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Water Availability Analysis

TIER I WATER AVAILABILITY ANALYSIS

FOR THE

TAYLOR FAMILY VINEYARDS

LOCATED AT:

5991 Silverado Trail

Napa, CA 94558

NAPA COUNTY APN 039-040-016-000

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INTRODUCTION

Taylor Family Vineyards, LLC is applying for a Use Permit to operate a new winery at their property located at 5991 Silverado Trail in Napa County, California. The subject property, known as Napa County Assessor's Parcel Number 039-040-016-000, is located along the west side of Silverado Trail approximately 1.4 miles south of the intersection of Yountville Cross Road and Silverado Trail.

12/9/2015

8.5 x 11 Landscape.jpg (2249x1700)

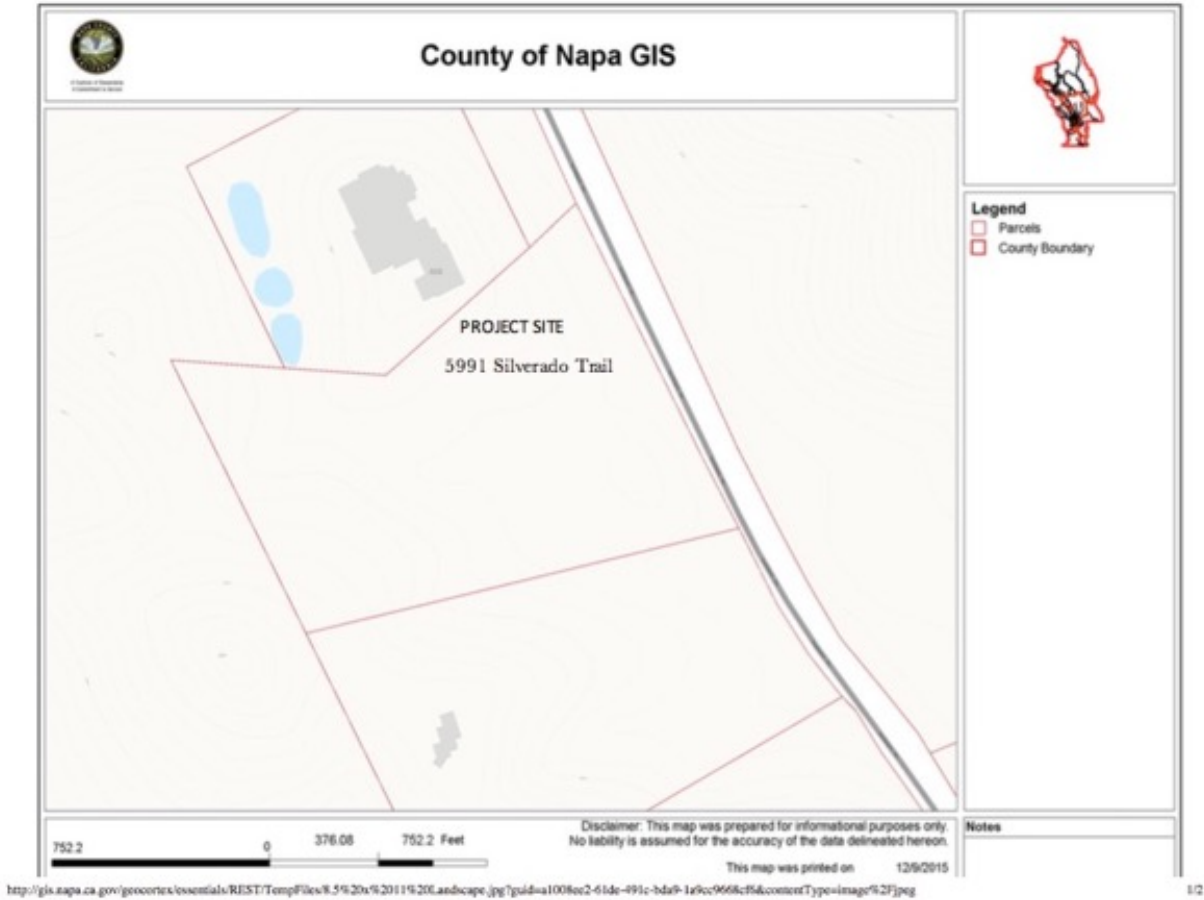


Figure I: Location Map

The Use Permit application under consideration proposes the repurposing of an existing shop building and operation of a new winery with the following characteristics:

