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Agenda Date: 12/17/2014
Agenda Placement: 9A

Napa County Planning Commission
Board Agenda Letter

TO:	Napa County Planning Commission
FROM:	Charlene Gallina for David Morrison - Director Planning, Building and Environmental Services
REPORT BY:	Wyntress Balcher, Planner II - 707 299-1351
SUBJECT:	Girard Winery Use Permit #P14-00053

RECOMMENDATION

GIRARD WINERY USE PERMIT #P14-00053-UP

CEQA Status: Consideration and possible adoption of a Mitigated Negative Declaration and Mitigation Monitoring & Reporting Program (MMRP). According to the proposed Mitigated Negative Declaration and MMRP, the proposed project would have, if mitigation measures are not included, potentially significant environmental impacts in the following areas: Transportation/Traffic. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Request: Approval for a Use Permit to establish a new winery as follows: 1) 200,000 gallons per year production capacity; 2) Construction of new winery building, totaling 32,771 sq.ft. in area, to include: 28,955 sq.ft. production area (crush area, fermentation and barrel storage, restrooms); 3,816 sq.ft of accessory use area (offices, tasting rooms, retail storage, catered food prep area, and visitor restrooms), maximum height 35 ft. with 45 ft. tall cupolas; a 2,628 sq. ft. veranda; and a 2,871 sq. ft. covered work area; 3) Hosted daily tours and tastings for wine trade personnel and consumers by appointment only for a maximum of 75 persons per weekday (Monday-Friday); maximum of 90 persons per weekend day (Saturday-Sunday); 4) Hours of operation: 8:00 AM to 6:00 PM (production hours, except during harvest) and 10:00 AM to 6:00 PM (visitation hours), 7-days a week; 5) Employment of more than 25 employees: 11 employees (8 full time; 3 part-time) non harvest; maximum 19 additional employees (12 full time and 7 part time) during harvest; 6) Employee hours: production, 7:00 AM to 3:00 PM; hospitality/ tasting room, 9:30 AM to 6:30 PM; administration, 8:00 AM to 5:00 PM; 7) Construction of twenty-two (22) parking spaces; 8) Installation of landscaping, entry gate and a winery sign; 9) Establish a Marketing Program as follows: a) Four (4) events per year with a maximum of 75 guests; b) Four (4) events per year with a maximum of 200 guests; c) One (1) Harvest event per year with a maximum of 500 guests;d) All food to be catered utilizing a ±184 sq. ft. small prep/staging area; 10) On-premise consumption of wines produced on site within the tasting room and in the landscaped winery gardens in accordance with AB 2004; 11) Construct new 24” wide winery access driveway from Dunaweal Lane to the winery; 12) Construction of additional piping and service connections to the existing water system with an update to the existing Transient Non-Community Water System contract to

include Girard Winery; 13) Installation of on-site sanitary disposal improvements and installation of new connections into the existing on-site winery waste water ponds serving Clos Pegase Winery (APN:020-150-012); and, 14) Installation of 30' diameter, 25,000 gallon water storage tank. The project is located on a 25.63 acre parcel at 1077 Dunaweal Lane, Calistoga, on the east side of Dunaweal Lane, approximately 1,000 feet south of its intersection with Silverado Trail, within the AP (Agricultural Preserve) Zoning District; APN: 020-150-017

Staff Recommendation: Adopt the Mitigated Negative Declaration and approve the Use Permit, as conditioned.

Staff Contact: Wyntress Balcher, Planner II (707) 299-1351; wyntress.balcher@countyofnapa.org

Applicant Contact: Heather McCollister, (707) 287-5999; bhmccolli@sbcglobal.net

EXECUTIVE SUMMARY

Proposed Actions:

That the Planning Commission:

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring Reporting Plan for the Girard Winery based on Findings 1-6 of Exhibit A; and

2. Approve Use Permit (P14-00053) based on Findings 7-11 of Exhibit A, and subject to the recommended Conditions of Approval (Exhibit B).

Discussion:

The applicant requests approval of Use Permit application #P14-00053 to establish a new 200,000 gallon/year winery with the construction of a new winery building, totaling 32,771 sq.ft. in area, to include: 28,955 sq.ft. production area (crush area, fermentation and barrel storage, restrooms); 3,816sq.ft of accessory use area (offices, tasting rooms, retail storage, catered food prep area, and visitor restrooms); a 2,628 sq.ft. covered veranda; and a 2,871 sq. ft. covered work area. The maximum height of the building will be 35 ft. with two 45 ft. tall cupolas. The applicant also proposes: the construction of twenty-two (22) parking spaces; the construction of a new 24" wide winery access driveway from Dunaweal Lane to the winery; the construction of additional piping and service connections to the existing water system with an update to the existing Transient Non-Community Water System contract to include Girard Winery; and the installation of a 25,000 gallon water storage tank. The applicant is requesting tours and tastings by appointment only to a maximum 90 persons on weekends and 75 weekdays and a Marketing Program to hold 9 events per year: four/year for 75 guests; four/year for 200 guests and one/year for 500 guests, to be catered and during winery operation hours.

Although this is a relatively large project, staff is recommending in favor of its approval for the following reasons: 1) the proposal includes substantial greenhouse gas offset features; 2) potential traffic impacts have been fully mitigated; 3) Girard's Napa wines are presently made in Sonoma County and this facility will return Napa County fruit to production in Napa County; 4) the project will be subject to the County's expanded housing impact fees; 5) visitation is within the scope of what has been approved at other similar facilities, and marketing is on the low end; 6) the amount of visitation space is relatively modest in comparison to the amount of production space; and 7) the project requires no reductions or alternatives to winery zoning standards.

FISCAL IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: Mitigated Negative Declaration Prepared. According to the proposed Mitigated Negative Declaration, the proposed project would have, if mitigation measures are not included, a potentially significant environmental impact in the following areas: Transportation/Traffic. The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

BACKGROUND AND DISCUSSION

Owner/Applicant: Vintage Wine Estates, Pat Roney; 205 Concourse Blvd, Santa Rosa, CA 95403

Representative: Heather McCollister; 1512 D Street, Napa, CA 94559

Zoning: Agriculture Preserve – AP

GP Designation: Agricultural Resource – AR

Filed: February 28, 2014; **Completed:** November 12, 2014

Parcel Size: 26.53± acres

Existing Development: Clos Pegase Water System well and associated equipment & three Close Pegase Winery wastewater processing ponds and associated equipment, in addition to 12± acres of vineyard.

Proposed Winery Characteristics:
Winery Size (Proposed): 32,771 sq.ft. production building include: 28,955 sq.ft. production area (crush area, fermentation and barrel storage, restrooms); 3,816 sq.ft of accessory use area (offices, tasting rooms, retail storage, catered food prep area, and visitor restrooms), maximum height 35 ft. with 45 ft. tall cupolas; with a 2,628 sq. ft. covered veranda; and a 2,871 sq. ft. covered work area.

Production Capacity (Proposed): 200,000 gallons per year.

Development Area (Proposed): 139,763 sq. ft., or 3.21 acres.

Winery Coverage (Proposed): 132,793 sq. ft.; 3.05 acres; 11.49% of the 26.53± acre parcel (Maximum 25% or 15 acres).

Accessory/Production Ratio (Proposed): 3,816 sq. ft. accessory and 37,129 sq. ft. production; 10.2% (maximum 40% allowed).

Number of Employees (Proposed): More than 25 employees: maximum 11 employees (8 full time; 3 part-time), non harvest days; maximum 19 additional employees hired (12 full time and 7 part time) during harvest.

Visitation (Proposed): Hosted daily tours and tastings for wine trade personnel and visitors by appointment only for a maximum of 75 persons per weekday (Monday-Friday); maximum of 90 persons per weekend day (Saturday-

Sunday). Maximum of 555 persons/week.

Marketing Program (Proposed):
Four (4) events per year with a maximum of 75 guests, between the hours of 6:00 PM – 10:00 PM;
Four (4) events per year with a maximum of 200 guests between the hours of 6:00 PM – 10:00 PM; and,
One (1) Harvest event per year with a maximum of 500 guests between the hours of 6:00 PM – 10:00 PM.
All food to be catered utilizing a ±184 sq. ft. small prep/staging area located adjacent to the tasting room.

Days and Hours of Operation (Proposed): Employee hours: production, 7:00AM to 3:00 PM; hospitality/ tasting room, 9:00 AM to 6:00 PM; administration, 8:00 AM to 5:00 PM.

Parking (Proposed): 22 on-site parking spaces with 2 loading areas (15 visitor spaces and 7 employee spaces). The parking area also proposes to include an electric vehicle charging station space and one visitor clean air vehicle space.

Setbacks (Required): 20' side, 20' rear, 300' from Dunaweal Lane.
Setback (Proposed): No variance proposed. All required setbacks will be met.

Adjacent General Plan Designation/ Zoning / Land Use:

North:
Agricultural Resource (AR) /Agricultural Preserve Zoning (AP)/Agricultural use (vineyards) and residential use
South:
Agricultural Resource (AR) / Agricultural Preserve Zoning (AP)/Agricultural use (vineyards) and residential use
East:
Agricultural Resource (AR) /Agricultural Preserve Zoning (AP)/Agriculture (vineyards) and wine production (Sterling Vineyards Winery)
West:
Agricultural Resource (AR) /Agricultural Preserve zoning (AP)/Agricultural use (vineyards), residential use, and wine production use (Clos Pegase Winery)

Nearby Wineries (located within 1 mile of the project)

Winery Name	Address	Building Sq. Ft.	Production	Visitors (Ave/Wk)	Total Events/Yr	Employees
ARAUJO ESTATES WINES	2155 PICKETT RD	24,000	20,000	126	15	13
AZALEA SPRINGS WINERY	4301 AZALEA SPRINGS WAY	11,607	12,500	125	532	2
CLOS PEGASE INC	1060 DUNAWEAL LN	43,100	200,000	725	n/a	10
CUVAISON	4550 SILVERADO TRL	46,026	155,048	525	n/a	15
FISHER WINERY	4771 SILVERADO TR	16,200	30,000	50	23	3
JOSEPH CELLARS	4455 ST HELENA HWY	20,500	30,000	525	106	6
PAOLETTI ESTATES WINERY	4501 SILVERADO TRL N	10,004	16,000	350	3	1.5
PAVITT FAMILY VINEYARDS	4660 SILVERADO TRL	3,360	10,000	10	9	2

STERLING VINEYARDS	1111 DUNAWEAL LN	160,252	1,500,000	3,850n/a		143.5
TEACHWORTH WINERY	4451 N ST HELENA HWY	800	5,000	2	2	0.5
TWOMEY CELLARS	1183 DUNAWEAL LN	25,510	81,480	75n/a		3.5
VENGE VINEYARDS	4708 SILVERADO TRL	15,400	20,000	140	10	3

Parcel History and Evolution of this Application

The existing parcel is 26.53 acres in area and includes an existing storage building, three ponds for a wastewater processing system, water well, and associated infrastructure that are currently serving Clos Pegase Winery, which is also owned by the applicant, located at 1060 Dunaweal Lane (APN: 020-150-012), directly across the street. There are currently 12± acres of vineyards planted on the property, but there has been a history of a total of 18 acres of vineyard, of which 6± acres is now fallow. There are no other improvements on the property.

Code Compliance History

There are no open or pending code violations for the subject site.

Discussion Points

Setting - The project parcel (APN: 020-050-017) is 26.53 acres in area and is owned by Vintage Wine Estates. Across the street at 1060 Dunaweal Lane (APN: 20-150-012) is Clos Pegase Winery, also owned by Vintage Wine Estates. Water is provided to Clos Pegase Winery and the residence on that parcel through the "Clos Pegase Winery Water System", a transient non-community water system which utilizes the well on the project parcel. The old well on the Clos Pegase Winery parcel did not meet the seal depth requirements for the transient non-community water system regulations and is therefore not a part of the water system and used for back-up irrigation. The Clos Pegase Winery process wastewater is taken to the subject parcel for processing, utilizing the three existing ponds. The processed wastewater is used for vineyard and landscape irrigation on both the Clos Pegase property and the subject parcel. No groundwater is used for these activities.The proposed Girard Winery will connect to the existing water system and will require updating the water system permit to include additional piping and and service connections. The name of the water system will also be amended to include both wineries.The project parcel is rectangular with frontage on Dunaweal Lane, a collector status road, and is relatively flat. The frontage has non-native walnut trees lining the road and five are proposed for removal for the project driveway entrance. The nearest offsite residence is located approximately 130 feet south of the property line and is over 400 feet from the winery building site.

New Winery Proposal - Girard Wines is a label currently being produced by Vintage Wine Estates at a facility in Sonoma County. The wines are currently being sold at a tasting room in Yountville which is proposed to continue operating after completion of the the proposed new wine facility. The project proposes the construction of a 24' wide driveway to serve the 32,771 sq. ft. winery building located ±600 ft. from Dunaweal Lane and would circle around the building to the loading area in the rear. The required winery setback is 300 ft. The hospitality and administration areas are located on the west side of the building facing the street, where there is a landscaped veranda wrapping around the public entrance. The applicant is requesting approval of on-site consumption of wines produced on the site in the garden and veranda in addition to the tasting room in accordance with AB 2004 (also known as the Picnic Bill). The winery production area is located behind hospitality area with tanks, barrel storage, a covered crush area, and loading docks. There is an open covered work area adjacent to the refrigeration equipment at the rear of the building. The proposed building will be concrete, 33'-6" in height with metal roofing and stone veneers on the front (west) side of the building. Two cupolas are proposed at the front of the production

portion of the building, 45' in height, with metal roofing. The veranda will be concrete with stone veneer and the building's divided-lite windows will have low-E glass and with stone ledges.

Twenty-two (22) parking spaces are proposed, 15 in the visitor parking area adjacent to the front of the winery building and seven (7) in the employee area behind the winery building. The visitor parking area also proposes to include an electric vehicle charging station space and one visitor clean air vehicle space, in addition to one electric vehicle charging station in the employee parking area. Based upon estimates of 2.6 visitors/vehicle on weekday (20± vehicles) and 2.8 visitors/vehicle on weekends (22± vehicles), the parking demand per day would be satisfied by the 22 parking spaces. The parking demand generated from nine marketing events (179± vehicles at largest event) would exceed the number of parking spaces available in the parking lot. Additional parking in the paved area at the rear of the winery can be utilized during events or shuttling from off-site parking lots. The applicant proposes Best Management Practices to encourage a reduction of vehicle miles traveled with priority parking for efficient transportation and to use bus transportation for large marketing events. The applicant owns the winery property across the street and event guests can be shuttled over from there. No parking will be permitted within the right-of-way of Dunaweal Lane or permitted on the entrance driveway, which is too narrow to accommodate parking.

Tours and Tastings/Marketing Events - The project proposes hosted daily tours and tastings for wine trade personnel and consumers by appointment only for a maximum 75 persons per weekday (Monday-Friday); a maximum 90 persons per weekend day (Saturday-Sunday) for a weekly total maximum of 555 visitor. The proposed visitation hours are 10:00 AM to 6:00 PM (visitation hours), 7-days a week with on-premise consumption of wines produced on site within the tasting room and in the landscaped veranda in accordance with AB 2004. The Marketing Program would consist of: four (4) events per year with a maximum of 75 guests, between the hours of 6:00 PM – 10:00 PM; four (4) events per year with a maximum of 200 guests between the hours of 6:00 PM – 10:00 PM; and one (1) Harvest event per year with a maximum of 500 guests between the hours of 6:00 PM – 10:00 PM. All food to be catered utilizing a ±184 sq. ft. small prep/staging area located adjacent to the tasting room area.

Staff has provided a table comparing marketing and tours and tastings visitation at other wineries with annual production of 200,000 gallons, below. The proposed visitation program falls within the lower half amongst its peer group of wineries with an approved production capacity of approximately 200,000 gallons per year. The table also provides a comparison of winery building floor area to the wineries listed. As can be seen, the floor area for the proposed area relative to its production capacity is below the middle of the spectrum, at ±28,955 sq.ft., with other wineries ranging in size from 24,100 sq.ft. to 49,480 sq.ft.

Winery	**Location**	**Approved Production**	**Floor Area (sq. ft.)**	**Tours & Tastings visitors/week (average)**	**Marketing Events per year**	**Employees**
BY APPT ONLY						
Groth Winery and Oakcross Vineyards	Valley Floor	200,000	49,480	180	77	24
Shafer Vineyards	Valley Floor	200,000	33,630	105	29	2
Silverado Hill Vineyards LLC	Valley Floor	200,000	27,454	490	126	24
Paraduxx Vineyards	Valley Floor	200,000	32,909	840	160	38
Girard Winery (Proposed)	***Valley Floor***	***200,000***	***39,604***	***555***	***9***	***11***

PUBLIC

Clos Pegase, Inc	Valley Floor	200,000	24,100	725	0	10
Sutter Home Winery	Valley Floor	200,000	41,000	3,500	0	101
Whitehall Lane Winery	Valley Floor	200,000	34,227	600	60	7

Traffic - The project parcel is located on the east side of Dunaweal Lane, between State Highway 29 and Silverado Trail. Access to the proposed winery would be from both directions of Dunaweal Lane, via a 24 ft. wide driveway. The intersections with State Highway 29 and Silverado Trail are unsignalized; southbound traffic on State Highway 29 has a left turn lane. There are three existing wineries on Dunaweal Lane: Clos Pegase Winery, Sterling Vineyards, and Twomey Cellars. The project proposes to establish a new 200,000 gallon/year winery, office use, and hospitality functions. The proposed maximum daily visitation will be 75 persons on weekdays; 90 persons on weekends. There will be 25 or greater on-site employees: 8 full-time and 3 part-time, but will increase during harvest to 20 full-time and 10 part-time. Nine (9) marketing events per year are proposed: four (4) events with a maximum of 75 guests; four (4) events with a maximum of 200 guests; and one (1) harvest event with a maximum of 500 guests.

Whitlock & Weinberger Transportation, Inc. (W-Trans) prepared a focused traffic analysis (dated October 16, 2014) addressing potential traffic impacts and access needs for the winery. Mechanical counts of the traffic volumes on Dunaweal Lane were conducted on three consecutive peak days and intersection counts were taken during the month of September, 2014 to establish the existing conditions. The volume of traffic ranged from 1,484 vehicles on Thursday to 1,691 on Saturday. This count is considered relatively low. The turning movement data collected indicate that the intersections of State Highway 29 and Silverado Trail and Dunaweal Lane are operating at a LOS A or B overall and on all approaches. The anticipated daily trip generation for the project, winery plus tasting room, is projected at 74 trips during weekdays, including 26 weekday PM peak hour (4:00–6:00 PM) trips and 58 daily trips on weekends with 29 weekend PM peak hour trips (Saturdays 2:00-4:00PM). Upon adding project-generated trips to existing volumes, both intersections are expected to continue operating at LOS A or B overall as well as on all approaches.

The report addresses the future projected traffic volumes, using the 2030 and 2010 model volumes from the Solano Transportation Authority growth factor of 1.45 for State Highway 29. This growth factor was applied to turning movements to and from Dunaweal Lane and the remainder of the future increase was added to the volumes for the through movements. Based upon the projected future volumes, the two intersections are expected to operate acceptably overall, though the northbound Dunaweal approach to Silverado Trail is expected to operate at LOS E and the southbound Dunaweal Lane approach to State Route 29 is expected to operate at LOS F at the PM Peak Hour. Under the Napa County General Plan EIR, under projected 2030 volumes, State Route 29 is expected to operate at a LOS F in this project's study area during the PM Peak Hour, and, Silverado Trail is expected to continue operating at LOS C during the PM Peak Hour.

The traffic study proposes a mitigation measure that if the winery operation schedules employee shifts to minimize trips at the intersection during the PM peak periods (4:00-6:00 PM weekdays; 2:00-4:00 PM weekends) stating it will reduce the project's future potential impacts to the intersections at their most impacted time to a level of insignificance. The incorporation of a mitigation measure to reduce traffic during the PM Peak Hour can occur during the 9 events if the finish time of activities is scheduled to minimize vehicles arriving or leaving between 4:00 PM and 6:00 PM would reduce potential future traffic impacts to a level of insignificance. Further, the installation of directional signs at the winery exit to direct traffic to right-turn actions, such as southbound traffic from Dunaweal Lane to use Silverado Trail, and northbound traffic to use State Highway 29, would be a reduction in the LOS at those intersections, further reducing traffic impacts to a less than significant level. The applicant proposes Best

Management Practices to encourage a reduction of vehicle miles traveled with priority parking for efficient transportation and to use bus transportation for larger 200 to 500-guest marketing events.

Groundwater Availability - As indicated above, the well on the project parcel provides water to the applicant's Clos Pegase Winery (APN: 020-150-012) across the street. The well on the Clos Pegase winery is utilized as back up irrigation water. The Clos Pegase winery process waste water system is also located on the project parcel, which include the three processing and storage ponds. The reclaimed water is used to irrigate the vineyards and landscaping on the Clos Pegase parcel, and the vineyards on the project parcel. Girard Winery will be incorporated into these existing systems. Therefore, the Water Availability Analysis Report, prepared by Always Engineering (dated November 24, 2014) and the Phase One Study prepared for each of the parcels, evaluated the existing demand and the demand generated from the proposed Girard Winery.

The Phase One Study prepared for the 20.39 acre, valley area, Clos Pegase Winery property states that the Allowable Water Allotment for the property is 20.39 acre feet per year (af/yr), determined by multiplying its 20.39 acre size by the one af/yr/acre fair share water use factor. Clos Pegase Winery is a 200,000 gallon winery, with 10 employees (total 30 employees during harvest) and a visitation average of 725 people per week. The Clos Pegase Phase One study indicates the existing total demand is 9.70 af/yr.

The Water Availability Analysis-Phase One Study prepared for the 26.53 acre, the proposed Girard Winery property, states that the Allowable Water Allotment for the property is 26.53 acre feet per year (af/yr), determined by multiplying its 26.53 acre size by the one af/yr/acre fair share water use factor. The study found that the proposed 200,000 gallon Girard Winery with a proposed 11 employees (additional 19 for a total 30 employees during harvest), a maximum 10,090 visitors, and 9 events with a maximum 500 people, would result in a total demand of 16.70 af/yr.

The combined allowable water use for both parcels would be 46.92 af/yr. The existing and proposed water use for both parcels is 26.40 af/yr., which is 20.52 af/yr. below the threshold for the combined parcels. As such, the project meets the valley floor groundwater sustainability threshold in gross terms without consideration of other water sources such as reuse of treated process water and surface water captured within existing irrigation ponds. The Water Availability Analysis report indicates that currently all vineyard irrigation (both parcels) is provided for using the existing irrigation pond located on the property. The existing irrigation pond is filled with rainwater, vineyard subdrain collection water, and treated process wastewater. No well has been used to irrigate the existing vineyards and the existing landscaping. In addition, the proposed Girard Winery will also contribute additional process wastewater into the reclaimed wastewater irrigation system. Therefore, the total project demand on groundwater supplies would be 12.49 af/yr. Conditions from the Environmental Health Division require that an agreement to grant a water easement or an approved water easement for the water system located on and serving the two parcels must be filed prior to approval of a building permit. This will ensure that the Clos Pegase Water System is amended to include the new winery.

Greenhouse Gases/Climate Action Plan - The County requires project applicants to consider methods to reduce Green House Gas (GHG) emissions consistent with Napa County General Plan Policy CON-65(e), which requires GHG review of discretionary projects. The applicant has completed the Department’s Best Management Practices Checklist for Development Projects, which is attached to this report as part of the application materials. The applicant proposes to incorporate GHG reduction methods including: alternative fuel and electrical vehicles in fleet; build to CALGREEN Tier 2; new vegetation plantings; CVMT reduction plan; energy conserving lighting; connection to an existing recycled water system; water efficient landscaping and shade trees; limiting the amount of grading and tree removal; composting; sustainable purchasing and shipping programs; electrical vehicle charging stations; bicycle incentives; and education of staff and visitors on sustainable practices.

GHG Emission reductions from local programs and project level actions, such as application of the CalGreen Building Code, tightened vehicle fuel efficiency standards, and more project specific on-site programs including

those winery features noted above would combine to reduce emissions.

Grape Sourcing - The property is currently planted in 12 acres of vineyards. Upon completion of the project, the applicant proposes to replant those areas that are fallow or were disturbed by the project, resulting in 14.53 acres of vineyard. The applicant has informed staff that the 75% Napa Valley Grape Source can be met since there are contracts with other Napa County vineyards for 1,075 tons of grapes (154,800 gallons) that will be processed at the new winery. The applicant has advised that the Girard Winery label is currently active and the wines are being sold out of a tasting room located in Yountville, which will also remain open after completion of the winery.

Public Comments - On December 4, 2014, an e-mail was received from an adjacent neighbor, Norma Tofanelli, requesting a continuance of the hearing to allow time to review all of the reports and prepare for the hearing (See attached). Staff had been advised that the applicant and the neighbor will be meeting to discuss the project and the neighbor's concerns.

Consistency with Standards

Zoning - The project is consistent with the AP (Agricultural Preserve) zoning district regulations. A winery (as defined in the Napa County Code Section 18.08.640) and uses in connection with a winery (refer to Napa County Code Section 18.16.030) are permitted in the AP District with an approved use permit. The project, as conditioned, complies with the Napa County Winery Definition Ordinance and all other requirements of the Zoning Code as applicable.

Environmental Health Division - Recommends approval with standard conditions in the attached Memorandum dated December 10, 2014.

Engineering Services Division - Recommends approval with standard conditions in the attached Memorandum dated July 11, 2014.

Public Works Department (Ground Water and Traffic) - Recommends approval in the attached Memorandum, dated May 12, 2014.

Fire Department - Recommends approval with standard conditions in the attached Inter-Office Memo dated April 3, 2014.

SUPPORTING DOCUMENTS

A . Exhibit A - Findings

B . EXHIBIT B - CONDITIONS OF APPROVAL

C . Department Conditions

D . Public Comments

E . Mitigated Negative Declaration

F . Mitigation Monitoring & Reporting Program

G . Water Availability - Phase One

H . Biological Survey Report

I . Traffic Analysis

J . Wastewater Feasibility Study

K . Waters System Feasibility Report

L . Application documents

M . GRAPHICS

Napa County Planning Commission: Approve

Reviewed By: Charlene Gallina

PLANNING COMMISSON HEARING – DECEMBER 17, 2014
EXHIBIT A - FINDINGS

GIRARD WINERY
USE PERMIT #P14-00053-UP
1077 Dunaweal Lane, Calistoga, CA 94515
APN 020-150-017

ENVIRONMENTAL DETERMINATION:

The Planning Commission (Commission) has received and reviewed the proposed Mitigated Negative Declaration and Mitigation Monitoring & Reporting (MMRP) Program pursuant to the provisions of the California Environmental Quality Act (CEQA) and of Napa County's Local Procedures for Implementing CEQA, and finds that:

1. The Planning Commission has read and considered the Mitigated Negative Declaration prior to taking action on said Mitigated Negative Declaration and MMRP and the proposed project.

2. The Mitigated Negative Declaration and MMRP is based on independent judgment exercised by the Planning Commission.

3. The Mitigated Negative Declaration and MMRP was prepared and considered in accordance with the requirements of the California Environmental Quality Act (CEQA).

4. The Secretary of the Commission is the custodian of the records of the proceedings on which this decision is based. The records are located at the Napa County Planning, Building, and Environmental Services Department, 1195 Third Street, Room 210, Napa, California.

5. There is no substantial evidence in the record as a whole, that the project will have a significant effect on the environment.

6. There is no evidence, in considering the record as a whole that the proposed project will have a potential adverse effect on wildlife resources or habitat upon which the wildlife depends.

USE PERMIT MODIFICATION REQUIRED FINGINGS:

The Commission has reviewed the use permit request in accordance with the requirements of the Napa County Code Section 18.124.070 and makes the following findings. That:

7. The Commission has the power to issue a use permit under the zoning regulations in effect as applied to the property.

   Analysis: The project is consistent with AP (Agricultural Preserve) zoning district regulations. A winery (as defined in Napa County Code Section 18.08.640) and uses in connection with a winery (see Napa County Code Section 18.16.030) are permitted in an AP zoned district with an approved use permit. The project complies with the

requirements of the Winery Definition Ordinance (Ord. No. 947, 1990) and the remainder of the Napa County Zoning Ordinance (Title 18, Napa County Code) as applicable.

8. The procedural requirements for a use permit set forth in Chapter 18.124 of the Napa County Code (Use Permits) have been met.

   Analysis: The use permit modification application has been filed, noticed and public hearing requirements have been met. The hearing notice was posted on November 26, 2014 and copies of the notice were forwarded to property owners within 1,000 feet of the subject parcel and all other interested parties. The CEQA public comment period ran from November 26, 2014 to December 16, 2014.

9. The granting of the use permit, as conditioned, will not adversely affect the public health, safety or welfare of the County of Napa.

   Analysis: Various County departments have reviewed the project and commented regarding water, waste water disposal, traffic and access, and fire protection. Conditions are recommended which will incorporate these comments into the project to assure the ongoing protection of the public health and safety.

10. The proposed use complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan.

    Analysis: The proposed use complies with applicable provisions of the Napa County Code and is consistent with the policies and standards of the Napa County General Plan. The Winery Definition Ordinance (WDO) was established to protect agriculture and open space and to regulate winery development and expansion in a manner that avoids potential negative environmental effects. The project complies with the requirements of the Winery Definition Ordinance (Ord. No. 947, 1990) and the applicable provisions of the Napa County Zoning Ordinance (Title 18, Napa County Code).

    This proposal is consistent with the *Napa County General Plan 2008*. The subject parcel is located on land designated Agricultural Resource (AR) on the County's adopted General Plan Land Use Map. This project is comprised of an agricultural processing facility (winery), along with wine storage, bottling, and other WDO-compliant accessory uses as outlined in and limited by the approved project scope. (See Exhibit 'B', Conditions of Approval.) These uses fall within the County's definition of agriculture and thereby preserve the use of agriculturally designated land for current and future agricultural purposes.

    General Plan Agricultural Preservation and Land Use Goal AG/LU-1 guides the County to "preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County." General Plan Agricultural Preservation and Land Use Goal AG/LU-3 states the County should, "support the economic viability of agriculture, including grape growing, winemaking, other types of agriculture, and supporting industries to ensure the preservation of agricultural lands."

    As approved here, the use of the property for the "fermenting and processing of grape juice into wine" (NCC Section 18.08.640) supports the economic viability of agriculture within the county consistent with General Plan Agricultural Preservation and Land Use

Policy AG/LU-4 ("The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/ open space…"). Policy AG/LU-8 also states, "The County's minimum agricultural parcel sizes shall ensure that agricultural areas can be maintained as economic units and General Plan Economic Development Policy E-1 (The County's economic development will focus on ensuring the continued viability of agriculture…). Approval of this project furthers these key goals.

The General Plan includes two complimentary policies requiring that new wineries, "…be designed to convey their permanence and attractiveness." (General Plan Agricultural Preservation and Land Use Policy AG/LU-10 and General Plan Community Character Policy CC-2). The proposed winery, to the extent that it will be publicly visible, will convey permanence and attractiveness.

Agricultural Policy AG/LU-13 of the County General Plan recognizes wineries, and any use clearly accessory to a winery, as agriculture. The Land Use Standards of the General Plan Policy AG/LU-2 list the processing of agricultural products as one of the general uses recognized by the AR land use designations. The proposed project allows for the continuation of agriculture as a dominant land use within the county and is consistent with General Plan Agricultural Policy AG/LU-13.

The project is also consistent with General Plan Conservation Policy CON-53 and CON-55, which require that applicants, who are seeking discretionary land use approvals, prove the availability of adequate water supplies, which can be appropriated without significant negative impacts on shared groundwater resources. As analyzed below, the proposed winery will not interfere substantially with groundwater recharge based on the criteria established by Napa County Public Works Department.

Finally, the "Right to Farm" is recognized throughout the General Plan and is specifically called out in Policy AG/LU-15 and in the County Code. "Right to Farm" provisions ensure that agriculture remains the primary land use in Napa County and is not threatened by potentially competing uses or neighbor complaints. Napa County's adopted General Plan reinforces the County's long-standing commitment to agricultural preservation, urban centered growth, and resource conservation. On balance, this project is consistent with the General Plan's overall policy framework and with the Plan's specific goals and policies.

11. The proposed use would not require a new water system or improvements causing significant adverse effects, either individually or cumulatively, on the affected groundwater basin in Napa County, unless that use would satisfy any of the other criteria specified for approval or waiver of a groundwater permit under Napa County Code Section 13.15.070 or Section 13.15.080.

Analysis: The subject property is not located in a "groundwater deficient area" as identified in Section 13.15.010 of the Napa County Code. Minimum thresholds for water use have been established by the Department of Public Works using reports by the United States Geological Survey (USGS). These reports are the result of water resources investigations performed by the USGS in cooperation with the Napa County Flood Control and Water Conservation District. On June 28, 2011 the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, well

pump test protocols, management objectives, and community support. The County completed a county-wide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report (Feb. 2011)) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan 2013 (Jan. 2013)). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (Jan. 2013). In general, recent studies have found that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with a shallow depth to water.

Any project which reduces water usage or any water usage which is at or below the established threshold is, for purposes of the application of the County's Groundwater Conservation Ordinance, assumed not to have a significant effect on groundwater levels. Based on the submitted Phase One Water Availability Analysis, the 26.53 acre subject valley-area parcel has a water availability calculation of 26.53 acre feet per year (af/yr), which is arrived at by multiplying its approximately 26.53 acre size by a one acre feet per year per acre fair share water use factor. The Clos Pegase Water System utilizes the well on the subject parcel (APN:020-150-017). The Water Demand Calculations submitted for the project placed water demand for existing uses on the property (residential-0.75 af/yr; and Clos Pegas Winery process–4.30 af/yr; visitation/marketing-.65 af/yr) at 5.70 af/yr. The proposed winery project places the proposed new demand for the parcel (Girard Winery processing–4.30 af/yr; visitation and marketing–0.50 af/yr for a total 4.80 af/yr) plus the existing demand (5.70 af/yr) to equal a total demand of 10.50 af/yr.

The analysis report states that currently, all vineyard irrigation (for both APN:020-150-12 and APN:020-150-017) is provided from using the existing irrigation pond located on the property. The existing irrigation pond is filled with rainwater, vineyard subdrain collection water, and treated process wastewater. No well has been used to irrigate the existing vineyards. The existing and proposed landscaping will also use the treated processed wastewater. In addition, the proposed Girard Winery will contribute additional process wastewater into the reclaimed wastewater irrigation system. Therefore, vineyard irrigation and landscaping are not included in the groundwater demand.

Based upon the total demand from the existing uses plus the new winery,10.50 af/yr, the project would be well below the established threshold for groundwater use on the property (26.53 af/yr). The County is not aware of, nor has it received any reports of, groundwater shortages near the project area. The project will not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater level.

PLANNING COMMISSION HEARING – *December 17, 2014*
EXHIBIT B – CONDITIONS OF APPROVAL

Girard Winery
Application Number(s) P14-00053
1077 Dunaweal Lane, Calistoga, CA 94594515
(APN 020-150-017)

1. **SCOPE**

A. Approval of a Use Permit (P14-00053) to establish a new winery with an annual production capacity of 200,000 gallons as follows:

1. Construction of new winery building, totaling 32,771 sq.ft. in area to include: 28,955 sq.ft. production area (crush area, fermentation and barrel storage, restrooms); 3,816 sq.ft of accessory use area (offices, tasting rooms, retail storage, catered food prep area, and visitor restrooms), maximum height 35 ft. with 45 ft. tall cupolas. In addition a 2,628 sq. ft. covered veranda; and a 2,871 sq. ft. covered work area;
2. Hosted daily tours and tastings for wine trade personnel and consumers by appointment only for a maximum 75 persons per weekday (Monday-Friday); maximum 90 persons per weekend day (Saturday-Sunday);
3. Hours of operation: 8:00 AM to 6:00 PM (production hours, except during harvest) and 10:00 AM to 6:00 PM (visitation hours) 7-days a week;
4. Employment of more than 25 employees: 11 employees (8 full time; 3 part-time) non harvest; during harvest 19 additional employees (12 full time and 7 part time);
5. Employee hours: production, 7:00 AM to 3:00 PM; hospitality/ tasting room, 9:30 AM to 6:30 PM; administration, 8:00 AM to 5:00 PM;
6. Construction of twenty-two (22) parking spaces;
7. Installation of landscaping, an entry gate and a winery sign;
8. Establish a Marketing Program as follows:
    i. Four (4) events per year with a maximum of 75 guests;
    ii. Four (4) events per year with a maximum of 200 guests; and,
    iii. One (1) Harvest event per year with a maximum of 500 guests;
    All food to be catered utilizing a ±184 sq. ft. small prep/staging area;
9. On-premise consumption of wines produced on site within the tasting room, covered veranda and landscaped winery gardens in accordance with Business and Professions Code Sections 23358, 23390 and 23396.5 (AB 2004 -Evans Bill also known as the Picnic Bill);
10. Construct a new 24" wide winery access driveway from Dunaweal Lane to the winery;
11. Construct additional piping and service connections to the existing water system with an update to the existing Transient Non-Community Water System contract to include the Girard Winery;
12. Installation of on-site sanitary disposal improvements and installation of connections into the existing on-site winery waste water ponds serving Clos Pegase Winery (APN: 020-150-012); and,
13. Installation of one 25,000 gallon water storage tank.

The winery shall be designed in substantial conformance with the submitted site plan, elevation drawings, and other submittal materials and shall comply with all requirements of the Napa County Code. It is the responsibility of the applicant to communicate the requirements of these conditions and mitigations (if any) to all designers, contractors, employees, and guests of the winery to ensure compliance is achieved. Any expansion or changes in use shall be approved in accordance with Section 18.124.130 of the Napa County Code and may be subject to the Use Permit modification process.

**Alternative locations for fire suppression tanks are permitted, subject to review and approval by the Director of Planning, Building, and Environmental Services, when such alternative locations do not change the overall concept, and do not conflict with any environmental mitigation measures or conditions of approval.

2. **PROJECT SPECIFIC CONDITIONS**

Should any of the Project Specific Conditions below conflict with any of the other, standard conditions included in this document, the Project Specific Conditions shall supersede and control.

A. Evans Consumption

Consistent with Business and Professions Code Sections 23358, 23390 and 23396.5 (AB 2004 -Evans Bill also known as the Picnic Bill) and the Planning, Building, and Environmental Services Director's July 17, 2008 memo, "Assembly Bill 2004 (Evans) & the Sale of Wine for Consumption On-Premises," on-premise consumption of wine purchased from the winery may occur solely within the hospitality area which includes the tasting rooms, covered veranda and landscaped winery garden area. Any and all visitation associated with on-premise consumption shall be subject to the maximum daily tours and tastings visitation limitation of 75 persons daily and 90 persons weekends, and/or applicable limitations of permittee's marketing plan.

B. Mitigation Measures:

The permittee shall comply with all mitigation measures identified in the adopted Initial Study/Mitigated Negative Declaration and Project Revision Statement/Mitigation Monitoring and Reporting Program prepared for the project, inclusive of the following:

1. Scheduling of employee work shifts to commence and conclude outside of PM peak periods between 4:00 and 6:00 p.m. weekdays, between 2:00 and 4:00 PM on Saturday; and between 1:00 to 3:00 PM Sunday.

   Method of Monitoring: Within ten (10) days of issuance of a Certificate of Final Occupancy for the winery, the applicant/permittee shall provide written documentation to the Director of Planning, Building, and Environmental Services which demonstrates that employee work shifts are scheduled to commence and conclude outside of the peak periods as stated above.

2. Scheduling of marketing event set up, arrival and departure to occur outside of weekday and Saturday PM peak PM traffic periods. Peak periods are between 4:00 and 6:00 PM weekdays, 2:00 and 4:00 PM on Saturday and 1:00 and 3:00 PM on Sunday.

   Method of Monitoring: The applicant/permittee shall maintain a log book (or similar record) demonstrating the marketing event set up, arrival and departure occurs outside of the weekday, Saturday and Sunday peak periods as stated above. The log book shall be made available to the Director of Planning, Building and Environmental Services upon request.

3. Installation of directional sign (s) to direct traffic to Silverado Trail for southbound travel and to use State Highway 29 for northbound travel. Such sign shall be submitted for review and approval by the Planning, Building and Environmental Services Department as well as the Public Works Department prior to installation.

   Method of Monitoring: Within ten (10) days of issuance of a Certificate of Final Occupancy for the winery, the applicant/permittee shall submit for review and approval the sign design and its location to Planning, Building and Environmental Services Department as well as the Public Works Department.

C. The permittee shall comply during all construction activities with the Bay Area Air Quality Management District Basic Construction Mitigation Measures (Table 8-1, May 2011 Updated CEQA Guidelines) as provided below:

1. All exposed surfaces (e.g. parking areas, staging areas, soil piles, grading areas, and unpaved access (road) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

D. General Compliance and Annual Audits

Permittee shall obtain and maintain all permits (Use Permits and Modifications) and licenses from the California Department of Alcoholic Beverage Control (ABC), United States Tax and Trade Bureau (TTB), Department of Food and Agriculture (CDFA) Grape Crush Inquiry data, all of which are required to produce and sell wine. In the event permittee loses required ABC or TTB permits and licenses, permittee shall cease marketing events and tours and tastings until such time as those ABC and/or TTB permits and licenses are re-established.

Visitation log books, custom crush client records, and any additional documentation determined by staff to be necessary to evaluate compliance may be requested by the County in the event the winery is chosen in the annual audit. The permittee (and their successors) shall be required to participate fully in the winery audit process.

E. No building, grading or sewage disposal permit shall be issued, nor shall beneficial occupancy be granted until all accrued planning permit processing fees have been paid in full.

3. **COMPLIANCE WITH OTHER DEPARTMENTS AND AGENCIES**

Project conditions of approval include all of the following County, Divisions, Departments and Agency (ies) requirements. The permittee shall comply with all applicable building codes, zoning standards, and requirements of County Divisions, Departments and Agencies at the time of submittal and may be subject to change. Without limiting the force of those other requirements which may be applicable, the following are incorporated by reference as enumerated herein:

A. Engineering Services Division as stated in their Memorandum dated July 11, 2014.
B. Environmental Health Division as stated in their Memorandum dated December 3, 2014.
C. Department of Public Works as stated in their Memorandum dated May 12, 2014.
D. Fire Department as stated in their Inter-Office Memo dated April 3, 2014.

The determination as to whether or not the permittee has substantially complied with the requirements of other County Divisions, Departments and Agencies shall be determined by those Divisions, Departments or Agencies. The inability to substantially comply with the requirements of other County Divisions, Departments and Agencies may result in the need to modify the approved use permit.

4. **VISITATION**

Consistent with Sections 18.16.030 and 18.20.030 of the Napa County Code, marketing and tours and tastings may occur at a winery only where such activities are accessory and "clearly incidental, related, and subordinate to the primary operation of the winery as a production facility." Marketing and/or Tours and Tastings are not typically authorized until grant of the certificate of final occupancy, but exceptions where extenuating circumstances exist and are subject to review and approval by the County Building Official, County Fire Marshal, and the Director of Planning, Building and Environmental Services.

A log book (or similar record) shall be maintained which documents the number of visitors to the winery (be they tours and tastings or marketing event visitors), and the dates of their visit. This record of visitors shall be made available to the Planning, Building and Environmental Services Department upon request.

