The proposed Taplin Cellars Winery project will add approximately 0.58 acre-feet per year of water use. The total annual water use of 10.58 acre-feet would account for 52.9% of the total 20 acre-feet allotment.

The estimated total annual water use on this parcel of 10.58 acre-feet is less than the allotted 20 acre-feet. Therefore, the Tier 1 Water Criterion is met.

III. REPORT CONCLUSION

Based on the analysis completed in this report, the proposed Taplin Cellars Winery use permit request meets Tier 1 criteria and the project is therefore in compliance with the requirements of the WAA.



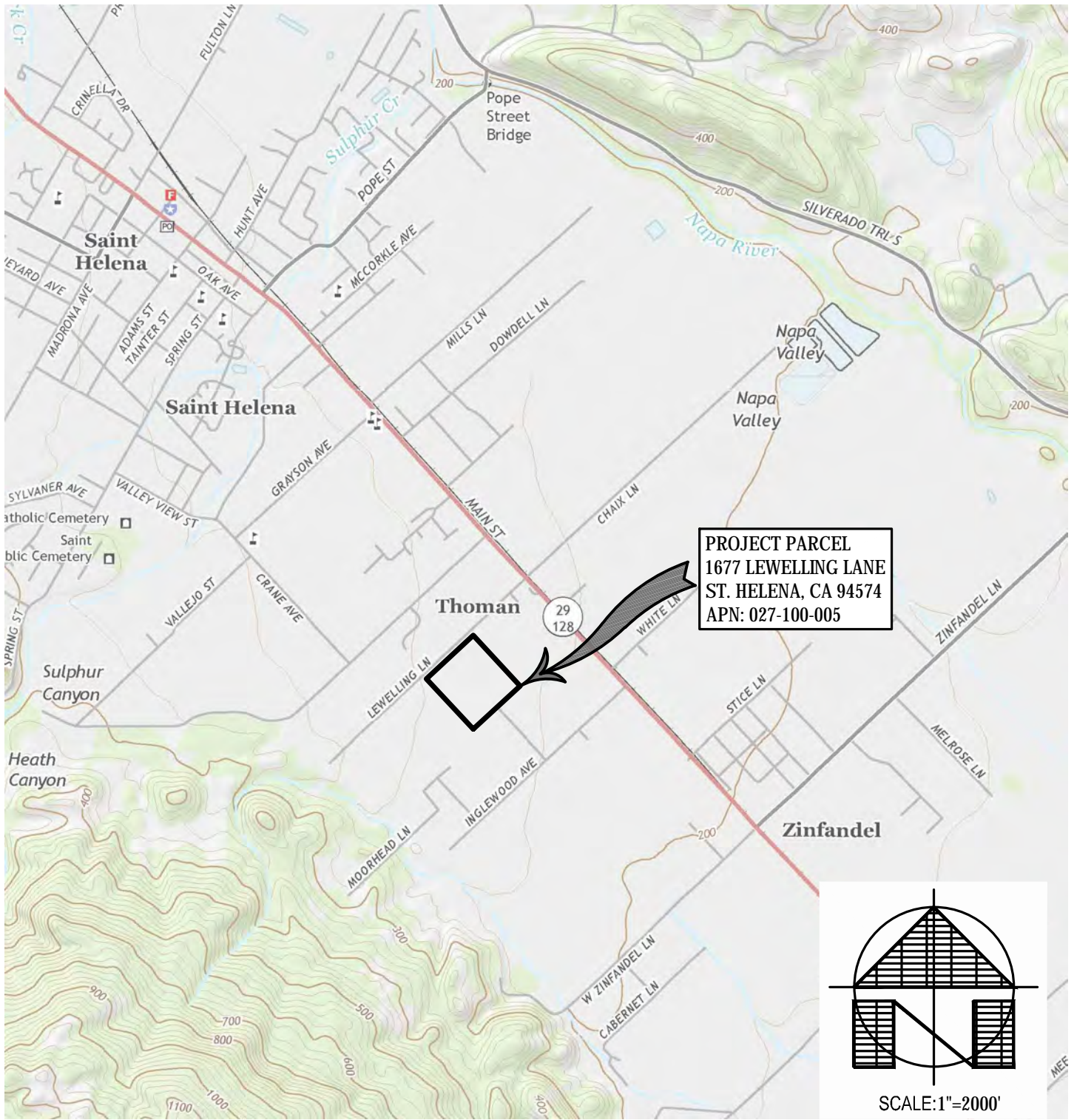
IV. APPENDIX

- A. Vicinity Map
- B. Overall Site Map



APPENDIX A

Vicinity Map



VICINITY MAP

MAP IMAGE FROM USGS 7.5-MINUTE SERIES RUTHERFORD AND ST. HELENA QUADRANGLE MAPS DATED 2015

**TAPLIN CELLARS WINERY USE PERMIT
VICINITY MAP**

DELTA CONSULTING & ENGINEERING OF ST. HELENA 1104 ADAMS STREET, SUITE 203 - ST. HELENA, CALIFORNIA 94574 707-963-8456 + 707-963-8528 FAX	
DATE: MARCH 27, 2020	JOB # R-101
SCALE: AS NOTED	APN: 027-100-005