- Wine Production:
 - 15,000 gallons of wine per year
 - Crushing, fermenting, aging and bottling

- Employees:
 - 1 Full-time employee
 - 1 Part-time Employee

- Marketing Plan:
 - Daily Tours and Tastings by Appointment
 - 17 visitors per day maximum
 - Marketing Events
 - 10 per year
 - 30 guests maximum
 - Food prepared offsite by catering company
 - Wine Auction Events
 - 1 per year
 - 75 guests maximum
 - Food prepared offsite by catering company

Wine production will be limited to a maximum of 15,000 gallons per year.

Existing structures on the property include a single family residence and an agricultural accessory building that support the existing residential and agricultural uses on the property. The agricultural building is proposed to be changed into the winery facility. According to the applicant all domestic water for the residential and agricultural structures and the existing vineyard is supplied from existing groundwater wells on the property.

Groundwater will continue to be used for residential, vineyard irrigation as well as for the proposed winery facility. There are several groundwater wells on the property and four 5000 gallon tanks.

Taylor Family Vineyards LLC has prepared a Tier I Water Availability Analysis in accordance with the Water Availability Analysis (WAA) – Guidance Document adopted by the Napa County Board of Supervisors on May 12, 2015. The remainder of this report describes the estimated groundwater demand on the subject property for existing and proposed conditions and compares that to the prescribed water use screening criteria.

ESTIMATED GROUNDWATER DEMAND

Groundwater is currently used to irrigate approximately 10 acres of vineyard and residence minimal landscape on a 21.5 Acre parcel as shown in Figure 2.

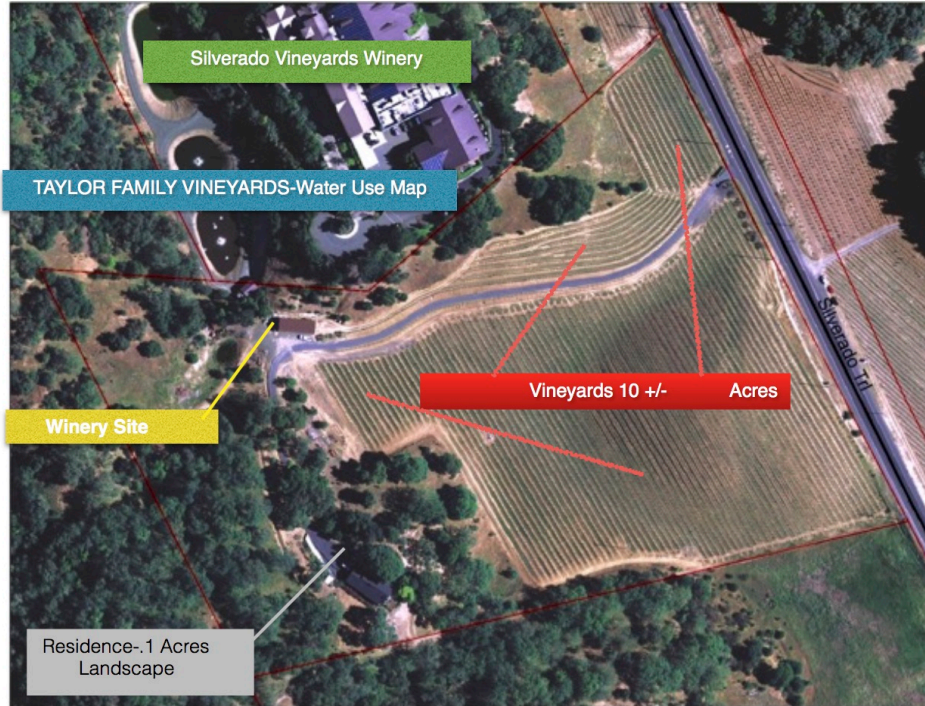


Figure 2: Water Use Map

The estimated groundwater demand is summarized in the table below and details of the calculations supporting these estimates are included in the Water Use Estimate Supporting Calculations in Appendix I.