A. **TOURS AND TASTING**

Tours and tastings are limited to the following:

1. Frequency: 7 days per week, Monday through Sunday
2. Maximum number of persons per day: 75 weekdays (M-F);
3. Maximum number of persons on weekends: 90 (Sat - Sun);
4. Maximum number of persons per week: 555 (70 weekdays; 90 weekends);
5. Hours of operation: 10:00 AM to 6:00 PM; and,
6. All food to be catered utilizing a ±184 sq. ft. small prep/staging area.

"Tours and tastings" means tours of the winery and/or tastings of wine, where such tours and tastings are limited to persons who have made unsolicited prior appointments for tours or tastings. Tours and tastings may include food and wine pairings, where all such food service is provided without charge except to the extent of cost recovery and is incidental to the tasting of wine. Food service may not involve menu options and meal service such that the winery functions as a café or restaurant. (Napa County Code Sections 18.08.370, 18.16.030, 18.08.620, 18.20.030)

Start and finish time of tours and tastings shall be scheduled to minimize vehicles arriving or leaving between 4:00 PM and 6:00 PM, and shall be limited to those wines set forth in Napa County Code *18.16.03(G)(5)(c).*

B. **MARKETING**

Marketing events are limited to the following:

1. Frequency: Four times per year
   Number of persons: 75 maximum
   Time of Day: 10:00 AM – 6:00 PM.

2. Frequency: Four times per year
   Number of persons: 250 maximum
   Time of Day: 10:00 AM – 6:00 PM

3. Frequency: One (1) time per year
   Number of persons: 500 maximum
   Time of Day: 10:00 AM – 6:00 PM.

"Marketing of wine" means any activity of a winery which is conducted at the winery on a prearranged basis for the education and development of customers and potential customers with respect to wine which can be sold at the winery on a retail basis pursuant to Chapters 18.16 and 18.20 of the Napa County Code. Marketing of wine may include cultural and social events directly related to the education and development of customers and potential customers provided such events are clearly incidental, related and subordinate to the primary use of the winery. Marketing of wine may include food service, including food and wine pairings, where all such food service is provided without charge except to the extent of cost recovery.

Business events are similar to cultural and social events, in that they will only be considered as “marketing of wine” if they are directly related to the education and development of customers and potential customers of the winery and are part of a marketing plan approved as part of the winery’s use permit. Marketing plans in their totality must remain “clearly incidental, related and subordinate to the primary operation of the winery as a production facility” (subsection (G) (5) of Sections 18.16.030 and subsection (I) (5) of 18.20.030 of the Napa County Code). To be considered directly related to the education and development of customers or potential customers of the winery, business events must be conducted at no charge except to the extent of recovery of variable costs, and any business content unrelated to wine must be limited. Careful consideration shall be given to the intent of the event, the proportion of the business event’s non-wine-related content, and the intensity of the overall marketing plan. (Napa County Code Sections 18.08.370, 18.16.030, 18.08.620, 18.20.030)

Start and finish time of activities shall be scheduled to minimize vehicles arriving or leaving between 4:00 PM and 6:00 PM. If any event is held which will exceed the available on-site parking, the applicant shall have prepared an event specific parking plan which may include, but not be limited to, valet service or off-site parking and shuttle service to the winery.

5. **GRAPE SOURCE**

At least 75% of the grapes used to make the winery's wine shall be grown within the County of Napa. The permittee shall keep records of annual production documenting the source of grapes to verify that 75% of the annual production is from Napa County grapes. The report shall recognize the Agriculture Commission's format for County of origin of grapes and juice used in the Winery Production Process. The report shall be provided to the Planning, Building & Environmental Services Department upon request, but shall be considered proprietary information not available to the public.

6. **RENTAL/LEASING**

No winery facilities, or portions thereof, including, without limitation, any kitchens, barrel storage areas, or warehousing space, shall be rented, leased, or used by entities other than persons producing and/or storing wine at the on-site winery, such as alternating proprietors and custom producers, except as may be specifically authorized in this use permit or pursuant to the Temporary Events Ordinance (Napa County Code Chapter 5.36).

7. **SIGNS**

Prior to installation of any winery identification or directional signs, detailed plans, including elevations, materials, color, and lighting, shall be submitted to the Planning, Building, and Environmental Services Department for administrative review and approval. Administrative review and approval is not required if signage to be installed is consistent with signage plans submitted, reviewed and approved as part of this use permit approval. All signs shall meet the design standards as set forth in Chapter 18.116 of the Napa County Code. At least one sign placed and sized in a manner to inform the public must legibly include wording stating "Tours and Tasting by Prior Appointment Only".

8. **LIGHTING**

All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, shall be the minimum necessary for security, safety, or operations, and shall incorporate the use of motion detection sensors to the greatest extent practical. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards. Lighting utilized during harvest activities is not subject to this requirement.

Prior to issuance of any building permit pursuant to this approval, two copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with the California Building Code.

9. **LANDSCAPING**

Two (2) copies of a detailed final landscaping and irrigation plan, including parking details, shall be submitted with the Building Permit application package for the Planning Division's review and approval prior to the issuance of any building permit associated with this approval. The plan shall be prepared pursuant to the County's Water Efficient Landscape Ordinance (WELO Napa County Codes Section 18.118) as applicable, and

shall indicate the names and locations of all plant materials to be used along with their method of maintenance.

Plant materials shall be purchased locally when practical. The Agricultural Commissioner's office (707-253-4357) shall be notified of all impending deliveries of live plants with points of origin outside of Napa County.

No trees greater than 6" DBH shall be removed, except for those identified on the submitted site plan. Trees to be retained shall be protected during construction by fencing securely installed at the outer most dripline of the tree or trees. Such fencing shall be maintained throughout the duration of the work undertaken in connection with the winery development/construction. In no case shall construction material, debris or vehicles be stored in the fenced tree protection area.

Evergreen screening shall be installed between the industrial portions of the operation (e.g. tanks, crushing area, parking area, etc.) and any off-site residence from which these areas can be viewed.

Landscaping shall be completed prior to issuance of a certificate of final occupancy, and shall be permanently maintained in accordance with the landscaping plan.

10. **OUTDOOR STORAGE/SCREENING/UTILITIES**

All outdoor storage of winery equipment shall be screened from the view of adjacent properties by a visual barrier consisting of fencing or dense landscaping. No item in storage is to exceed the height of the screening. Water and fuel tanks, and similar structures, shall be screened to the extent practical so as to not be visible from public roads and adjacent parcels.

New utility lines required for this project that are visible from any designated scenic transportation route (see Community Character Element of the General Plan and Chapter 18.106 of the Napa County Code) shall be placed underground or in an equivalent manner be made virtually invisible from the subject roadway.

11. **COLORS**

The colors used for the roof, exterior walls and built landscaping features of the winery shall be limited to earth tones that will blend the facility into the colors of the surrounding site specific vegetation and the applicant shall obtain the written approval of the Planning, Building & Environmental Services Department prior to painting the building. Highly reflective surfaces are prohibited.

12. **SITE IMPROVEMENTS AND ENGINEERING SERVICES-SPECIFIC CONDITIONS**

Please contact (707) 253-4417 with any questions regarding the following.

A. **GRADING AND SPOILS**

All grading and spoils generated by construction of the project facilities, including cave spoils, shall be managed per Engineering Services direction. All spoils piles shall be removed prior to issuance of a certificate of final occupancy.

B. **TRAFFIC**

Reoccurring and scheduled vehicle trips to and from the site for employees, deliveries, and visitors shall not occur during peak (4-6 PM) travel times to the maximum extent possible. All road improvements on private property required per Engineering Services shall be maintained in good working condition and in accordance with the Napa County Roads and Streets Standards.

C. **DUST CONTROL**

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the amount of dust produced. Outdoor construction activities shall not occur during windy periods.

D. **STORM WATER CONTROL**

The permittee shall comply with all construction and post-construction storm water pollution prevention protocols as required by the County Engineering Services Division, and the California Regional Water Quality Control Board (CRWQCB).

E. **PARKING**

The location of employee and visitor parking and truck loading zone areas shall be identified along with proposed circulation and traffic control signage (if any).

Parking shall be limited to approved parking spaces only and shall not occur along access or public roads or in other locations except during harvest activities and approved marketing events. In no case shall parking impede emergency vehicle access or public roads.

F. **GATES/ENTRY STRUCTURES**

Any gate installed at the winery entrance shall be reviewed by the Planning, Building & Environmental Services Department, and the Napa County Fire Department to assure that it is designed to allow large vehicles, such as motorhomes, to turn around if the gate is closed without backing into the public roadway, and that fire suppression access is available at all times. If the gate is part of an entry structure an additional permit shall be required according to the Napa County Code and in accordance with the Napa County Roads and Street Standards. A separate entry structure permit is not required if the entry structure is consistent with entry structure plans submitted, reviewed, and approved as part of this use permit approval.

13. **ENVIRONMENTAL HEALTH-SPECIFIC CONDITIONS**

Please contact (707) 253-4471 with any questions regarding the following.

A. **WELLS**

The permittee may be required (at the permittee's expense) to provide well monitoring data if the Director of Planning, Building and Environmental Services determines that water usage at the winery is affecting, or would potentially affect, groundwater supplies or nearby wells. Data requested could include, but would not necessarily be limited to, water extraction volumes and static well levels. If

the applicant is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project proposed. Water usage shall be minimized by use of best available control technology and best water management conservation practices.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the use permit would significantly affect the groundwater basin, the Director of Planning, Building and Environmental Services shall be authorized to recommend additional reasonable conditions on the permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Groundwater Ordinance (Napa County Code Chapter 13.15) and protect public health, safety, and welfare. That recommendation shall not become final unless and until the Director has provided notice and the opportunity for hearing in compliance with the Napa County Code §13.15.070 (G-K).

B. **NOISE**

Construction noise shall be minimized to the greatest extent practical and allowable under State and local safety laws. Construction equipment mufflering and hours of operation shall be in compliance with Napa County Code Chapter 8.16. Equipment shall be shut down when not in use. Construction equipment shall normally be staged, loaded, and unloaded on the project site. If project terrain or access road conditions require construction equipment to be staged, loaded, or unloaded off the project site (such as on a neighboring road or at the base of a hill), such activities shall only occur between the hours of 8 AM to 5 PM. Exterior winery equipment shall be enclosed or muffled and maintained so as not to create a noise disturbance in accordance with the Napa County Code. There shall be no amplified sound system or amplified music utilized outside of approved, enclosed, winery buildings.

14. **ARCHEOLOGICAL FINDING**

In the event that archeological artifacts or human remains are discovered during construction, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the Planning, Building and Environmental Services Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required.

If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed, so that the coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the nearest tribal relatives as determined by the State Native American Heritage Commission shall be contacted by the permittee to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98.

15. **ADDRESSING**

All project site addresses shall be determined by the Planning, Building and Environmental Services Director, and be reviewed and approved by the United States Post Office, prior to issuance of any building permit. The Director reserves the right to issue or re-issue an appropriate situs address at the time of issuance of any building permit to ensure proper identification and sequencing of numbers. For multi-tenant or multiple structure projects, this includes building permits for later building modifications or tenant improvements.

16. **INDEMNIFICATION**

If an indemnification agreement has not already been signed and submitted, one shall be signed and returned to the County within twenty (20) days of the granting of this approval using the Planning, Building and Environmental Services Department's standard form.

17. **AFFORDABLE HOUSING MITIGATION**

Prior to County issuance of a building permit, the applicant shall pay the Napa County Affordable Housing Mitigation Fee in accordance with the requirements of Napa County Code Chapter 18.107 or as may be amended by the Board of Supervisors.

18. **PREVIOUS CONDITIONS**

As applicable, the permittee shall comply with any previous conditions of approval for the winery use except as they may be explicitly modified by this action. To the extent there is a conflict between previous conditions of approval and these conditions of approval, these conditions shall control.

19**.** **MONITORING COSTS**

All staff costs associated with monitoring compliance with these conditions, previous permit conditions, and project revisions shall be borne by the permittee and/or property owner. Costs associated with conditions and mitigation measures that require monitoring, including investigation of complaints, other than those costs related to investigation of complaints of non-compliance that are determined to be unfounded, shall be charged. Costs shall be as established by resolution of the Board of Supervisors in accordance with the hourly consulting rate established at the time of the monitoring and shall include maintenance of a $500 deposit for construction compliance monitoring that shall be retained until grant of certificate of final occupancy. Violations of conditions of approval or mitigation measures caused by the permittee's contractors, employees, and/or guests are the responsibility of the permittee.

The Planning Commission may implement an audit program if compliance deficiencies are noted. If evidence of compliance deficiencies is found to exist by the Commission at some time in the future, the Commission may institute the program at the applicant's expense (including requiring a deposit of funds in an amount determined by the Commission) as needed until compliance assurance is achieved. The Planning Commission may also use the data, if so warranted, to commence revocation hearings in accordance with §18.124.120 of the Napa County Code.

20. **TEMPORARY AND FINAL OCCUPANCY**

All project improvements, including compliance with applicable codes, conditions, and requirements of all departments and agencies with jurisdiction over the project, shall be completed prior to granting of a certificate of final occupancy by the County Building Official, which, upon granting, authorizes all use permit activities to commence. The County Building Official is authorized to grant a temporary certificate of occupancy to allow specified limited use of the project, such as commencement of production activities, prior to completion of all project improvements. Marketing and/or Tours and Tastings are not typically authorized until grant of certificate of final occupancy, but exceptions where extenuating circumstances exists and are subject to review and approval by the County Building Official, County Fire Marshal, and the Director of Planning, Building and Environmental Services. In special circumstances, departments and/or agencies with jurisdiction over the project are authorized as part of the temporary certificate of occupancy process to require a security deposit or other financial instrument to guarantee completion of unfinished improvements. Consistent with Board of Supervisors Resolution *№* 2010-48, "Temporary Certificates of Occupancy are generally not to be used to allow production of wine for more than one year."

Balcher, Wyntress

From: Norma Tofanelli <keepnvap@sonic.net>
Sent: Thursday, December 04, 2014 1:35 PM
To: McDowell, John
Cc: Balcher, Wyntress; Ellison Folk
Subject: Girard Winery/Clos Pegase

Importance: High

Hi, John,

The new Girard/Clos Pegase winery hearing is scheduled for Planning on December 17.
We received the notice on Saturday, November 29 and the Negative Dec was not available until the day before Thanksgiving.
In other words, not much time to review all the reports and prepare for the hearing.
We, therefore, request a continuance and would like to discuss with you.
Thank you,

Norma

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Norma

COUNTY OF NAPA
PLANNING, BUILDING & ENVIRONMENTAL SERVICES DEPARTMENT
1195 THIRD ST., SUITE 210, NAPA, CA 94559
(707) 253-4416

Initial Study Checklist
(form updated September 2010)

1. **Project Title:** Girard Winery Use Permit P14-00053

2. **Property Owner:** Vintage Wine Estates, 205 Concourse Blvd Santa Rosa, CA 95403; (877) 289-9463

3. **Project Sponsor's Name and Address**: Pat Roney, 205 Concourse Blvd Santa Rosa, CA 95403; (707) 289-9463

4 **Representative**: Heather McCollister, 1512 D Street, Napa, CA 94559, (707) 287-5999; bhmccolli@sbcglobal.net.

5. **County Contact Person, Phone Number and email:** Wyntress Balcher; (707) 299-1351; wyntress.balcher@countyofnapa.org

6. **Project Location and APN:** The project is located on a 25.63 acre parcel on the east side of Dunaweal Lane, approximately 1000 feet south of its intersection with Silverado Trail, within the AP (Agricultural Preserve) Zoning District; 1077 Dunaweal Lane; Calistoga, CA 94515, APN: 020-150-017.

7. **General Plan description:** Agricultural Resource (AR) Designation.

8. **Zoning:** Agricultural Preserve (AP) District.

9. **Background/Project history:** The existing parcel is 26.53 acres in area and includes an existing storage building, three ponds for the wastewater processing system, water well, and associated infrastructure that is currently serving Clos Pegase Winery(200,000 gallons), also owned by the applicant, located at 1060 Dunaweal Lane (APN: 020-150-012), directly across the street. There are currently 12±acres of vineyards planted on the property, but there has been a history of a total of 18 acres of vineyard, of which 6± acres is now fallow. There are no other improvements on the property.

10. **Project Description**: Approval for a Use Permit to establish a new winery as follows:

    A. 200,000 gallons per year production capacity;
    B. Construction of new winery building, totaling 32,771 sq.ft. in area to include: 28,955 sq.ft. production area (crush area, fermentation and barrel storage, restrooms); 3,816 sq.ft of accessory use area (offices, tasting rooms, retail storage, catered food prep area, and visitor restrooms), maximum height 35 ft. with 45 ft. tall cupolas. In addition a 2,628 sq. ft. covered veranda; and a 2,871 sq. ft. covered work area are proposed;
    C. Hosted daily tours and tastings for wine trade personnel and consumers by appointment only for a maximum 75 persons per weekday (Monday-Friday); maximum 90 persons per weekend day (Saturday-Sunday);
    D. Hours of operation: 8:00 AM to 6:00 PM (production hours, except during harvest) and 10:00 AM to 6:00 PM (visitation hours), 7-days a week;
    E. Employment of more than 25 employees: 11 employees (8 full time; 3 part-time) non harvest; during harvest, 19 additional employees (12 full time and 7 part time);
    F. Employee hours: production, 7:00 AM to 3:00 PM; hospitality/ tasting room, 9:30 AM to 6:30 PM; administration, 8:00 AM to 5:00 PM;
    G. Construction of twenty-two (22) parking spaces;
    H. Installation of landscaping, entry gate and a winery sign;
    I. Establish a Marketing Program as follows:
        i. Four (4) events per year with a maximum of 75 guests;
        ii. Four (4) events per year with a maximum of 200 guests;
        iii. One (1) Harvest event per year with a maximum of 500 guests;
        iv. All food to be catered utilizing a ±184 sq. ft. small prep/staging area;

J. On-premise consumption of wines produced on site within the tasting room and in the landscaped winery gardens in accordance with AB 2004;
K. Construct new 24" wide winery access driveway from Dunaweal Lane to the winery;
L. Construction of additional piping and service connections to the existing water system with an update to the existing Transient Non-Community Water System contract to include Girard Winery;
M. Installation of on-site sanitary disposal improvements and installation of connections into the existing on-site winery waste water ponds serving Clos Pegase Winery (APN:020-150-012); and,
N. Installation of 25,000 gallon water storage tank.

11. **Environmental setting and surrounding land uses:**
The 26.53 acre parcel is relatively flat at the 330± elevation. The property has frontage on the east side of Dunaweal Lane, with hills to the east and south with elevations of 550'± and mountains starting to the north along Silverado Trail, reaching the 3,000'± elevation. Currently approximately 12 acres of the 26.53 acres is planted in vineyard. Native vegetation in the area consists of Valley Oak Savanna, with most of the Oaks scattered on the small hills and along the banks of the Napa River. The geology of the land is Quaternary surficial deposits overlain by Holocene alluvium, undifferentiated and the majority of the soils on site are Bale loam (0 to 2 percent slopes), with Cole silt loam (0 to 2% slopes); and Clear lake clay, drained along the most easterly side of the parcel near the base of the hill. The property is located within the Napa River Watershed, located approximately 1200 feet south of the parcel, outside of the 100 year flood hazard zone, but a portion within the 500-year flood hazard zone.

The property is located within an area delineated by the California Department of Fish and Wildlife Natural Diversity Maps as a potential community of the Calistoga Popcornflower, Jepsons's leptosiphon, Baker's navarretia papose tarplant, narrow-anthered brodiaea, and pallid bat.

In addition to the existing 12± acres of vineyards, the parcel is developed with a wastewater processing system with three ponds serving the Clos Pegase Winery located on an adjacent parcel, an agricultural storage building, and water well with associated infrastructure. Clos Pegase Winery is located at 1060 Dunaweal Lane (APN:20-150-012), directly across from the subject parcel. The well on the subject property provides water to the Clos Pegase winery (also owned by the applicant) and also the residence existing on that property, under a Transient Non-Community water system. The Water System Feasibility Report prepared by Always Engineering (dated 2/21/2014) states that the demand from Clos Pegase Winery and the residence are 4.7 acre feet per year (af/yr). The surrounding land uses include vineyards, wineries (Clos Pegase; Sterling Vineyards, Twomey Cellars, Paoletti Estates Winery) and residential development on large parcels. The nearest residence is approximately 400 feet from the winery site. The City of Calistoga waste processing facilities are located approximately 600 feet south of the winery property, on the west side of Dunaweal Lane.

12. **Other agencies whose approval is required** (e.g., permits, financing approval, or participation agreement).
The project would also require various ministerial approvals by the County, including but not limited to building permits, grading permits, and waste disposal permits, in addition to CalFire. Permits may also be required by the Department of Alcoholic Beverage Control and Bureau of Alcohol, Tobacco, & Firearms.

Responsible (R) and Trustee (T) Agencies
None Required.

Other Agencies Contacted
Federal Trade and Taxation Bureau
Department of Alcoholic Beverage Control

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Wyntress Balcher, Planner II
Napa County Planning, Building, and Environmental Services

11/25/2014
Date

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

a-c Visual resources are those physical features that make up the environment, including landforms, geological features, water, trees and other plants, and elements of the human cultural landscape. A scenic vista, then, would be a publicly accessible vantage point such as a road, park, trail, or scenic overlook from which distant or landscape-scale views of a beautiful or otherwise important assembly of visual resources can be taken-in. This area is defined by a mix of vineyards, wineries, residential uses, small tree-covered knolls, and the tall distant mountain vistas. The proposed winery building will settle against the immediate small hills backdrop and will not obstruct the scenic distant hillsides. The project would not result in substantial damage to scenic resources or substantially degrade the visual character or quality of the site and its surroundings since the proposed design of the buildings will utilize earth tones and stone textures, with a low angle roofline, and will include grounding landscaping, all which will complement the mountain views and tree-covered knolls. There are no rock outcroppings visible from the road or other designated scenic resources on the property.

d. The construction of winery uses will result in the installation of additional lighting that may have the potential to impact nighttime views. The installation of new sources of nighttime lights may affect nighttime views. Pursuant to standard Napa County conditions of approval for wineries, outdoor lighting will be required to be shielded and directed downwards, with only low level lighting allowed in parking areas. As designed, and as subject to the standard condition of approval, below, the project will not have a significant impact resulting from new sources of outside lighting.

> *All exterior lighting, including landscape lighting, shall be shielded and directed downward, shall be located as low to the ground as possible, and shall be the minimum necessary for security, safety, or operations and shall incorporate the use of motion detection sensors to the greatest extent practical. No flood-lighting or sodium lighting of the building is permitted, including architectural highlighting and spotting. Low-level lighting shall be utilized in parking areas as opposed to elevated high-intensity light standards. Lighting utilized during harvest activities is not subject to this requirement. Prior to issuance of any building permit for construction of the winery, two (2) copies of a detailed lighting plan showing the location and specifications for all lighting fixtures to be installed on the property shall be submitted for Planning Division review and approval. All lighting shall comply with California Building Code.*

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. **AGRICULTURE AND FOREST RESOURCES.**[1] Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

Discussion:

a. Based on a review of Napa County environmental resource mapping (Department of Conservation Farmlands, 2008 layer), the site is classified as "Prime Farmland". General Plan Agricultural Preservation and Land Use policies AG/LU-2 and AG/LU-13 recognize wineries, and any use consistent with the Winery Definition Ordinance and clearly accessory to a winery, as agriculture. As a result, this application will not result in the conversion of special status farmland to a non-agricultural use.

b. The property is zoned Agricultural Preserve (AP) but is not subject to a Williamson Act contract. Since agricultural activities will continue on the site, there will be no resulting conflict with the zoning within which the subject property is located.

c/d. The project site is zoned AP (Agricultural Preserve), which allows wineries upon grant of a use permit. The project site does not contain woodland or forested areas, and thus would not result in the loss of or conversion of forest lands to a non-forest use.

e. As discussed in item "a.", above, the winery and winery accessory uses are defined as agricultural by the Napa County General Plan and are allowed under the parcels' AP (Agricultural Preserve) zoning. Neither this project, nor any foreseeable consequence thereof, would result in changes to the existing environment which would result in the conversion of special status farmland to a non-agricultural use.

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. **AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

[1] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state Ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion:

a-c. On June 2, 2010, the Bay Area Air Quality Management District's Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). The thresholds were designed to establish the level at which the District believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the Air District's website and included in the Air District's May 2011 updated CEQA Guidelines.

On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the thresholds. However, on August 31, 2013, the Court of Appeals reinstated the Air District's thresholds of significance provided in Table 3-1 (Criteria Air Pollutants & Precursors Screening Levels Sizes) which are applicable for evaluating projects in Napa County.

Over the long term, emission sources for the proposed project will consist primarily of mobile sources including vehicles visiting the site. The Air District's threshold of significance provided in Table 3-1 has determined that similar projects such as a quality restaurant that do not exceed a threshold of 47,000 sq. ft. will not significantly impact air quality and do not require further study (BAAQMD CEQA Guidelines, May 2011 Pages 3-2 & 3-3.). Given the size of the entire project, which is approximately 32,771 sq. ft. of enclosed floor area including about 1,490 sq. ft. of floor area for tasting/hospitality uses compared to the BAAQMD's screening criterion of 47ksf (high quality restaurant) and 541ksf (general light industry) for NO_X (oxides of nitrogen), the project would contribute an insignificant amount of air pollution and would not result in a conflict or obstruction of an air quality plan. (Please note: a high quality restaurant is considered comparable to a winery tasting room for purposes of evaluating air pollutant emissions, but grossly overstates emissions associated with other portions of a winery, such as office, barrel storage and production, which generate fewer vehicle trips. Therefore, a general light industry comparison has also been used for other such uses.)

The proposed project would not conflict with or obstruct the implementation of any applicable air quality plan. Wineries as proposed here are not producers of air pollution in volumes substantial enough to result in an air quality plan conflict. The project site lies within the Napa Valley, which forms one of the climatologically distinct sub-regions (Napa County Sub region) within the San Francisco Bay Area Air Basin. The topographical and meteorological features of the Valley create a relatively high potential for air pollution. Over the long term, emissions resulting from the proposed project would consist primarily of mobile sources, including production-related deliveries and visitor and employee vehicles traveling to and from the winery. The resulting busiest day plus marketing total is well below the threshold of significance. The proposed project would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment under an applicable federal or state Ambient air quality standard.

d. In the short term, potential air quality impacts are most likely to result from earthmoving and construction activities required for project construction. Earthmoving and construction emissions would have a temporary effect; consisting mainly of dust generated during grading and other construction activities, exhaust emissions from construction related equipment and vehicles, and relatively minor emissions from paints and other architectural coatings. The Air District recommends incorporating feasible control measures as a means of addressing construction impacts. If the proposed project adhere to these relevant best management practices identified by the Air District and the County's standard conditions of project approval, construction-related impacts are considered less than significant:

The permittee shall comply during all construction activities with the Bay Area Air Quality Management District Basic Construction Mitigation Measures as provided in Table 8-1, May 2011 Updated CEQA Guidelines.

Furthermore, while earthmoving and construction on the site will generate dust particulates in the short-term, the impact would be less than significant with dust control measures as specified in Napa County's standard condition of approval relating to dust:

Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities on-site to minimize the Amount of dust produced. Outdoor construction activities shall not occur during windy periods.

e. While the Air District defines public exposure to offensive odors as a potentially significant impact, wineries are not known operational producers of pollutants capable of causing substantial negative impacts to sensitive receptors. The closest residence is approximately 160 feet from the southern property line and 400 ft. from the winery building. Construction-phase pollutants will be reduced to a less than significant level by the above-noted standard condition of approval. The project will not create pollutant concentrations or objectionable odors affecting a substantial number of people.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, Coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

a/b. According to the Napa County Environmental Resource Maps (based on the following layers - plants CNPS points & polygons, plant surveys, red legged frog core area and critical habitat, vernal pools & vernal pool species, Spotted Owl Habitat – 1.5 mile buffer and known fish presence and California Department of Fish and Wildlife Natural Diversity Map) the project site is located within an area delineated as a potential community as a potential community of the Calistoga Popcornflower, Jepsons's leptosiphon, Baker's navarretia papose tarplant, narrow-anthered brodiaea, and pallid bat. A Biological Resource Survey by Kjeldsen Biological Consulting, dated July 2014, was prepared to identify any biological resources that may be affected by the proposed project. Field work in the proposed project envelope, the property, and the adjoining environment was conducted during the spring and summer of 2014.

The Biologist's report found that the project footprint is within an agricultural landscape; that the project as proposed will not have any direct impacts to Federal or State protected wetlands as defined by Section 404 of the Clean Water Act; and that the proposed project will not significantly reduce habitat for or have the potential to negatively impact any special-status plans or animals. No sensitive plants, sensitive plant habitat, or special-status plant species were identified on the property or on the project site. The biologist stated that it is unlikely that the proposed project would impact any of the special-status species known for the Quadrangle or the region based upon their fieldwork, the habitat present and historic use within and associated with the project footprint. In addition, the project site has been developed in agriculture for decades.

The biologist observed a juvenile western pond turtle on the bank of one the existing wastewater processing ponds; however, the biologist determined that it is unlikely that turtles would move in the area proposed for the winery site since the disturbed area and vineyard do not provide potential nesting habitat, due to soil compaction and dry ground with no cover or vegetated cover. The biologist stated that the turtles most likely have moved in from the adjacent pond southeast of the property. No raptor activity or nests were observed; no indication of the presence of sensitive natural communities regulated by the California Department of Fish and Wildlife or US Fish and Wildlife was found within or directly associated with the project footprint. The project proposal and associated construction are minimal with no significant grading required. The removal of trees is limited to five non-native walnut trees planted along the road for the access driveway. Furthermore, the footprint of the project will not significantly contribute to habitat loss or habitat fragmentation.

Further, the report indicates that the project would not be expected to impact any off-site biological resources if Best Management Practices are implemented during development of the site. To reduce potential biological impacts by the proposed project to a less than significant level, Best Management Practices including silt and erosion control measures should be implemented to prevent offsite movement of sediment and during and post construction. Standard conditions regarding stomwater control, which will require the incorporation of BMP's during development, is a standard site improvements and engineering services-specific condition that will applied to the project as follows:

> *STORM WATER CONTROL*
> *The permittee shall comply with all construction and post-construction storm water pollution prevention protocols as required by the County Engineering Services Division, and the California Regional Water Quality Control Board (SRWQCB).*

The project would have a less than significant impact on biological resources with implementation of Best Management Practices required by the conditions of approval.

c/d. According to the Biological Survey prepared for the project, there are no wetlands on the property or on neighboring properties that would be affected by this project. Therefore, the project activities will not interfere with the movement of any native resident or migratory fish or wildlife species or with their corridors or nursery sites, because no sensitive natural communities have been identified on the property and the project as proposed would have no impact to biological resources.

e/f. This project would not interfere with any ordinances protecting biological resources. With the exception of the ten introduced trees along the road (where five are proposed for removal), there are no trees on the property. There are no tree preservation ordinances in effect in the County. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans.

Mitigation measure: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines§15064.5?	☐	☐	☐	☒
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion:

a-c. According to the Napa County Environmental Resource Maps (based on the following layers – Historical sites points & lines, Archaeology surveys, sites, sensitive areas, and flags) the property is located within an archaeological resources sensitive area and an archaeological study has been prepared and recorded (April 5, 1978, Archaeological Services). No archaeological or ethnographic sites have been identified on the property and no archaeological sites were found during the surficial survey. Based on the proposed project plans, there would be no impact to cultural resources. However, if resources are found during any earth disturbing activities associated with the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with the following standard condition of approval:

> *"In the event that archeological artifacts or human remains are discovered during any subsequent construction in the project area, work shall cease in a 50-foot radius surrounding the area of discovery. The permittee shall contact the Planning, Building, and Environmental Services Department for further guidance, which will likely include the requirement for the permittee to hire a qualified professional to analyze the artifacts encountered and to determine if additional measures are required. If human remains are encountered during the development, all work in the vicinity must be, by law, halted, and the Napa County Coroner informed so that the Coroner can determine if an investigation of the cause of death is required, and if the remains are of Native American origin. If the remains are of Native American origin, the nearest tribal relatives as determined by the State Native American Heritage Commission would be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity, as required under Public Resources Code Section 5097.98."*

d. No human remains have been encountered on the property and no information has been encountered that would indicate that this project would encounter human remains. However, if resources are found during grading of the project, construction of the project is required to cease, and a qualified archaeologist will be retained to investigate the site in accordance with standard condition of approval noted above.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI.	**GEOLOGY AND SOILS.** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii)	Strong seismic ground shaking?	☐	☐	☒	☐
iii)	Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv)	Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil creating substantial risks to life or property? Expansive soil is defined as soil having an expansive index greater than 20, as determined in accordance with ASTM (American Society of Testing and Materials) D 4829.	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐

Discussion:

a.

i.) There are no known faults on the project site as shown on the most recent Alquist-Priolo Earthquake Fault Zoning Map. As such, the proposed project would result in a less than significant impact with regards to rupturing a known fault.

ii.) All areas of the Bay Area are subject to strong seismic ground shaking. Construction of the project will be required to comply with all the latest building standards and codes, including the California Building Code that would reduce any potential impacts to a less than significant level.

iii.) No subsurface conditions have been identified on the project site that indicated a susceptibility to seismic-related ground failure or liquefaction. Compliance with the latest editions of the California Building Code for seismic stability would result in less than significant impacts.

iv.) According to the Napa County Environmental Resource Maps (Landslides line, polygon, and geology layers) there are no landslide deposits in the proposed development area.

b. The proposed development is minimal and will occur on slopes 0% to 1%. Based upon the Soil Survey of Napa County, prepared by the United States Department of Agriculture (USDA), the soils on site are comprised of Bale loam (0 to 2 percent slopes), with Cole silt loam (0 to 2% slopes); and Clear lake clay, drained. The Bale loams and Cole silt loams are somewhat poorly drained, with a low runoff classification; the Clear Lake clay is poorly drained, but medium runoff classification. The project will require incorporation of best management practices and will be subject to the Napa County Stormwater Ordinance which addresses sediment and erosion control measures and dust control, as applicable.

c/d. According to preliminary geologic mapping of the Calistoga Quadrangle performed by the California Geologic Survey (CGS-2004), the geology of the land is Quaternary surficial deposits overlain by Holocene alluvium, undifferentiated. Based on the Napa County

Environmental Sensitivity Maps (liquefaction layer) the project site has medium susceptibility for liquefaction. Development will be required to comply with all the latest building standards and codes, including the California Building Code that would reduce any potential impacts to the maximum extent possible.

e. The Use Permit Wastewater Feasibility Study prepared for the project by Always Engineering, dated May 5, 2014 indicates that the site evaluation was performed on November 14, 2013 and test pits displayed a sandy clay loam surface soil which ranged from 36" to 56", however at the time of preparation of the study, there had not been sufficient rainfall to perform groundwater monitoring, and therefore made an assumption that a minimum of 24" of suitable soil is available for septic system design. An alternative system (irrigation reuse) is also proposed with this feasibility study to ensure that there will be the required separation to seasonal groundwater. Prior to issuance of building permits, the San Francisco Bay Regional Water Quality Control Board will need to approve the alternative system. If future groundwater monitoring cannot occur in the time schedule appropriate for building permits, or does not provide at least 24 inches of separation to ground water, treatment, irrigation and reuse will be required for the project. In this event, The Division of Environmental Health must grant system approval prior to building permit issuance.

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. **GREENHOUSE GAS EMISSIONS.** Would the project:				
a) Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion:

a/b. Overall increases in Greenhouse Gas (GHG) emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. GHG emissions were found to be significant and unavoidable in that document, despite the adoption of mitigation measures incorporating specific policies and action items into the General Plan.

Consistent with these General Plan action items, Napa County participated in the development of a community-wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency in December 2009, and served as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County.

In 2011, the Bay Area Air Quality Management District (BAAQMD) released California Environmental Quality Act (CEQA) Project Screening Criteria and Significance of Thresholds [1,100 metric tons per year (MT) of carbon dioxide and carbon dioxide equivalents (CO_2e)]. This threshold of significance is appropriate for evaluating projects in Napa County.

During our ongoing planning effort, the County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Plan Policy **CON-65(e)**. (Note: Pursuant to State CEQA Guidelines Section 15183, because this initial study assesses a project that is consistent with an adopted General Plan for which an environmental impact report (EIR) was prepared, it appropriately focuses on impacts which are "peculiar to the project," rather than the cumulative impacts previously assessed.)

The applicant proposes to incorporate GHG reduction methods including but not limited to: alternative fuel and electrical vehicles in fleet; build to CALGREEN Tier 2; new vegetation plantings; VMT reduction plan; energy conserving lighting; connection to an existing recycled water system; water efficient landscaping and shade trees; limiting the amount of grading and tree removal; composting; sustainable purchasing and shipping programs; electrical vehicle charging stations; bicycle incentives; and education of staff and visitors on sustainable practices.

The proposed project has been evaluated against the BAAQMD thresholds and determined that the project would not exceed the 1,100 MT/yr of CO_2e. GHG Emission reductions from local programs and project level actions, such as application of the Cal Green Building Code, tightened vehicle fuel efficiency standards, and more project-specific on-site programs including those winery features noted above would combine to further reduce emissions below BAAQMD thresholds.

The increase in emissions expected as a result of the project will be relatively modest and the project is in compliance with the County's efforts to reduce emissions as described above. For these reasons, project impacts related to GHG emissions are considered less than significant.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wild-land fires, including where wild-lands are adjacent to urbanized areas or where residences are intermixed with wild-lands?	☐	☐	☐	☒

Discussion:

a. The proposed project will not involve the transport of hazardous materials other than those small amounts normally used in winery operations. A Business Plan will be filed with the Environmental Health Division should the amount of hazardous materials reach reportable levels. However, in the event that the proposed use or a future use involves the use, storage or transportation of greater the 55 gallons or 500 pounds of hazardous materials, a use permit and subsequent environmental assessment would be required in accordance with the Napa County Zoning Ordinance prior to the establishment of the use. During construction of the project some hazardous materials, such as building coatings/ adhesives/ etc., will be utilized. However, given the quantities of hazardous materials and the limited duration, they will result in a less-than-significant impact.

b. The project would not result in the release of hazardous materials into the environment.

c. There are no schools located within one-quarter mile from the proposed project site.

d. The proposed site is not included on the Cortese List prepared in compliance with Government Code Section 65962.5.

e. The project site is not located within two miles of any public airport.

f. The project site is not located within the vicinity of any private airports.

g. The proposed project has direct access to and will not cause obstruction of public roads or highways and will therefore not impair the implementation of or physically interfere with an adopted emergency response plan or evacuation plan.

h. The project would not increase exposure of people and/or structures to a significant loss, injury or death involving wild land fires.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or Amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion:

a. The proposed project will not violate any known water quality standards or waste discharge requirements. The project will connect to the existing on-site process wastewater system used by the Clos Pegas Winery and will require the installation of a new sanitary sewage system to serve the winery employees, visitors and events. The "Use Permit Wastewater Feasibility Study" prepared by Always Engineering, Inc. (dated May 5, 2014), has been reviewed by Napa County Division of Environmental Health and recommends approval as conditioned. Additionally, any earth disturbing activities would be subject to the County's Stormwater Ordinance which would include measures to prevent erosion, sediment, and waste materials from entering waterways both during and after any construction activities. Given the County's Best Management Practices, which comply with RWQCB requirements, the project does not have the potential to significantly impact water quality and discharge standards.

b. On January 14, 2014 Governor Jerry Brown declared a drought emergency in the state of California. The declaration stopped short of imposing mandatory conservation measures statewide. Mandatory water restrictions are being left to individual jurisdictions. At this time the County of Napa has not adopted or implemented mandatory water use restrictions. The County requires all Use Permit applicants to complete necessary water analyses in order to document that sufficient water supplies are available for the proposed project. On June 28, 2011 the Board of Supervisors approved creation of a Groundwater Resources Advisory Committee (GRAC). The GRAC's purpose was to assist County staff and

technical consultants with recommendations regarding groundwater, including data collection, monitoring, well pump test protocols, management objectives, and community support. The County completed a county-wide assessment of groundwater resources (Napa County Groundwater Conditions and Groundwater Monitoring Recommendations Report (Feb. 2011)) and developed a groundwater monitoring program (Napa County Groundwater Monitoring Plan 2013 (Jan. 2013)). The County also completed a 2013 Updated Hydrogeologic Conceptualization and Characterization of Groundwater Conditions (Jan. 2013).

In general, recent studies have found that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with a shallow depth to water. Historical trends in the Milliken-Sarco-Tulucay (MST) area, however, have shown increasing depths to groundwater, but recent stabilization in many locations. Groundwater availability, recharge, storage and yield is not consistent across the County. More is known about the resource where historical data have been collected. Less is known in areas with limited data or unknown geology. In order to fill existing data gaps and to provide a better understand of groundwater resources in the County, the Napa County Groundwater Monitoring Plan recommended 18 Areas of Interest (AOIs) for additional groundwater level and water quality monitoring. Through the well owner and public outreach efforts of the (GRAC) approximately 40 new wells have been added to the monitoring program within these areas. Groundwater Sustainability Objectives were developed and recommended by the GRAC. In their recommendations, the Committee reviewed the goal of developing sustainability objectives, provides a definition, and explains the shared responsibility for Groundwater Sustainability. They reiterated the important role monitoring as a means to achieving groundwater sustainability and the principles underlying the sustainability objectives.

Groundwater Sustainability Objectives were also developed by the GRAC and recommended to the Board of Supervisors. In their recommendations, the Committee reviewed the goal of developing sustainability objectives, provides a definition of groundwater sustainability, and explained the shared responsibility for groundwater sustainability. They acknowledged the important role of monitoring as a means to achieving groundwater sustainability and the principles underlying the sustainability objectives. The Groundwater Sustainability Objectives are outlined, along with a Sustainability Objectives Implementation Table which provides additional recommendations on how, metrics of success, timeframes, responsibility, and estimated cost ranges

In 2009 Napa County began a comprehensive study of its groundwater resources to meet identified action items in the County's 2008 General Plan update. The study, by Luhdorff and Scalmanini Consulting Engineers (LSCE), emphasized developing a sound understanding of groundwater conditions and implementing an expanded groundwater monitoring and data management program as a foundation for integrated water resources planning and dissemination of water resources information. The 2011 baseline study by LSCE, which included over 600 wells and data going back over 50 years, concluded that "the groundwater levels in Napa County are stable, except for portions of the MST district". Most wells elsewhere within the Napa Valley floor with a sufficient record indicate that groundwater levels are more affected by climatic conditions, are within historical levels, and seem to recover from dry periods during subsequent wet or normal periods. The LSCE Study also concluded that, on a regional scale, there appear to be no current groundwater quality issues except north of Calistoga (mostly naturally occurring boron and trace metals) and in the Carneros region (mostly salinity). The subject property is located within Napa Valley Floor, Calistoga; where monitoring wells evaluated in the LSCE report indicated no record declining groundwater supplies. The County has no record of problems or complaints of diminished groundwater supplies at the project site or in the general vicinity.