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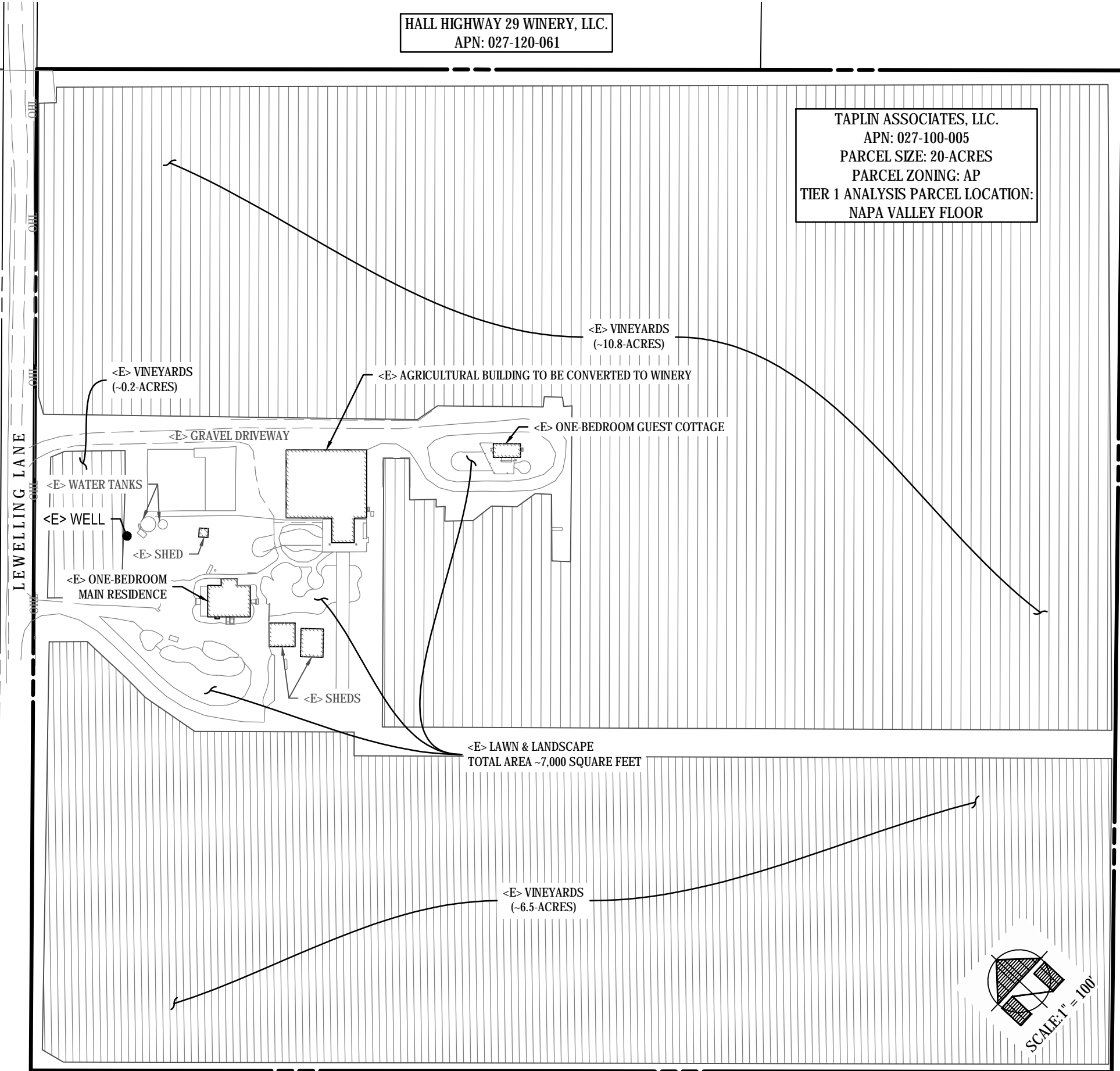


APPENDIX B

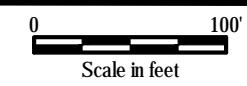
Overall Site Map

HALL HIGHWAY 29 WINERY, LLC.
APN: 027-120-061

TAPLIN ASSOCIATES, LLC.
APN: 027-100-005
PARCEL SIZE: 20-ACRES
PARCEL ZONING: AP
TIER 1 ANALYSIS PARCEL LOCATION:
NAPA VALLEY FLOOR



OVERALL SITE MAP



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WATER AVAILABILITY ANALYSIS
ST. HELENA CA

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