Table I: Estimated Groundwater Demand

	Existing (ac-ft/yr)	Proposed (ac-ft/yr)
Residential	0.75	0.75
Winery	0	.414
Vineyard Irrigation	2.0	2.0
Landscape Irrigation	Included in Residence	Included in Residence
Total	2.75	3.263

WATER USE SCREENING CRITERIA

According to the WAA - Guidance Document properties located in the Napa Valley Floor area are subject to a Water Use Screening Criteria of 1.0 acre-feet of water per acre of land per year. A project complies with the requirements of the Tier 1 WAA if the total water use on the property is less than 1.0 acre-feet per acre per year. If the Tier 1 Water Use Screening Criteria is met and the property is located in the Napa Valley Floor area Tier 2 and Tier 3 Analyses are not required unless substantial evidence exists in the record that indicates a potential significant impact from the project.

The subject property is located in the Napa Valley Floor area in the WAA – Guidance Document. For the purpose of this analysis we have considered the portion of the property shown on the USGS geology maps as be Napa Valley as shown below in Figure 3.

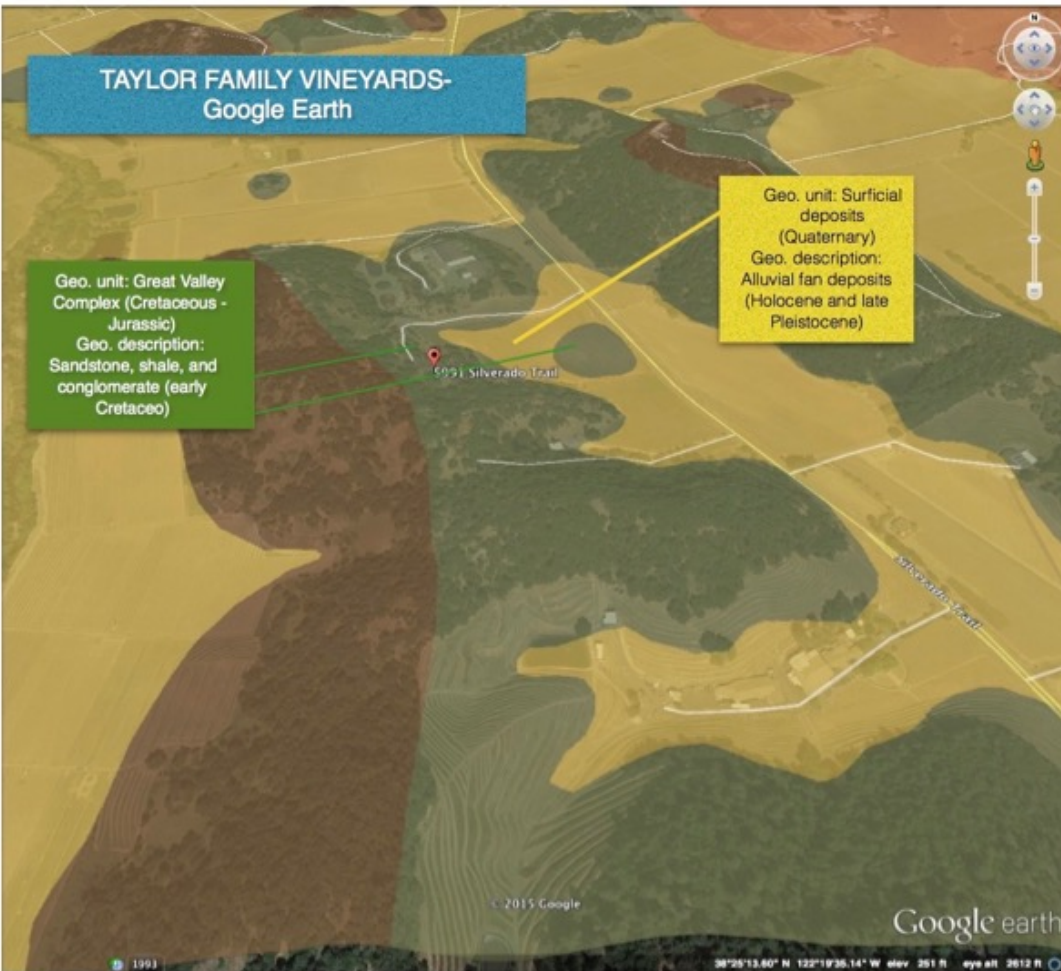


Figure 3: Geology Map Created with Google Earth

Since all groundwater extraction is from the Napa Valley Floor area we have evaluated only the screening criteria associated with the Napa Valley Floor.