Minimum thresholds for water use have been established by the Napa County Department of Public Works, using reports by the United States Geological Survey (USGS). These reports are the result of water resources investigations performed by the USGS in cooperation with the Napa County Flood Control and Water Conservation District. Any project which reduces water usage or any water usage which is at or below the established threshold is assumed not to have a significant effect on groundwater levels. The project is located on the valley floor in an area that has an established acceptable water use criteria of 1.0 acre foot per acre per year.

Vintage Wine Estates owns and operates the existing "Clos Pegase Water System" located on the subject proposed Girard Winery parcel (APN:020-150-017) located directly across the street (east of the existing winery). The water system is currently regulated as a Transient Non-Community water system. The existing water system consists of: one active onsite well (Well #2), pressure tanks, sediment filer, and softeners on parcel APN: 020-150-017; and a 58,000 gallon storage tank, UV disinfection treatment and potable use for the winery and residence on parcel APN: 020-150-012. Vintage Wine Estates is applying for a use permit to establish a new winery (the proposed Girard Winery) and the "Clos Pegase Water System" is proposed to also serve the new winery using the same water system. The existing water system permit will need to be updated to include additional piping, 25,000 gallon storage tank, and service connections for the proposed Girard Winery, as well as any additional documents which must be updated as a result.

A Water Availability Analysis-Phase One Study was prepared for the 20.39 acre, valley-area, Clos Pegase Winery property (APN:020-150-012), which states that the Allowable Water Allotment for the property is 20.39 acre feet per year (af/yr), determined by multiplying its 20.39 acre size by the one af/yr/acre fair share water use factor.

Clos Pegase Winery is a 200,000 gallon winery, with 10 employees (total 30 employees during harvest) and visitation an average 725 per week. The Clos Pegase Phase I study indicates the existing and proposed use total demand is 9.70 af/yr, specifically:

EXISTING CLOS PEGAS WINERY WATER DEMAND	
	Acre feet/year
Winery Processing	4.30
Employees	
Harvest (30 full-time)	.126
Non Harvest (10 full-time)	.126
Tasting Visitors (725/52 weeks)	.35
Event Visitors (150/24 events/year)	.05
Landscaping	1.00
4 acres Vineyard – Irrigation, frost protection and heat protection	3.00
Residence	.75
TOTAL	9.70

A Water Availability Analysis-Phase One Study was prepared for the 26.53 acre, valley-area, proposed Girard Winery property (APN:020-150-017), which states that the Allowable Water Allotment for the property is 26.53 acre feet per year (af/yr), determined by multiplying its 26.53 acre size by the one af/yr/acre fair share water use factor

The proposed Girard Winery is a 200,000 gallon winery, proposed 10 employees (total 30 during harvest), and maximum 100 visitors, and 9 events with a maximum 500 people. The proposed total demand from the Girard Winery 16.70 af/yr, specifically:

PROPOSED GIRARD WINERY WATER DEMAND	
	Acre feet/year
Winery Processing	4.30
Employees	---
Harvest (12 full time)	.05
Harvest (7 part time)	.015
Non-Harvest (8 full time)	.10
Non-Harvest (3 part time)	.02
Visitors	---
Weekday (75, 4 days/week)	.15
Weekend (100, 3 days/week)	.14
Event (Large – 500 people 1/year)	.01
Event (Medium - 200 people 4/year)	.01
Event (Small – 75 people 4/year)	.01
Landscaping	1.0
14.53 acres Vineyard – Irrigation, frost protection (no heat protection)	10.90
TOTAL	16.70

The water analysis states that the total water demand by the project and the "Clos Pegase Water System" on parcel APN: 020-150-017 would be 26.40 af/yr. The analysis report further indicates that currently, all vineyard irrigation (both parcels) is provided for using the existing irrigation pond located on the property. The existing irrigation pond is filled with rainwater, vineyard subdrain collection water, and treated process wastewater. No well has been used to irrigate the existing vineyards and the existing landscaping. In addition, the proposed Girard Winery will contribute additional process wastewater into the reclaimed wastewater irrigation system.

Therefore, with the removal of vineyard irrigation from the groundwater demand, the total demand from the project on groundwater supplies would be 12.49 af/yr :

Winery & Vineyards Groundwater Demand		Without Vineyard Irrigation Demand
Clos Pegas Winery	9.70 af/yr	5.79 af/yr
Girard Winery	16.69 af/yr	6.70 af/yr
Total Demand	26.39 af/yr	12.49 af/yr

Based on these figures and the associated water reuse system which would eliminate the vineyard irrigation demands, proposed project will not result in a substantial increase the demand of ground water supplies or interfere with groundwater recharge or lowering of the local groundwater level. According to Napa County environmental resource mapping (*Water Deficient Areas/Storage Areas*), the project site is not located within a water deficient area and the County is not aware of, nor has it received any reports of groundwater deficiencies in the area.

c.-e. The proposed project will not substantially alter the drainage pattern on the site nor cause a significant increase in erosion or siltation on or off site. There are no existing or planned stormwater systems that would be affected by this project. The project disturbs more than one acre of land and the permittee will be required to comply with the requirements of the Regional Water Quality Control Board addressing stormwater pollution during construction activities. The project site includes vineyards, landscaping and other pervious areas that have the capacity to absorb runoff.

f. There is nothing included in this proposal that would otherwise substantially degrade water quality. As discussed in greater detail at, "a.," above, the Division of Environmental Health has reviewed the sanitary wastewater proposal and has found the proposed system adequate to meet the facility's septic needs as conditioned. No information has been encountered that would indicate a substantial impact to water quality.

g.-i. The project does not include the placement of new housing on the property. According to Napa County environmental resource mapping (*Floodplain* and *DAM Levee Inundation* layers), the parcel is located outside the 100-year flood zone, but a small portion of the property falls within the 500-year flood zone. The winery site, however, is well outside any area of potential flooding. The project would not impede or redirect flood flows, does not propose any housing or expose structures or people to flooding. The project site is not located within a dam or levee failure inundation zone.

j. In coming years, higher global temperatures are expected to raise sea level by expanding ocean water, melting mountain glaciers and small ice caps, and causing portions of Greenland and the Antarctic ice sheets to melt. The Intergovernmental Panel on Climate Change estimates that the global average sea level will rise between 0.6 and 2 feet over the next century (IPCC, 2007). However, the project area is located at approximately 330-ft. above mean sea level and there is no known history of mud flow in the vicinity. The project will not subject people or structures to a significant risk of inundation from tsunami, seiche, or mudflow.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X.	**LAND USE AND PLANNING.** Would the project:				
	a) Physically divide an established community?	☐	☐	☐	☒
	b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
	c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Discussion:

a-c. The project would not occur within an established community, nor would it result in the division of an established community. The project complies with the Napa County Code and all other applicable regulations. The subject parcel is located in the AP (Agricultural Preserve) zoning district, which allow wineries and uses accessory to wineries subject to use permit approval. The proposed project is in compliance with the physical limitations of the Napa County Zoning Ordinance. The County has adopted the Winery Definition Ordinance (WDO) to protect agriculture and open space and to regulate winery development and expansion in a manner that avoids potential negative environmental effects.

Agricultural Preservation and Land Use Policy AG/LU 1 of the 2008 General Plan states that the County shall, "preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County." The property's General Plan land use designation is AR (Agricultural Resource), which allow "agriculture, processing of agricultural products, and single-family dwellings." More specifically, General Plan Agricultural Preservation and Land Use Policy AG/LU-2 recognizes wineries and other agricultural processing facilities, and any use clearly accessory to those facilities, as agriculture. The project would allow for the continuation of agriculture as a dominant land use within the county and is fully consistent with the Napa County General Plan.

The proposed use of the property for the "fermenting and processing of grape juice into wine" (NCC §18.08.640) supports the economic viability of agriculture within the county consistent with General Plan Agricultural Preservation and Land Use Policy AG/LU-4 ("The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/ open space...") and General Plan Economic Development Policy E-1 (The County's economic development will focus on ensuring the continued viability of agriculture...).

The General Plan includes two complimentary policies requiring wineries to be designed generally of a high architectural quality for the site and its surroundings. The proposed winery will convey the required permanence and improving the buildings overall attractiveness. There are no applicable habitat conservation plans or natural community conservation plans applicable to the property.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a/b. Historically, the two most valuable mineral commodities in Napa County in economic terms have been mercury and mineral water. More recently, building stone and aggregate have become economically valuable. Mines and Mineral Deposits mapping included in the Napa County Baseline Data Report (*Mines and Mineral Deposits*, BDR Figure 2-2) indicates that there are no known mineral resources nor any locally important mineral resource recovery sites located on or near the project site.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project result in:				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c)	A substantial permanent increase in Ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in Ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

a/b. The project will result in a temporary increase in noise levels during the brief construction of the project. Construction activities will be limited to daylight hours using properly muffled vehicles. Noise generated during this time is not anticipated to be significant. The project would not result in potentially significant temporary construction noise impacts or operational impacts. Given the proximity to the neighbors, the closest of whom is located over 400 feet away, there is a relatively low potential for impacts related to construction noise to result in a significant impact. Furthermore, construction activities would generally occur during the period of 7AM-7PM on weekdays, during normal hours of human activity. All construction activities will be conducted in compliance with the Napa County Noise Ordinance (Napa County Code Chapter 8.16). The proposed project will not result in long-term significant construction noise impacts. Conditions of approval would require construction activities to be limited to daylight hours, vehicles to be muffled, and backup alarms adjusted to the lowest allowable levels.

c/d. Noise from winery operations is generally limited; however, the proposed marketing plan could create additional noise impacts. The submitted marketing plan includes a number of events on a weekly, monthly and annual basis, some of which would include up to 500 visitors (1 per year). The Napa County Noise Ordinance, which was adopted in 1984, sets the maximum permissible received sound level for a rural residence as 45 db between the hours of 10 p.m. and 7 a.m. While the 45 db limitation is strict (45 db is roughly equivalent to the sound generated by a quiet conversation), the area surrounding the subject property is developed, with a scattering of homes located in the immediate vicinity and directly adjacent to the site with the nearest residences located about 400 feet to the south of the winery building site. Continuing enforcement of Napa County's Noise Ordinance by the Division of Environmental Health and the Napa County Sheriff, including the prohibition against amplified music, should ensure that marketing events and other winery activities do not create a significant noise impact. Events and non- amplified music are required to finish by 10p.m. every evening.

e/f. The project site is not located within an airport land use plan or within two miles of a public airport or within the vicinity of a private airstrip.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING.** Would the project:				
	a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
	b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
	c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. Staffing for the winery would include a maximum 11 employees 8 full time and three part-time employees. The Association of Bay Area Governments' *Projections 2003* figures indicate that the total population of Napa County is projected to increase some 23% by the year 2030 (*Napa County Baseline Data Report,* November 30, 2005). Additionally, the County's *Baseline Data Report* indicates that total housing units currently programmed in county and municipal housing elements exceed ABAG growth projections by approximately 15%. The eleven positions which are part of this project will most likely lead to some population growth in Napa County. However, relative to the County's projected low to moderate growth rate and overall adequate programmed housing supply, that population growth does not rise to a level of environmental significance. In addition, the project will be subject to the County's housing impact mitigation fee, which provides funding to meet local housing needs.

Cumulative impacts related to population and housing balance were identified in the 2008 General Plan EIR. As set forth in Government Code §65580, the County of Napa must facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community. Similarly, CEQA recognizes the importance of balancing the prevention of environment damage with the provision of a "decent home and satisfying living environment for every Californian." (See Public Resources Code §21000(g).) The 2008 General Plan sets forth the County's long-range plan for meeting regional housing needs, during the present and future housing cycles, while balancing environmental, economic, and fiscal factors and community goals. The policies and programs identified in the General Plan Housing Element function, in combination with the County's housing impact mitigation fee, to ensure adequate cumulative volume and diversity of housing. Cumulative impacts on the local and regional population and housing balance will be less than significant.

b/c. This application will not displace a substantial volume of existing housing or a substantial number of people and will not necessitate the construction of replacement housing elsewhere.

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. **PUBLIC SERVICES.** Would the project result in:				
a) Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Discussion:

a. Public services are currently provided to the project site and the additional demand placed on existing services would be marginal. Fire protection measures are required as part of the development pursuant to Napa County Fire Marshall conditions and there will be no foreseeable impact to emergency response times with the adoption of standard conditions of approval. The Fire Department and Engineering Services Division have reviewed the application and recommend approval as conditioned. School impact mitigation fees, which assist local school districts with capacity building measures, will be levied pursuant to building permit submittal. The proposed project will have little to no impact on public parks. County revenue resulting from any building permit fees, property tax increases, and taxes from the sale of wine will help meet the costs of providing public services to the property. The proposed project will have a less than significant impact on public services.

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. **RECREATION.** Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

a/b. The project would not significantly increase the use of recreational facilities, nor does the project include recreational facilities that may have a significant adverse effect on the environment.

Mitigation Measures: None required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI.	**TRANSPORTATION/TRAFFIC.** Would the project:				
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system and/or conflict with General Plan Policy CIR-16, which seeks to maintain an adequate Level of Service (LOS) at signalized and unsignalized intersections, or reduce the effectiveness of existing transit services or pedestrian/bicycle facilities?	☐	☒	☐	☐
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the Napa County Transportation and Planning Agency for designated roads or highways?	☐	☒	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Conflict with General Plan Policy CIR-23, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	☐	☐	☐	☒
g)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion:

a/b. The subject 26.53 acre parcel is located on the east side of Dunaweal Lane, between State Highway 29 and Silverado Trail. Access to the proposed winery would be from both directions of Dunaweal Lane, via a 24 ft. wide driveway. The intersections with State Highway 29 and Silverado Trail are unsignalized; southbound traffic on State Highway 29 has a left turn lane. There are three existing wineries on Dunaweal Lane: Clos Pegase Winery, Sterling Vineyards, and Twomey Cellars. The project proposes to establish a 200,000 gallon/year winery, and will include office use and hospitality functions. The project proposes 22 on-site parking spaces with 2 loading areas (15 visitor spaces and 7 employee spaces) to serve the facility. The parking area also proposes to include an electric vehicle charging station space and one visitor clean air vehicle space. The proposed maximum daily visitation will be 75 persons; 90 persons on weekends. There will be 25 or greater on-site employees: 8 full-time and 3 part-time, but will increase during harvest to 20 full-time and 10 part-time. Nine (9) marketing events per year are proposed: four (4) events with maximum 75 guests; Four (4) events with a maximum 200 guests; and one (1) harvest event with a maximum 500 guests.

Traffic conditions on roads and at intersections are generally characterized by their "level of service" or LOS. LOS is a convenient way to express the ratio between volume and capacity on a given link or at a given intersection, and is expressed as a letter grade ranging from LOS A through LOS F. Each level of service is generally described as follows:

LOS A- Free-flowing travel with an excellent level of comfort and convenience and freedom to maneuver.
LOS B- Stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
LOS C- Stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
LOS D- High-density, but stable flow. Users experience severe restrictions in speed and freedom to maneuver, with poor levels of comfort and convenience.
LOS E- Operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
LOS F- Forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion. (2000 Highway Capacity Manual, Transportation Research Board)

The "Traffic Impact Study for Vintage Wine Estates Project" prepared by W-Trans (dated October 16, 2014) for the proposed Girard Winery incorporated a focused traffic analysis addressing potential traffic impacts and access needs for the proposed new winery. The report stated that mechanical tube counts were collected for three consecutive days in March 2014 and then intersection counts were taken during the PM. Peak period in September 2014 at the Silverado Trail/Dunaweal Lane and State Route 29/Dunaweal intersections. The volume of traffic ranged from 1,484 vehicles on Thursday to 1,691 vehicles on Saturday. The report concluded that both intersections are currently operating at LOS A or B overall and on all approaches.

The anticipated daily trip generation for the project, winery plus tasting room, is projected at 74 trips during weekdays, including 26 weekday PM peak hour (4:00–6:00 PM) trips and 58 daily trips on weekends with 29 weekend PM peak hour trips. Upon adding project-generated trips to existing volumes, both intersections are expected to continue operating at LOS A or B overall as well as on all approaches. Because the operation will remain acceptable, the impact on traffic is considered less-than-significant.

The report addresses the future projected traffic volumes, using the 2030 and 2010 model volumes from the Solano Transportation Authority growth factor of 1.45 for State Highway 29. This growth factor was applied to turning movements to and from Dunaweal Lane and the remainder of the future increase was added to the volumes for the through movements. Based upon the projected future volumes, the two intersections are expected to operate acceptably overall, though the northbound Dunaweal approach to Silverado Trail is expected to operate at LOS E and the southbound Dunaweal Lane approach to State Route 29 is expected to operate at LOS F at the PM Peak Hour. Under the Napa County General Plan EIR, under projected 2030 volumes, State Route 29 is expected to operate at a LOS F in this project's study area during the PM Peak Hour, and, Silverado Trail is expected to continue operating at LOS C during the PM Peak Hour.

General Plan Policy CIR-16 states that "The County will seek to maintain an arterial Level of Service D or better on all County roadways, except where maintaining this level of service would require the installation of more travel lanes than shown on the Circulation Map." State Highway 29 and Silverado Trail are listed as two-lane Rural Throughways on the General Plan Circulation Map, therefore expansion to a 4-lane throughway is not consistent with the General Plan Policy.

The traffic study proposes a mitigation measure that if the winery operation schedules employee shifts to minimize trips at the intersection during the PM peak periods stating it will reduce project's future potential impacts to the intersections at their most impacted time to a level of insignificance. The incorporation of a mitigation measure to reduce traffic during PM Peak Hour can occur during the 9 events if the finish time of activities is scheduled to minimize vehicles arriving or leaving between 4:00 PM and 6:00 PM, to further reduce potential future traffic impacts to a level of insignificance. Further, the installation of directional signs at the winery exit to direct traffic to right-turn actions, such as southbound traffic from Dunaweal Lane use Silverado Trail, and northbound traffic use State Highway 29, there would be a reduction in the LOS at those intersections, further reducing traffic impacts to a less than significant level.

c. This proposed project would not result in any change to air traffic patterns. The project does not propose the construction of significantly tall structures.

d-e. Access to the proposed winery will be via a 24-ft wide driveway from Dunaweal Lane, onto the site and would meet County Road and Street Standards. The traffic impact study indicates that the calculated collision rate for Dunaweal lane at .090 collision/million vehicle miles (c/mvm) is lower than the statewide average for similar facilities. The project will not require any changes to the existing roadway or introduce incompatible roadway use. The entrance driveway is not adequate to allow on-pavement parking and therefore the driveway will remain open and will not interfere with emergency access. Dunaweal Lane is relatively flat and straight and the sight distances are more than adequate and meet the recommended distance for the posted 45 MPH speed limit. It has been determined that the installation of a left turn pocket into the project is not warranted.

f. General Plan Policy CIR-23 states that new uses shall provide adequate parking to meet their anticipated parking demand and shall not provide excess parking that could stimulate unnecessary vehicle trips or commercial activity exceeding the site's capacity. The project proposes the construction of 22 parking places (15 visitors, 7 employees) and one loading zone. Based upon estimates of 2.6 visitors/vehicle on weekday (20± vehicles) and 2.8 visitors/vehicle on weekends (22± vehicles) the parking demand per day would be satisfied by the 22 parking spaces. The parking demand generated from nine marketing events (179± vehicles at largest event) will exceed the number of parking spaces available in the parking lot. Addition parking in the paved area at the rear of the winery can be utilized during events or shuttling from off-site parking lots. The applicant proposes Best Management Practices to encourage a reduction of vehicle miles traveled with priority parking for efficient transportation and to use bus transportation for large marketing events. The applicant owns the winery property across the street and event guests can be shuttled over from there. No parking will be permitted within the right-of-way of Dunaweal Lane or on the entrance driveway, which is too narrow to accommodate parking.

g. There is no aspect of this proposed project that would conflict with any adopted policies, plans or programs supporting alternative transportation.

Mitigation Measures/Method of Monitoring:

XVI-1 Prior to the final occupancy, the applicant/permittee shall implement the transportation demand management programs:

A. Scheduling of employee work shifts to commence and conclude outside of PM peak periods between 4:00 and 6:00 p.m. weekdays, 2:00 to 4:00 on Saturday; and 1:00 to 3:00PM Sunday.

B. Schedule marketing event set up, arrival and departure to occur outside of weekday and Saturday PM peak traffic periods. Peak periods are between 4:00 and 6:00 p.m. weekdays, 2:00 to 4:00 on Saturday and 1:00PM to 3:00PM on Sunday.

Method of Monitoring: This mitigation measure requires submission of a transportation demand management plan.
RESPONSIBLE AGENCY(IES): Planning, Building and Environmental Services

XVI-2 Prior to final occupancy, the applicant/permittee shall install a directional sign to direct traffic to Silverado Trail for southbound travel and to use State Highway 29 for northbound travel. Such sign shall be submitted for review and approval by the Planning, Building and Environmental Services Department as well as the Public Works Department prior to installation.

Method of Monitoring: This mitigation measure requires the submission and approval of a sign plan and a possible encroachment permit.
RESPONSIBLE AGENCY(IES): Planning, Building and Environmental Services Department; Public Works Department

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI.	**UTILITIES AND SERVICE SYSTEMS.** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b)	Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c)	Require or result in the construction of a new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a. The project will not exceed wastewater treatment requirements of the Regional Water Quality Control Board and will not result in a significant impact.

b. The project will connect to an existing water treatment system, and will not require construction of any new water treatment facilities that will result in a significant impact to the environment. Water will be provided by an existing well. A new sanitary wastewater system will be constructed on site. The system will be designed by a licensed engineer and will be reviewed and approved by the Division of Environmental Health.

c. The project will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, which will cause a significant impact to the environment.

d. As discussed in **Section IX** above, the total County allowable water allotment for the two Clos Pegase Winery property and proposed Girard Winery property (APN: 020-150-017) is 64.92 af/yr. The Phase 1 Study prepared for the combined parcels indicates the existing total water demand from the two wineries, the residence, and the vineyards will be a total 32.68 af/yr. (residence, .75 af/yr; winery,13.4 af/yr; and vineyard,18.53 af/yr), and the existing yield will be sufficient to serve all uses on the property. The existing wastewater processing system will further reduce the water demand.

e. Wastewater will be treated on-site and will not require a wastewater treatment provider.

f. The project will be served by a landfill with sufficient capacity to meet the projects demands. No significant impact will occur from the disposal of solid waste generated by the project.

g. The project will comply with federal, state, and local statutes and regulations related to solid waste.

Mitigation Measures: None required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. **MANDATORY FINDINGS OF SIGNIFICANCE**				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion:

a. The project as proposed will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The project will be located on lands that have been historically developed in agriculture, and there is are existing wastewater ponds and an irrigation reservoir on the property.

b. The project does not have impacts that are individually limited, but cumulatively considerable. Potential air quality, greenhouse gas emissions, hydrology, and traffic impacts are discussed in the respective sections above. The project would also increase the demands for public services to a limited extent, increase traffic and air pollutions, all of which contribute to cumulative effects when future development in Napa Valley is considered. Cumulative impacts of these issues are discussed in previous sections of this Initial Study, wherein the impact from an increase in air pollution is being addressed as discussed in the project's Greenhouse Gas Voluntary Best Management Practices including but not limited to use of alternative fuel and electrical vehicles in their operational fleet; vehicle miles travelled reduction plan through priority parking for efficient transportation; bus transportation for large marketing events; bicycling incentives; and installation of an electrical vehicle charging station. Potential impacts are discussed in the respective sections above. The project trip generation was calculated from winery operations, where the calculated trips reflect total visitation, on-site employees and wine production trips generated by the winery. Under the Napa County General Plan, traffic volumes are projected to increase and will be caused by a combination of locally generated traffic as well as general regional growth. The General Plan EIR indicates that much of the forecasted increase in traffic on the arterial roadway network will result from traffic generated outside of the county, however the project will contribute a small amount toward the general overall increase. The Traffic Impact Study prepared for the project concluded that under future plus project conditions, the overall operation at the State Route 29/Dunaweal Lane intersection for the southbound (Dunaweal) approach is projected to be reduced to a LOS F.

General Plan Policy CIR-16 states that "The County will seek to maintain an arterial Level of Service D or better on all County roadways, except where maintaining this level of service would require the installation of more travel lanes than shown on the Circulation Map." State Highway 29 and Silverado Trail are listed as two-lane Rural Throughways on the General Plan Circulation Map. As discussed above under **Section XVI**

Transportation, implementation of mitigation measures to eliminate the project's additional traffic at the peak hours will serve avoid a deterioration of the level of service on Highway 29 to LOS F at PM Peak Hour, reducing potential cumulative impact to a level of insignificance.

c. There are no environmental effects caused by this project that would result in substantial adverse effects on human beings, whether directly or indirectly. No hazardous conditions resulting from this project have been identified. The project would not have any environmental effects that would result in significant impacts.

Mitigation Measures: None required

GIRARD WINERY

Use Permit P14-00053
APN: 020-150-017

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Monitoring Responsibility	Monitoring/Reporting Action and Schedule	Monitoring Compliance Complete (Name / Date)
Transportation/Traffic (Section XVI)			
XVI-1 Prior to the final occupancy, the applicant/permittee shall implement the following transportation demand management programs: A. Scheduling of employee work shifts to commence and conclude outside of PM peak periods between 4:00 and 6:00 p.m. weekdays, 2:00 to 4:00 on Saturday; and 1:00 to 3:00PM Sunday. B. Schedule marketing event set up, arrival and departure to occur outside of weekday and Saturday PM peak PM traffic periods. Peak periods are between 4:00 and 6:00 p.m. weekdays, 2:00 to 4:00 on Saturday and 1:00PM to 3:00PM on Sunday.	Planning, Building and Environmental Services Department	This mitigation measure requires submission of a transportation demand management plan to Planning, Building and Environmental Services for review and approval prior to building permit certificate of final occupancy.	
XVI-2 Prior to final occupancy, the applicant/permittee shall install a directional sign to direct traffic to Silverado Trail for southbound travel and to use State Highway 29 for northbound travel. Such sign shall be submitted for review and approval by the Planning, Building and Environmental Services Department as well as the Public Works Department prior to installation.	Planning, Building and Environmental Services Department; Department of Public Works,	This mitigation measure requires the submission and approval of a sign plan to Planning, Building and Environmental Services for review and approval, and, if applicable, obtain an encroachment permit from the Public Works Department prior to installation of the sign.	

Phase 1 Water Availability Analysis
12530_Girard Winery
February 18, 2014
Revised: November 25, 2014

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

John McDowell
Deputy Planning Director
Napa County Department of Planning, Building,
and Environmental Services
1195 3rd Street, Room 210
Napa, Ca 94559

Project: Girard Winery
Use Permit Application
Phase 1 Water Availability
APN: 020-150-017 (Girard Winery Use Permit)
APN: 020-150-012 (Clos Pegase Winery)

Dear Mr. McDowell,

This correspondence is provided to clarify and supplement the Phase One Groundwater Water Availability prepared and originally submitted with the Girard Winery Use Permit. As required by the Napa County Department of Public Works, this letter provides the Phase 1 Water Availability Analysis as a supplement to the Girard Winery Use Permit application. The following information is provided to meet this requirement.

SITE PLAN

The Use Permit Site Plan has been provided and is attached. This site plan provides the existing and proposed site conditions for Girard winery. The site consists of existing vineyards, open space, waste water treatment ponds, an agricultural building, and infrastructure. Also provided is a portion of the USGS quad map indicating location of the project parcel and approximate well locations. There is also included two additional site plans; one displaying the existing groundwater supply system components, and one displaying the existing vineyards associated with the two parcels.

PROJECT DESCRIPTION

Girard Winery, located at 1077 Dunaweal Ln, Calistoga, California (APN 020-150-017) is applying for a use permit to construct a new winery on this parcel.

It is proposed to construct a new winery with a production of 200,000 gallons of wine per year. Also includes associated site improvements, tasting room, and hospitality events.

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

On the project parcel, there is an existing well which currently serves the Clos Pegase Winery, which is located across the street at 1060 Dunaweal Lane, Calistoga (APN: 020-150-012). This analysis will take into account both parcels' water use. There is a second well, located on the Clos Pegase parcel. This well was disconnected from the existing public water system, as it did not meet proper seal depth, and is now used for backup irrigation only for the Clos Pegase parcel.

GIRARD ALLOWABLE WATER ALLOTMENT

The proposed parcel is 26.53 acres and located in the valley floor

Parcel acreage	=	26.53 acres
Parcel Location Factor	=	1.0 ac-ft/ac-yr (Valley Floor)
Allowable Water Allotment	=	26.53 ac-ft/yr

Based on Step #2 of the Water Availability Study, the allowable water allotment for the site is 26.53 ac-ft/yr.

GIRARD WATER CONSUMPTION

Presented below, and in the attached spreadsheets, are the calculations used to complete the Phase One Study with the assumed Napa County values.

Girard Vineyard Use

14.53 acres x 0.5 ac-ft/ac-yr (irrigation)	=	7.265 ac-ft/yr
14.53 acres x 0.25 ac-ft/ac-yr (frost protection)	=	3.6325 ac-ft/yr
14.53 acres x 0.0 ac-ft/ac-yr (heat protection)	=	0 ac-ft/yr
Total Vineyard Use	**=**	**10.8975 ac-ft/yr**

The total amount of vineyard water use on the Girard parcel is estimated to be 10.8975 ac-ft/yr using the Napa County Public Works values. It should be noted that this value includes irrigation and frost protection. No heat protection occurs at this site. It should also be noted that all vineyard irrigation is supplied by the irrigation reservoir on the Girard parcel. This pond is filled solely with rainwater, vineyard subdrain water, and treated winery process wastewater. This pond is the sole source of irrigation for all vineyards and landscape on the Girard and Clos Pegase parcels. Vineyard irrigation demand has been included in this analysis to show that the use is below the threshold, should well water be required in an extremely dry year, which has not been needed to date.

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Girard Winery Process Use

Process water demand is estimated using the factors in the Napa County Phase One form.

200,000 gallons wine/yr x 2.15 ac-ft/100,000 gallons wine = 4.3 ac-ft/yr

Additionally, water use data for the existing Clos Pegase and Girard process operations was reviewed for the wastewater feasibility study preparation. In that analysis, it was estimated that approximately 920,000 gallons (2.82 ac-ft/yr) of process water will be required. This number is used as an estimate of treated process wastewater available for irrigation of onsite vineyards and landscape. That volume is subtracted from the parcel demand, as it is not a demand on groundwater resources.

Girard Winery Domestic Use

In the attached spreadsheets, domestic water use for the site has been estimated. This estimate has been prepared using peak and average employee, tasting visitor, and event use numbers for the site. Detailed calculations are shown in the spreadsheets with a summary below:

Employee Use	=	0.184 ac-ft/yr
Tasting Visitor Use	=	0.287 ac-ft/yr
Event Use	=	0.025 ac-ft/yr
Total Domestic Use	=	0.496 ac-ft/yr

A total of 0.496 ac-f/yr is estimated for domestic uses. This value assumes that employees will be onsite 7 days a week and 52 weeks a year. It also assumes maximum tasting room weekday and weekend visitation and therefore is likely conservative in the value generated.

Girard Winery Landscape Use

Because the Phase 1 form includes landscape and domestic uses together, and domestic uses are calculated individually in this report, the Phase 1 form values are used to estimate landscape in this calculation. Girard Winery will have approximately 0.4 acres of additional landscaped area which is primarily to be planted in native plants with low water use. The demand using the Phase 1 values is estimated as follows:

0.5 ac-ft/100,0000 gallons production x 200,000 gallons of production = 1.0 ac-ft/year

To be conservative, we will also evaluate the use of lawn in these areas. To estimate the water demand from lawn, reference evapotranspiration rates from the Angwin Field Stattion of California Irrigation Management Information System (CIMIS). Based on field conditions in Angwin (likely hotter than our site), approximately 2.55 ac-ft/yr is required to irrigate one acre of lawn. Therefore, the demand for Girard winery is estimated as follows:

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

0.4 acres landscape	x	2.55 ac-ft/ac-yr	=	1.02 ac-ft/yr

Therefore, approximately 1.0 to 1.02 ac-ft/year will be required for landscape irrigation.

Total Girard Winery Use

Process Use	=	4.30 ac-ft/yr
Domestic Use	=	0.496 ac-ft/yr
Landscape Use	=	1.02 ac-ft/yr
Total Winery Use	**=**	**5.816 ac-ft/yr**

The total winery water use is estimated to be 5.816 ac-ft/yr.

Total Girard Water Use

The **total estimated water demand** from the project is the sum of the winery use (5.816 ac-ft/yr) and vineyard use (10.8975 ac-ft/yr), and is estimated to be **16.7135 ac-ft/yr.** This is less than the parcel threshold of 26.53 ac-ft per year and represents approximately 63% of the threshold for additional analysis.

CLOS PEGASE ALLOWABLE WATER ALLOTMENT

The existing Clos Pegase Winery parcel (APN 020-150-012) is 20.39 acres and located in the valley floor

Parcel acreage	=	20.39 acres
Parcel Location Factor	=	1.0 ac-ft/ac-yr (Valley Floor)
Allowable Water Allotment	=	20.39 ac-ft/yr

Based on Step #2 of the Water Availability Study, the allowable water allotment for Clos Pegase Winery is 20.39 ac-ft/yr. however, potable water for the site is provided by a well on the Girard Winery parcel and will be reviewed later in this document under the combined analysis. In addition, all of the landscape and vineyard irrigation on the Clos Pegase parcel is provide by the irrigation reservoir on the Girard parcel. That reservoir is filled solely with vineyard subdrain water, rain water, and treated process wastewater and therefore should not present a demand on groundwater.

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

CLOS PEGASE WATER CONSUMPTION

Presented below are the calculations used to complete the Phase One Study with the assumed Napa County values.

Clos Pegase Vineyard Use

4.0 acres x 0.5 ac-ft/ac-yr (irrigation)	=	2.0 ac-ft/yr
4.0 acres x 0.25 ac-ft/ac-yr (frost protection)	=	1.0 ac-ft/yr
4.0 acres x 0 ac-ft/ac-yr (heat protection)	=	0 ac-ft/yr
Total Vineyard Use	**=**	**3.0 ac-ft/yr**

The total amount of vineyard water use on the Clos Pegase parcel is estimated to be 3.0 ac-ft/yr using the Napa County Public Works values. As noted above, this value includes irrigation and frost protection. No heat protection occurs at this site. Also noted aboe is that all vineyard irrigation is supplied by the irrigation reservoir on the Girard parcel. This pond is filled solely with rainwater, vineyard subdrain water, and treated winery process wastewater. This pond is the sole source of irrigation for all vineyards and landscape on the Girard and Clos Pegase parcels. Vineyard irrigation demand has been included in this analysis to show that the use is below the threshold, should well water be required in an extremely dry year, which has not been needed to date.

Clos Pegase Winery Process Use
Process water demand is estimated using the factors in the Napa County Phase One form.

200,000 gallons wine/yr x 2.15 ac-ft/100,000 gallons wine = 4.30 ac-ft/yr

Additionally, water use data for the existing Clos Pegase and Girard process operations was reviewed for the wastewater feasibility study preparation. In that analysis, it was estimated that approximately 920,000 gallons (2.82 ac-ft/yr) of process water will be required. This number is used as an estimate of treated process wastewater available for irrigation of onsite vineyards and landscape. That volume is subtracted from the parcel demand, as it is not a demand on groundwater resources.

Winery Domestic Use

In the attached spreadsheets, domestic water use for the site has been estimated. This estimate has been prepared using peak and average employee, tasting visitor, and event use numbers for the site. Detailed calculations are shown in the spreadsheets with a summary below:

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Employee Use	=	0.251 ac-ft/yr
Tasting Visitor Use	=	0.347 ac-ft/yr
Event Use	=	0.0552 ac-ft/yr
Total Domestic Use	=	0.6537 ac-ft/yr

A total of 0.6537 ac-f/yr is estimated for domestic uses. This value assumes that employees will be onsite 7 days a week and 52 weeks a year. It also assumes maximum tasting room weekday and weekend visitation and therefore is likely conservative in the value generated.

Clos Pegase Winery Landscape Use

Because the Phase 1 form includes landscape and domestic uses together, and domestic uses are calculated individually in this report, the Phase 1 form values are used to estimate landscape in this calculation. Clos Pegase Winery has approximately 0.6 acres of landscaped area, much of which is lawn. The demand using the Phase 1 values is estimated as follows:

0.5 ac-ft/100,0000 gallons production x 200,000 gallons of production = 1.0 ac-ft/year

To be conservative, we will also evaluate the use of lawn in these areas. To estimate the water demand from lawn, reference evapotranspiration rates from the Angwin Field Stattion of California Irrigation Management Information System (CIMIS). Based on field conditions in Angwin (likely hotter than our site), approximately 2.55 ac-ft/yr is required to irrigate one acre of lawn. Therefore, the demand for Girard winery is estimated as follows:

0.6 acres landscape	x	2.55 ac-ft/ac-yr	=	1.53 ac-ft/yr

Therefore, approximately 1.0 to 1.53 ac-ft/year will be required for landscape irrigation at Clos Pegase Winery.

Total Clos Pegase Winery Use

Process Use	=	4.30 ac-ft/yr
Domestic Use	=	0.6537 ac-ft/yr
Landscape Use	=	1.53 ac-ft/yr
Total Winery Use	=	**6.4837 ac-ft/yr**

The total winery water use is estimated to be 6.4837 ac-ft/yr.

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Clos Pegase Residential Use

Primary Residence x 0.75 ac-ft/yr = 0.75 ac-ft/yr

Total Clos Pegase Water Use

The total estimated water demand from the project is the sum of the winery use (6.48 ac-ft/yr), vineyard use (3.0 ac-ft/yr), and residence use (0.75 ac-ft/yr) and is estimated to be 10.234 ac-ft/yr. This value is approximately 50% of the parcel's threshold.

COMBINED ALLOWABLE WATER ALLOTMENT

The combined acreage of the parcel is 46.92 acres and located in the valley floor. Combined allowable threshold is calculated as follows:

Parcel acreage	=	46.92 acres
Parcel Location Factor	=	1.0 ac-ft/ac-yr (Valley Floor)
Allowable Water Allotment	=	46.92 ac-ft/yr

Based on Step #2 of the Water Availability Study, the allowable water allotment for the combined parcels is 46.92 ac-ft/yr.

COMBINED WATER CONSUMPTION/DEMAND

Presented below is a summary of the demands estimated in previous sections of this report and used to complete the Phase One Study.

Girard Winery Total Demand	=	16.7135 ac-ft/yr
Clos Pegase Winery Total Demand	=	10.234 ac-ft/yr.
Total Combined Water Demand	=	26.9475 ac-ft/yr.

However, this number does not take into account the use of treated process wastewater for irrigation of vineyard and landscape on both parcels, nor does it account for all irrigation being provided by sources other than groundwater. To adjust the total demand on groundwater and present a more accurate look at actual groundwater use, we will provide 3 scenarios; 1) one where treated process wastewater is subtracted from the total demand, and 2) a second where all vineyard irrigation is removed from the demand, and 3) a third where vineyard and landscape irrigation are removed from demand.

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Total Combined Water Use Subtracting Treated Wastewater Reuse (Scenario 1)

Total Combined Water Demand	=	26.9475 ac-ft/yr.
Treated Process Wastewater Reuse	=	5.64 ac-ft/yr.
Adjusted Combined Water Demand	=	21.3 ac-ft/yr.

Total Combined Water Use Subtracting Vineyard Irrigation (Scenario 2)

Total Combined Water Demand	=	26.9475 ac-ft/yr.
Treated Process Wastewater Reuse	=	13.8975 ac-ft/yr.
Adjusted Combined Water Demand	=	13.05 ac-ft/yr.

Total Combined Water Use Subtracting Vineyard and Landscape Irrigation (Scenario 3)

Total Combined Water Demand	=	26.9475 ac-ft/yr.
Treated Process Wastewater Reuse	=	16.4475 ac-ft/yr.
Adjusted Combined Water Demand	=	10.50 ac-ft/yr.

A summary of these demands is presented in a comparison table in the summary and conclusions below.

EXISTING WATER SUPPLY SYSTEM

The existing potable water system consists of the onsite well and treatment (parcel 017) which also serves Clos Pegase Winery, under the same ownership across Duvaweal Ln. There is a storage tank on the Clos Pegase parcel. A new tank will be provided for Girard Winery. Each property also has an existing supplemental irrigation well, which are not currently used.

CURRENT GROUNDWATER CONDITIONS

The report titled, *Napa County Groundwater Conditions and Groundwater Monitoring Recommendations,* dated February 2011 by Luhdorf & Scalmanini Consulting Engineers was obtained and reviewed in light of current groundwater conditions, specifically in the project vicinity. Appendix A of the report provides groundwater hydrographs showing historical groundwater depth for the wells on record. Copies of the groundwater depth graphs for the Calistoga area has been attached to this report. With the exception of the late 1970s (historical drought) and few well readings circa 2004, groundwater elevations in the Calistoga area are typically between 5 and 20 feet below existing grade. The existing well for the site had static water levels at approximately 25 feet deep in June of 1991. This is deeper than the wells on record, but should be assumed to be consistent with the groundwater table in the area. Therefore, sufficient supply appears to be available. There is no record of a depleted groundwater table in the project vicinity.

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SUMMARY AND CONCLUSIONS

As presented above, the overall water use for the proposed Girard Winery and existing Clos Pegase Winery is expected to be 10.50 ac-ft/yr combined, which presents approximately 48% of the Girard parcel allotment, and 22% of the allotment for both parcels combined. Therefore, the Phase 1 study should be sufficient to satisfy the requirements of the Public Works Department.

PARCEL	ALLOTMENT (AC-FT/YR)	DEMAND (AC-FT/YR) (without irrigation)	DEMAND (AC-FT/YR) (without vineyard irrigation)	DEMAND (AC-FT/YR) (includes vineyards and subtracts wastewater reuse)	IS DEMAND GREATER THAN ALLOTMENT?
GIRARD WINERY APN: 020-150-017	26.53	4.80	5.82	13.89	NO
CLOS PEGASE WINERY APN: 020-150-012	20.39	0	0	0	NO
COMBINED APN: 020-150-017 & 020-150-012	46.92	10.50	13.05	21.30	NO

It should be reiterated that all of the vineyard and landscape irrigation needs will be met by reusing treated process waste effluent from the wastewater pond system as well as the collection of vineyard subdrain water and rain water in the irrigation reservoir. This analysis has included irrigation of vineyards from a groundwater source, should that be required in the future, to show that the combined uses are still below the threshold for the Girard Winery parcel. If parcel threshold ever becomes an issue in the future, a second supply well, located on the Close Peagse parcel could be used to provide irrigation and potable water for that site, which would then lessen the demands on the Girard parcel.

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In summary, this project should not pose a burden to groundwater supplies and should be approved for the following reasons:

- The Girard Winery project does not exceed the groundwater threshold for the parcel it is proposed on.
- The combined Girard Winery and Close Pegase Winery projects do not exceed the groundwater threshold for the Girard parcel and substantially below the combined threshold of both parcels.

If there are questions regarding that presented, please feel free to contact me.

Sincerely,

Ben Monroe, P.E.
Always Engineering, Inc.

cc: Heather McCollister

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Napa, CA 94559-3092
www.co.napa.ca.us/publicworks

Main: (707) 253-4351
Fax: (707) 253-4627

Donald G. Ridenhour, P.E.
Director

WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY

Introduction: As an applicant for a permit with Napa County, It has been determined that Chapter 13.15 of the Napa County Code is applicable to approval of your permit. One step of the permit process is to adequately evaluate the amount of water your project will use and the potential impact your application might have on the static groundwater levels within your neighborhood. The public works department requires that a Phase 1 Water Availability Analysis (WAA) be included with your application. The purpose of this form is to assist you in the preparation of this analysis. You may present the analysis in an alternative form so long as it substantially includes the information required below. Please include any calculations you may have to support your estimates.

The reason for the WAA is for you, the applicant, to inform us, to the best of your ability, what changes in water use will occur on your property as a result of an approval of your permit application. By examining the attached guidelines and filling in the blanks, you will provide the information we require to evaluate potential impacts to static water levels of neighboring wells.

Step #1:

Provide a map and site plan of your parcel(s). The map should be an 8-1/2"x11" reproduction of a USGS quad sheet (1:24,000 scale) with your parcel outlined on the map. Include on the map the nearest neighboring well. The site plan should be an 8-1/2"x11" site plan of your parcel(s) with the locations of all structures, gardens, vineyards, etc in which well water will be used. If more than one water source is available, indicate the interconnecting piping from the subject well to the areas of use. Attach these two sheets to your application. If multiple parcels are involved, clearly show the parcels from which the fair share calculation will be based and properly identify the assessor's parcel numbers for these parcels. Identify all existing or proposed wells

Step #2: Determine total parcel acreage and water allotment factor. If your project spans multiple parcels, please fill a separate form for each parcel.

Determine the allowable water allotment for your parcels:

Parcel Location Factors

The allowable allotment of water is based on the location of your parcel. There are 3 different location classifications. Valley floor areas include all locations that are within the Napa Valley, Pope Valley and Carneros Region, except for areas specified as groundwater deficient areas. Groundwater deficient areas are areas that have been determined by the public works department as having a history of problems with groundwater. All other areas are classified as Mountain Areas.

Please underline your location classification below (Public Works can assist you in determining your classification if necessary):

Valley Floor	**1.0 acre feet per acre per year**
Mountain Areas	**0.5 acre feet per acre per year**
MST Groundwater Deficient Area	**0.3 acre feet per acre per year**

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-150-017 (GIRARD WINERY)	26.53	1.0 ac-ft/ac-yr	26.53 ac-ft/yr

Step #3:

Using the guidelines in Attachment A, tabulate the existing and projected future water usage on the parcel(s) in acre-feet per year (af/yr). Transfer the information from the guidelines to the table below.

EXISTING USE:		PROPOSED USE:	
Residential	0 af/yr	Residential	0 af/yr
Farm Labor Dwelling	0 af/yr	Farm Labor Dwelling	0 af/yr
Winery	0 af/yr	Winery	4.796 af/yr
Commercial	0 af/yr	Commercial	0 f/yr
Vineyard*	0 af/yr	Vineyard*	0 af/yr
Other Agriculture	0 af/yr	Other Agriculture	af/yr
Landscaping	0 af/yr	Landscaping	0 af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr

TOTAL: 0 af/yr
0 gallons**

TOTAL: 0.4796 af/yr TOTAL:
TOTAL: 156,278 gallons**

Is the proposed use less than the existing usage? ☐ Yes ☒ No ☐ Equal

Step #4:

Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses, the usage if other water sources such as city water or reservoirs, the timing of the development, etc. Use additional sheets if necessary. See attached report.

Conclusion: Congratulations! Just sign the form and you are done! Public works staff will now compare your projected future water usage with a threshold of use as determined for your parcel(s) size, location, topography, rainfall, soil types, historical water data for your area, and other hydrogeologic information. They will use the above information to evaluate if your proposed project will have a detrimental effect on groundwater levels and/or neighboring well levels. Should that evaluation result in a determination that your project may adversely impact neighboring water levels, a phase two water analysis may be required. You will be advised of such a decision.

Signature: _____ Date: 11/25/14 Phone: 707-542-8795 x17

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Fax: (707) 253-4627

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Step #2: Determine total parcel acreage and water allotment factor. If your project spans multiple parcels, please fill a separate form for each parcel.

Determine the allowable water allotment for your parcels:

Parcel Location Factors

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Please underline your location classification below (Public Works can assist you in determining your classification if necessary):

Valley Floor	**1.0 acre feet per acre per year**
Mountain Areas	**0.5 acre feet per acre per year**
MST Groundwater Deficient Area	**0.3 acre feet per acre per year**

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-150-012 (CLOS PEGASE)	20.39	1.0 ac-ft/ac-yr	20.39 ac-ft/yr.

Step #3:

Using the guidelines in Attachment A, tabulate the existing and projected future water usage on the parcel(s) in acre-feet per year (af/yr). Transfer the information from the guidelines to the table below.

EXISTING USE:		PROPOSED USE:	
Residential	0.75 af/yr	Residential	0.75 af/yr
Farm Labor Dwelling	0 af/yr	Farm Labor Dwelling	0 af/yr
Winery	4.95 af/yr	Winery	4.95 af/yr
Commercial	0 af/yr	Commercial	0 f/yr
Vineyard*	0 af/yr	Vineyard*	0 af/yr
Other Agriculture	0 af/yr	Other Agriculture	0 af/yr
Landscaping	0 af/yr	Landscaping	0 af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
TOTAL:	5.7 af/yr	TOTAL:	5.7 af/yr TOTAL:
	1,857,351 gallons**	TOTAL:	1,857,351 gallons**

Is the proposed use less than the existing usage? ☐ Yes ☐ No ☒ Equal

Step #4:

Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses, the usage if other water sources such as city water or reservoirs, the timing of the development, etc. Use additional sheets if necessary. See Attached Report.

Conclusion: Congratulations! Just sign the form and you are done! Public works staff will now compare your projected future water usage with a threshold of use as determined for your parcel(s) size, location, topography, rainfall, soil types, historical water data for your area, and other hydrogeologic information. They will use the above information to evaluate if your proposed project will have a detrimental effect on groundwater levels and/or neighboring well levels. Should that evaluation result in a determination that your project may adversely impact neighboring water levels, a phase two water analysis may be required. You will be advised of such a decision.

Signature: _____ **Date:** 6/25/14 **Phone:** 707-542-8795 x17

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Step #2: Determine total parcel acreage and water allotment factor. If your project spans multiple parcels, please fill a separate form for each parcel.

Determine the allowable water allotment for your parcels:

Parcel Location Factors

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Please underline your location classification below (Public Works can assist you in determining your classification if necessary):

Valley Floor	**1.0 acre feet per acre per year**
Mountain Areas	**0.5 acre feet per acre per year**
MST Groundwater Deficient Area	**0.3 acre feet per acre per year**

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-150-017 & 020-150-012	46.92	1.0 ac-ft/ac-yr.	46.92 ac-ft/yr

Step #3:

Using the guidelines in Attachment A, tabulate the existing and projected future water usage on the parcel(s) in acre-feet per year (af/yr). Transfer the information from the guidelines to the table below.

EXISTING USE:		PROPOSED USE:	
Residential	0.75 af/yr	Residential	0.75 af/yr
Farm Labor Dwelling	0 af/yr	Farm Labor Dwelling	0 af/yr
Winery	4.95 af/yr	Winery	9.746 af/yr
Commercial	0 af/yr	Commercial	0 f/yr
Vineyard*	0 af/yr	Vineyard*	0 af/yr
Other Agriculture	0 af/yr	Other Agriculture	0 af/yr
Landscaping	0 af/yr	Landscaping	0 af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
TOTAL:	5.7 af/yr 1,857,351 gallons**	**TOTAL:** **TOTAL:**	10.50 af/yr **TOTAL:** 3,421,436 gallons**

Is the proposed use less than the existing usage? ☐ **Yes** ☒ **No** ☐ **Equal**

Step #4:

Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses, the usage if other water sources such as city water or reservoirs, the timing of the development, etc. Use additional sheets if necessary. See attached report for explanation of calculations.

Conclusion: Congratulations! Just sign the form and you are done! Public works staff will now compare your projected future water usage with a threshold of use as determined for your parcel(s) size, location, topography, rainfall, soil types, historical water data for your area, and other hydrogeologic information. They will use the above information to evaluate if your proposed project will have a detrimental effect on groundwater levels and/or neighboring well levels. Should that evaluation result in a determination that your project may adversely impact neighboring water levels, a phase two water analysis may be required. You will be advised of such a decision.

Signature: _____ **Date:** 11/25/14 **Phone:** 707-542-8915 x17

PHASE ONE WATER AVAILABILITY
GIRARD WINERY USE PERMIT

11/24/2014

ALLOTMENT

GIRARD WINERY (APN 020-150-017)			
PARCEL SIZE	26.53	ACRES	
PARCEL LOCATION FACTOR	1	AC-FT/AC-YR	(VALLEY FLOOR)
ALLOWABLE WATER ALLOTMENT	**26.53**	**AC-FT/YR**	

CLOS PEGASE WINERY (APN 020-150-012)			
PARCEL SIZE	20.39	ACRES	
PARCEL LOCATION FACTOR	1	AC-FT/AC-YR	(VALLEY FLOOR)
ALLOWABLE WATER ALLOTMENT	**20.39**	**AC-FT/YR**	

DEMAND

GIRARD WINERY (APN 020-150-017)	
USE	DEMAND (AC-FT/YR.)
VINEYARD	10.8975
WINERY PROCESS USE	4.3000
DOMESTIC USE	0.4961
LANDSCAPE	1.0200
RESIDENCE	0.0000
TOTAL CALCULATED DEMAND (NO DEDUCTIONS)	16.7136
TREATED PROCESS WASTEWATER REUSE[1]	2.8200
TOTAL DEMAND (WASTEWATER REUSE ACCOUNTED)	13.8936
TOTAL ACUTAL DEMAND (NO VINEYARD IRRIGATION)[2]	5.8161

CLOS PEGASE WINERY (APN 020-150-012)	
USE	DEMAND (AC-FT/YR.)
VINEYARD	3.0000
WINERY PROCESS USE	4.3000
DOMESTIC USE	0.6537
LANDSCAPE	1.5300
RESIDENCE	0.7500
TOTAL CALCULATED DEMAND (NO DEDUCTIONS)	10.2337
TREATED PROCESS WASTEWATER REUSE[1]	2.8200
TOTAL DEMAND (WASTEWATER REUSE ACCOUNTED)	7.4137
TOTAL ACUTAL DEMAND (NO VINEYARD IRRIGATION)[2]	7.2337

1. See aditional notes on process use calculations sheet regarding process wastewater generation and irrigation reuse on the estate vineyard and landscape.

2. In the actual demand, vineyard irrigation has been omitted. Currently, all vineyard irrigation is provided for using the existing irrigation pond. The existing irrigation pond is filled with rainwater, vineyard subdrain collection water, and treated process wastewater. No well has been used to irrigate the existing vineyards and landscape at the site.

PHASE ONE WATER AVAILABILITY - DEMAND/ALLOTMENT SUMMARY (WITH VINEYARD IRRIGATION)

PARCEL	ALLOTMENT (AC-FT/YR)	DEMAND ON GIRARD PARCEL (AC-FT/YR)	DEMAND ON CLOS PEGASE PARCEL (AC-FT/YR)
GIRARD WINERY (APN: 020-150-017)	26.53	13.8936	0.0000
CLOS PEGASE WINERY (020-150-012)	20.39	7.4137	0.0000
COMBINED (APN: 020-150-018 & 020-150-012)	46.92	21.3073	0.0000

PHASE ONE WATER AVAILABILITY - DEMAND/ALLOTMENT SUMMARY (WITHOUT VINEYARD IRRIGATION)

PARCEL	ALLOTMENT (AC-FT/YR)	DEMAND ON GIRARD PARCEL (AC-FT/YR)	DEMAND ON CLOS PEGASE PARCEL (AC-FT/YR)
GIRARD WINERY (APN: 020-150-017)	26.53	5.8161	0.0000
CLOS PEGASE WINERY (020-150-012)	20.39	7.2337	0.0000
COMBINED (APN: 020-150-018 & 020-150-012)	46.92	13.0498	0.0000

GIRARD WINERY
DOMESTIC WATER USE

EVENTS

EVENT SIZE	# OF EVENT VISITORS	FLOW PER VISITOR	DAYS PER YEAR OCURRED	WATER USE PER YEAR (GAL/YEAR)	WATER USE PER YEAR (AC-FT/YR)
LARGE	500	5	1	2,500	0.0077
MEDIUM	200	5	4	4,000	0.0123
SMALL	75	5	4	1,500	0.0046
			SUTOTAL	8,000	0.0246

TASTING VISITORS

DAY	# OF EVENT VISITORS	FLOW PER VISITOR	DAYS PER WEEK	WEEKS PER YEAR	WATER USE PER YEAR (GAL/YEAR)	WATER USE PER YEAR (AC-FT/YR)
WEEKDAY	75	3	4	52	46,800	0.1436
WEEKEND	100	3	3	52	46,800	0.1436
				SUTOTAL	93,600	0.2872

EMPLOYEES

TIME PERIOD	# OF EMPLOYEES	FLOW PER EMPLOYEE	DAYS PER WEEK	WEEKS PER YEAR	WATER USE PER YEAR (GAL/YEAR)	WATER USE PER YEAR (AC-FT/YR)
HARVEST FULL-TIME)	12	15	7	13	16,380	0.0503
HARVEST (PART-TIME)	7	7.5	7	13	4,778	0.0147
NON-HARVEST (FULL-TIME)	8	15	7	39	32,760	0.1005
NON-HARVEST (PART-TIME)	3	7.5	7	39	6,143	0.0189
				SUTOTAL	60,060	0.1843

GIRARD DOMESTIC TOTAL	**161,660**	**0.4961**

CLOS PEGASE WINERY
DOMESTIC WATER USE

EVENTS

EVENT SIZE	# OF EVENT VISITORS	FLOW PER VISITOR	DAYS PER YEAR OCURRED	WATER USE PER YEAR (GAL/YEAR)	(AC-FT/YR)
AVERAGE	150	5	24	18,000	0.0552
			SUTOTAL	18,000	0.0552

TASTING VISITORS

DAY	# OF EVENT VISITORS	FLOW PER VISITOR	WEEKS PER YEAR	WATER USE PER YEAR (GAL/YEAR)	(AC-FT/YR)
PEAK WEEK	725	3	52	113,100	0.3471
			SUTOTAL	113,100	0.3471

EMPLOYEES

TIME PERIOD	# OF EMPLOYEES	FLOW PER EMPLOYEE	DAYS PER WEEK	WEEKS PER YEAR	WATER USE PER YEAR (GAL/YEAR)	(AC-FT/YR)
HARVEST FULL-TIME)	30	15	7	13	40,950	0.1257
HARVEST (PART-TIME)	0	7.5	7	13	0	0.0000
NON-HARVEST (FULL-TIME)	10	15	7	39	40,950	0.1257
NON-HARVEST (PART-TIME)	0	7.5	7	39	0	0.0000
				SUTOTAL	81,900	0.2513

CLOS PEGASE DOMESTIC TOTAL	**213,000**	**0.6537**

PHASE ONE WATER AVAILABILITY
GIRARD WINERY USE PERMIT
11/24/2014

VINEYARD IRRIGATION DEMAND

GIRARD WINERY PARCEL (APN: 020-150-017)

ACRES OF VINEYARD	=	14.53	ACRES	
IRRIGATION	=	7.265	AC-FT/YR	
FROST PROTECTION	=	3.6325	AC-FT/YR	
HEAT PROTECTION	=	0	AC-FT/YR	(NONE OCCURS ONSITE)
VINEYARD TOTAL		**10.8975**	**AC-T/YEAR**	

CLOS PEGASE WINERY PARCEL (APN: 020-150-012)

ACRES OF VINEYARD	=	4	ACRES
IRRIGATION	=	2	AC-FT/YR
FROST PROTECTION	=	1	AC-FT/YR
HEAT PROTECTION	=	0	AC-FT/YR
VINEYARD TOTAL		**3**	**AC-FT/YR**

TOTAL COMBINED VINEAYRD DEMAND 13.8975 AC-FT/YR

PHASE ONE WATER AVAILABILITY
GIRARD WINERY USE PERMIT
11/24/2014

VINEYARD IRRIGATION DEMAND

GIRARD WINERY PARCEL (APN: 020-150-017)

ACRES OF VINEYARD	=	14.53	ACRES	
IRRIGATION	=	7.265	AC-FT/YR	
FROST PROTECTION	=	3.6325	AC-FT/YR	
HEAT PROTECTION	=	0	AC-FT/YR	(NONE OCCURS ONSITE)
VINEYARD TOTAL		**10.8975**	**AC-T/YEAR**	

CLOS PEGASE WINERY PARCEL (APN: 020-150-012)

ACRES OF VINEYARD	=	4	ACRES
IRRIGATION	=	2	AC-FT/YR
FROST PROTECTION	=	1	AC-FT/YR
HEAT PROTECTION	=	0	AC-FT/YR
VINEYARD TOTAL		**3**	**AC-FT/YR**

TOTAL COMBINED VINEAYRD DEMAND 13.8975 AC-FT/YR

PHASE ONE WATER AVAILABILITY
GIRARD WINERY USE PERMIT
11/24/2014

WINERY PROCESSING
WATER USE

GIRARD WINERY				
PRODUCTION	=	200,000	GALLONS WINE PER YEAR	
PHASE 1 WAA WATER USE RATE	=	2.15	AC-FT/YR PER 100,000 GALLONS WINE PRODUCED	
PHASE 1 WAA PROCESS USE	**=**	**4.3**	**AC-FT/YEAR**	
PROJECTED PROCESS USE	=	2.82	AC-FT/YR.	(BASED ON WATER USE AT EXISTING GIRARD OPERATION)
				(NUMBER CONSISTENT WITH WASTEWATER FEASIBLITY STUDY)

CLOS PEGASE WINERY				
PRODUCTION	=	200,000	GALLONS WINE PER YEAR	
PHASE 1 WAA WATER USE RATE	=	2.15	AC-FT/YR PER 100,000 GALLONS WINE PRODUCED	
PHASE 1 WAA PROCESS USE	**=**	**4.3**	**AC-FT/YEAR**	
PROJECTED PROCESS USE	=	2.82	AC-FT/YR.	(BASED ON WATER USE AT EXISTING GIRARD OPERATION)
				(NUMBER CONSISTENT WITH WASTEWATER FEASIBLITY STUDY)

PHASE ONE WATER AVAILABILITY
GIRARD WINERY USE PERMIT
11/24/2014

LANDSCAPE WATER USE - PHASE ONE WATER AVAILABILITY METHOD

GIRARD WINERY			
PRODUCTION	=	200,000	GALLONS WINE PER YEAR
PHASE 1 WAA WATER USE RATE[1]	=	0.5	AC-FT/YR PER 100,000 GALLONS WINE PRODUCED
PHASE 1 WAA LANDSCAPE USE	**=**	**1**	**AC-FT/YEAR**

CLOS PEGASE WINERY			
PRODUCTION	=	200,000	GALLONS WINE PER YEAR
PHASE 1 WAA WATER USE RATE[1]	=	0.5	AC-FT/YR PER 100,000 GALLONS WINE PRODUCED
PHASE 1 WAA LANDSCAPE USE	**=**	**1**	**AC-FT/YEAR**

1. it should be noted that the Phase One Water Availability Form provides for 0.5 ac-ft/ac per 100,000 gallons produced for doemstic and landscape.
Because domestic is calculated separately, the entire 0.5 ac-ft/yr is dedicated to landscape in this calculation.

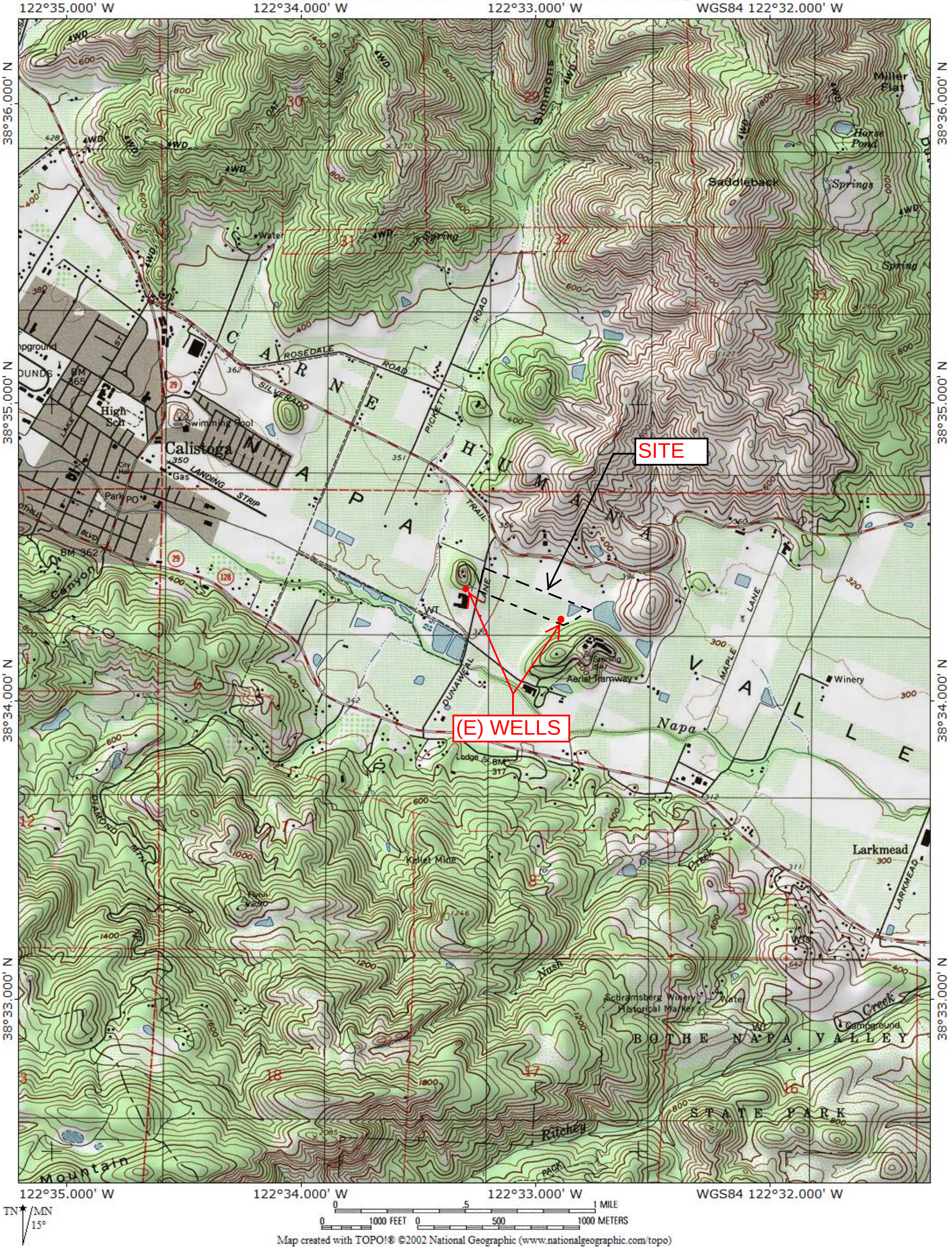
LANDSCAPE WATER USE - CALIFORNIA IRRIGATION INFORMATION MANAGEMENT SYSTEM (CIMIS) METHOD

GIRARD WINERY			
LANDSCAPE AREA	=	0.40	ACRES
IRRIGATION DEMAND RATE[1]	=	2.55	AC-FT/AC-YR
CIMIS LANDSCAPE USE	**=**	**1.02**	**AC-FT/YEAR**

CLOS PEGASE WINERY			
PRODUCTION	=	0.60	ACRES
PHASE 1 WAA WATER USE RATE[1]	=	2.55	AC-FT/AC-YR
CIMIS LANDSCAPE USE	**=**	**1.53**	**AC-FT/YEAR**

1. Reference Evapotranspiration data is for the Angwin FS obtained from the California Irrigation Management Information System . See http://wwwcimis.water.ca.gov/cimis/monthlyEToReport.do

TOPO! map printed on 10/17/13 from "California.tpo" and "Untitled.tpg"


122°35.000' W
122°34.000' W
122°33.000' W
WGS84 122°32.000' W
38°36.000' N
38°35.000' N
38°34.000' N
38°33.000' N
SITE
(E) WELLS
Calistoga
High Sch
Swimming Pool
LANDING STRIP
SILVERADO
ROSEDALE ROAD
PICKETT ROAD
TRAIL
DUNAWEAL LANE
C A R N E H U M A N A
N A P A V A L L E Y
Napa
MAPLE LANE
Winery
Aerial Tramway
Sterling
Saddleback
Miller Flat
Horse Pond
Springs
Spring
Kellet Mine
Larkmead
LARKMEAD
Lodge
Schramsberg Winery Historical Marker
Water
Campground
Creek
Nash
Ritchey
B O T H E N A P A V A L L E Y
S T A T E P A R K
Mountain
Canyon
DIAMOND MTN
Simmons
OAT HILL
TN
MN
15°
0
.5
1 MILE
1000 FEET
500
1000 METERS

Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

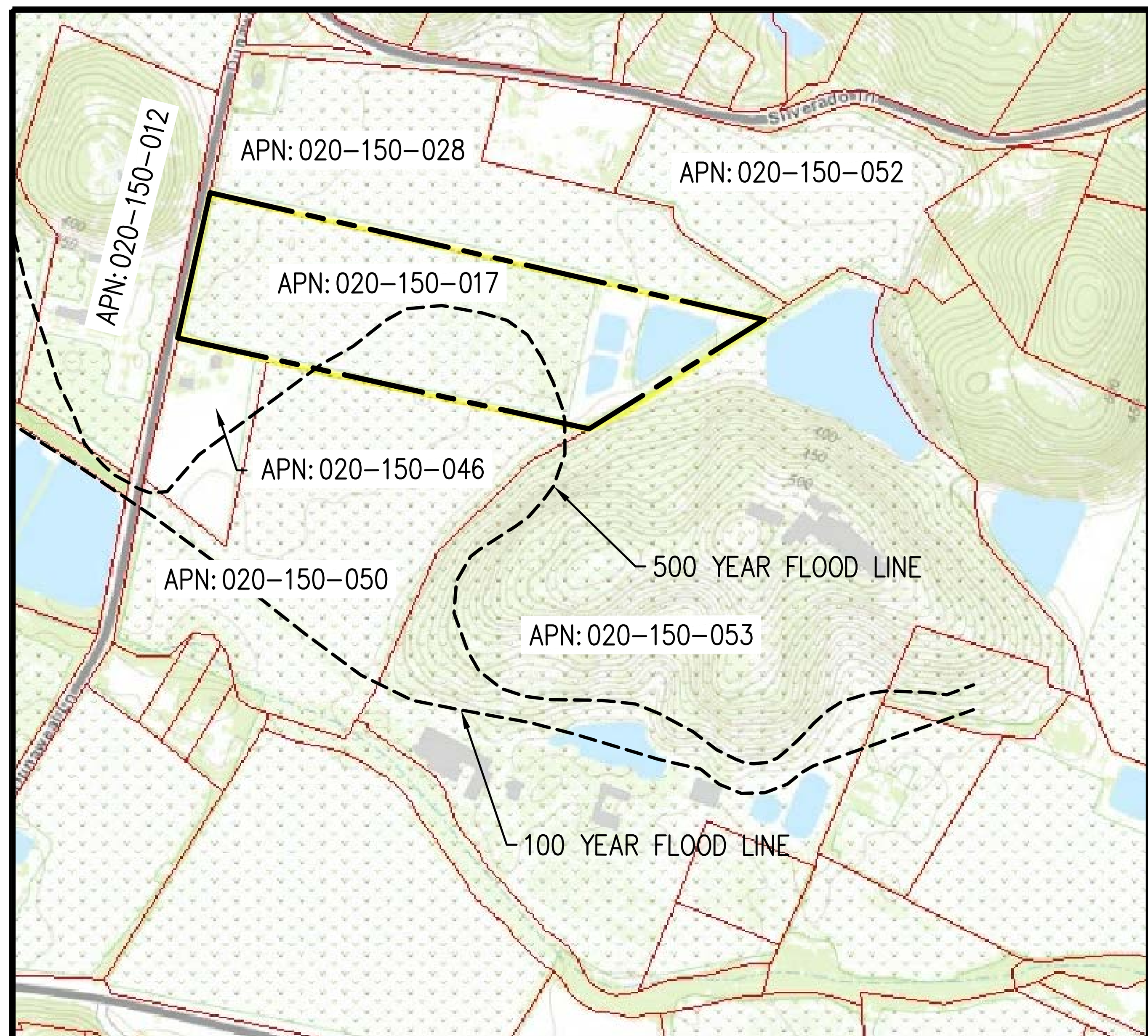
GIRARD WINERY

1077 Dunaweal Ln.

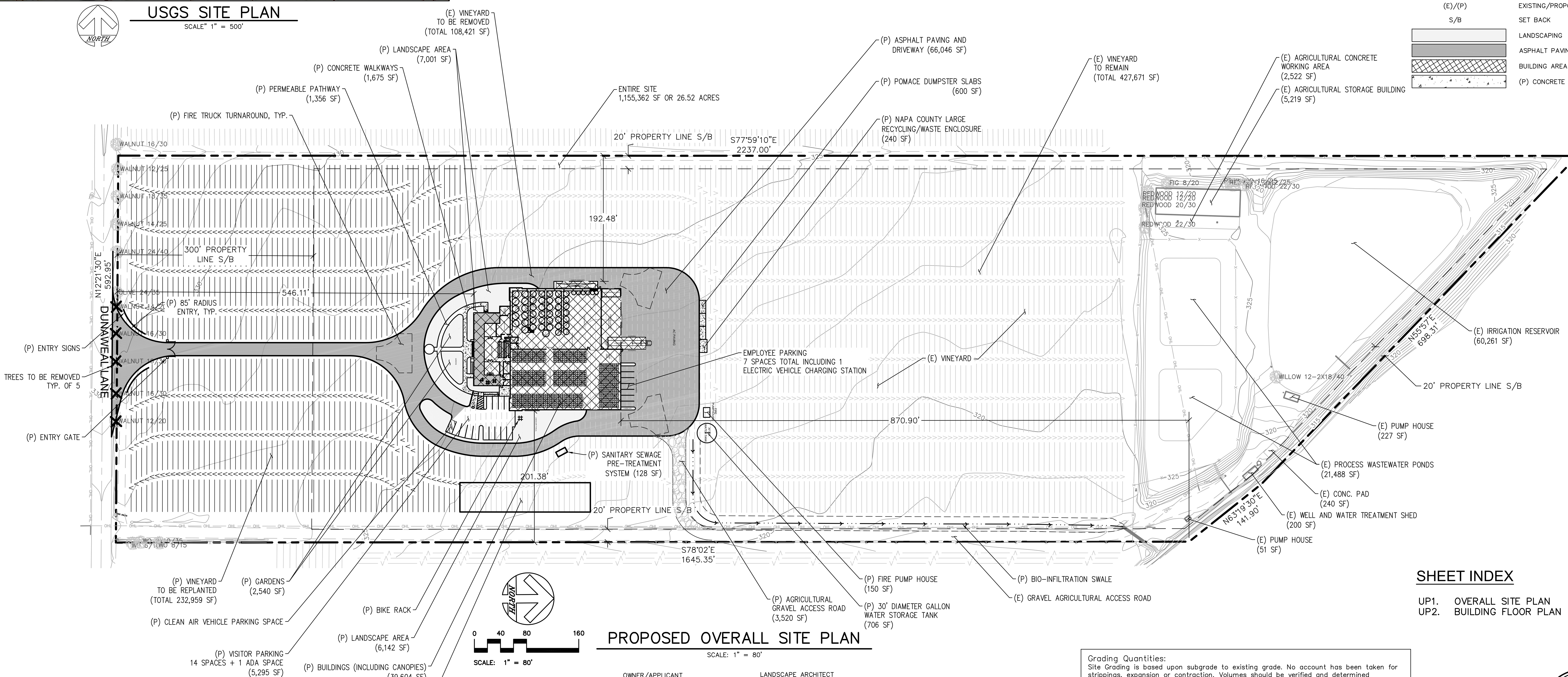
Calistoga, California 94515

APN 022-150-017

USE PERMIT APPLICATION



USGS SITE PLAN
SCALE" 1" = 500'



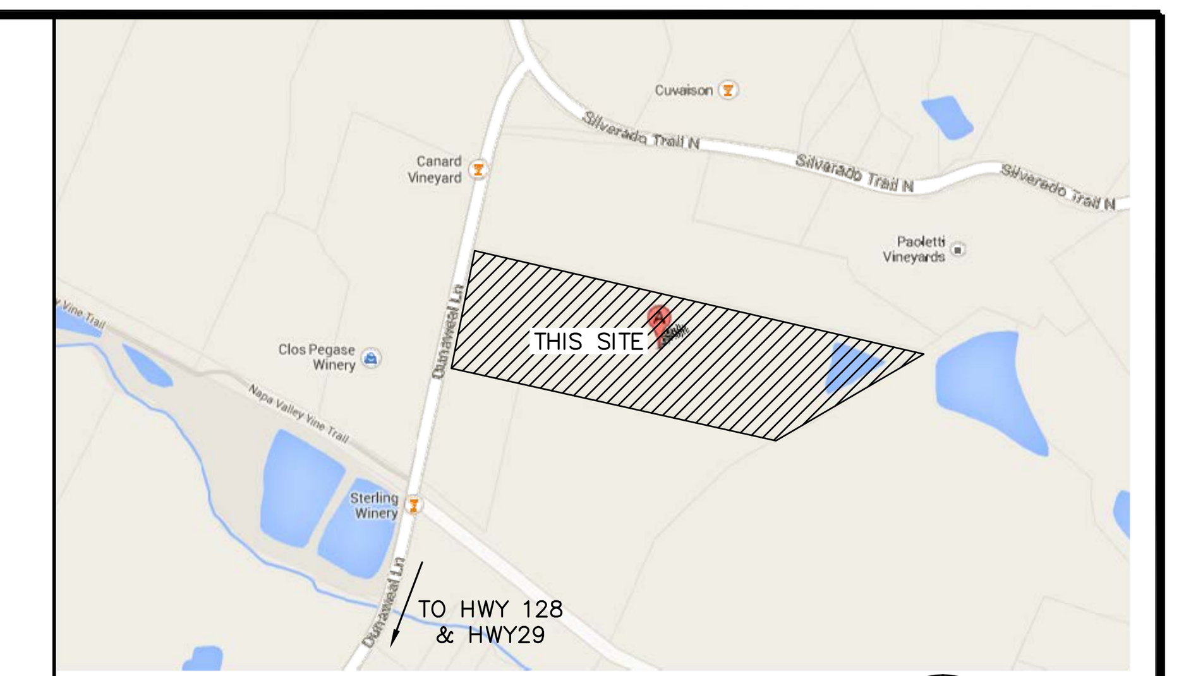
PROPOSED OVERALL SITE PLAN
SCALE: 1" = 80'

OWNER/APPLICANT
VINTAGE WINE ESTATES
205 CONCOURSE BLVD.
SANTA ROSA, CA 95403
CONTACT: PAT RONEY
PH. (877) 289-9463

ARCHITECT
DEL STARRETT ARCHITECT
181 CONCOURSE BLVD., SUITE A
SANTA ROSA, CA 95403
CONTACT: DEL STARRETT
PH. (707) 526-9645

LANDSCAPE ARCHITECT
PARKER SMITH LANDSCAPE ARCHITECT
1945 PINER RD. #25
SANTA ROSA, CA 95403
PH. (707) 477-7502

ARCHITECT
ALWAYS ENGINEERING INC.
131 STONY CIRCLE, SUITE 1000
SANTA ROSA, CA 95401
CONTACT: BEN MONROE
PH. (707) 542-8795



VICINITY MAP
NO SCALE

LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- DRAINAGE COURSE FLOWLINE
- VINEROW
- OHL — OVERHEAD UTILITIES
- SETBACK
- 100 YEAR FLOOD PLAIN
- 500 YEAR FLOOD PLAIN
- 20 / 15 — 5 FOOT INDEX 1' INTERVAL CONTOURS
- Ⓦ WELL
- (E)/(P) EXISTING/PROPOSED
- S/B SET BACK
- LANDSCAPING
- ASPHALT PAVING
- BUILDING AREA
- (P) CONCRETE WALKWAY

SHEET INDEX

UP1. OVERALL SITE PLAN
UP2. BUILDING FLOOR PLAN

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

	CUT:	ENGINEERED FILL:	NET:
TOTAL EARTHWORK:	2,172 CY	4,034 CY	1,862 CY (FILL)

TOTAL DISTURBED AREA = 3.59 ACRES

Note: Excess spoils will be disposed of in a county approved site or spread in onsite vineyards. Temporary grading spoils will be stockpiled onsite in the unplanted vineyard area until ready for use.

REGISTERED PROFESSIONAL ENGINEER JASON FRANK HOCHEDER No. C66429 CIVIL STATE OF CALIFORNIA

REVISION	DESCRIPTION	BY	DATE

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Prepared for: GIRARD WINERY
1077 DUNAWEAL LN., CALISTOGA, CA

Prepared on: February 13, 2014

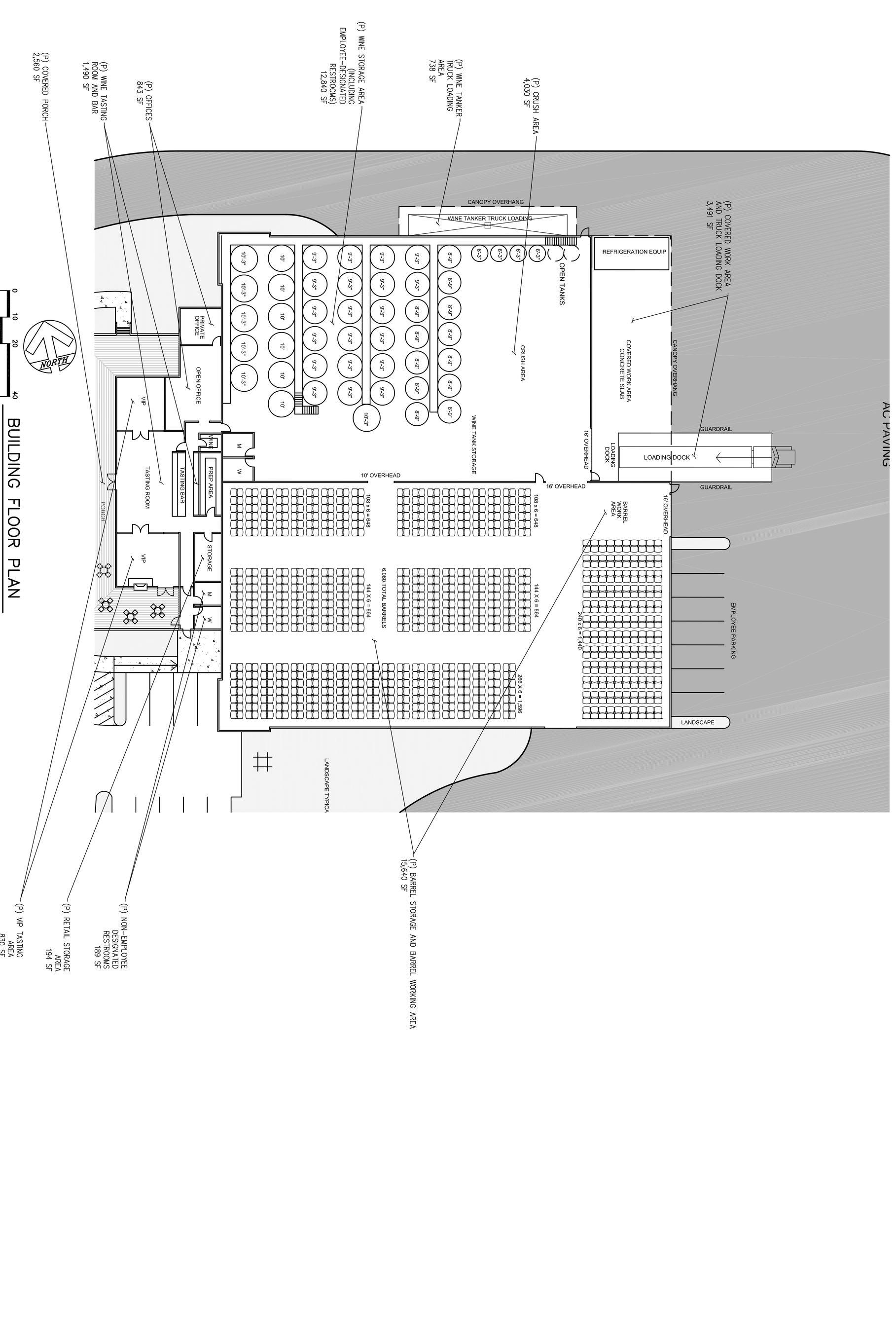
USE PERMIT
OVERALL SITE PLAN
1077 DUNAWEAL LN., CALISTOGA, CA
APN:020-150-017

JOB# 13530
SHEET UP1 OF UP2

 When printed=Feb 13, 2014 – 1:52:14PM File=UP-140122.dwg

BUILDING FLOOR PLAN

SCALE: 1" = 20'



REGISTERED PROFESSIONAL ENGINEER
JASON FRANK HOCHEDER
No. C66429
CIVIL
STATE OF CALIFORNIA

UP2 OF UP2 SHEET

JOB# 13530

USE PERMIT
BUILDING FLOOR PLAN

1077 DUNAWEAL LN., CALISTOGA, CA
APN:020-150-017

Prepared for:
GIRARD WINERY
1077 DUNAWEAL LN., CALISTOGA, CA

Prepared on:
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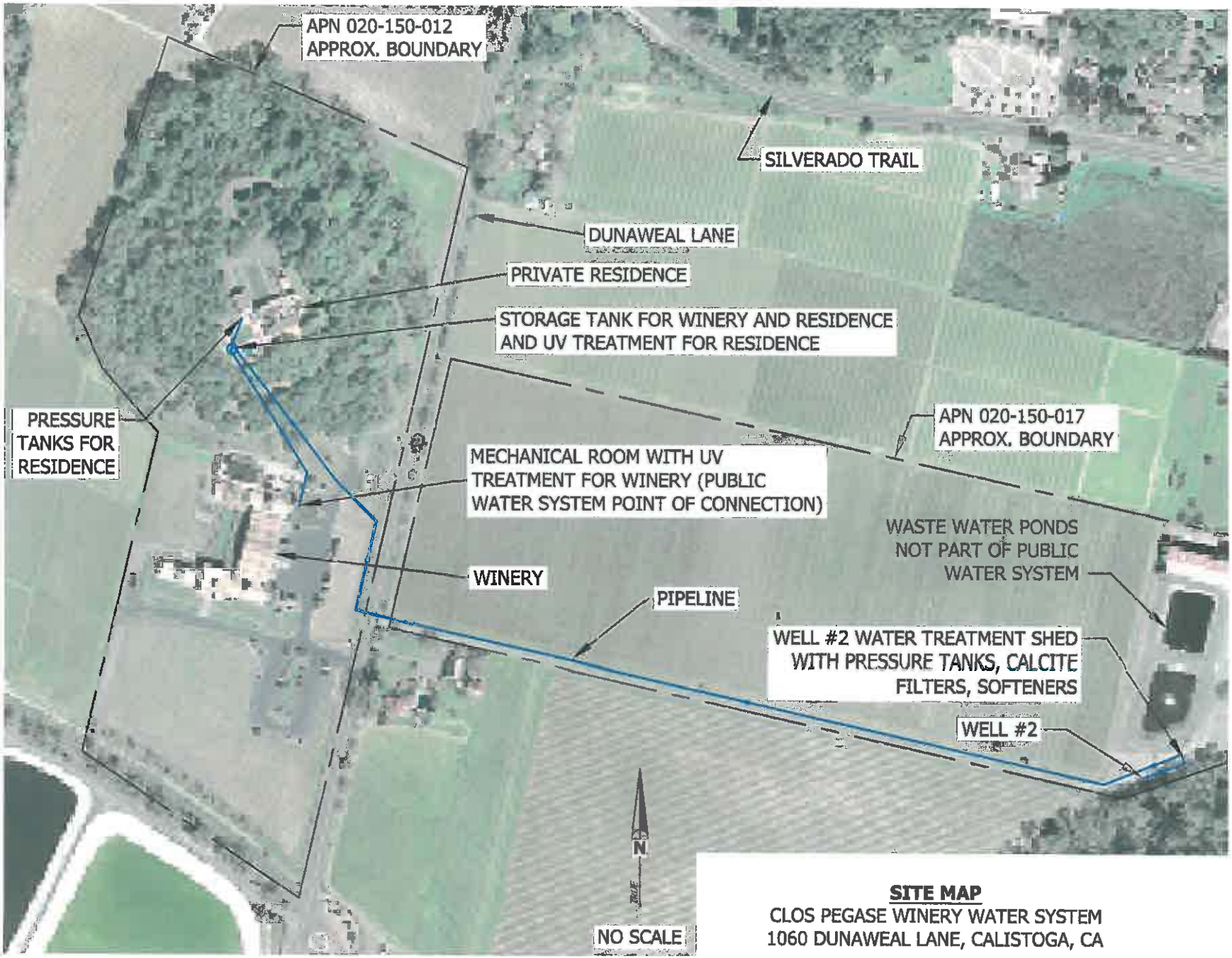
REVISION	DESCRIPTION	BY	DATE



SITE MAP

CLOS PEGASE WINERY WATER SYSTEM
1060 DUNAWEAL LANE, CALISTOGA, CA

TRIPLICATE
Owner's Copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

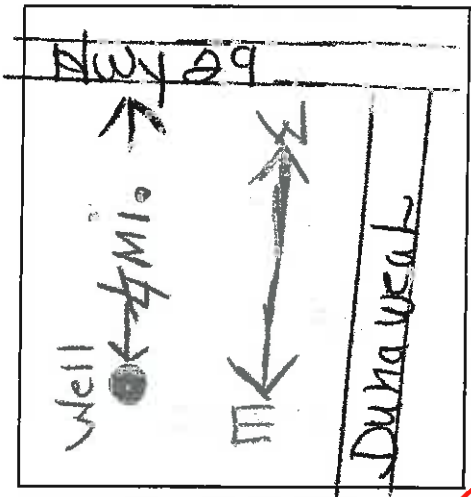
Do not fill in
No. 384909

Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. _____
Other Well No. _____

(1) OWNER: Name Clos Pegase Winery
Address 1060 Dunaweal Lane
City Calistoga ZIP _____

(2) LOCATION OF WELL (See instructions):
County 28 Owner's Well Number _____
Well address if different from above same
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. ¼ Mile
East of Hwy 29 on
Dunaweal Lane



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☐
Industrial ☒
Test Well ☐
Municipal ☐
Other ☐
(Describe)

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size #2 RV
Diameter of bore 9
Packed from 55 to 220 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	220	5	200

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
80	220	Screen

(9) WELL SEAL.
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 55 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 30-45 ft.
Method of sealing cement

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion 25 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? Driller
Type of test Pump ☐ Bailer ☐ Air lift ☒
Depth to water at start of test 25 ft. At end of test 200 ft.
Discharge 30 gal/min after 3 hours Water temperature _____
Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____
Was electric log made Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 220 ft. Completed depth 220 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	30	Clay
30	40	Sandy clay & boulders
40	90	Clay
90	175	grey ash streaks of broken up gray ash
175	220	greyish

Work started 6-5- 19 91 Completed 6-13- 19 91

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed _____ (Well Driller)
NAME Fullan Well Drilling (Person, firm, or corporation) (Typed or printed)
Address 2877 Piedmont Ave.
City Napa ZIP 94558
License No. 348677 Date of this report 7-1-91

DWR 188 (REV. 12-86) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM 86 96355

TRIPLICATE
Owner's Copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

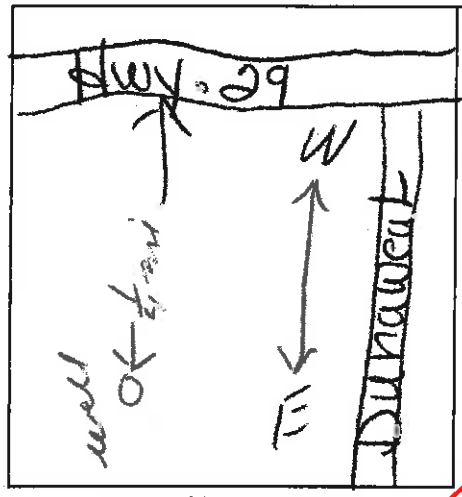
Do not fill in
No. 384910

Notice of Intent No. _____
Local Permit No. or Date _____

State Well No. _____
Other Well No. _____

(1) OWNER: Name Clos Pegase Winery
Address 1060 Dunaweal Lane
City Calistoga ZIP _____

(2) LOCATION OF WELL (See instructions):
County 28 Owner's Well Number _____
Well address if different from above Same
Township _____ Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. 1/4 East of Hwy-29 on Dunaweal Lane



WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☒
Industrial ☐
Test Well ☐
Municipal ☐
Other ☐
(Describe)

(5) EQUIPMENT:
Rotary ☒ Reverse ☐
Cable ☐ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☒ No ☐ Size: #2-4
Diameter of bore 9
Packed from 55 to 220 ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☒ Concrete ☐

From ft.	To ft.	Dia. in.	Gage or Wall
0	220	5"	200

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Slot size
80	220	SCREEN

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 55 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 30 40 ft.
Method of sealing Cement

(10) WATER LEVELS:
Depth of first water, if known _____ ft.
Standing level after well completion 25 ft.