Approximately 21.5 acres of the property are classified as Napa Valley Floor and therefore the water use screening criteria is calculated as follows:

Water Use Screening Criteria = 21.5 acres x 1.0 acre-foot per acre per year

Water Use Screening Criteria = 21.5 acre-feet per year

ANALYSIS

The total Estimated Water Use for existing conditions (2.75 ac-ft/yr) and proposed conditions (3.164 ac-ft/yr) are both substantially less than the Water Use Screening Criteria (21.5) ac-ft/yr).

CONCLUSION

Since the Water Use Screening Criteria is met, Tier 2 and Tier 3 Analyses are not required according to the WAA – Guidance Document.

APPENDIX I: Water Use Estimate Supporting Calculations

Taylor Family Vineyards Groundwater Use Estimate

	Estimated Water Use (Acre-Feet/Year)	
	Existing	Proposed
Residential Water Use		
Primary Residence and Minimal Landscape ⁽¹⁰⁾	0.75	0.75
Pool	0.00	0.00
Second Dwelling Unit ⁽¹⁰⁾	0.00	0.00
Guest Cottage – Not Applicable	0.00	0.00
Total Residential Domestic Water Use	.75	.75
Winery Domestic & Process Water Use		
Winery-Daily Visitors ^{(1) (2)}	0.00	.057
Winery-Events with Meals Prepared Onsite ^{(1) (3)}	0.00	0.00
Winery-Events with Meals Prepared Offsite ^{(1) (4)}	0.00	.006
Winery-Employees ^{(1) (5)}	0.00	.025
Winery-Event Staff ^{(1) (5)}	0.00	.002
Winery-Process ⁽⁶⁾	0.00	.323
Total Winery Water Use	0.00	.413
Irrigation		
Lawn	0.10	0.10
Other Landscape	0.00	0.00
Vineyard-Irrigation	2.00	2.00
Vineyard-Frost Protection	0.00	0.00
Vineyard-Heat Protection	0.00	0.00
Total Irrigation Water Use	2.10	2.10
TOTAL COMBINED WATER USE	2.85	3.263

Estimates per Napa County Water Availability Analysis - Guidance Document, May 12, 2015
unless noted

- (1) See attached Winery Production, Guest, Employee and Event Staff Statistics
- (2) 3 gallons of water per guest per Napa County WAA Guidance Document
- (3) 15 gallons of water per guest per Napa County WAA - Guidance Document
- (4) 5 gallons of water per guest used because all food preparation, dishwashing, etc. to occur offsite
- (5) 15 gallons per shift per Napa County WAA - Guidance Document
- (6) 2.15 ac-ft per 100,000 gallons wine per Napa County WAA - Guidance Document
- (7) 0.1 ac-ft/yr per 1,000 sf of lawn per Napa County WAA - Guidance Document - 1000 Square Feet
- (8) 0.1 ac-ft/yr per 2,000 sf landscape per Napa County WAA - Guidance Document
- (9) 0.5 ac-ft/ac/yr per applicant - 10 ac vineyard
- (10) City of Napa Water used for Main Residence and Second Dwelling Unit

**Taylor Family Vineyards Winery
Winery Production, Visitor, Employee & Event Staff Statistics**

Winery Production⁽¹⁾ 15,000 gallons per year

Tours and Tastings by Appointment⁽¹⁾

Monday through Sunday 17 guests max per day
Total Guests Per Year 6,205

Events - Meals Prepared Offsite(1)

10 per year 30 guests max 300
1 per year 75 guests max 75
Total Guests Per Year 375

Events - Meals Prepared Onsite(1)

0 per year 0 guests max 0
0 per year 0 guests max 0
0 per year 0 guests max 0
Total Guests Per Year 0

Winery Employees (2)

1.5 employee 1 shift per day
Total Employee Shifts Per Year 548

Event Staff (3)

10 per year, 30 guests, 3 Event Staff 30
1 per year, 75 guests 7 event staff 7
Total Event Staff Per Year 37

(1) Winery production, tours and tasting and event guest statistics per Winery Use Permit application

(2) Employee counts per Winery Use Permit Application

(3) Assumes 1 event staff per 10 guests (in addition to regular winery employees)