(11) WELL TESTS:
Was well test made? Yes ☒ No ☐ If yes, by whom? Driller
Type of test Pump ☐ Bailer ☐ Air lift ☒
Depth to water at start of test 25 ft. At end of test 100 ft.
Discharge 30 gal/min after 3 hours Water temperature _____
Chemical analysis made? Yes ☐ No ☒ If yes, by whom? _____
Was electric log made Yes ☐ No ☒ If yes, attach copy to this report

(12) WELL LOG: Total depth 220 ft. Completed depth 220 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	30'	clay
30	40'	sandy clay & boulders
40	90'	clay
90	175'	gray ash streaks of brown gray ash
175	220'	gray ash

Work started 6-5- 19 91 Completed 6-13- 19 91

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Signed _____ (Well Driller)
NAME Pullian Well Drilling (Person, firm, or corporation) (Typed or printed)
Address 2877 Piedmont Ave
City Napa ZIP 94558
License No. 348677 Date of this report 6-22-91

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

FEE 120
RECEIPT NO. 28489
BY PB

A.P.# 20-150-17
RECORD # 3328

NAPA COUNTY
DEPT. OF ENVIRONMENTAL MANAGEMENT
APPLICATION & PERMIT TO CONSTRUCT A WATER WELL

NAME Clos Pegase Winery (Owner) ADDRESS 1060 Dunaweal (Job Location)

NAME William Well Drilling (Well Driller) PHONE # 2241939 ADDRESS

TYPE OF WORK
New Class I PERMIT ____ Test Hole Date Called In 4/30/91 / 5/7/91
New Class II PERMIT X U.S.G.S. Map Received
Well Reconstruction ____ Well Deepening ____ Horizontal Well ____
Well Destruction ____ High Hazard ____ Low Hazard ____ Hand Dug ____

PROPOSED USE
DOMESTIC ____ IRRIGATION ____ INDUSTRIAL X (MW) MUNICIPAL per owner
TEST WELL ____ HOT WATER ____ (D.O.G. Clearance ____) OTHER ____

Sewage Disposal System (existing or proposed) Public ____ Individual ____ Private X
Distance from well to any part of nearest sewage disposal system Well Driver - Ponte 60 LF feet.
Septic System Location Determined By:
Plot plan of well location received yes County road setback 210 ft. from centerline.

WORKER'S COMPENSATION COVERAGE: (Check one of the following)
___ A certificate of current Worker's Compensation Insurance coverage is presently on file with this office.
X A certificate of current Worker's Compensation Insurance is being filed with this application.
___ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation laws in California.

****

TERMS OF PERMIT

) Call at least 24 hours in advance to schedule an inspection.
) Prior to receiving a Final Clearance on the well, a copy of the Department of Water Resources "Water Well Drillers Report" (DWR-188) must be returned to our Department.
ld Wells to be Destroyed:
ther Remarks:

Signature of Applicant ____ Date

****

FOR OFFICE USE ONLY

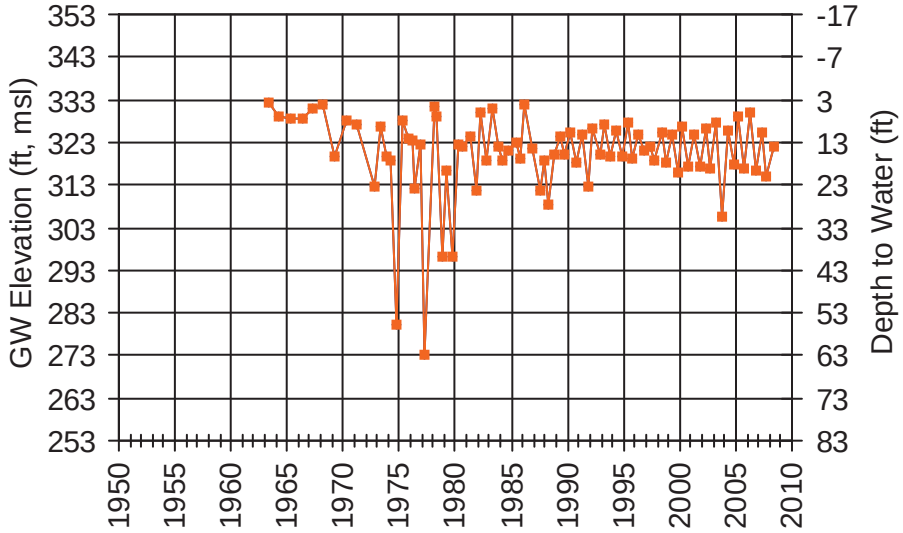
	Date	By	Remarks
City Clearance			
Pub. Works Clearance			
Pre-Inspection			
Class II Approval	5/2/91		See attached Cat. Exemption from Planning
Permit Issued	5/7/91		Approved " "
Const. Insp.	6/12/91		Completed 12 hole, 5 casing. Seal to 54.3 ok annular seal
Well Log Rec.			
Final Insp.			

White-Office Yellow-Owner Pink-Contractor
EHM Form Letter#6 / 12-14-88

WellID: 08N06W06L004M RPE: 336 ft, msl

SWN: 008N006W06L004M Source: DWR

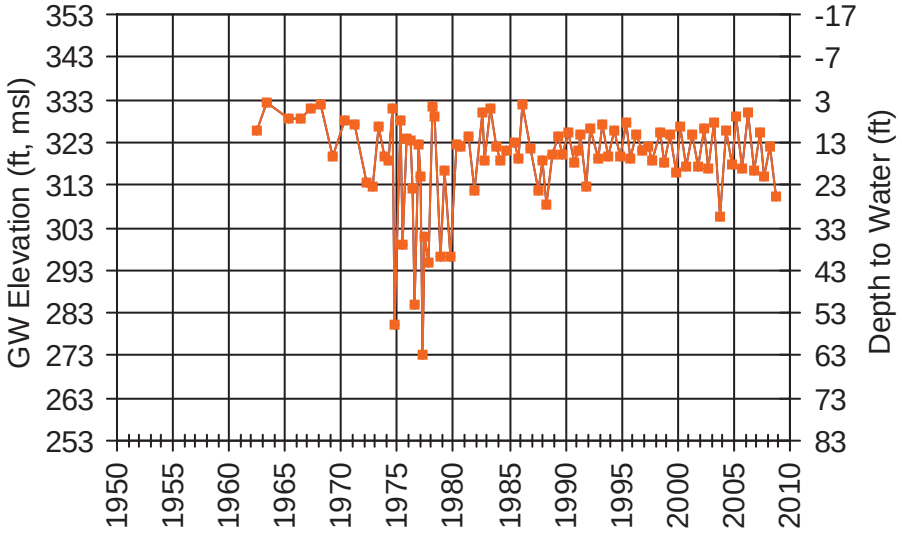
Subarea: Napa Valley Floor-Calistoga



WellID: NapaCounty-129 RPE: 336 ft, msl

SWN: 008N006W06L004M Source: NapaCounty

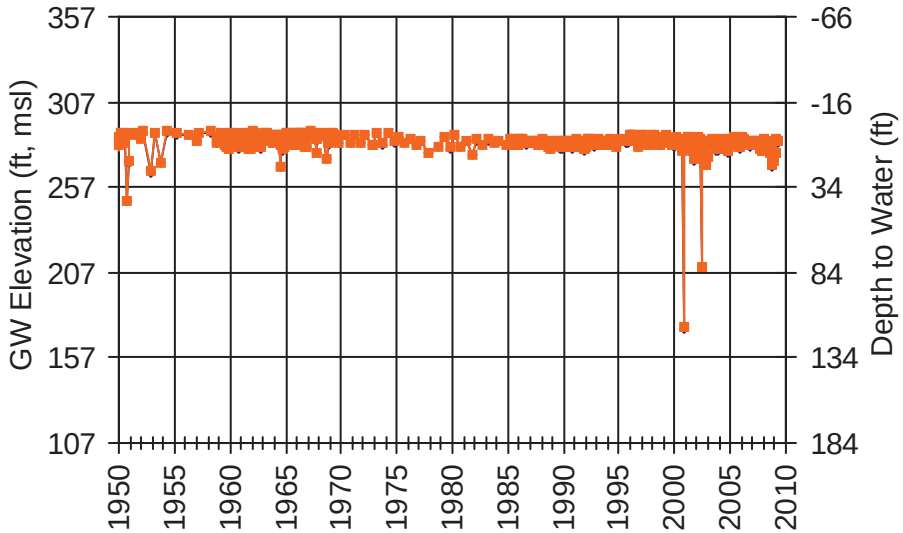
Subarea: Napa Valley Floor-Calistoga



WellID: 08N06W10Q001M RPE: 290.6 ft, msl

SWN: 008N006W10Q001M Source: DWR

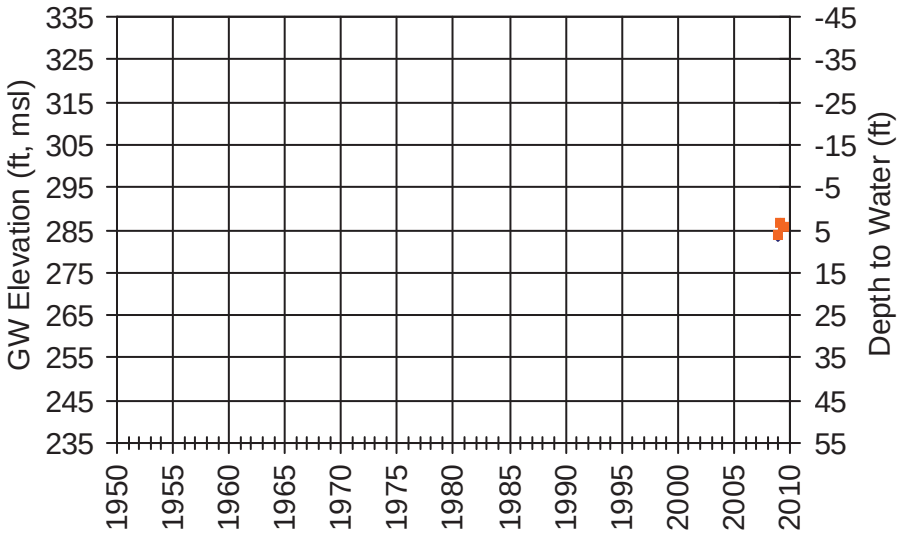
Subarea: Napa Valley Floor-Calistoga



WellID: T0605500272MW-2 RPE: 289.79 ft, msl

SWN: Unknown Source: Geotracker

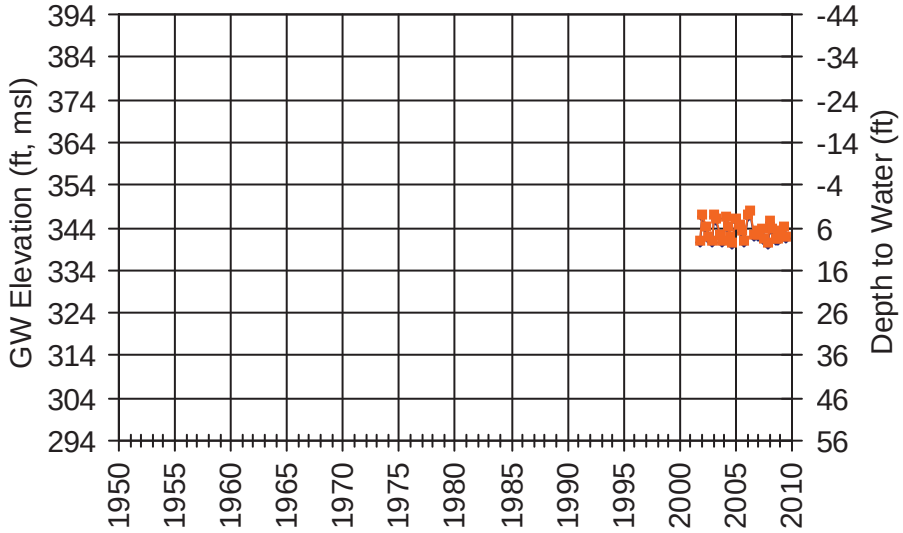
Subarea: Napa Valley Floor-Calistoga



WellID: T0605500136MW-10 RPE: 349.54 ft, msl

SWN: Unknown Source: Geotracker

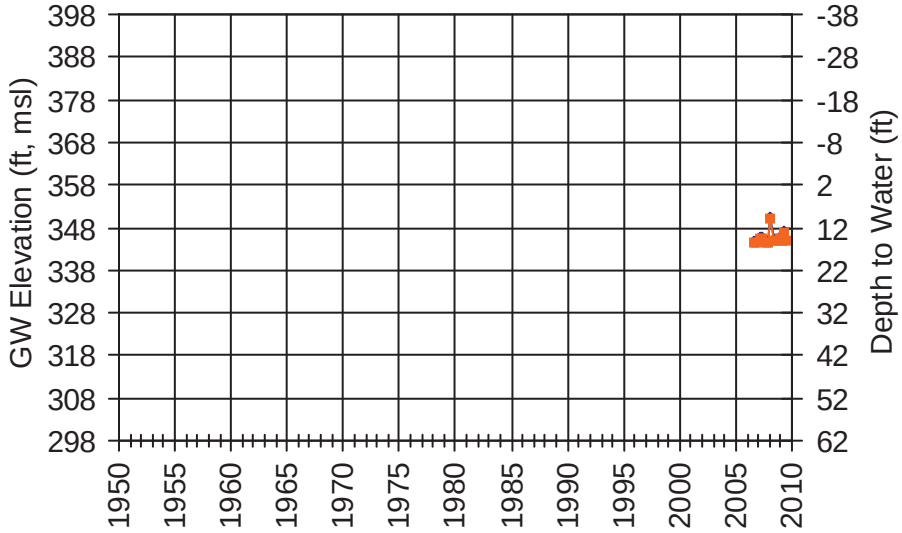
Subarea: Napa Valley Floor-Calistoga



WellID: T0605500250MW-6 RPE: 360.46 ft, msl

SWN: Unknown Source: Geotracker

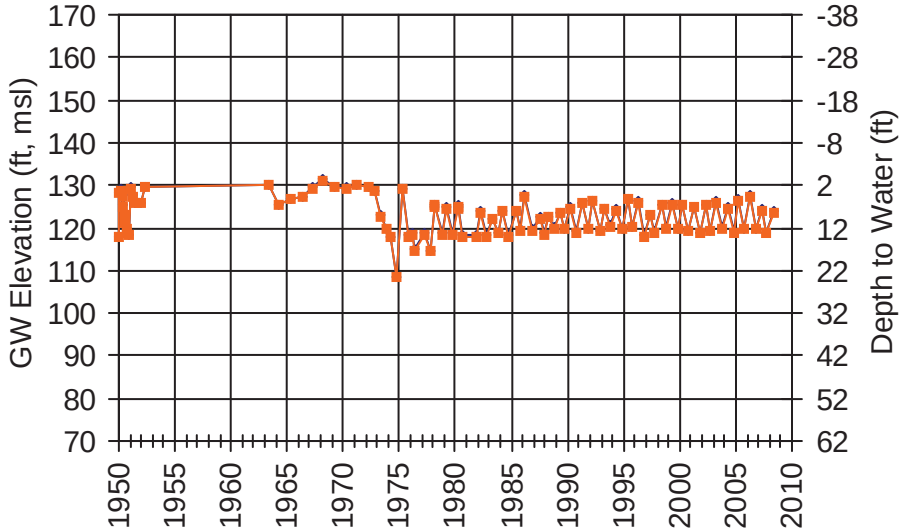
Subarea: Napa Valley Floor-Calistoga



WellID: 09N06W31Q001M RPE: 132.2 ft, msl

SWN: 009N006W31Q001M Source: DWR

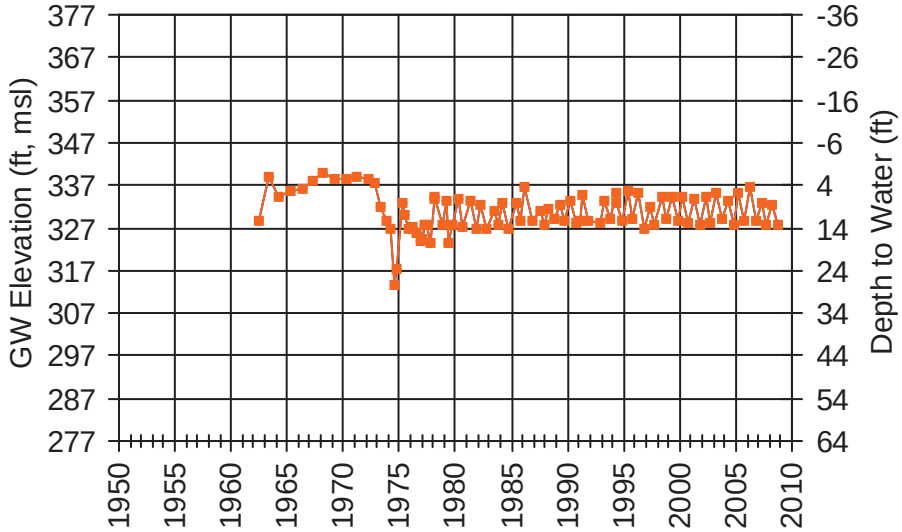
Subarea: Napa Valley Floor-Calistoga



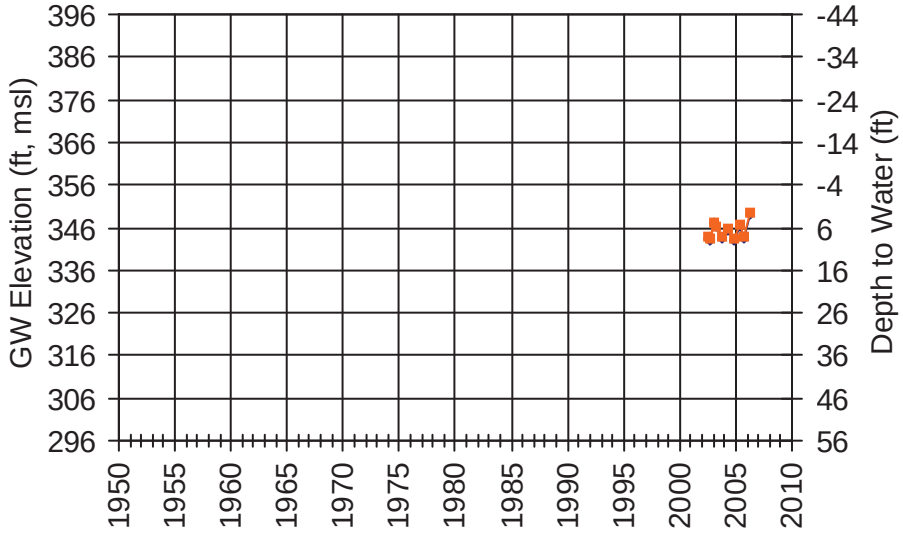
WellID: NapaCounty-128 RPE: 341 ft, msl

SWN: 009N006W31Q001M Source: NapaCounty

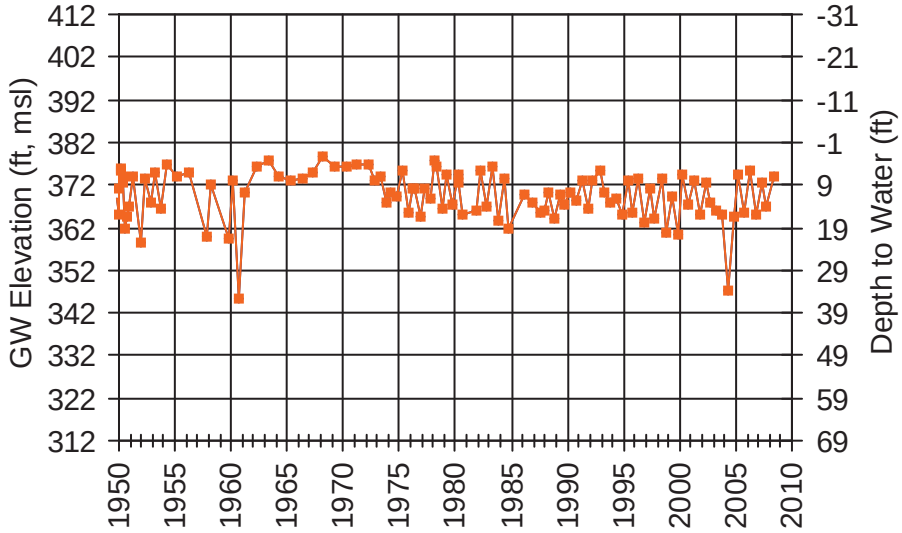
Subarea: Napa Valley Floor-Calistoga



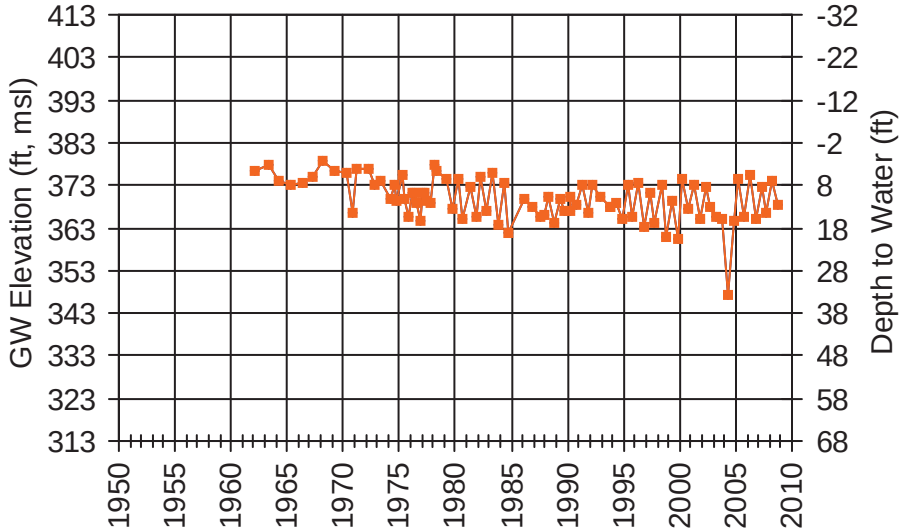
WellID: T0605500029MW-3 RPE: 351.6 ft, msl
SWN: Unknown Source: Geotracker
Subarea: Napa Valley Floor-Calistoga



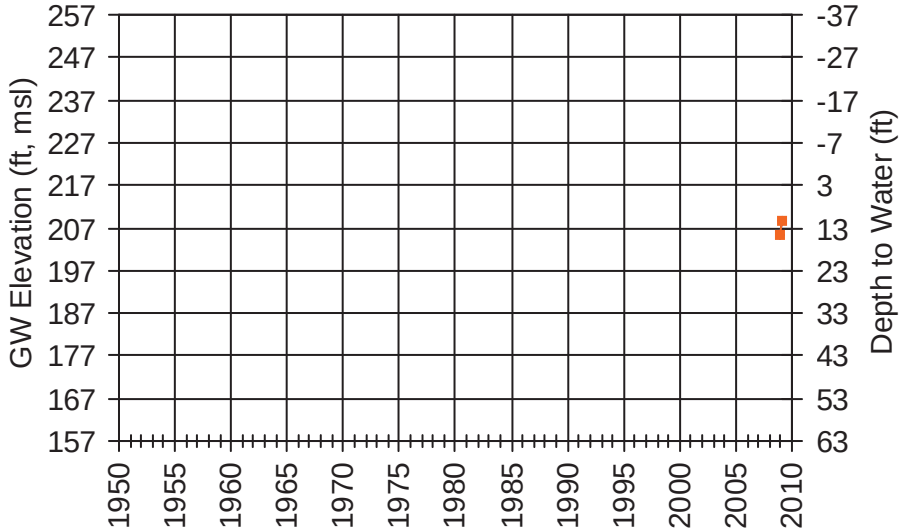
WellID: 09N07W25N001M RPE: 381 ft, msl
SWN: 009N007W25N001M Source: DWR
Subarea: Napa Valley Floor-Calistoga



WellID: NapaCounty-127 RPE: 381 ft, msl
SWN: 009N007W25N001M Source: NapaCounty
Subarea: Napa Valley Floor-Calistoga



WellID: SL0605506371MW-4 RPE: 219.87 ft, msl
SWN: Unknown Source: Geotracker
Subarea: Napa Valley Floor-St. Helena



Biological Resource Survey

Girard Winery

1077 Dunaweal Lane
APN# 020-150-017
Calistoga, CA

Prepared
For

Girard Winery

By
Kjeldsen Biological Consulting
923 St. Helena Ave.
Santa Rosa, CA 95404

July 2014

Biological Resource Survey

Girard Winery

1077 Dunaweal Lane

APN# 020-150-017

Calistoga, CA

PROJECT NAME: Girard Winery
1077 Dunaweal Ln.
Calistoga, CA
Use Permit Application
APN 022-150-017

CIVIL ENGINEER: Always Engineering, Inc.
2360 Professional Drive
Santa Rosa, CA 95403

PROJECT COORDINATOR: Heather McCollister
(707) 287-5999
bhmccolli@sbcglobal.net

REPORT PREPARED BY: Kjeldsen Biological Consulting
923 St. Helena Ave.
Santa Rosa, CA 95404
(707) 544-3091
Fax:(707) 575-8030
kjeldsen@sonic.net

PERIOD OF STUDY: March –July 2014

Biological Resource Survey

Girard Winery

1077 Dunaweal Lane

APN# 020-150-017

Calistoga, CA

TABLE OF CONTENTS

Biological Resource Survey

Girard Winery

1077 Dunaweal Lane

APN# 020-150-017

Calistoga, CA

Executive Summary

This study was conducted at the request of Heather McCollister, on behalf of the property owners, as background information for project permits from the Napa County Conservation, Development and Planning Department.

The project proposes a winery, access road, landscaping, parking areas, primary and reserve treated sanitary subsurface drip septic area and associated infrastructure. The property is approximately 26.53 acres. The total disturbed area of the project is 3.59 acres. The entire project is within a disturbed environment. The property is in Napa County located at 1077 Dunaweal Lane east of the city of Calistoga. The property is within the USGS Calistoga Quadrangle.

The purpose of this report is to identify biological resources that may be affected by the proposed project. The fieldwork studied the proposed project envelope, the property and adjoining environment. The findings presented below are the results of fieldwork conducted during the spring and summer of 2014 by Kjeldsen Biological Consulting:

- The project footprint is within a developed landscape. The winery is proposed for an area that was a vineyard that has been removed and prepped for replanting;
- The project as proposed will not have any direct impacts to Federal or State protected wetlands as defined by Section 404 of the Clean Water Act;
- The proposed project will not significantly reduce habitat for or have the potential to negatively impact any special-status plants or animals;
- No sensitive plants, sensitive plant habitat, or special-status plant species was identified on the property. We find that it is unlikely that the proposed project would impact any of the special-status plants known for the Quadrangle or the region based on our fieldwork, the habitat present and historic use within and associated with the project footprint:
- No sensitive animals, sensitive wildlife habitat, or special-status animal species was identified on the project site. We find that it is unlikely that the proposed project would impact any of the special-status animals known for the Quadrangle or the region based on our fieldwork, the habitat present and historic use within and associated with the project footprint:

- One juvenile Northwestern Pond Turtle was observed on the bank of the existing reservoir. There is no potential impact to this species associated with the project.
- No raptor activity or nests were observed on or near the proposed project site;
- No wildlife corridors will be impacted by the proposed project;
- There are no indications of the presence of Sensitive Natural Communities regulated by the California Department of Fish and Wildlife or US Fish and Wildlife within or directly associated with the project footprint;
- No native trees will be removed by the proposed project;
- The footprint of the project will not significantly contribute to habitat loss or habitat fragmentation; and
- The flora and fauna observed on and near the site are included as an Appendix.

Assessment of Impacts

The project is within a developed landscape that has been in agriculture for decades. The property and project site conditions are such that there is no reason to expect any impacts to special-status species on site or off site provided Best Management Practices are implemented.

Recommendations

The following recommended measures are presented to reduce potential biological impacts by the proposed project to a less than significant level pursuant to the California Environmental Quality Act.

Best Management Practices including silt and erosion control measures must be implemented to prevent off-site movement of sediment and dust during and post construction.

Biological Resource Survey
Girard Winery
1077 Dunaweal Lane
Calistoga, CA

A PROJECT DESCRIPTION

This study was conducted at the request of Heather McCollister on behalf the property owner. This study and report are provided as background information necessary for securing permits from Napa County Conservation, Development and Planning Department for the proposed project.

A.1 Introduction

The project proposes a winery, access road, landscaping, parking areas, primary and reserve treated sanitary subsurface drip septic area and associated infrastructure. The property is approximately 26.53 acres. The total disturbed area of the project is 3.59 acres. The entire project is within a disturbed environment.

The property is in Napa County located at 1077 Dunaweal Lane east of the city of Calistoga. The property is within the USGS Calistoga Quadrangle. Plate I provides a site and location map of the property. Plate III provides an aerial photograph of the property. The attached Site Plan prepared by Always Engineering, Inc. Civil Engineering and Topographic Surveying illustrates the project (2/4/2014).

A.2 Background

The surrounding land use consists of vineyards, residences, winery, and oak woodlands. The property is a rectangular shaped parcel within the Napa Valley floor. The parcel at present consists of a fallow field from which vineyard has been removed, reservoir, agricultural storage building, process wastewater ponds and associated infrastructure.

A.3 Purpose

The purpose of this report is to identify biological resources that may be affected by the proposed project as listed below:

- To determine the presence of potential habitat for special-status species which would be impacted by the proposed project, including habitat types which may have the potential for supporting special-status species (target species that are known for the region, habitat, the Quadrangle and surrounding Quadrangles);
- To identify and assess potential impacts to Federal or State protected wetlands as defined by Section 404 of the Clean Water Act; and

- To determine if the project will substantially interfere with native wildlife species, wildlife corridors, and or native wildlife nursery sites;
- Identify any State or Federal biological permits required by the proposed project; and
- Recommend measures to reduce biological impacts to a less than significant level pursuant to the California Environmental Quality Act (CEQA).

A.4 Definitions

Definitions used in this report are attached in Appendix B.

B SURVEY METHODOLOGY

The purpose of the spring-summer floristic survey is to provide a faunal and floristic study of the project site with emphasis on any special-status animals, plants, unique plant populations and or critical habitat associated with the proposed project. The project scoping determined the extent of our surveys which ranged from March to July 2014.

B.1 Project Scoping

The scoping for the project considered seasonal fieldwork, location and type of habitat and or vegetation types present on the property or associated with potential special-status plant species known for the Quadrangles, surrounding Quadrangles the County or the region. Our scoping also considered records in the most recent version of the Department of Fish and Wildlife California Natural Diversity Data Base (DFW CNDDB Rare Find-3) and the California Native Plant Society (CNPS) Electronic Inventory of Rare or Endangered Plants. "Target" special-status species are those listed by the State, the Federal Government or the California Native Plant Society or considered threatened in the region. Our scoping is also a function of our familiarity with the local flora and fauna as well as previous projects on other properties in the area.

Section 15380 of the California Environmental Quality Act [CEQA (September, 1983)] has a discussion regarding non-listed (State) taxa. This section states that a plant (or animal) must be treated as Rare or Endangered even if it is not officially listed as such. If a person (or organization) provides information showing that a taxa meets the State's definitions and criteria, then the taxa should be treated as such.

Tables II and III present DFW CNDDB Rare Find species and U.S. Fish and Wildlife Service listed species for the Quadrangle and surrounding Quadrangles.

B.2 Field Survey Methodology

Our studies were made by walking transects through and around the project site. Our fieldwork focused on locating suitable habitat for organisms or indications that such habitat exists on the site. Digital photographs were taken during our studies to document conditions and selected photographs are included within this report. A floristic and seasonally appropriate survey was conducted in the field at the time of year when rare, threatened, or endangered species are both evident and identifiable for all the species expected to occur within the Study Area.

Plants Field surveys were conducted recording identifying all species on the site and in the near proximity. Transects through the proposed project sites were made methodically by foot. Transects were established and scrutinized to cover topographic and vegetation variations within the study area. The Intuitive Controlled approach calls for the qualified surveyor to conduct a survey of the area by walking through it and around its perimeters, and closely examining portions where target species are especially likely to occur. The open nature of the site, historic and on going agricultural practices, and small size of the proposed development footprint

facilitated our field studies. All plant life was recorded in field notes and is presented in Appendix A

The fieldwork for identifying special-status plant species is based on our knowledge and many years of experience in conducting special-status plant species surveys in the region. Plants were identified in the field or reference material was collected, when necessary, for verification using laboratory examination with a binocular microscope and reference materials. Herbarium specimens from plants collected on the project site were made when relevant. Voucher material for selected individuals is in the possession of the authors. All plants observed (living and/or remains from last season's growth) were recorded in field notes.

Typically, blooming examples are required for identification however; it is not the only method for identifying the presence of or excluding the possibility of rare plants. Vegetative morphology and dried flower or fruit morphology, which may persist long after the blooming period, may also be used. Skeletal remains from previous season's growth can also be used for identification. Some species do not flower each year or only flower at maturity and therefore must be identified from vegetative characteristics. Algae, fungi, mosses, lichens, ferns, Lycophyta and Sphenophyta have no flowers and there are representatives from these groups that are now considered to be special-status species, which require non-blooming identification. For some plants unique features such as the aromatic oils present are key indicator. For some trees and shrubs with unique vegetative characteristics flowering is not needed for proper identification. The vegetative evaluation as a function of field experience can be used to identify species outside of the blooming period to verify or exclude the possibility of special-status plants in a study area.

Habitat is also a key characteristic for consideration of special-status species in a study area. Many special-status species are rare in nature because of their specific and often very narrow habitat or environmental requirements. Their presence is limited by specific environmental conditions such as: hydrology, microclimate, soils, nutrients, interspecific and intraspecific competition, and aspect or exposure. In some situations special-status species particularly annuals may not be present each year and in this case one has to rely on skeletal material from previous years. A site evaluation based on habitat or environmental conditions is therefore a reliable method for including or excluding the possibility of special-status species in an area.

Animals were identified in the field by their sight, sign, or call. Our field techniques consisted of surveying the area with binoculars and walking the perimeter of the project site. Existing site conditions were used to identify habitat, which could potentially support special-status animal species. All animal life was recorded in field notes and is presented in Appendix A.

Trees were surveyed to determine whether occupied raptor nests were present within the proximity of the project site (i.e., within a minimum 500 feet of the areas to be disturbed). Surveys consisted of scanning the trees on the property (500 ft +) with binoculars searching for nest or bird activity. Our search was conducted from the property and by walking under existing trees looking for droppings or nest scatter from nests that may be present that were not observable by binoculars.

Aerial photos were reviewed to look at the habitat surrounding the site and the potential for wildlife movement, or wildlife corridors from adjoining properties onto or through the site.

Wetlands The project site was reviewed to determine from existing environmental conditions with a combination of vegetation, soils, and hydrologic information if seasonal wetlands were present. Wetlands were evaluated using the ACOE's three-parameter approach: Vegetation, Hydrology, and Soils.

Tributaries to Waters of the US are determined by the evaluation of continuity and "ordinary high water mark." The ordinary high water mark is determined based on the top of scour marks and high flow impacts on vegetation.

The area surveyed is shown on Plate III.

Table I. Time and Date of Field Work for Spring and Summer 2014

Date	Personnel	Person-hr.	Time	Conditions
March 13, 2014	Chris K. and Daniel T. Kjeldsen	2.0 person-hours	11:15 to 12:15	Clear, clear cool temperatures.
April 25, 2014	Chris K. and Daniel T. Kjeldsen	2.0 person-hours	11:00 to 12:00	Overcast, no wind, with mild temperatures.
May 8, 2014	Chris K. and Daniel T. Kjeldsen	2.0 person-hours	12:00 to 13:00	Clear, windy with warm temperatures.
July 22, 2014	Chris K. and Daniel T. Kjeldsen	2.0 person-hours	13:00 to 14:00	Clear, no wind, with warm temperatures.

C RESULTS / FINDINGS

C.1 Biological Setting

The study site is located in Napa County within the upper Napa Valley. The parcel drains by direct infiltration or sheet flow into roadside ditches and unnamed tributaries of the Napa River. The proposed winery and support facilities are within a developed landscape (hardscape) and the wastewater disposal system is to be located within fallow agricultural lands (vineyard has been removed) (see Plate I for Location). Figures 1 to 5 illustrate the site conditions.

The property is within the inner North Coast Range Mountains, a geographic subdivision of the larger California Floristic Province (Hickman, 1993). The property and surrounding region is strongly influenced storms and fog from the Pacific Ocean. The region is in climate Zone 14 "Ocean influenced Northern and Central California" characterized as an inland area with ocean or cold air influence. The climate of the region is characterized by hot, dry summers and cool, wet winters, with precipitation that varies regionally from less than 30 to more than 60 inches per year. This climate regime is referred to as a "Mediterranean Climate." The average annual temperature ranges from 45 to 90 degrees Fahrenheit. The variations of abiotic conditions including geology results in a high level of biological diversity per unit area in the region.

Our survey focused on the areas proposed project footprint, irrigation wastewater site, and immediate surrounding habitat. The aerial photo illustrates the site (Plate III) and the photographs that follow further document existing conditions of the project sites.

C.2 Habitat Types Present

The vegetation of California has been considered to be a mosaic with major changes present from one area to another often with distinct vegetation changes within short distances. It is generally convenient to refer to the vegetation associates on a site as a plant community or alliance. Typically plant communities or vegetation alliances are identified or characterized by the dominant vegetation form or plant species present. There have been numerous community classification schemes proposed by different authors using different systems for the classification of vegetation. A basic premise for the designation of plant communities, associations or alliances is that in nature there are distinct plant populations occupying a site that are stable at any one time (climax community is a biotic association, that in the absence of disturbance maintains a stable assemblage over long periods of time).

In general terminology one would refer to the habitat on the property as Ruderal Grassland (agricultural land that has been routinely maintained), and hardscape with some landscape plantings. The dominant land cover types on the project site consist of non-native weeds. In the sections below the habitat types present are described and further categorized with the new system of vegetation classification by Sawyer *et al* A Manual of California Vegetation Second Edition. Sawyer classifies the vegetation on the property as Grassland Semi-natural Stands with Herbaceous Layer Sawyer does not classify hardscape or landscape plantings. This classification is the presently preferred system that over time will replace existing classification systems.

Annual Semi-Natural Herbaceous Grassland Stands present as "weeds" within the agricultural lands of the property (this area can also be classified as "ruderal habitat" which reflects the abundance of non-native annuals as a result of the agricultural disturbance.

Ruderal-Grassland Semi-Natural Herbaceous Stands with Herbaceous Layer (Annual Grasslands)

Semi-Natural Herbaceous Grasslands are a result of decades of agriculture and the introduction of non-native grasses and herbs. Sawyer uses the term "Semi-natural Stands to refer to non-native introduced plants that have become established and coexist with native species. This includes what can be termed weeds, aliens, exotics or invasive plants in agricultural and nonagricultural settings. The Semi-natural Herbaceous Stands cannot be mapped due to the small size but if one searches the site one can find small patches of the following;

Avena ssp. Semi-natural Herbaceous Stand, Wild oats grasslands. The membership rules require *Avena ssp*. to be> 50% relative cover of the herbaceous layer. Semi-natural stands are those dominated by non-native species that have become naturalized primarily as a result of historic agricultural practices and fire suppression or management practices for weed abatement and fire suppression.

Bromus diandrus Semi-Natural Herbaceous Stands Annual brome grassland; (Membership Rules *Bromus diandrus >60%* relative cover with other non-natives in the herbaceous layer). *Bromus diandrus* is dominant or co-dominant with non-native in the herbaceous layer. Emergent trees and shrubs may be present at low cover Herbs<75 cm tall are intermittent to continuous. Ripgut brome is an annual grass from Eurasia. This alliance accounts for the largest acreage of grassland vegetation in cismontane California. Stands in our area contain *Aria caryophylla, Cynosurus echinatus, Dichelostemma multiflorum, Erodium botrys, Limnanthes douglasii, Taeniantherum caput-medusae*, and *Baccharis pilularis* shrubs.

Lolium perenne Semi-Natural Herbaceous Stands Perennial Rye Grass Field; (Membership Rules *Lolium perenne*> %50 relative cover, native plants< 15% relative cover). *Lolium perenne* is a non-native grass from Europe introduced into temperate regions throughout the world. It is an annual or a perennial, cool-season bunch grass.

Wildlife Associated with Semi-natural Grasslands

Semi-natural Grasslands with Herbaceous Layer (annual ruderal non-native grasslands) within the study area provide habitat for a variety of birds and Mammals. The vegetation present provides browse for deer (*Odocoileus hemionus*), cover and foraging habitat for mice and voles (*Peromyscus* ssp., *Reithrodontomys* ssp., *Microtus* ssp.), habitat for Pocket Gophers *Thomomys bottae),* foraging habitat for Broad-footed Moles (*Scapanus latimanus*), foraging and habitat for shrews, and cover and foraging habitat for Black-tailed Jackrabbit (*Lepus californicus)*. Numerous bird species forage for insects and seeds in these grasslands. Bats will forage for insects over this area and raptors will feed on reptiles and mammals in this type of vegetation cover. In general, however, the non-native annual grasslands, such as are present on the study site, are not an optimum habitat for wildlife.

Developed Hardscape with Landscape Plantings

This occupies a portion of the property and is visible on the aerial photograph. It consists of agricultural buildings, access roads, parking area, reservoir and process water treatment ponds not part of this project.

Figure 1. Fallow vineyard that has been disked. Proposed Winery Site.

Figure 2. View of proposed winery site.

Figure 3. View of Dunaweal Lane and the location of proposed winery entrance.

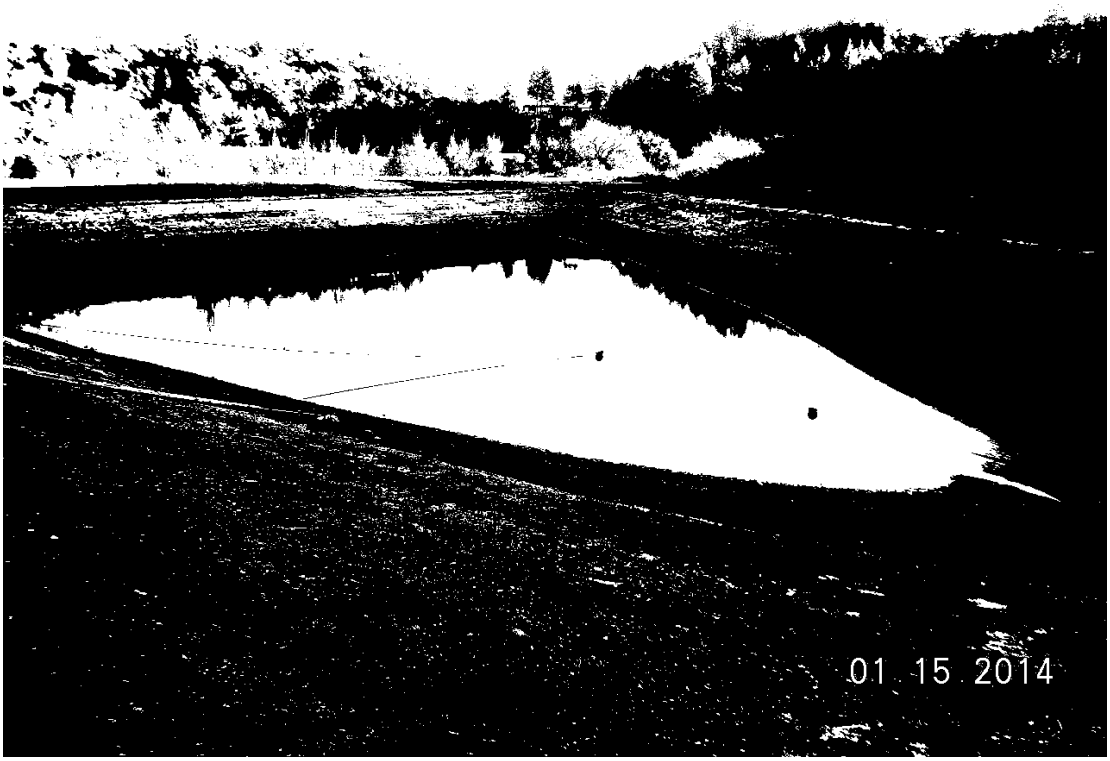


Figure 4. Existing vineyard reservoir. Pond turtle observed.

Figure 5. Created drainage swale adjacent to the waste water ponds.

The aerial photograph, Plate III illustrates the site and the surrounding environment. The environmental setting of the project site consists of:

- On the north side of the project – Vineyard, Rural Residential;
- On the east side of the project – Rural Residential and Riparian Corridor of Napa River;
- On the south side of the project – Vineyards; and
- On the west side of the project - State Highway 29.

The dominant land cover types in the vicinity of the property consist of vineyards followed by riparian corridor and on the edge of the valley floor, and Conifer Oak Woodland (Forest or Woodland Alliance)

Drainage on the site is by sheet flow into seasonal unnamed tributaries of the Napa River, and thence San Pablo Bay.

Napa County Definition for a Defined Drainages is a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United States Geological Survey maps most recently published, or any replacement to that symbol, and or any watercourse which has a well-defined channel with a depth greater that four feet and banks steeper that 3:1 and contains hydrophilic vegetation, riparian vegetation or woody-vegetation including tree species greater that ten feet in height.

There is a created drainage swale adjacent to the eastern property line. This swale would be not be considered a Napa County Defined Drainages. There are no direct impacts to this drainage associated with the proposed winery site or wastewater irrigation area.

C.3 Special-Status Species

Special-status organisms are plants or animals that have been designated by Federal or State agencies as rare, endangered, or threatened. Section 15380 of the California Environmental Quality Act [CEQA (September, 1983)] has a discussion regarding non-listed (State) taxa. This section states that a plant (or animal) must be treated as Rare or Endangered even if it is not officially listed as such. If a person (or organization) provides information showing that a taxa meets the State's definitions and criteria, then the taxa should be treated as such.

A map from the DFW CNDDB Rare Find shows known special-status species in the proximity of the project as shown on Plate II. These taxa as well as those listed in Appendix C Special-status Species known for the Quadrangle and Surrounding Quadrangles were considered and reviewed as part of our scoping for the project site and property. Reference sites were reviewed as part of our scoping for some of the species.

Tables II and III below provides a list of species that are known to occur DFW CNDDB Rare Find search) and U.S Fish and Wildlife Service. The table includes an analysis / justification for concluding absence.

Table II. Analysis of DFW CNDDB and USFWS special-status plant species from the region. Columns are arranged alphabetically by scientific name.

Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence.**
Allium peninsulare var. *franciscanum* Franciscan onion	Cismontane woodland, Valley & Foothill Grassland/Clay often Serpentinite	No	May-June	No	Absence of requisite edaphic conditions. Historic use precludes presence.
Amorpha californica var. *napensis* Napa False Indigo	Cismontane Woodland	No	April-July	No	Requisite habitat, exposure and historic land use preclude presence on project site.
Amsinkia lunularis Bent-flowered Fiddleneck	Cismontane Woodland, Valley & Foothill Grassland, 3 to 500 M	No	March-June	No	Potential for project site. No indications for presence during our fieldwork. Historic use precludes presence.
Arctostaphylos stanfordiana ssp. *decumbans* Rincon Manzanita	Chaparral, Lower Montane Coniferous Forest (openings), Rocky, often Serpentinite	No	Feb.-April	No	Absence of requisite habitat and vegetation associates on the site or in the immediate vicinity.
Astragalus claranus Clara Hunt's Milk-vetch	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	No	March-May	No	Absence of requisite micro-habitat, vegetation associates and historic land use precludes presence. Lack of finding during our fieldwork.
Astragalus rattanii var. *jepsonianus* Jepson's Milk-vetch	Cismontane Woodland, Valley & Foothill Grassland	No	April-June	No	Requisite habitat absent on the site or in the immediate vicinity. Historic use precludes presence.

Table II Continued Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence**
Balsamorhiza macrolepis var. *macrolepis* Big-scale Balsamroot	Chaparral, Cismontane Woodland, Valley & Foothill Grassland	No	March-June	No	Historic use of site precludes presence.
Blennosperma bakeri Sonoma Sunshine	Valley & Foothill Grassland, Vernal Pools	No	March-May	No	Absence of requisite mesic habitat.
Brodiaea leptandra Narrow-anthered California Brodiaea	Cismontane Woodland	No	May-June	No	Requisite habitat, exposure and historic land use preclude presence on project site.
Ceanothus confusus Rincon Ridge Ceanothus	Closed Cone Conifer Forests, Chaparral	No	Feb.-April	No	Absence of typical habitat and vegetation associates.
Ceanothus divergens Calistoga Ceanothus	Chaparral, Serpentinite or Volcanic-Rocky.	No	May-Sept.	No	Absence of typical habitat and vegetation associates. Lack of finding during our fieldwork.
Ceanothus purpureus Holly-leaved Ceanothus	Chaparral	No	March-May	No	Absence of typical habitat and vegetation associates. Lack of finding during our fieldwork.
Centromadia parryi ssp. *parryi* Pappose Tarplant	Grassland Salt or Alkaline Marshes	No	March-June	No	Requisite mesic conditions absent. Lack of finding during our fieldwork.
Eryngium constancei Loch Lomond Button-celery	Vernal Pools	No	April-June	No	Absence of mesic conditions required for presence. Lack of finding during our fieldwork.

Table II Continued Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence**
Downingia pusilla Dwarf Downingia	Wetlands	No	March May	No	Requisite aquatic habitat absent on the site or in the immediate vicinity.
Fritillaria liliacea Fragrant Fritillary	Open Grasslands	No	Feb.-April	No	Absence of edaphic conditions required for presence.
Hemizonia congesta ssp. *congesta* White Seaside Tarplant	Coastal Scrub, Valley & Foothill Grassland	No	April Oct.	No	Absence of requisite habitat. Historic use precludes presence.
Juncus luciensis Santa Lucia Dwarf Rush	Seeps, Meadows, Vernal Pools, Stream Sides	No	April-June	No	Absence of requisite mesic habitat.
Lasthenia burkei Burke's Goldfields	Vernal Pools	No	April – June	No	Requisite aquatic habitat absent on the site or in the immediate vicinity.
Layia septentrionalis Colusa Layia	Cismontane Woodland, Valley and Foothill Grassland, Serpentinite	No	April-May	No	Historic agricultural use and hardscape as well as absence of requisite edaphic conditions preclude presence.
Leptosiphon jepsonii Jepson's Leptosiphon	Chaparral, Cismontane Woodland, Valley and Foothill Grassland	No	April-May	No	Requisite habitat absent on the site or in the immediate vicinity. Lack of finding during our fieldwork.
Limnanthes floccosea ssp. *floccosa* Woolly Meadowfoam	Meadows & Seeps, Valley & Foothill Grassland, Cismontane Woodland, Vernal Pools.	No	April-May	No	Requisite mesic habitat absent on the site or in the immediate vicinity.

Table II Continued Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence**
Limnanthes vinculans Sebastopol Meadowfoam	Meadows and Seeps, Valley and Foothill Grassland, Vernal Pools.	No	April-May	No	Requisite mesic habitat absent on the site or in the immediate vicinity.
Lupinus sericatus Cobb Mountain Lupine	Broadleaved Upland Forest, Chaparral, Cismontane Woodland	No	March-June	No	Absence of requisite vegetation associates as well as historical use of project site precludes presence. Lack of finding during our fieldwork.
Microsris paludosa Marsh Microseris	Moist areas Closed Cone Conifer Forests, Cismontane Woodland, Valley & Foothill Grassland	No	April-June	No	Absence of typical habitat and vegetation associates. Historic use precludes presence.
Navarretia leucocephala ssp. *bakeri* Baker's Navarretia	Meadows and Seeps, Cismontane Woodland, Valley and Foothill Grassland, Vernal Pools	No	May-July	No	Absence of typical habitat and vegetation associates. Historic use precludes presence..
Penstemon newberryi var. *sonomensis* Sonoma Beardtongue	Cismontane Woodland	No	April-Aug.	No	Absence of typical habitat and vegetation associates.
Plagiobothrys strictus Calistoga Popcorn-flower	Vernal pools near thermal springs	No	March-June	No	Requisite mesic habitat absent on the site or in the immediate vicinity.
Poa napensis Napa Blue Grass	Meadows near Hot Springs	No	May-Aug.	No	Requisite mesic habitat absent on the site or in the immediate vicinity. Lack of finding during our fieldwork.

Table II Continued Scientific Name Common Name	**Species Habitat Association or Plant Community**	**Habitat present on Project Site**	**Bloom Time**	**Obs. on or Near Site**	**Analysis of habitat on project site for presence or absence**
Sidalcea hickmanii ssp. *napensis* Napa Checkerbloom	Chaparral Serpentinite	No	May-June	No	Absence of typical habitat and vegetation associates. Lack of finding during our fieldwork.
Sidalcea oregana ssp. *hydrophila* Marsh Checkerbloom	Meadows and seeps, Riparian scrub mesic	No	June-Aug.	No	Requisite mesic habitat absent.
Trifolium amoenum Showy Rancheria Clover	Coastal Bluff Scrub, Valley & Foothill Grassland (Sometimes Serpentinite)	No	April-June	No	Historic use of the site precludes presence. This species is vulnerable to disturbance and livestock grazing.
Trifolium hydrophilum Saline Clover	Marshes and Swamps Grassland	No	April-June	No	Absence of mesic habitat required for presence.
Trichostema ruygtii Napa Bluecurls, Vinegar Weed	Grassland	No	No	June-Aug.	Requisite habitat absent on the site. Historic use of the site precludes presence.
Triquetrella californica Coastal Triquetrella	Endemic To Coastal California < 30 Miles. Thin Soil On Outcrops In Scrub Or Grassland	No	NA	No	Lack of appropriate habitat for this moss.

Table III. Analysis of anmal species that are known to occur (DFW CNDDB Rare Find search). Columns are arranged alphabetically by scientific name.

Scientific Name Common Name	**Habitat**	**Potential for Property**	**Obs. on Project Site**	**Analysis of habitat on project site for presence or absence.**
Accipter sriatus Sharp-Shinned Hawk	Avian prey, Nests in conifers or tops of live oaks	Yes	No	Lack of habitat for prey. May fly over
Ambystoma californiense California Tiger Salamander	Ephemeral Breeding pools with upland oak woodlands for estivation	No	No	No breeding or upland habitat. Surrounded by development
Antrozous pallidus Pallid Bat	Roosts in Buildings and Overhangs, woodlands	No	No	No evidence for presence observed.
Buteo swainsoni Swainson's Hawk	Open areas with riparian influence	No	No	Lack of nesting habitat.
Corynorhinus townsendii Townsend's Big-eared Bat	Caves, also in Buildings	No	No	No roosting habitat present
Elanus leucurus White-tailed Kite	Nests in tall trees near water	No	No	Requisite habitat absent.
Emys marmorata Western Pond Turtle	Slow moving water or ponds	Yes	Yes	No habitat on project site. Observed in reservoir off site.
Falco mexicanus Prairie Falcon	Nests on cliffs	No	No	May fly over. Lack of habitat for nesting and feeding.
Falco peregrinus anatum American Peregrine Falcon	Nests on cliffs	No	No	May fly over. Lack of habitat for nesting and feeding.
Hypomesus transpacificus Delta Smelt	California Delta	No	No	Lack of aquatic habitat.

Table III Continued Scientific Name Common Name	**Habitat**	**Potential for Property**	**Obs. or Potential for Project Site**	**Analysis of habitat on project site for presence or absence.**
Hysterocarpus traski pomo Russian River Tule Perch	Riverine	No	No	Requisite habitat absent on project site.
Hydrochara rickseckeri Ricksecker's Water Scavenger Beetle	Shallow Water	No	No	Requisite habitat absent on project site.
Hydroporus leechi Leech's Skyline Diving Beetle	Ponds	No	No	Requisite habitat absent on project site.
Lavinia symmetricus navarroensis Navarro Roach	Riverine	No	No	Lack of habitat.
Myotis thysanodes Fringed Myotis	Montane Forests or Montane Meadows	Yes	No	No evidence for presence observed during our fieldwork.
Oncorhynchus kisutch Coho Salmon-Central California Coast ESU	Aquatic	No	No	Lack of habitat.
Oncorhynchus mykiss irideus Steelhead-central California Coast	Aquatic	No	No	Potential for presence in Napa River. No aquatic impacts. Habitat not associated with the proposed project.
Oncorhynchus tshawytswcha California Coastal Chinook Salmon	Aquatic	No	No	Lack of habitat.
Progne subis Purple Martin	Cavity nesters. Like open areas near water.	No	No	Habitat associated with proposed project is unlikely to contain feeding or nesting potential.
Rana boylii Foothill Yellow-legged Frog	Streams with pools	No	No	Potential for presence in Napa River. Unlikely to occur on project site.
Rana draytonii California Red-legged Frog	Creeks, Rivers, permanent flowing water.	No	No	Requisite habitat absent on project site.
Strix occidentalis caurina Northern Spotted Owl	Old growth, forested deep canyons.	No	No	Requisite habitat absent. Not associated with project.

Scientific Name Common Name	Habitat	Potential for Property	Obs. or Potential for Project Site	Analysis of habitat on project site for presence or absence.
Stygobromus cherylae Barr's Amphipod	Aquatic	No	No	Requisite habitat absent on project site.
Syncaris pacifica California Freshwater Shrimp	Creeks and Estuaries below 300 ft.	No	No	Requisite habitat required for presence lacking.
Taxidea taxus American Badger	Grasslands with food source of ground squirrels	No	No	Absence of food sources required for presence. No burrows observed

C.4 Discussion of Sensitive Habitat Types

The Napa County Baseline Data Report defines Biotic communities as the characteristic assemblages of plants and animals that are found in a given range of soil, climate, and topographic conditions across a region. Sensitive biotic communities in the County were identified using a two-step process for the Napa County Baseline Data Report. The two steps were:

1. An existing list of sensitive biotic communities prepared by the California Department of Fish and Wildlife (DFW) (2003a) was first reviewed by senior Jones & Stokes biologists, and those communities that may occur in the County were identified. Because the community names in the DFW list (2003a) did not correspond directly with the names used in the Land Cover Layer, a determination was made as to which land cover types on the Land Cover Layer correspond to the communities on the DFW list.

2. The aerial extent of each land cover types mapped in the County was generated from the land cover layer. Those biotic communities with an areal extent of less than 500 acres in the County (approximately 0.1% of the County) were identified. These communities were discussed with local experts and their conservation importance established. Those that were not already on the original DFW list and that were determined to be worthy of conservation were added to the list.

The Napa County Baseline Data Report as well as the California Department of Fish and Wildlife Natural Diversity Data Base (DFW CNDDB) lists recognized Sensitive Biotic Communities. The Napa County Baseline Data Report lists twenty-three communities which are considered sensitive by DFW due to their rarity, high biological diversity, and/or susceptibility to disturbance or destruction. The CNDDB communities in Napa County are the following:

Serpentine bunchgrass grassland,
Wildflower field (located within native grassland),
Creeping ryegrass grassland,
Purple Needlegrass grassland,
One-sided bluegrass grassland,
Mixed serpentine chaparral,

McNab cypress woodland,
Oregon white oak woodland,
California bay forests and woodlands,
Fremont cottonwood riparian forests,
Arroyo willow riparian forests,
Black willow riparian forests,
Pacific willow riparian forests,
Red willow riparian forests,
Narrow willow riparian forests,
Mixed willow riparian forests,
Sargent cypress woodland,
Douglas-fir-ponderosa pine forest (old-growth),
Redwood forest,
Coastal and valley freshwater marsh,
Coastal brackish marsh,
Northern coastal salt marsh, and
Northern vernal pool.

Napa County biotic communities of limited distribution that are sensitive include:
Native grassland;
Tanbark oak alliance;
Brewer willow alliance;
Ponderosa pine alliance;
Riverine, lacustrine, and tidal mudflats; and
Wet meadow grasses super alliance.

The grasslands within the footprint of the project do not consist of any of the sensitive grassland communities listed by the County Baseline Data Report of DFW.

The California Department of Fish and Wildlife Natural Diversity Database five-mile search shows that Serpentine Bunchgrass and Valley Needlegrass Grassland are present near the project site. There are no marshes or wetlands associated with the project footprint or the property.

D. POTENTIAL BIOLOGICAL IMPACTS

The project's effect on onsite or regional biological resources is considered to be significant if the project results in:

- Alteration of unique characteristics of the area, such as sensitive plant communities and habitats (i.e. serpentine habitat, wetlands, riparian habitat);
- Adverse impacts to special-status plant and animal species;
- Adverse impacts to important or vulnerable resources as determined by scientific opinion or resource agency concerns (i.e. sensitive biotic communities, special status habitats; e.g. wetlands);
- Loss of critical breeding, feeding or roosting habitat; and
- Interference with migratory routes or habitat connectivity.

In the sections below a discussion of potential impacts of the project on the biological resources is presented.

D.1 Analysis of Potential Impacts to Special-status Species

The proposed project is primarily within a previously developed landscape. There is no reason to expect any impacts to special-status species provided BMP's.

Western Pond Turtle *(Emys marmorata)* The pond turtle is found throughout California and is listed by the State as a Species of Concern. It does not have Federal status. Suitable habitat consists of any permanent or nearly permanent body of water or slow moving stream with suitable refuge, basking sites and nesting sites. Refuge sites include partially submerged logs or rocks or mats of floating vegetation. Basking sites can be partially submerged rocks or logs, as well as shallow-sloping banks with little or no cover. Nesting occurs in sandy banks or in soils up to 100 meters away from aquatic habitat.

It is unlikely that turtles would move in the area proposed for winery site. The disturbed area and vineyard do not provide potential nesting habitat, due to soil compaction dry ground with no cover or vegetated cover. Turtles most likely have moved in from the adjacent pond southeast of the property.

The **Calistoga Popcorn-Flower (*Plagiobothrys strictus)*** is shown with a confidence interval that overlaps that of the study area . This is a species that is limited in nature and is historically known from sites on the west side of State Highway 29. It is associated with geothermal springs or swales in clay loam soil. There is no habitat on the property that would support this species. We found no evidence that would indicate any potential for presence on the property. The other species known for the quadrangle and surrounding quadrangles and those listed in the table above are reasonably precluded by the historic use of the property and the hardscape present.

Pallid Bat (*Antrozous pallidus*): The Pallid Bat occupies a wide variety of habitats, such as grasslands, shrublands, and forested areas of oak and pine, but prefer rocky outcrops with desert scrub. The pallid bat roosts in caves, mines, crevices, and occasionally in hollow trees or buildings.

They forage over open country and within woodlands. No roosts or evidence of their presence was observed within the proposed project area potential. . The project and property do not contain potential roosting habitat.

Northern Spotted Owl (*Strix occidentalis caurina*): Northern spotted owls require mature forest patches with permanent water and suitable nesting trees and snags (Zeiner et al. 1990a). Northern spotted owls use dense, old-growth forests, or mid- to late- seral stage forests, with a multi-layered canopy for breeding (Remsen 1978). Mixed conifer, redwood, and Douglas-fir habitats are required for nesting and roosting. The project and property do not contain potential nesting habitat and the project sited do not contain potential foraging habitat.

Our fieldwork did not find any habitat for any special-status animal species known for the Quadrangle surrounding Quadrangles or for the region that would be impacted by the proposed project. The present conditions of the project site and historic use is such that there is little reason to expect the occurrence of any special-status animal species on the property or within the footprint of the project.

Habitat impacted by the proposed project is such that it will not substantially reduce or restrict the range of listed animals.

D.2 Analysis of Potential Impacts on Sensitive Habitat

There are no DFW Sensitive Communities or Napa County Sensitive Biotic Communities present on project site. The project footprint is primarily within a historically developed landscape.

Native Grassland - The project will not impact any populations of native grasslands.

Seasonal Wetland generally denotes areas where the soil is seasonally saturated and/or inundated by fresh water for a significant portion of the wet season, and then seasonally dry during the dry season. To be classified as "Wetland," the duration of saturation and/or inundation must be long enough to cause the soils and vegetation to become altered and adapted to the wetland conditions. Varying degrees of pooling or ponding, and saturation will produce different edaphic and vegetative responses. These soil and vegetative clues, as well as hydrological features, are used to define the wetland type. Seasonal wetlands typically take the form of shallow depressions and swales that may be intermixed with a variety of upland habitat types. Seasonal wetlands fall under the jurisdiction of the U.S. Army Corps of Engineers. There are no potential seasonal wetlands or vernal pools associated with the project footprint.

"Waters of the State" include drainages which are characterized by the presence of definable bed and bank that meet ACOE, and RWQCB definitions and or jurisdiction. Any direct discharge of storm water into "Waters of the State" will require ACOE, DFW, and RWQCB permits. There are no drainages or creeks associated with the project.

Riparian Vegetation is by all standards considered sensitive. Riparian Vegetation functions to control water temperature, regulate nutrient supply (biofilters), bank stabilization, rate of runoff, wildlife habitat (shelter and food), release of allochthonous material, release of woody debris which functions as habitat and slow nutrient release, and protection for aquatic organisms.

Riparian vegetation is also a moderator of water temperature has a cascade effect in that it relates to oxygen availability. The project will not impact any riparian vegetation.

Trees The project will not remove any native trees. Domestic walnuts along Dunaweal Lane will be removed by the proposed entrance.

Wildlife Habitat and Wildlife Corridors

Are natural areas interspersed with developed areas are important for animal movement, increasing genetic variation in plant and animal populations, reduction of population fluctuations, and retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that corridors should be at least 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape. There are no identifiable wildlife corridors through the property.

Raptor Nests, Bird Rookeries, Bat Roosts, Wildlife Dens or Burrows

No raptor nests were identified during our survey. We found no indications of nesting raptors on the property or in the near vicinity of the project sites. We did not observe any nests, whitewash or nest droppings, perching associated with the project site or trees along Dunaweal lane or adjoining parcels. No bird rookeries were present on the property or within the project footprint.

Very few burrows were observed, but small mammals and songbirds likely utilize habitats on the project site for foraging and cover. No significant wildlife dens or burrows were observed.

Unique Species that are Endemic, Rare or Atypical for the Area

No unique or unusual populations of plants or animals were present on the property or the project site.

The flora and fauna present are typical for the developed landscape of the region. There were no unique species, endemic populations of plants or animals or species that are rare or atypical for the area present on the project site or property.

Habitat Fragmentation

The proposed project is within a historically developed landscape. The project will not result in habitat fragmentation.

D.3 Potential Off-site Impacts of the Project

There is no expected impact to biological resources by the proposed project. BMP's during development of the site will prevent any significant off-site impacts.

D.4 Potential Cumulative Impacts

Cumulative biological effects are the result of incremental losses of biological resources within a region. The site location, historic development and use of the area within the footprint of the project negate the potential for cumulative biological resource effects. The project development is proposed for an area of the property that has had a long historic use. There is nothing to indicate that there will be any cumulative biological impacts of the project provided.

D.5 State and Federal Permit

Any impact to wetlands or drainages will require agency consultation and permits from the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and Regional Water Quality Control Boards for impacts to "Waters of the State."

The project as proposedwill not impact any wetlands or seasonal drainages.

E. RECOMMENDATIONS TO AVOID IMPACTS

E.1 Significance

The significance of potential impacts is a function of the scope and scale of the proposed project within the existing Federal, State and Local regulations and management practices. The determination of significance of impacts to biological resources consists of an understanding of the project as proposed and an evaluation of the context in which the impact may occur. The extent and degree of any impact on-site or off-site must be evaluated consistent with known or expected site conditions. Therefore, the significance of potential impacts is assessed relevant to a site-specific scale and the larger regional context.

E.2 Recommendations

The historic use of the property and project site conditions are such that there is no reason to expect any impacts to special-status species on-site or off-site provided standard construction practices are utilized. The project must comply with Napa County SWPPP requirements to ensure that best management practices are adopted in order to minimize the amount of sediment and other pollutants leaving the site during construction activities.

F. SUMMARY

This study is provided as background information necessary for evaluating potential impacts of the project on local Biological Resources.

We find that the proposed project following BMPs will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

The site is primarily developed landscape, and the history of use reasonably preclude presence of any special-status plant species on the project site.

We find that the project as proposed will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

We find that the project as proposed will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No wetlands or vernal pools are associated with the proposed project.

We find that the proposed project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

We find that the proposed project will not conflict with any local policies or ordinances protecting biological resources.

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G.2 Qualifications of Field Investigators

Chris K. Kjeldsen, Ph.D., Botany, Oregon State University, Corvallis, Oregon. He has over forty years of professional experience in the study of California flora. He was a member of the Sonoma County Planning Commission and Board of Zoning (1972 to 1976). He has over thirty years of experience in managing and conducting environmental projects involving impact assessment and preparation of compliance documents, Biological Assessments, DFW Habitat Assessments, DFW Mitigation projects, ACOE Mitigation projects and State Parks and Recreation Biological Resource Studies. Experience includes conducting special-status species surveys, jurisdictional wetland delineations, general biological surveys, 404 and 1600 permitting, and consulting on various projects. He taught Plant Taxonomy at Oregon State University and numerous botanical science and aquatic botany courses at Sonoma State University including sections on wetlands and wetland delineation techniques. He has supervised numerous graduate theses, NSF, DOE and local agency grants and served as a university administrator. He has a valid DFW collecting permit.

Daniel T. Kjeldsen, B. S., Natural Resource Management, California Polytechnic State University, San Luis Obispo, California. He spent l994 to l996 in the Peace Corps managing natural resources in Honduras, Central America. His work for the Peace Corps in Central America focused on watershed inventory, mapping and the development and implementation of a protection plan. He has over ten years of experience in conducting Biological Assessments, DFW Habitat Assessments, ACOE wetland delineations, wetland rehabilitation, and development of and implementation of mitigation projects and mitigation monitoring. He has received 3.2 continuing education units MCLE 27 hours in Determining Federal Wetlands Jurisdiction from the University of California Berkeley Extension. Attended Wildlife Society Workshop Falconiformes of Northern California Natural History and Management California Tiger Salamander 2003, Natural History and Management of Bats Symposium 2005, Western Pond Turtle Workshop 2007, and Western Section Bat Workshop 2011. Laguna Foundation & The Wildlife Project Rare Pond Species Survey Techniques 2009. A full resume is available upon request.

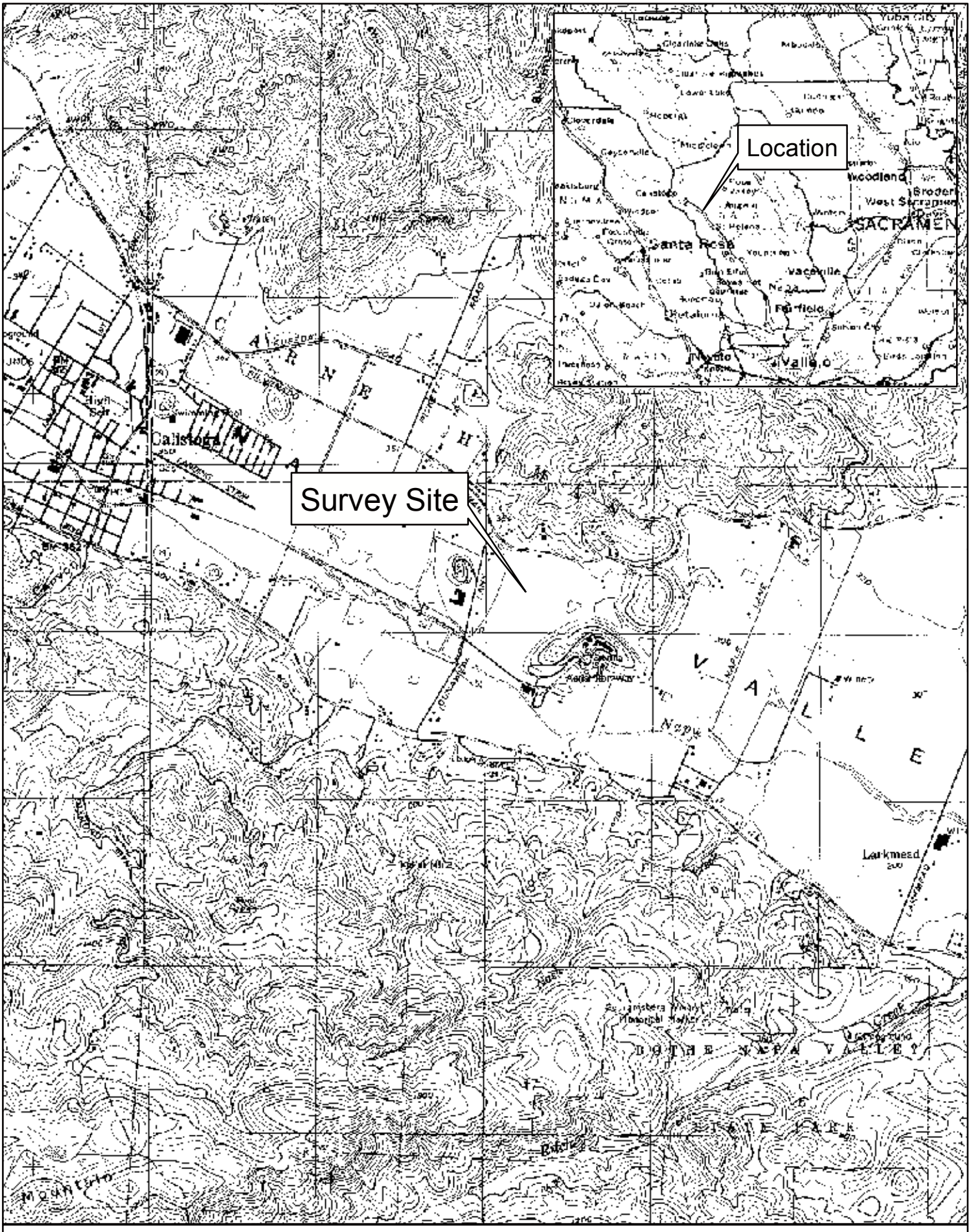

Plate I. Site / Location Map (Calistoga Quadrangle)

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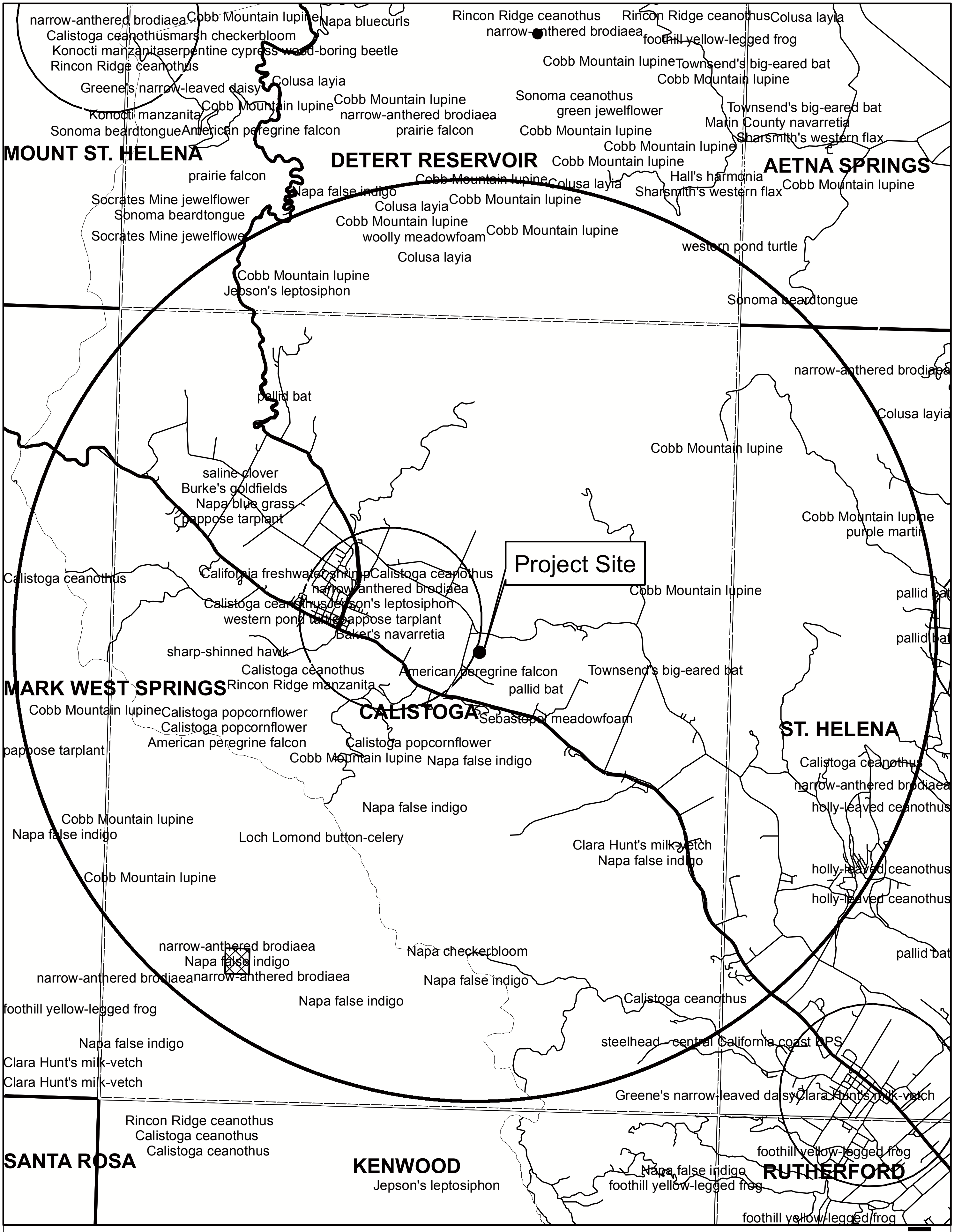


Plate II DFG CNDDB 5-Mile Search

(Data Date July 2014)

Plate III. Aerial Photo / Survey Area

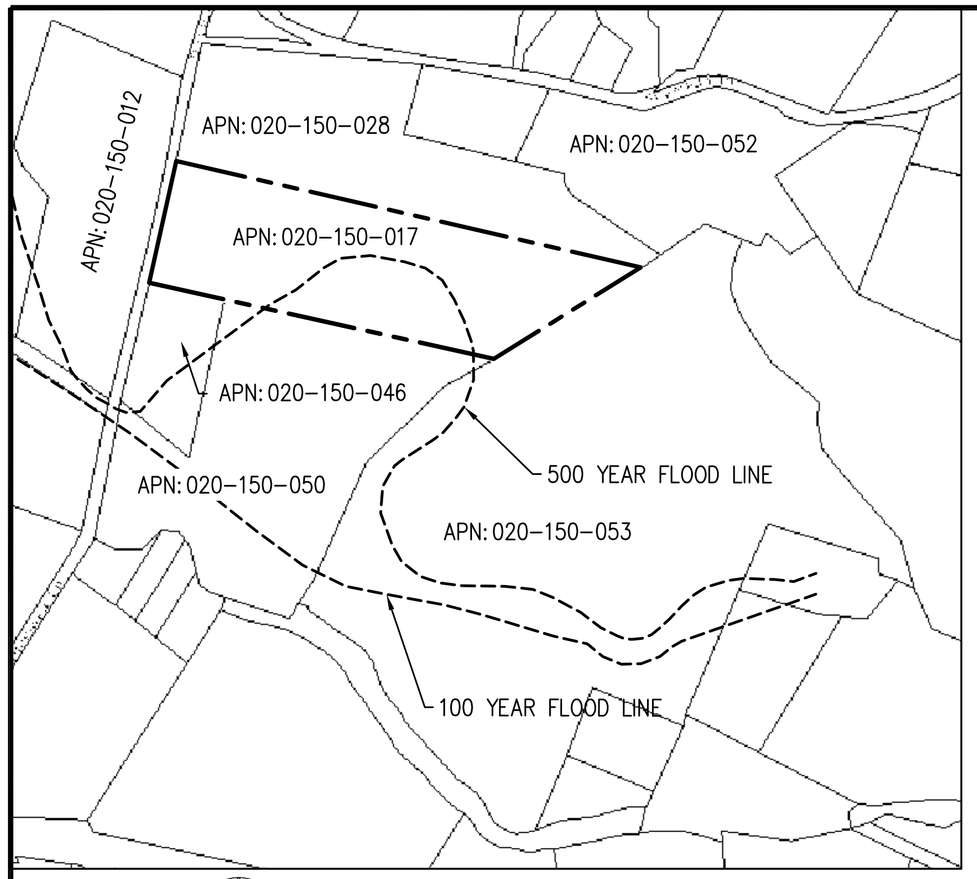
GIRARD WINERY

1077 Dunaweal Ln.

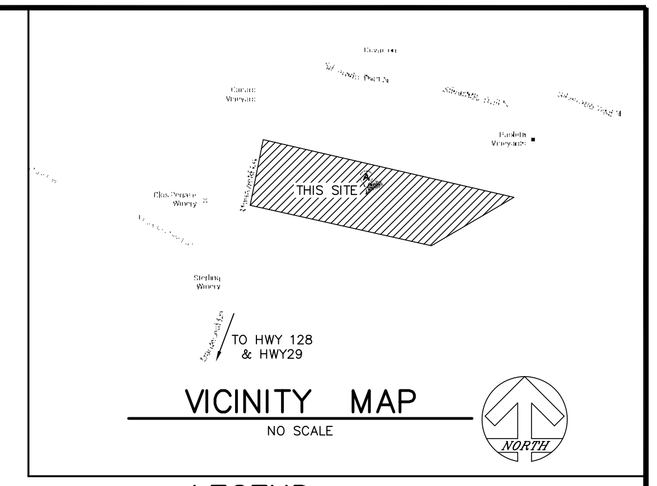
Calistoga, California 94515

APN 022-150-017

USE PERMIT APPLICATION



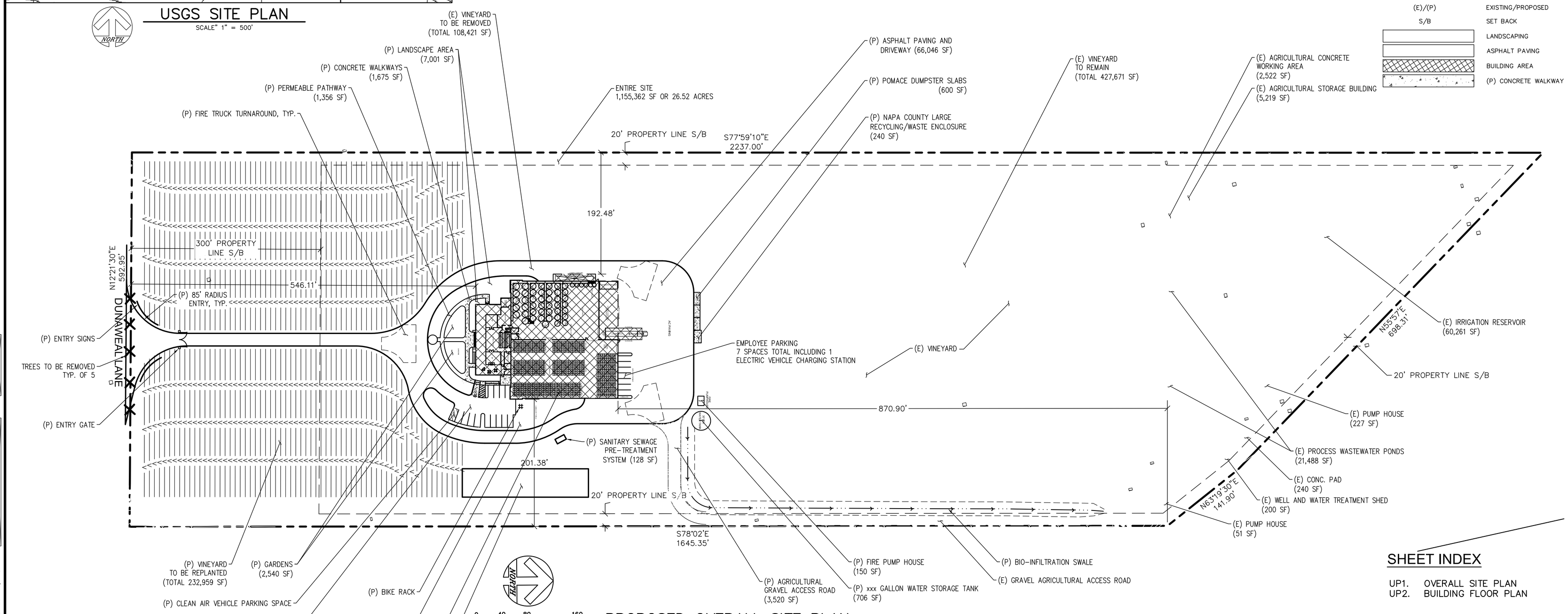
USGS SITE PLAN
SCALE" 1" = 500'



VICINITY MAP
NO SCALE

LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- DRAINAGE COURSE FLOWLINE
- VINEROW
- OVERHEAD UTILITIES
- SETBACK
- 100 YEAR FLOOD PLAIN
- 500 YEAR FLOOD PLAIN
- 20 / 15 — 5 FOOT INDEX / 1' INTERVAL CONTOURS
- W — WELL
- (E)/(P) — EXISTING/PROPOSED
- S/B — SET BACK
- LANDSCAPING
- ASPHALT PAVING
- BUILDING AREA
- (P) CONCRETE WALKWAY



NORTH
0 40 80 160
SCALE: 1" = 80'

PROPOSED OVERALL SITE PLAN

SCALE: 1" = 80'

OWNER/APPLICANT
VINTAGE WINE ESTATES
205 CONCOURSE BLVD.
SANTA ROSA, CA 95403
CONTACT: PAT RONEY
PH. (877) 289-9463

ARCHITECT
DEL STARRETT ARCHITECT
181 CONCOURSE BLVD., SUITE A
SANTA ROSA, CA 95403
CONTACT: DEL STARRETT
PH. (707) 526-9645

LANDSCAPE ARCHITECT
PARKER SMITH LANDSCAPE ARCHITECT
1945 PINER RD. #25
SANTA ROSA, CA 95403
PH. (707) 477-7502

ARCHITECT
ALWAYS ENGINEERING INC.
131 STONY CIRCLE, SUITE 1000
SANTA ROSA, CA 95401
CONTACT: BEN MONROE
PH. (707) 542-8795

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

	CUT:	ENGINEERED FILL:	NET:
TOTAL EARTHWORK:	2,172 CY	4,034 CY	1,862 CY (FILL)

TOTAL DISTURBED AREA = 3.59 ACRES

Note: Excess spoils will be disposed of in a county approved site or spread in onsite vineyards. Temporary grading spoils will be stockpiled onsite in the unplanted vineyard area until ready for use.

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK HOOREN
No. C66429
CIVIL
STATE OF CALIFORNIA

SHEET INDEX

REVISION	DESCRIPTION	BY	DATE

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
2360 Professional Drive (707) 542-8795
Santa Rosa, CA 95403 Fax (707) 542-6147
www.alwayseng.com

Prepared for: GIRARD WINERY
1077 DUNAWEAL LN., CALISTOGA, CA

Prepared on: February 4, 2014

USE PERMIT
OVERALL SITE PLAN
1077 DUNAWEAL LN., CALISTOGA, CA
APN:020-150-017

JOB# 13530

SHEET
UP1
OF
UP2

APPENDIX A
Plants and Animals Observed Associated With The Project Site

PLANTS

The nomenclature for the list of plants found on the project site and the immediate vicinity follows: Brodo, Irwin M., Sylvia Duran Sharnoff and Stephen Sharnoff, 2001, for the lichens;; S Norris and Shevrock - 2004, for the mosses; and Baldwin, B.G., D.H. Goldman, D.J.Keil, R.Patterson, T.J.Rosati, and D.H.Wilkens, editors, 2012 - for the vascular plants.. The plant list is organized by major plant group.

Habitat type indicates the general associated occurrence of the taxon on the project site or in nature.
Abundance refers to the relative number of individuals on the project site or in the region.

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

MINACEAE		
Alsia californica (W.J.Hooker&Arnott) Sullivant NCN	Epiphytic on Trees	Common
Dendroalsia abietina (Hook.) Brit. NCN	Epiphytic on Trees	Common
Homalothecium nuttallii (Wilson) Jaeger NCN	Epiphytic on Trees	Common
Orthotrichum lyellii Hook & Tayl. NCN	Epiphytic on Trees	Common
Scleropodium touretii (Brid.) L Koch. NCN	Epiphytic on Trees	Common
LICHENS		
FOLIOSE		
Flavoparmelia caperata (L.) Hale NCN	Epiphytic on Trees	Common
Flavopunctilia flaventor (Stirt.) Hale NCN	Epiphytic on Trees	Common
Parmelia sulcata Taylor NCN	Epiphytic on Trees	Common
Xanthoria polycarpa (Hoffm.) Rieber Pin-cushion Sunburst Lichen	Epiphytic on Trees	Common

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

FRUTICOSE		
Evernia prunastri (L.) Ach. NCN	Epiphytic on Trees	Common
Ramalina farinacea (L.) Ach. NCN	Epiphytic on Trees	Common
VASCULAR PLANTS DIVISION CONIFEROPHYTA--GYMNOSPERMS		
PINACEAE		
Pseudotsuga menziesii (Vassey) Mayr var. *menziesii* Douglas-fir	On Property Line	Common
TAXODIACEAE		
Sequoia sempervirens (D.Don) Endl. Redwood	Planted	Common
VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS		
CLASS--DICOTYLEDONAE- TREES		
MAGNOLIIDS		
LAURACEAE		
Umbellularia californica (Hook.&Arn.) Nutt. California Laurel, Sweet Bay, Pepperwood, California Bay	On Property Line	Occasional
EUDICOTS		
ERICACEAE Heath Family		
Arbutus menziesii Pursh Madrone	On Property Line	Common
FAGACEAE Oak Family		
Quercus agrifolia Nee Live Oak	On Property Line	Common
Quercus kelloggii Newb. Black Oak	On Property Line	Common
Quercus lobata Nee. Valley Oak	On Property Line	Common
JUGLANDACEAE Walnut Family		
**Juglans nigra* L. Black Walnut	Planted	Common
**Juglans regia* L. English Walnut	Planted	Common
OLEACEAE Olive Family		
**Olea europaea* L. Olive	Domestic Ruderal	Occasional

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

PLATANACEAE Sycamore Family		
**Platanus acerifolia* Wild London Plane Tree, Sycamore	Domestic Introduction	Occasional
ROSACEAE Rose Family		
**Pyrus communis* (L.) Pear	Escape or Domestic	Occasional
SALICACEAE Willow Family		
Populus fremontii S.Watson ssp. *fremontii* Fremont Cottonwood	Along property Line	Occasional
Salix laevigata Bebb. Red Willow	On Property Line	Common
SAPINDACEAE Soapberry Family		
Acer macrophyllum Prush Big-leaf Maple	On Property Line	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES

MAGNOLIIDS

EUDICOTS

ASTERACEAE (Compositae) Sunflower Family		
Baccharis pilularis deCandolle Coyote Brush	On Property Line	Common
ROSACEAE Rose Family		
**Rubus armeniacus* Focke Himalayan Blackberry	On Property Line	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--DICOTYLEDONAE-HERBS

EUDICOTS

APIACEAE (Umbelliferae) Carrot Family		
**Dacus carota*L. Wild Carrot, Queen Anne's Lace	Ruderal	Common
ASTERACEAE (Compositae) Sunflower Family		
**Anthemis cotula* L. Mayweed, Stinkweed, Dog-fennel	Ruderal	Common
**Calendula arvensis* L. Field Marigold	Ruderal	Occasional
**Helminthotheca echioides* (L.) Holub Ox-tongue (=*Picris echioides)*	Ruderal	Common
**Lactuca serriola* L. Prickly Lettuce	Ruderal	Occasional

MAJOR PLANT GROUP **Family** **Genus** **Common Name**	**Habitat Type**	**Abundance**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

**Senecio vulgaris* L. NCN	Ruderal	Occasional
**Taraxacum officinale* F.H.Wigg Dandelion	Ruderal	Common
Xanthium strumarium L. Cocklebur	Ruderal	Occasional
BRASSICACEAE Mustard Family		
**Brassica nigra* (L.) Koch Black Mustard	Ruderal	Common
DIPSACACEAE Teasel Family		
**Dipsacus sativus* L. Fuller's Teasel	Ruderal	Common
FABACEAE (Leguminosae) Legum Family		
**Vicia sativa* L. subsp. *nigra* Narrow Leaved-vetch	Ruderal	Common
GERANIACEAE Geranium Family		
**Erodium botrys* (Cav.) Bertol. Broadleaf Filaree, Long-beaked Filaree	Ruderal	Common
MALVACEAE Mallow Family		
**Malva parviflora* L. Cheeseweed, Mallow	Ruderal	Common
ONAGRACEAE Evening-primrose Family		
Epilobium brachycarpum C.Presl Willow Herb	Ruderal Dry Areas	Common
PLANTAGINACEAE Plantain Family		
**Plantago lanceolata* L. English Plantain	Ruderal	Common
POLYGONACEAE Buckwheat Family		
**Polygonum aviculare* L. subsp. *depressum* Common Prostrate Knotweed (=*P. arenastrum)*	Ruderal	Common
**Rumex crispus* L. Curly Dock	Ruderal	Common
VISCACEAE Misteltoe Family		
Phoradendron serotinum (Raf.) Johnst. subsp. *tomentosum* Oak Mistletoe (=*P. villosum)*	Woodlands	Common

MAJOR PLANT GROUP **Family** **Genus**	**Habitat Type**	**Abundance**
Common Name		

NCN = No Common Name, * = Non-native, @= Voucher Specimen

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--MONOCOTYLEDONAE-GRASSES

POACEAE Grass Family		
**Avena barbata* Link. Slender Wild Oat	Rudera	Common
**Bromus diandrus* Roth Ripgut Grass	Ruderal	Common
Elymus glaucus Buckley ssp. *glaucus* Blue Wildrye	Ruderal	Common
Festuca microstachys Nutt. NCN (=*Vulpia microstachys)*	Ruderal	Common
**Festuca myuros* L. Rattail Fescue,Zorro Annual Fescue (=*Vulpia myuros)*	Ruderal s	Common
**Phalaris aquatica* L. Harding Grass	Grasslands	Common

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS
CLASS--MONOCOTYLEDONAE-SEDGES AND RUSHES

CYPERACEAE Sedge Family		
Cyperus eragrostis Lam. Nut-grass	Ruderal Moist Areas	Common

Fauna Species Observed in the Vicinity of the Project Site

The nomenclature for the animals found on the project site and in the immediate vicinity follows: Mc Ginnis –1984, for the fresh water fishes; Stebbins -l985, for the reptiles and amphibians; and Udvardy and Farrand – 1998, for the birds; and Jameson and Peeters -l988 for the mammals.

AMPHIBIA AND REPTILIA		
ORDER		
Common Name	**Genus**	**Observed**
CHELONIA		
Northwestern Pond Turtle	*Actinemys marmorata marmorata*	X

AVES		
ORDER		
Common Name	**Genus**	**Observed**
AVES		
California Quail	*Callipepla californica*	X
Canada Goose	*Branta canadensis*	X
Common Crow	*Corvus brachyrhynchos*	X
European Starling	*Sturnus vulgaris*	*X*
CHELONIA		
Western Pond Turtle	*Emys marmorata*	X

MAMMALS		
ORDER		
Common Name	**Genus**	**Observed**
LAGOMORPHA		
Black-tailed Jackrabbit	*Lepus californicus*	Scat
RODENTIA		
Pocket Gopher	*Thomomys bottae*	Sight

APPENDIX B

Definitions (Not all are relevant to this project)

Absolute Cover. The percentage of ground covered by the vertical projection of the plant crowns of a species or defined set of plants as viewed from above The absolute cover of herbaceous plants includes any standing (attached to a living palnt, and not lying on the grouns) plant parts, whether alive or dead; this deviniton escludes litter and other searated plant material. The cover may include mosses, lichens and recognizable cryptogamic crusts.

Best Management Practices. Best management practices represent the construction or agricultural practices that are consistent with regulatory laws or industry standards which are prudent and consistent with site conditions.

Confidence Interval. The California Department of Fish and Wildlife (DFW) California Natural Diversity Data Base (CNDDB) uses map polygon projections for indicating potential for occurrence of special-status plant populations around a recorded occurrence.

Critical Habitat. Critical habitat is by definition a designated by U.S. Fish and Wildlife Service as essential for the existence of a particular population of species. The U.S. Fish and Wildlife Service designates critical habitat for special-status species as an area or region within which a species may be found. "Critical habitat" is defined as areas essential for the "conservation" of the species in question.

Habitat Fragmentation. The issue of habitat fragmentation is of concern locally, nationally, and globally. The term habitat fragmentation refers to the loss of connections within the biosphere such that the movement, genetic exchange, and dispersal of native populations is restricted or prevented. Anthropogenic habitat fragmentation can be the result of a road construction, logging, agriculture, or urban growth. The practice of retaining or planning for "Corridors" is an attempt to address this issue. Corridors that allow movement of wildlife through and around a site include stream and riparian areas and also areas that connect two or more sites of critical wildlife habitat.

Habitat Types. Habitat types are used by DFW to categorize elements of nature associated with the physical and biological conditions in an area. These are of particular importance for the wildlife they support, and they are important as indicators of the potential for special-status species.

Relative Cover. A measure of the cover of a species in relation to that of other species within a set area or sample of vegetation. This is usually calculated for species that occur in the same layer (stratum) of vegetation, and this measure can be calculated across a group of samples.

Riparian Corridor. Riparian corridors can be defined as the stream channel between the low-water and high-water marks plus the terrestrial landscape above the high water-mark (where vegetation may be influenced by elevated water tables or extreme flooding and by the ability of the soils to hold water; Naiman, et. al. 1993).

Riparian Corridor or Riparian Ecosystem. Riparian ecosystems occupy the ecotone between upland and lotic aquatic realms. Riparian corridors can be defined as the stream channel between the low- and high-water marks plus the terrestrial landscape above the high water-mark (where vegetation may be influenced by elevated water tables or extreme flooding and by the ability of the soils to hold water; Naiman, et. al. 1993).

Ruderal Habitat. Ruderal habitat is characterized by disturbance and the establishment and dominance of non-native introduced weed species. Ruderal plant communities are a function of or result of agricultural or logging practices. This habitat is typically found along graded roads, erosional surfaces or sites influenced by agricultural animal populations.

Sensitive Habitat. DFW Natural Diversity Data Base uses environmentally sensitive plant communities for plant populations that are rare or threatened in nature. Sensitive habitat is defined as any area in which plant or animal life or their habitats are either rare or especially valuable and any area which meets one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Wildlife Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tide lands and marshes, (4) coastal and offshore areas containing breeding or nesting sites and coastal areas used by migratory and resident water-associated birds for resting areas and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes. Sensitive Habitat also includes wetlands and tributaries to “Waters of the US” as defined by the Corps of Engineers (ACOE) and DFW seasonal streams DFW.

Serpentinite. Serpentinite or serpentine consists of ultramafic rock outcrops that due to the unique mineral composition support a unique flora often of endemics. Kruckeberg, 1984, indicates that the taxonomy and evolutionary responses to serpentines include ”1) taxa endemic to serpentine, 2) local or regional indicator taxa, largely confined to serpentine in parts of their ranges, 3) indifferent or “bodenvag” taxa that range on and off serpentine, and 4) taxa that are excluded from serpentine.” Serpentine outcrops or serpentinites support numerous special-status plant taxa.

Special-status Species. Special-status organisms are plants or animals that have been designated by Federal or State agencies as rare, endangered, or threatened. We have also included plant species listed by the CNPS. Section 15380 of the California Environmental Quality Act [CEQA (September, 1983)] has a discussion regarding non-listed (State) taxa. This section states that a plant (or animal) must be treated as Rare or Endangered even if it is not officially listed as such. If a person (or organization provides information showing that a taxa meets the State’s definitions and criteria, then the taxa should be treated as such.

Standard Agricultural Practices. Standard agricultural practices are best management practices which are prudent as applied in the agricultural industry such as the use of regulated pesticides,

methods of and timing of weed control, appropriate fertilizer application, irrigation management, frost protection, erosion control and soil conservation and management, and dust control among other practices.

Streams. The DFW definition of stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports wildlife, fish, or other aquatic life. This includes watercourses having a surface or subsurface flow that support or have supported riparian vegetation. DFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

Target organisms. Special-status species that are listed by: the California Department of Fish and recorded in the Natural Diversity Data Base for the Quadrangle and surrounding Quadrangles of the project site; the California Native Plant Society for the habitat present on the project site Quadrangle and surrounding Quadrangles; Federal Endangered and Threatened Species that Occur in the U.S.G.S. 7 1/2 Minute Quadrangle; our experience with the local flora and fauna; any species identified by local individuals that are considered to be rare in the region; and DFW Five Mile radius CNDDB Rarefind search (See Plate II).

Wetlands. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Many surface waters and wetlands in California meet the criteria for waters of the United States, including intermittent streams and seasonal lakes and wetlands.

Vernal Pools. Vernal pools are a type of seasonal wetland distinct for California and the western US. Typically they are associated with seasonal rainfall or "Mediterranean climate" and have a distinct flora and fauna, an impermeable or slowly permeable substrate and contain standing water for a portion of the year. They are characterized by a variable aquatic and dry regime with standing water during the spring plant growth regime. They have a high degree of endemism of flora and fauna.

Federal Regulations

Federal Endangered Species Act Pursuant to the federal Endangered Species Act (ESA), the U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA), have authority over projects that may affect the continued existence of a species that is federally listed as threatened or endangered. Section 9 of ESA prohibits the take of a federally listed species; take is defined, in part, as killing, harming, or harassment and includes habitat modification or degradation where it actually results in death or injury to wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

Section 404 of the Clean Water Act Section 404 of the Clean Water Act establishes a requirement to obtain a permit before any activity that involves any discharge of dredged or fill material into "waters of the United States," including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce,

tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries.

Army Corps of Engineers (ACOE) regulates and issues 404 permits for activities that involve the discharge of dredged or fill materials into waters of the United States. A Water Quality Certification 401 permit must also be obtain from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Board to the nine Regional Water Quality Control Boards (RWQCBs).

State Regulations

California Endangered Species Act Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the Fish and Wildlife Code, a permit from Department of Fish and Wildlife (DFW) is required for projects that could result in the take of a state listed threatened or endangered species. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include "harm" or "harass," as the ESA does. As a result, the threshold for a take under CESA is higher than that under the ESA.

California Fish and Wildlife Code Section 1600 – Lake and Streambed Alteration Permit. All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by DFW pursuant to Section 1600 of the California Fish and Wildlife Code. Section 1600 states that it is unlawful for any person, government agency, state, local, or any public utility to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or deposit or dispose of waste, debris, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake without first notifying DFW of such activity.

Porter-Cologne Water Quality Control Act Under the Porter-Cologne Water Quality Control Act, "waters of the state" fall under the jurisdiction of the RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control non-point and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under Section 401 of the Clean Water Act.

APPENDIX C

CNPS Special Status-species Listed for the Project Quadrangle and Surrounding Quadrangles

DFW CNDDB Rare Find Special-status Species Listed for the Quadrangle and Surrounding Quadrangles

U.S. Fish and Wildlife Service Listed Species for the Quadrangle

Inventory of Rare and Endangered Plants - 7th edition interface

v7-14jun 6-11-14

Status: search results - Wed, Jul. 16, 2014 16:06 ET c

Your Quad Selection: Calistoga (517D) 3812255, Kenwood (501A) 3812245, Santa Rosa (501B) 3812246, Aetna Springs (516B) 3812264, St. Helena (516C) 3812254, Rutherford (500B) 3812244, Detert Reservoir (517A) 3812265, Mount St. Helena (517B) 3812266, Mark West Springs (517C) 3812256

scientific	common	family	CNPS
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	List 1B.2
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	Poaceae	List 1B.1
Amorpha californica var. napensis	Napa false indigo	Fabaceae	List 1B.2
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	List 1B.2
Anomobryum julaceum	slender silver moss	Bryaceae	List 2B.2
Arctostaphylos canescens ssp. sonomensis	Sonoma canescent manzanita	Ericaceae	List 1B.2
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Ericaceae	List 1B.3
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	Ericaceae	List 1B.1
Astragalus claranus	Clara Hunt's milk-vetch	Fabaceae	List 1B.1
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	Fabaceae	List 1B.2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	List 1B.2
Blennosperma bakeri	Sonoma sunshine	Asteraceae	List 1B.1
Brodiaea leptandra	narrow-anthered brodiaea	Themidaceae	List 1B.2

Ceanothus confusus	Rincon Ridge ceanothus	Rhamnaceae	List 1B.1
Ceanothus divergens	Calistoga ceanothus	Rhamnaceae	List 1B.2
Ceanothus purpureus	holly-leaved ceanothus	Rhamnaceae	List 1B.2
Ceanothus sonomensis	Sonoma ceanothus	Rhamnaceae	List 1B.2
Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	List 1B.2
Cryptantha dissita	serpentine cryptantha	Boraginaceae	List 1B.2
Downingia pusilla	dwarf downingia	Campanulaceae	List 2B.2
Erigeron biolettii	streamside daisy	Asteraceae	List 3
Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	List 1B.2
Eriogonum nervulosum	Snow Mountain buckwheat	Polygonaceae	List 1B.2
Eryngium constancei	Loch Lomond button-celery	Apiaceae	List 1B.1
Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
Fritillaria pluriflora	adobe-lily	Liliaceae	List 1B.2
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	List 1B.2
Harmonia hallii	Hall's harmonia	Asteraceae	List 1B.2
Hemizonia congesta ssp. congesta	white seaside tarplant	Asteraceae	List 1B.2
Hesperolinon bicarpellatum	two-carpellate western flax	Linaceae	List 1B.2
Hesperolinon sharsmithiae	Sharsmith’s western	Linaceae	List

	flax		1B.2
Juncus luciensis	Santa Lucia dwarf rush	Juncaceae	List 1B.2
Lasthenia burkei	Burke's goldfields	Asteraceae	List 1B.1
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	List 1B.1
Layia septentrionalis	Colusa layia	Asteraceae	List 1B.2
Leptosiphon jepsonii	Jepson's leptosiphon	Polemoniaceae	List 1B.2
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	List 3
Limnanthes vinculans	Sebastopol meadowfoam	Limnanthaceae	List 1B.1
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	List 1B.2
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	List 3.2
Microseris paludosa	marsh microseris	Asteraceae	List 1B.2
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Polemoniaceae	List 1B.1
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	Polemoniaceae	List 1B.2
Navarretia myersii ssp. deminuta	small pincushion navarretia	Polemoniaceae	List 1B.1
Navarretia rosulata	Marin County navarretia	Polemoniaceae	List 1B.2
Penstemon newberryi var. sonomensis	Sonoma beardtongue	Plantaginaceae	List 1B.3
Plagiobothrys strictus	Calistoga popcorn-flower	Boraginaceae	List 1B.1
Poa napensis	Napa blue grass	Poaceae	List

			1B.1
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	Malvaceae	List 1B.1
Sidalcea oregana ssp. hydrophila	marsh checkerbloom	Malvaceae	List 1B.2
Sidalcea oregana ssp. valida	Kenwood Marsh checkerbloom	Malvaceae	List 1B.1
Streptanthus batrachopus 📷	Tamalpais jewel-flower	Brassicaceae	List 1B.3
Streptanthus brachiatus ssp. brachiatus	Socrates Mine jewel-flower	Brassicaceae	List 1B.2
Streptanthus brachiatus ssp. hoffmanii 📷	Freed's jewel-flower	Brassicaceae	List 1B.2
Streptanthus hesperidis	green jewel-flower	Brassicaceae	List 1B.2
Streptanthus morrisonii ssp. elatus 📷	Three Peaks jewel-flower	Brassicaceae	List 1B.2
Streptanthus morrisonii ssp. kruckebergii	Kruckeberg's jewel-flower	Brassicaceae	List 1B.2
Streptanthus vernalis 📷	early jewel-flower	Brassicaceae	List 1B.2
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	List 2B.2
Trichostema ruygtii 📷	Napa bluecurls	Lamiaceae	List 1B.2
Trifolium amoenum 📷	two-fork clover	Fabaceae	List 1B.1
Trifolium hydrophilum	saline clover	Fabaceae	List 1B.2
Triquetrella californica 📷	coastal triquetrella	Pottiaceae	List 1B.2
Viburnum ellipticum 📷	oval-leaved viburnum	Adoxaceae	List 2B.3

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the CALISTOGA (517D) U.S.G.S. 7 1/2 Minute Quad

Report Date: July 16, 2014

Listed Species

Invertebrates

Syncaris pacifica
California freshwater shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha
California coastal chinook salmon (T) (NMFS)
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii
California red-legged frog (T)

Birds

Strix occidentalis caurina
northern spotted owl (T)

Plants

Astragalus clarianus
Clara Hunt's milk-vetch (E)

Eryngium constancei
Loch Lomond coyote-thistle (=button-celery) (E)

Lasthenia burkei
Burke's goldfields (E)

Plagiobothrys strictus
Calistoga allocarya (popcorn-flower) (E)

Poa napensis
Napa bluegrass (E)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the . Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Five Mile

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	*Accipiter striatus* sharp-shinned hawk	ABNKC12020			G5	S3	
2	*Amorpha californica var. napensis* Napa false indigo	PDFAB08012			G4T2	S2	1B.2
3	*Antrozous pallidus* pallid bat	AMACC10010			G5	S3	SC
4	*Arctostaphylos stanfordiana ssp. decumbens* Rincon Ridge manzanita	PDERI041G4			G3T1	S1	1B.1
5	*Astragalus claranus* Clara Hunt's milk-vetch	PDFAB0F240	Endangered	Threatened	G1	S1	1B.1
6	*Brodiaea leptandra* narrow-anthered brodiaea	PMLIL0C022			G3?	S3?	1B.2
7	*Ceanothus confusus* Rincon Ridge ceanothus	PDRHA04220			G1	S1	1B.1
8	*Ceanothus divergens* Calistoga ceanothus	PDRHA04240			G2	S2	1B.2
9	*Ceanothus purpureus* holly-leaved ceanothus	PDRHA04160			G2	S2	1B.2
10	*Centromadia parryi ssp. parryi* pappose tarplant	PDAST4R0P2			G3T1	S1	1B.2
11	*Coastal and Valley Freshwater Marsh*	CTT52410CA			G3	S2.1	
12	*Corynorhinus townsendii* Townsend's big-eared bat	AMACC08010		Candidate Threatened	G3G4	S2S3	SC
13	*Emys marmorata* western pond turtle	ARAAD02030			G3G4	S3	SC
14	*Eryngium constancei* Loch Lomond button-celery	PDAPI0Z0W0	Endangered	Endangered	G1	S1	1B.1
15	*Falco mexicanus* prairie falcon	ABNKD06090			G5	S4	
16	*Falco peregrinus anatum* American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
17	*Juncus luciensis* Santa Lucia dwarf rush	PMJUN013J0			G2G3	S2S3	1B.2
18	*Lasthenia burkei* Burke's goldfields	PDAST5L010	Endangered	Endangered	G1	S1	1B.1
19	*Layia septentrionalis* Colusa layia	PDAST5N0F0			G2	S2	1B.2
20	*Leptosiphon jepsonii* Jepson's leptosiphon	PDPLM09140			G2	S2	1B.2
21	*Limnanthes floccosa ssp. floccosa* woolly meadowfoam	PDLIM02043			G4T4	S3.2	4.2
22	*Limnanthes vinculans* Sebastopol meadowfoam	PDLIM02090	Endangered	Endangered	G1	S1	1B.1
23	*Lupinus sericatus* Cobb Mountain lupine	PDFAB2B3J0			G2	S2	1B.2

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24	*Myotis thysanodes* fringed myotis	AMACC01090			G4	S4	
25	*Navarretia leucocephala ssp. bakeri* Baker's navarretia	PDPLM0C0E1			G4T2	S2	1B.1
26	*Oncorhynchus mykiss irideus* steelhead - central California coast DPS	AFCHA0209G	Threatened		G5T2Q	S2	
27	*Penstemon newberryi var. sonomensis* Sonoma beardtongue	PDSCR1L483			G4T1	S2	1B.3
28	*Plagiobothrys strictus* Calistoga popcornflower	PDBOR0V120	Endangered	Threatened	G1	S1	1B.1
29	*Poa napensis* Napa blue grass	PMPOA4Z1R0	Endangered	Endangered	G1	S1	1B.1
30	*Progne subis* purple martin	ABPAU01010			G5	S3	SC
31	*Sidalcea hickmanii ssp. napensis* Napa checkerbloom	PDMAL110A6			G3T1	S1	1B.1
32	*Sidalcea oregana ssp. hydrophila* marsh checkerbloom	PDMAL110K2			G5T3	S3	1B.2
33	*Syncaris pacifica* California freshwater shrimp	ICMAL27010	Endangered	Endangered	G1	S1	
34	*Trifolium hydrophilum* saline clover	PDFAB400R5			G2	S2	1B.2

CALIFORNIA DEPARTMENT OF **RareFind**

Query Summary:
Quad (Calistoga (3812255) Kenwood (3812245) Santa Rosa (3812246) Aetna Springs (3812264) St. Helena (3812254) Rutherford (3812244) Detert Reservoir (3812265) Mount St. Helena (3812266) Mark West Springs (3812256))
Habitat (Valley & foothill grassland Aquatic)

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Allium peninsulare var. franciscanum	Franciscan onion	Monocots	PMLIL021R1	14	1	None	None	G5T1	S1	1B.2	null	Cismontane woodland | Ultramafic | Valley & foothill grassland
Ambystoma californiense	California tiger salamander	Amphibians	AAAAA01180	1094	25	Threatened	Threatened	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland
Amsinckia lunaris	bent-flowered fiddleneck	Dicots	PDBOR01070	64	2	None	None	G2?	S2?	1B.2	BLM_S-Sensitive	Cismontane woodland | Valley & foothill grassland
Antrozous pallidus	pallid bat	Mammals	AMACC10010	402	10	None	None	G5	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	Chaparral | Coastal scrub | Desert wash | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Riparian woodland | Sonoran desert scrub | Upper montane coniferous forest | Valley & foothill grassland
Astragalus claranus	Clara Hunt's milk-vetch	Dicots	PDFAB0F240	6	6	Endangered	Threatened	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Valley & foothill grassland
Astragalus rattanii var. jepsonianus	Jepson's milk-vetch	Dicots	PDFAB0F7E1	47	1	None	None	G4T3	S3	1B.2	BLM_S-Sensitive	Cismontane woodland | Ultramafic | Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	43	2	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-Sensitive	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland
Blennosperma bakeri	Sonoma sunshine	Dicots	PDAST1A010	23	4	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Valley & foothill grassland | Vernal pool | Wetland
												Broadleaved upland forest | Chaparral |

Brodiaea leptandra	narrow-anthered brodiaea	Monocots	PMLIL0C022	29	19	None	None	G3?	S3?	1B.2	null	Cismontane woodland | Lower montane coniferous forest | Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2394	1	None	Threatened	G5	S3	null	ABC_WLBCC-Watch List of Birds of Conservation Concern | BLM_S-Sensitive | IUCN_LC-Least Concern | USFS_S-Sensitive | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland
Centromadia parryi ssp. parryi	pappose tarplant	Dicots	PDAST4R0P2	29	4	None	None	G3T1	S1	1B.2	BLM_S-Sensitive	Coastal prairie | Marsh & swamp | Meadow & seep | Valley & foothill grassland
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	487	10	None	Candidate Threatened	G3G4	S2S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	Broadleaved upland forest | Chaparral | Chenopod scrub | Great Basin grassland | Great Basin scrub | Joshua tree woodland | Lower montane coniferous forest | Meadow & seep | Mojavean desert scrub | Riparian forest | Riparian woodland | Sonoran desert scrub | Sonoran thorn woodland | Upper montane coniferous forest | Valley & foothill grassland
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	127	1	None	None	GU	S2	2B.2	null	Valley & foothill grassland | Vernal pool | Wetland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	158	1	None	None	G5	S3	null	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_LC-Least Concern	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1136	23	None	None	G3G4	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable |	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters |

											USFS_S-Sensitive	Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Falco mexicanus	prairie falcon	Birds	ABNKD06090	457	2	None	None	G5	S4	null	CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Sonoran desert scrub | Valley & foothill grassland
Fritillaria liliacea	fragrant fritillary	Monocots	PMLIL0V0C0	69	6	None	None	G2	S2	1B.2	USFS_S-Sensitive	Coastal prairie | Coastal scrub | Ultramafic | Valley & foothill grassland
Fritillaria pluriflora	adobe-lily	Monocots	PMLIL0V0F0	107	1	None	None	G3	S3	1B.2	BLM_S-Sensitive | SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland
Hemizonia congesta ssp. congesta	white seaside tarplant	Dicots	PDAST4R065	33	1	None	None	G5T2T3	S2S3	1B.2	null	Coastal scrub | Valley & foothill grassland
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	1	None	None	G2?	S2?	null	null	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Hydroporus leechi	Leech's skyline diving beetle	Insects	IICOL55040	13	1	None	None	G1?	S1?	null	null	Aquatic
Hysterocarpus traski pomo	Russian River tule perch	Fish	AFCQK02011	4	1	None	None	G5T2	S2	null	AFS_VU-Vulnerable | CDFW_SSC-Species of Special Concern	Aquatic | Klamath/North coast flowing waters
Lavinia symmetricus navarroensis	Navarro roach	Fish	AFCJB19023	4	1	None	None	G4T1T2	S1S2	null	CDFW_SSC-Species of Special Concern	Aquatic | Sacramento/San Joaquin flowing waters
Layia septentrionalis	Colusa layia	Dicots	PDAST5N0F0	46	11	None	None	G2	S2	1B.2	BLM_S-Sensitive	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	Dicots	PDLIM02043	54	1	None	None	G4T4	S3.2	4.2	null	Chaparral | Cismontane woodland | Valley & foothill grassland | Vernal pool | Wetland
Limnanthes vinculans	Sebastopol meadowfoam	Dicots	PDLIM02090	43	8	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland
Microseris	marsh											Cismontane woodland | Closed-cone

paludosa	microseris	Dicots	PDAST6E0D0	31	1	None	None	G2	S2	1B.2	null	coniferous forest | Coastal scrub | Valley & foothill grassland
Navarretia leucocephala ssp. bakeri	Baker's navarretia	Dicots	PDPLM0C0E1	58	8	None	None	G4T2	S2	1B.1	BLM_S-Sensitive	Cismontane woodland | Lower montane coniferous forest | Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland
Oncorhynchus mykiss irideus	steelhead - central California coast DPS	Fish	AFCHA0209G	38	2	Threatened	None	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters
Plagiobothrys strictus	Calistoga popcornflower	Dicots	PDBOR0V120	3	3	Endangered	Threatened	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland
Poa napensis	Napa blue grass	Monocots	PMPOA4Z1R0	2	2	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Meadow & seep | Valley & foothill grassland | Wetland
Rana boylii	foothill yellow-legged frog	Amphibians	AAABH01050	805	19	None	None	G3	S2S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened | USFS_S-Sensitive	Aquatic | Chaparral | Cismontane woodland | Coastal scrub | Klamath/North coast flowing waters | Lower montane coniferous forest | Meadow & seep | Riparian forest | Riparian woodland | Sacramento/San Joaquin flowing waters
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1335	3	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable	Aquatic | Artificial flowing waters | Artificial standing waters | Freshwater marsh | Marsh & swamp | Riparian forest | Riparian scrub | Riparian woodland | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Serpentine Bunchgrass	Serpentine Bunchgrass	Herbaceous	CTT42130CA	22	1	None	None	G2	S2.2	null	null	Valley & foothill grassland
Stygobromus cherylae	Barr's amphipod	Crustaceans	ICMAL05D60	1	1	None	None	G1	S1	null	null	Aquatic
Syncaris pacifica	California freshwater shrimp	Crustaceans	ICMAL27010	18	3	Endangered	Endangered	G1	S1	null	IUCN_EN-Endangered	Aquatic | Sacramento/San Joaquin flowing waters

Taxidea taxus	American badger	Mammals	AMAJF04010	476	1	None	None	G5	S4	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland
Trichostema ruygtii	Napa bluecurls	Dicots	PDLAM220H0	19	2	None	None	G2	S2	1B.2	null	Chaparral | Cismontane woodland | Lower montane coniferous forest | Valley & foothill grassland | Vernal pool | Wetland
Trifolium amoenum	showy rancheria clover	Dicots	PDFAB40040	26	2	Endangered	None	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden | SB_USDA-US Dept of Agriculture	Coastal bluff scrub | Ultramafic | Valley & foothill grassland
Trifolium												Marsh & swamp | Valley & foothill

hydrophilum	saline clover	Dicots	PDFAB400R5	49	4	None	None	G2	S2	1B.2	null	grassland | Vernal pool | Wetland
Triquetrella californica	coastal triquetrella	Bryophytes	NBMUS7S010	11	1	None	None	G1	S1	1B.2	USFS_S-Sensitive	Coastal bluff scrub | Coastal scrub | Valley & foothill grassland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	2	None	None	G3	S3.1	null	null	Valley & foothill grassland
Wildflower Field	Wildflower Field	Herbaceous	CTT42300CA	5	1	None	None	G2	S2.2	null	null	Valley & foothill grassland

October 16, 2014

Ms. Heather McCollister
1512 D Street
Napa, CA 94559

Traffic Impact Study for the Girard Winery Project

Dear Ms. McCollister;

Whitlock & Weinberger Transportation, Inc. (W-Trans) has completed a focused traffic analysis addressing potential traffic impacts and access needs for the proposed new winery to be located at 1077 Dunaweal Lane in the County of Napa. The traffic study was completed in accordance with the criteria established by the County of Napa, and is consistent with standard traffic engineering techniques. Comments from County staff have been addressed in preparing this final study.

Study Area

The project site is located on the east side of Dunaweal Lane between Silverado Trail and State Route (SR) 29, and is currently vacant. Dunaweal Lane is a two-lane roadway that runs north-south, and is designated as a local roadway. The posted speed limit on Dunaweal Lane is 45 miles per hour (mph).

Two intersections were identified by County staff for analysis.

Silverado Trail/Dunaweal Lane is a tee intersection with stop controls and flared right-turn lane on the northbound terminating Dunaweal Lane approach.

SR 29/Dunaweal Lane is stop-controlled with flared right-turn lanes on both the northbound and southbound Dunaweal Lane approaches.

Project Description

The proposed project would allow production of up to 200,000 gallons of wine annually, and operation of a tasting room for an average of 52 visitors on a weekday and 62 visitors on a weekend (or maximums of 75 and 90 visitors on a peak day, respectively. The project would have eight full-time employees and three part time employees on-site during weekdays as well as two full-time employees and four part-time employees on weekends. Vehicular access to the project site would be provided via a full access driveway on Dunaweal Lane. The most recent site plan, dated February 4, 2014 is enclosed.

Existing Volumes

Mechanical tube counts were collected on Dunaweal Lane near the project site on three consecutive days in March 2014 (Thursday through Saturday). Intersection counts were taken during the p.m. peak period in September 2014 at Silverado Trail/Dunaweal Lane and SR 29/Dunaweal Lane. The existing traffic volumes on Dunaweal Lane are summarized in Table 1. The volume of traffic ranged from 1,484 on Thursday to 1,691 vehicles on Saturday; this would be considered relatively low and reflects the volumes that would be generated by a residential subdivision having fewer than 20 homes.

Table 1
Existing Traffic Volumes

Study Segment	Friday		Saturday	
	Daily Trips NB/SB	PM Peak NB/SB	Daily Trips NB/SB	Midday Peak NB/SB
Dunaweal Ln	828/746	68/90	880/811	101/77
Total (NB+SB)	**1,574**	**158**	**1,691**	**178**

Existing Conditions

Intersections

Using the turning movement data collected at the two study intersections together with the current configurations, existing operating conditions at each intersection were evaluated. As shown in Table 2, both intersections are currently operating at LOS A or B overall and on all approaches. Copies of the calculations for all scenarios are enclosed.

Table 2
Existing PM Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Existing Conditions		Existing plus Project	
	Delay	LOS	Delay	LOS
1. Silverado Trail/Dunaweal Ln	1.8	A	1.8	A
Westbound (Silverado) Left-turn	*7.6*	*A*	*7.6*	*A*
Northbound (Dunaweal) Approach	*8.9*	*A*	*8.9*	*A*
2. SR 29/Dunaweal Ln	0.9	A	0.9	A
Northbound (Dunaweal) Approach	*9.7*	*A*	*9.7*	*A*
Southbound (Dunaweal) Approach	*11.6*	*B*	*11.6*	*B*
Eastbound (SR 29) Left-turn	*8.9*	*A*	*8.9*	*A*
Westbound (SR 29) Left-turn	*8.1*	*A*	*8.1*	*A*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

According to Policy CIR-16 of the *Napa County General Plan*, 2008, "No single level of service standard is appropriate for un-signalized intersections, which shall be evaluated on a case-by-case basis to determine if signal warrants are met." For analysis purposes it was assumed that the impact would be significant if project-added traffic caused operation to fall to LOS E or F on an approach for which the Peak Hour Volume Signal Warrant is met.

With all approaches at LOS A or B, the current operation of both intersections would be considered acceptable. While weekend operation was not evaluated, given the similarity of volumes on a weekday versus a weekend day together with the very low average delays currently being encountered, it appears reasonable to conclude that operation during the weekend peak period is also low and therefore acceptable.

Roadways

Information in the *Napa County General Plan Update Draft Environmental Impact Report*, February 2007 (GPUDEIR), indicates that under 2003 volumes SR 29 was operating at LOS D between Lodi Lane and Deer Park Road (this is the nearest segment included in the analysis). Silverado Trail is identified in the same document as operating at LOS C under 2003 volumes.

Policy CIR-16 of the Napa County General Plan also provides guidance for roadways, indicating that, "The County shall seek to maintain an arterial Level of Service D or better on all county roadways, except where maintaining this desired level of service would require the installation of more travel lanes than shown on the Circulation Map." Both SR 29 and Silverado Trail are shown as 2-lane Rural Collectors on the Circulation Map (Figure CIR-1). As a result, the LOS D standard does not apply and operation is therefore considered acceptable regardless of the service level.

Collision History

The collision history along Dunaweal Lane between Silverado Trail and SR 29 was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on the collision data available from the California Highway Patrol as published in their *Statewide Integrated Traffic Records System* (SWITRS) reports during a five-year period between January 1, 2007, and December 31, 2011. The calculated collision rate for the study segment was compared to the average collision rate for similar facilities statewide, as indicated in *2010 Collision Data on California State Highways*, California Department of Transportation (Caltrans).

The statewide average collision rate for a rural two-lane, flat road with a speed limit of 55 mph or less is 1.05 collisions/million vehicle miles (c/mvm). Over the five-year study period, seven collisions were reported on Dunaweal Lane between Silverado Trail and SR 29, for a calculated collision rate of 0.90 c/mvm, which is lower than the statewide average for similar facilities. Further, no injuries or fatalities were reported during the five-year study period. The collision rate calculation spreadsheet is enclosed.

Future Volumes

Future projected traffic volumes were obtained from the Solano Transportation Authority (STA) who maintains the joint Napa County/Solano County 2010-2030 Travel Demand Forecasting Model. The data used included directional segment volumes along SR 29 and Silverado Trail for the p.m. peak hour. Using the 2030 and 2010 model volumes a growth factor of 1.45 was determined for SR 29. This growth factor was applied to turning movements to and from Dunaweal Lane and the remainder of the future increase was added to the volumes for the through movements. It is noted that the 78 vehicle trips added to Dunaweal Lane during the p.m. peak hour would adequately represent increases associated with three new wineries or expansions to existing wineries along Dunaweal Lane.

Future Conditions

Intersections

Based on these projected future volumes, the two study intersections are expected to operate acceptably overall, though the northbound Dunaweal approach to Silverado Trail is expected to operate at LOS E and the southbound Dunaweal Lane approach to SR 29 is expected to operate at LOS F. These results are shown in Table 3.

Table 3
Future PM Peak Hour Intersection Levels of Service

Study Intersection *Approach*	Future Conditions		Future plus Project	
	Delay	LOS	Delay	LOS
1. Silverado Trail/Dunaweal Ln	3.9	A	4.9	A
Westbound (Silverado) Left-turn	*9.5*	*A*	*9.6*	*A*
Northbound (Dunaweal) Approach	*38.7*	*E*	*45.7*	*E*
2. SR 29/Dunaweal Ln	9.6	A	12.4	B
Northbound (Dunaweal) Approach	*20.3*	*C*	*20.7*	*C*
Southbound (Dunaweal) Approach	**	*F*	**	*F*
Eastbound (SR 29) Left-turn	*11.4*	*B*	*11.4*	*B*
Westbound (SR 29) Left-turn	*8.7*	*A*	*8.7*	*A*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; ** = delay greater than 120 seconds

Roadways

According to the GPUDEIR, under projected 2030 volumes SR 29 is expected to operate at LOS F in the study area and, despite substantial increases in traffic, Silverado Trail is expected to continue operating at LOS C. As previously noted, the County has exempted both of these roads from their operational standard, so the projected operation is considered acceptable.

Trip Generation

The anticipated trip generation for a proposed project is typically estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9th Edition, 2012. However, the publication contains no such information for a winery. Therefore, the County of Napa's Winery Traffic Information/Trip Generation Sheet was used to determine the anticipated traffic that would be generated by the proposed tasting room. A copy of this worksheet is enclosed.

Employee-related trips will be minimized by scheduling employee shifts that reduce the number of trips generated during the p.m. peak period. Production employees will work Monday through Friday from 7 a.m. to 3 p.m., hospitality and/or tasting room employees will work seven days per week from 9 a.m. to 6 p.m. and administrative employees will work Monday through Friday from 8 a.m. to 5 p.m. The resulting weekday p.m. peak hour trips will be associated with administrative employees and tasting visitors only.

The County of Napa's Winery Traffic Information/Trip Generation Sheet does not include guidance on inbound versus outbound trips, so it was assumed that 75 percent of trips at the winery would be outbound during the weekday p.m. peak hour since most of the trips would be associated with employees and customers leaving at closure of the winery. For the weekend midday peak hour it was assumed that inbound and outbound trips would be evenly split. A summary of the project's trip generation potential is provided in Table 4.

Table 4
Project Trip Generation

Land Use	Daily Trips		Weekday PM Peak			Weekend Midday Peak		
	Weekday	Weekend	Trips	In	Out	Trips	In	Out
Proposed Project								
Winery plus Tasting Room	74	58	26	6	20	29	15	14
Total Trips on Driveway	**74**	**58**	**26**	**6**	**20**	**29**	**15**	**14**

Trip Distribution

The pattern used to allocate new project trips to the street network was determined by reviewing existing average daily traffic volumes on Dunaweal Lane. It is understood that the winery will direct employees to take SR 29 when their origin/destination is the north and take Silverado Trail when their origin/destination is the south. This results in right-turns from Dunaweal Lane to the regional network, further reducing impacts at the study intersections due to project-related trips. It is recommended that clear signage that directs tasting room visitors in the same fashion be installed at the project driveway for exiting vehicles and similar directions be posted on the winery's website.

Visitor traffic accessing the site from the north via Silverado Trail and from the south via SR 29 was assumed to have an even split, while all employee trips from the north take SR 29 and from the south were assumed to take Silverado Trail. Evening peak hour counts recently obtained at Dunaweal Lane together with the anticipated travel pattern specific to this project were used to estimate the splits at SR 29 and Silverado Trail. The resulting trip distribution is shown in Table 4.

Table 4
Trip Distribution Assumptions and Project-Added Trips

Origin/Destination	Percent of Trips	Daily/Weekend Trips	PM Peak Trips	Weekend Peak Trips
SR 29 south of Dunaweal				
Employee Trips	0	0/0	0	0
Visitor & Truck Trips	15	7/7	2	4
SR 29 north of Dunaweal				
Employee Trips	70	21/10	7	3
Visitor & Truck Trips	35	15/15	6	9
Silverado Trail south of Dunaweal				
Employee Trips	0	0/0	0	0
Visitor & Truck Trips	35	15/15	6	9
Silverado Trail north of Dunaweal				
Employee Trips	30	9/4	3	1
Visitor & Truck Trips	15	7/7	2	4
TOTAL		**74/58**	**26**	**30***

Note: * Value does not equal trip generation exactly due to rounding

Plus Project Conditions

Intersections

Upon adding project-generated trips to existing volumes, both study intersections are expected to continue operating at LOS A or B overall as well as on all approaches. Because operation will remain acceptable, the impact is considered less-than-significant.

Under Future plus Project conditions both study intersections are projected to continue operating at the same levels of service both overall and on individual approaches except that the overall operation at SR 29/ Dunaweal Lane changes from LOS A to LOS B.

Roadways

The additional traffic that the project would generate would reasonably be expected to be included in the growth projected by the County's traffic model. Further, since both study roadways are exempt from the County's operational standard, the added trips can be considered to have a less-than-significant impact.

Recommendation: Steps should be taken to direct winery traffic in such a way as to minimize impacts and support efforts to maintain LOS D operation on the SR 29 study intersection and roadway segments.

Site Access

Left-Turn Lane Warrants

The need for a left-turn lane on Dunaweal Lane at the proposed project driveway was evaluated based on criteria contained in the *Napa County Road and Street Standards*, 2011. Because future average daily traffic volumes on Dunaweal Lane are not available, recently obtained counts for both the weekday and weekend were used for this analysis.

Using the County's criteria, for the daily Friday traffic volume of 1575 vehicles and 1875 vehicles on a weekend, a left-turn lane would not be warranted for the projected driveway ADT of 74 vehicles on a weekday and 60 vehicles or more on a weekend. The proposed project would generate a weekday average of 74 trips and weekend average of 58 trips. Based on these traffic levels, a left-turn lane would not be warranted at the project driveway. The left-turn lane warrant graphs are enclosed for reference.

Sight Distance

At driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed.

Sight distance along Dunaweal Lane at the proposed driveway was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance for minor street approaches that are driveways is based on stopping sight distance, with the approach travel speeds as the basis for determining the recommended sight distance. For a 45-mph posted speed limit on Dunaweal Lane, the recommended stopping sight distance for a private driveway is 360 feet.

Dunaweal Lane is relatively flat and straight on both sides of the proposed driveway. Based on a review of the site plan, proposed driveway and Google Earth, sight lines are more than adequate and meet the recommended distance for the prevailing travel speeds.

Conclusions and Recommendations

- The proposed project would generate an average of 74 new daily trips, including 26 weekday p.m. peak hour trips and 29 weekend p.m. peak hour trips.
- The calculated collision rate for the study segment was lower than the statewide average for similar facilities.
- The study intersections and roadways are operating acceptably under existing volumes, and are expected to continue to do so with project trips added.
- Under projected future volumes the study intersections are expected to continue operating acceptably overall, though due to excessive delays anticipated at SR 29/Dunaweal Lane signalization may be warranted.
- SR 29 and Silverado Trail will continue to operate acceptably based on the applicable standards under projected Future volumes.
- It is recommended that the schedule for employee shifts be set to minimize the amount of traffic generated during the weekday p.m. peak hour.
- Clear signage that directs visitors to use SR 29 when destined to the north and Silverado Trail when destined to the south should be placed at the driveway. Similar information should be provided on the winery's website as well.
- A left-turn lane is not warranted at the project driveway based on Napa County's Left-Turn Lane Warrant criterion.
- Acceptable clear sight lines are available in both directions along Dunaweal Lane from the proposed driveway.
- The applicant should take steps to minimize traffic impacts and support efforts to maintain LOS D operation on SR 29 and its intersection with Dunaweal Lane.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Dalene J. Whitlock, PE, PTOE
Principal

DJW/djw/NAX077.L2

Enclosures: Site Plan
Level of Service Calculations
Collision Rate Calculation Spreadsheet
Winery Traffic Information/Trip Generation Sheet
Napa County Left-Turn Lane Warrant

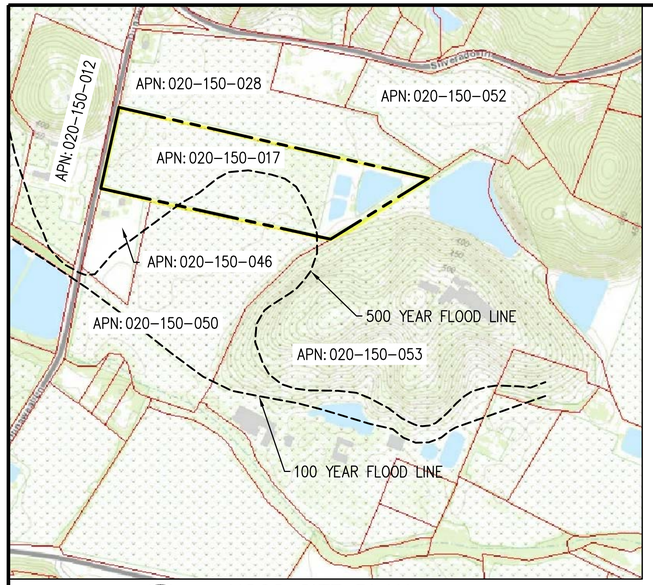
GIRARD WINERY

1077 Dunaweal Ln.

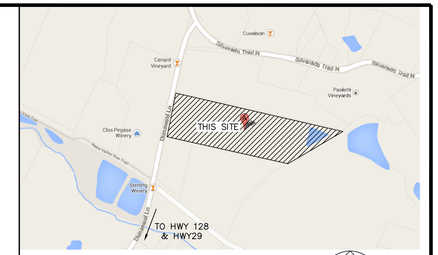
Calistoga, California 94515

APN 022-150-017

USE PERMIT APPLICATION



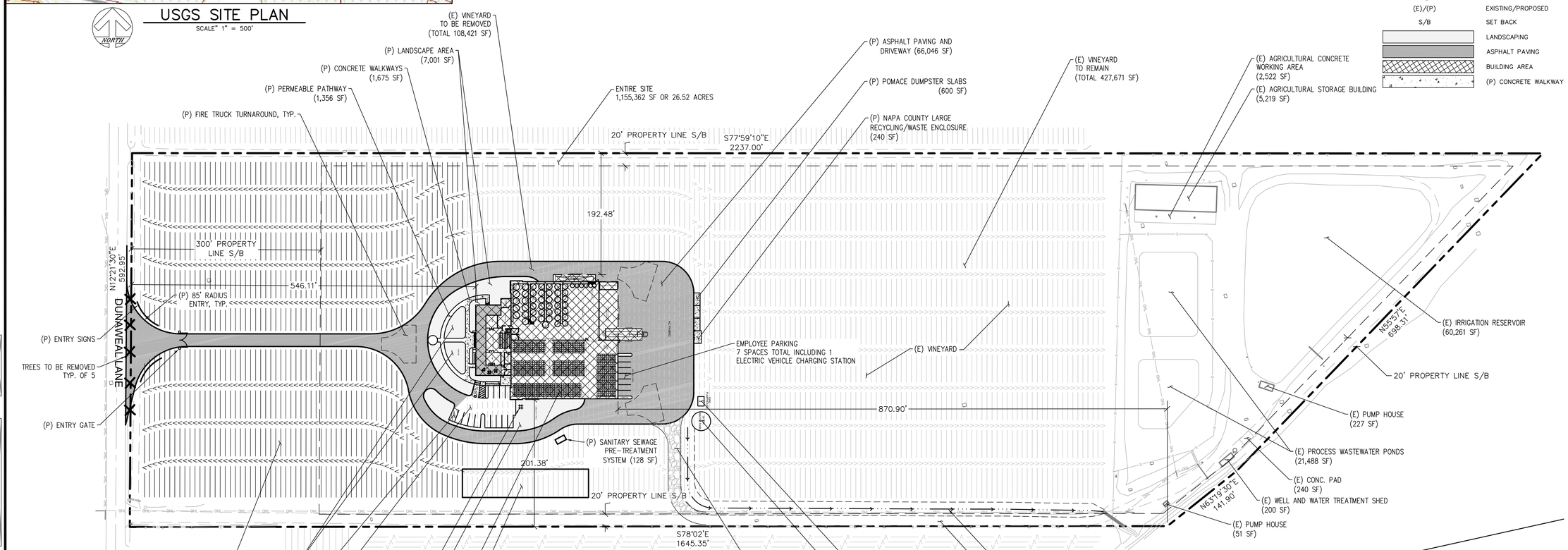
USGS SITE PLAN
SCALE" 1" = 500'



VICINITY MAP
NO SCALE

LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- DRAINAGE COURSE FLOWLINE
- VINEROW
- OHL — OVERHEAD UTILITIES
- SETBACK
- 100 YEAR FLOOD PLAIN
- 500 YEAR FLOOD PLAIN
- 20 / 15 — 5 FOOT INDEX 1' INTERVAL CONTOURS
- W — WELL
- (E)/(P) — EXISTING/PROPOSED
- S/B — SET BACK
- LANDSCAPING
- ASPHALT PAVING
- BUILDING AREA
- (P) CONCRETE WALKWAY



PROPOSED OVERALL SITE PLAN

SCALE: 1" = 80'

OWNER/APPLICANT
VINTAGE WINE ESTATES
205 CONCOURSE BLVD.
SANTA ROSA, CA 95403
CONTACT: PAT RONEY
PH. (877) 289-9463

ARCHITECT
DEL STARRETT ARCHITECT
181 CONCOURSE BLVD., SUITE A
SANTA ROSA, CA 95403
CONTACT: DEL STARRETT
PH. (707) 526-9645

LANDSCAPE ARCHITECT
PARKER SMITH LANDSCAPE ARCHITECT
1945 PINER RD. #25
SANTA ROSA, CA 95403
PH. (707) 477-7502

ARCHITECT
ALWAYS ENGINEERING INC.
131 STONY CIRCLE, SUITE 1000
SANTA ROSA, CA 95401
CONTACT: BEN MONROE
PH. (707) 542-8795

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

	CUT:	ENGINEERED FILL:	NET:
TOTAL EARTHWORK:	2,172 CY	4,034 CY	1,862 CY (FILL)

TOTAL DISTURBED AREA = 3.59 ACRES

Note: Excess spoils will be disposed of in a county approved site or spread in onsite vineyards. Temporary grading spoils will be stockpiled onsite in the unplanted vineyard area until ready for use.

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK ROGREBEN
No. C66429
CIVIL
STATE OF CALIFORNIA

SHEET INDEX

REVISION	DESCRIPTION	BY	DATE

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
2360 Professional Drive (707) 542-8795
Santa Rosa, CA 95403 Fax (707) 542-6147
www.alwayseng.com

Prepared for: GIRARD WINERY
1077 DUNAWEAL LN., CALISTOGA, CA

Prepared on: February 4, 2014

USE PERMIT
OVERALL SITE PLAN
1077 DUNAWEAL LN., CALISTOGA, CA
APN:020-150-017

JOB# 13530

SHEET
UP1
OF
UP2

SEGMENT COLLISION RATE CALCULATIONS

Vintage Wine Estates Project

Location: 1077 Dunaweal Lane

Date of Count: Thursday, March 06, 2014
ADT: 1,500

Number of Collisions: 2
Number of Injuries: 0
Number of Fatalities: 0
Start Date: January 1, 2007
End Date: December 31, 2011
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Rural
Design Speed: ≤55
Terrain: Flat

Segment Length: 0.8 miles
Direction: North/South

$$\frac{\text{Number of Collisions x 1 Million}}{\text{ADT x 365 Days per Year x Segment Length x Number of Years}}$$

$$\frac{2 \times 1{,}000{,}000}{1{,}500 \times 365 \times 0.81 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**0.90 c/mvm**	**0.0%**	**0.0%**
Statewide Average*	**1.05 c/mvm**	**2.4%**	**40.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2010 Collision Data on California State Highways, Caltrans

Winery Traffic Information / Trip Generation Sheet

Traffic during a Typical Weekday

Number of FT employees: 8 x 3.05 one-way trips per employee = 24 daily trips.

Number of PT employees: 3 x 1.90 one-way trips per employee = 6 daily trips.

Average number of weekday visitors: 52 / 2.6 visitors per vehicle x 2 one-way trips = 40 daily trips.

Gallons of production: 200,000 / 1,000 x .009 truck trips daily[3] x 2 one-way trips = 4 daily trips.

Total = 74 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (sum of visitor and truck trips x .38) = 26 **PM peak trips.**

Traffic during a Typical Saturday

Number of FT employees (on Saturdays): 2 x 3.05 one-way trips per employee = 6 daily trips.

Number of PT employees (on Saturdays): 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of Saturday visitors: 62 / 2. 8 visitors per vehicle x 2 one-way trips = 44 daily trips.

Total = 58 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (visitor trips x .57) = 29 **PM peak trips.**

Traffic during a Crush Saturday

Number of FT employees (during crush): 20 x 3.05 one-way trips per employee = 61 daily trips.

Number of PT employees (during crush): 10 x 1.90 one-way trips per employee = 19 daily trips.

Average number of Saturday visitors: 62 / 2. 8 visitors per vehicle x 2 one-way trips = 44 daily trips.

Gallons of production: 200,000 / 1,000 x .009 truck trips daily x 2 one-way trips = 4 daily trips.

Avg. annual tons of grape on-haul: 1,000 / 144 truck trips daily [4] x 2 one-way trips = 14 daily trips.

Total = 142 **daily trips.**

Largest Marketing Event- Additional Traffic

Number of event staff (largest event): 30 x 2 one-way trips per staff person = 60 trips.

Number of visitors (largest event): 500 / 2.8 visitors per vehicle x 2 one-way trips = 357 trips.

Number of special event truck trips (largest event): 10 x 2 one-way trips = 20 trips.

[3] Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

[4] Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

PM Peak Hour - Existing Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Dunaweal Ln

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[8.9]

Street Name:	Dunaweal Ln						Silverado Trail					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module: >> Count Date: 17 Sep 2014 << 4:45 - 5:45 pm												
Base Vol:	16	0	84	0	0	0	0	167	27	15	248	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	0	84	0	0	0	0	167	27	15	248	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	17	0	89	0	0	0	0	177	29	16	264	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	0	89	0	0	0	0	177	29	16	264	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	487	487	192	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	206	xxxx	xxxxx
Potent Cap.:	543	484	855	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1377	xxxx	xxxxx
Move Cap.:	538	478	855	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1377	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1018	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		8.9			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 SR 29/Dunaweal Ln

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B[11.6]

Street Name:	Dunaweal Ln						SR 29					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 0 1 0			1 0 0 1 0		
Volume Module: >> Count Date: 16 Sep 2014 << 4:00 - 5:00 pm												
Base Vol:	2	0	2	47	0	25	14	382	2	2	558	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	2	47	0	25	14	382	2	2	558	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	2	0	2	51	0	27	15	412	2	2	601	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	2	51	0	27	15	412	2	2	601	69
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1096	1117	413	1084	1084	636	670	xxxx	xxxxx	414	xxxx	xxxxx
Potent Cap.:	192	209	644	196	219	482	930	xxxx	xxxxx	1156	xxxx	xxxxx
Move Cap.:	179	205	644	193	215	482	930	xxxx	xxxxx	1156	xxxx	xxxxx
Volume/Cap:	0.01	0.00	0.00	0.26	0.00	0.06	0.02	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	769	xxxxx	xxxx	624	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.0	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.7	xxxxx	xxxxx	11.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	A	*	*	B	*	*	*	*	*	*	*
ApproachDel:		9.7			11.6			xxxxxx			xxxxxx	
ApproachLOS:		A			B			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing plus Project Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Silverado Trail/Dunaweal Ln

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: A[8.9]

Street Name:	Dunaweal Ln						Silverado Trail					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module: >> Count Date: 17 Sep 2014 << 4:45 - 5:45 pm												
Base Vol:	16	0	84	0	0	0	0	167	27	15	248	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	0	84	0	0	0	0	167	27	15	248	0
Added Vol:	3	0	7	0	0	0	0	0	1	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	0	91	0	0	0	0	167	28	17	248	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	20	0	97	0	0	0	0	177	30	18	264	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	0	97	0	0	0	0	177	30	18	264	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	492	492	192	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	207	xxxx	xxxxx
Potent Cap.:	540	481	854	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1376	xxxx	xxxxx
Move Cap.:	534	474	854	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1376	xxxx	xxxxx
Volume/Cap:	0.04	0.00	0.11	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	1033	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		8.9			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Existing plus Project Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 SR 29/Dunaweal Ln

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[11.3]

Street Name:	Dunaweal Ln						SR 29					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: >> Count Date: 16 Sep 2014 << 4:00 - 5:00 pm												
Base Vol:	2	0	2	47	0	25	14	382	2	2	558	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	2	47	0	25	14	382	2	2	558	64
Added Vol:	0	0	0	3	0	7	2	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	0	2	50	0	32	16	382	2	2	558	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	2	0	2	54	0	34	17	412	2	2	601	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	2	54	0	34	17	412	2	2	601	70
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1105	1123	413	1089	1089	636	671	xxxx	xxxxx	414	xxxx	xxxxx
Potent Cap.:	190	207	644	195	217	481	929	xxxx	xxxxx	1156	xxxx	xxxxx
Move Cap.:	173	203	644	191	213	481	929	xxxx	xxxxx	1156	xxxx	xxxxx
Volume/Cap:	0.01	0.00	0.00	0.28	0.00	0.07	0.02	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	753	xxxxx	xxxx	662	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.0	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.8	xxxxx	xxxxx	11.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	A	*	*	B	*	*	*	*	*	*	*
ApproachDel:		9.8			11.3			xxxxxx			xxxxxx	
ApproachLOS:		A			B			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Silverado Trail/Dunaweal Ln

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: E[38.7]

Street Name:	Dunaweal Ln						Silverado Trail					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	122	0	23	0	0	0	0	786	39	22	494	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	0	23	0	0	0	0	786	39	22	494	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	122	0	23	0	0	0	0	786	39	22	494	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	122	0	23	0	0	0	0	786	39	22	494	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1344	1344	806	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	825	xxxx	xxxxx
Potent Cap.:	169	153	385	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	814	xxxx	xxxxx
Move Cap.:	166	149	385	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	814	xxxx	xxxxx
Volume/Cap:	0.74	0.00	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	246	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	38.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	A	*	*
ApproachDel:		38.7			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		E			*			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 SR 29/Dunaweal Ln

Average Delay (sec/veh): 9.6 Worst Case Level Of Service: F[177.3]

Street Name:	Dunaweal Ln						SR 29					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	2	0	2	68	0	36	20	613	2	2	1113	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	2	68	0	36	20	613	2	2	1113	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	2	68	0	36	20	613	2	2	1113	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	2	68	0	36	20	613	2	2	1113	93
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1836	1864	614	1819	1819	1160	1206	xxxx	xxxxx	615	xxxx	xxxxx
Potent Cap.:	59	74	496	61	79	240	586	xxxx	xxxxx	974	xxxx	xxxxx
Move Cap.:	49	71	496	59	76	240	586	xxxx	xxxxx	974	xxxx	xxxxx
Volume/Cap:	0.04	0.00	0.00	1.16	0.00	0.15	0.03	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.4	xxxx	xxxxx	8.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	240	xxxxx	xxxx	101	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	6.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	20.3	xxxxx	xxxxx	177	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	F	*	*	*	*	*	*	*
ApproachDel:		20.3			177.3			xxxxxx			xxxxxx	
ApproachLOS:		C			F			*			*	

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future plus Project Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Silverado Trail/Dunaweal Ln

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: E[45.7]

Street Name:	Dunaweal Ln						Silverado Trail					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	122	0	23	0	0	0	0	786	39	22	494	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	122	0	23	0	0	0	0	786	39	22	494	0
Added Vol:	3	0	7	0	0	0	0	0	1	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	125	0	30	0	0	0	0	786	40	24	494	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	125	0	30	0	0	0	0	786	40	24	494	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	125	0	30	0	0	0	0	786	40	24	494	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1348	1348	806	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	826	xxxx	xxxxx
Potent Cap.:	168	152	385	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	813	xxxx	xxxxx
Move Cap.:	164	148	385	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	813	xxxx	xxxxx
Volume/Cap:	0.76	0.00	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	235	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	45.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	A	*	*
ApproachDel:	45.7			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	E			*			*			*		

Note: Queue reported is the number of cars per lane.

PM Peak Hour - Future plus Project Conditions
Vintage Wine Estates TIS
County of Napa

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 SR 29/Dunaweal Ln

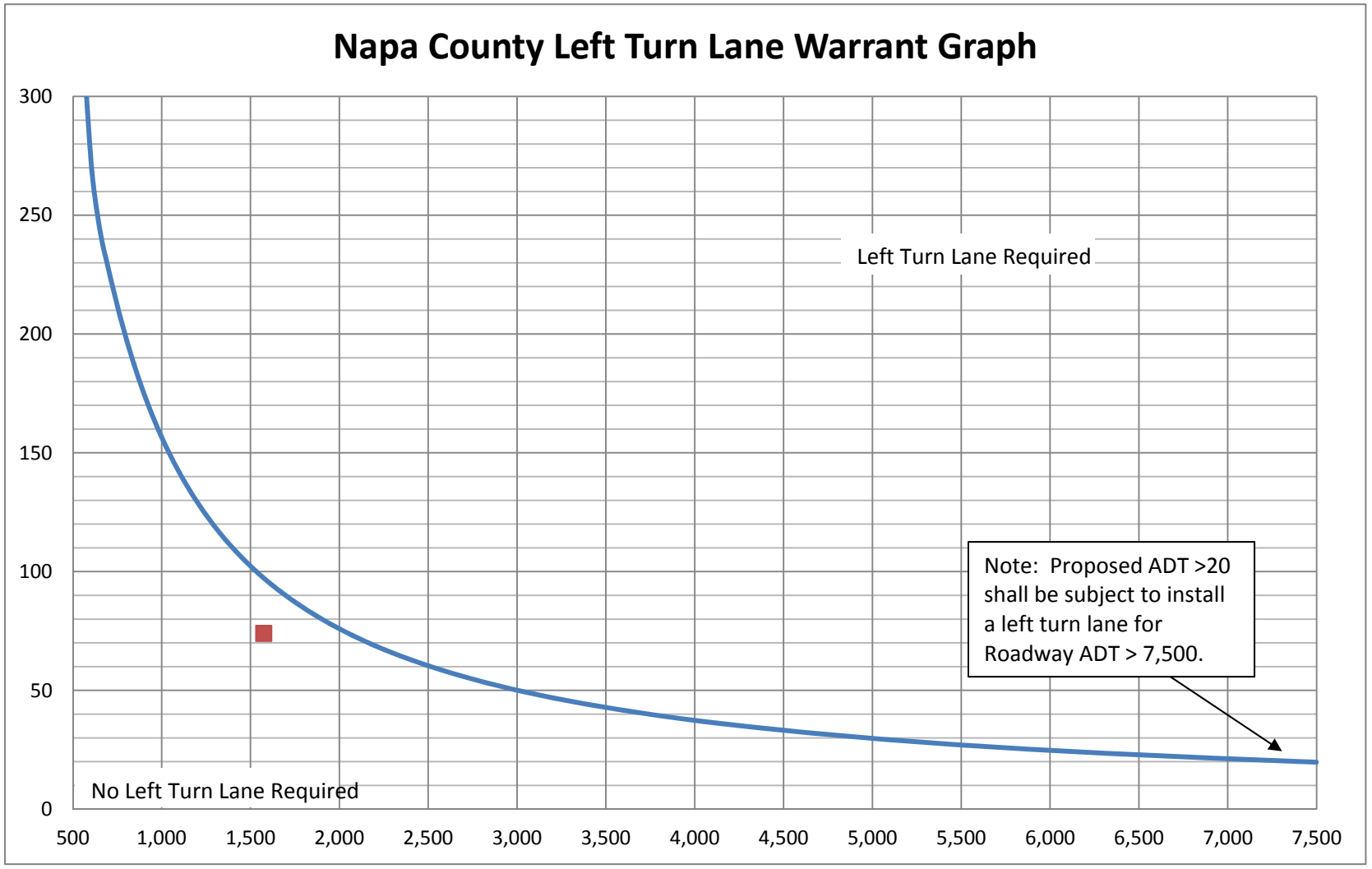
Average Delay (sec/veh): 12.4 Worst Case Level Of Service: F[209.8]

Street Name:	Dunaweal Ln						SR 29					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	2	0	2	68	0	36	20	613	2	2	1113	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	2	68	0	36	20	613	2	2	1113	93
Added Vol:	0	0	0	3	0	7	2	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	0	2	71	0	43	22	613	2	2	1113	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	2	71	0	43	22	613	2	2	1113	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	2	71	0	43	22	613	2	2	1113	94
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1844	1869	614	1823	1823	1160	1207	xxxx	xxxxx	615	xxxx	xxxxx
Potent Cap.:	58	73	496	60	78	240	585	xxxx	xxxxx	974	xxxx	xxxxx
Move Cap.:	46	70	496	58	75	240	585	xxxx	xxxxx	974	xxxx	xxxxx
Volume/Cap:	0.04	0.00	0.00	1.22	0.00	0.18	0.04	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.4	xxxx	xxxxx	8.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	233	xxxxx	xxxx	100	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	7.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	20.7	xxxxx	xxxxx	210	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	F	*	*	*	*	*	*	*
ApproachDel:	20.7			209.8			xxxxxx			xxxxxx		
ApproachLOS:	C			F			*			*		

Note: Queue reported is the number of cars per lane.

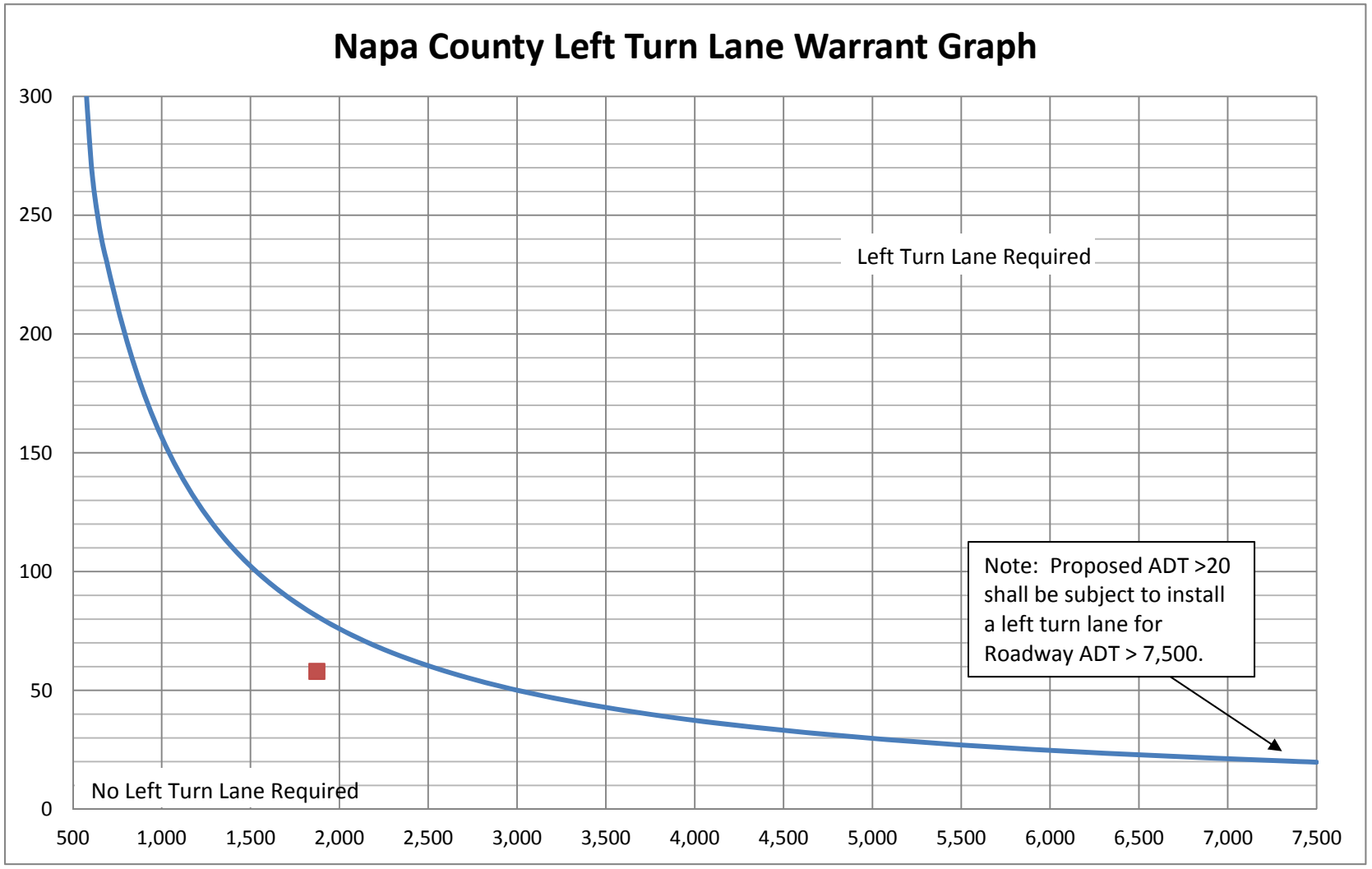
Project Name: Girard Winery

Scenario: Weekday Volumes



Project Name: Girard Winery

Scenario: Weekend Volumes



13530.0 Vintage Wine Estates_Girard Winery
Wastewater Feasibility Study
February 20, 2014
Revised: May 5, 2014

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Girard Winery

1077 Dunaweal Ln., Calistoga, CA 94515
APN: 020-150-017

USE PERMIT
WASTEWATER FEASIBILITY STUDY

Project and Site Background

Vintage Wine Estates owns and operates the existing "Clos Pegase" Winery located at 1060 Dunaweal Ln in Calistoga, Ca (APN: 020-150-012). Vintage Wine Estates also owns the parcel across Dunaweal Ln., (1077 Dunaweal Ln., APN: 020-150-017), which has the existing process wastewater ponds and water well for Clos Pegase.

Vintage Wine Estates is proposing to construct a new winery and tasting room (the Girard Winery) on the above referenced parcel. A production capacity of 200,000 gal of wine annually is proposed for the new Girard Winery. With the Use Permit, it is proposed to also treat the process waste (PW) generated by Girard Winery using the existing Clos Pegase Pond Treatment system. A new collection system and transfer pump sump will be required for Girard Winery. A new aerator in the process waste ponds will also be required. A new sanitary sewage system on-site is proposed to accommodate the winery employees, visitors, and events.

The parcel consists of existing vineyards, water supply well and treatment, an agricultural storage building, 2 PW treatment ponds and an irrigation storage pond. The parcel is generally flat, with a small flow line along the southern property line.

A site plan is provided in Enclosure B displaying the existing site and proposed wastewater system improvements.

SANITARY SEWAGE (SS)

Existing Site Evaluation

A site evaluation was performed by Ben Monroe, P.E. of Always Engineering and Peter Ex of Napa County on November 14, 2013. A total of 16 soil profiles were evaluated and 6 were logged for use. Test pits displayed a sandy clay loam surface soil which ranged in depth from 36" to 56" in depth. Soils were underlain by a sandy loam or loamy sand for a total permeable depth ranging from 49" to 60" in depth. All soil displayed a moderate to strong sub-angular blocky structure. Faint mottling was observed to 24" deep, with increasing intensity with depth below that. Prominent mottling was observed below 48" in all test pits. Additional groundwater monitoring is required onsite to determine if the upper mottling is due to subsurface groundwater or heavy irrigation of the onsite vineyards. At the time of preparation of this study, there has not been sufficient rainfall

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

to perform groundwater monitoring and therefore, it is assumed that a minimum of 24" suitable soil is available for septic system design. An interceptor drain is also proposed with this feasibility study to ensure we have the required separation to seasonal groundwater. The Napa County Site Evaluation procedures indicate a Sandy clay loam or sandy loam with moderate structure should be loading at 0.75 to 1.0 gpd using pretreated effluent.

Proposed Wastewater Flows

The proposed onsite sanitary wastewater flow rate is entirely associated with the proposed Girard Winery. The use permit is requesting a similar level of use as Clos Pegase; an average number of 10 employees (15 gpcd) along with 75 visitors (3gpcd), and a peak number of 30 employees (15 gpcd) along with 100 visitors (3 gpcd). There will be one large event per year which will have 500 attendees. Portable toilets will be used for this event. All events will have fully catered food with all preparation and cleanup occurring off site. The proposed wastewater flows are estimated as follows:

Average

Employees

8 FT employees	x	15 gpd/employee	=	120 gpd
3 PT employees	x	7.5 gpd/employee	=	22.5 gpd

Tasting Room

42 tasting visitors	x	3 gpd/visitor	=	126 gpd

Events

75 event visitors	x	5 gpd/visitor	=	375 gpd

TOTAL PROPOSED AVERAGE DESIGN FLOW	=	**643.5 GPD**

Peak

Employees

20 FT employees	x	15 gpd/employee	=	300 gpd
10 PT employees	x	7.5 gpd/employee	=	75 gpd

Tasting Room

100 tasting visitors	x	3 gpd/visitor	=	300 gpd

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131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Events

200 event visitors x	5 gpd/visitor	=	1,000 gpd

TOTAL PROPOSED PEAK DESIGN FLOW = **1,675 GPD**

Proposed Sanitary Sewage Loading

It is proposed to design a subsurface drip system to accommodate all sanitary sewage dispersal. Sizing as follows:

Proposed Septic System Design Flow: 1,675 gpd
Proposed Pretreated Effluent Loading Rate: 0.6 gpd/sf (Moderate -Strong Sandy Loam/Sandy Clay loam)

This loading rate is within the suitable range for pretreated effluent in the onsite soil types. Because there has not been sufficient rainfall to perform ground water monitoring

Proposed Sanitary Sewage Management System

With improvement to the site, the following tanks are proposed for the Girard Winery septic system. Because a pretreatment system is required for subsurface drip, a septic, recirculation, and sump tank are required for an AdvanTex pretreatment system. Other NSF Certified pretreatment systems may be reviewed at the time of Construction Drawings. Tank sizes are verified using the plumbing code commercial sizing formula.

$V = 1,125 + 0.75 \times Q$
$= 1,125 + 0.75 \times 1,675 \text{ gpd}$
$= 2,381.25 \text{ gallons}$

Septic Tank: 6,000 gallons (3.6 days retention time)
Recirculation Tank: 2,000 gallons (1.2 days retention time)
Sump/Dispersal Equalization Tank: 3,000 gallons (1.8 days retention time)

These tank volumes meet the minimum criteria for an AvanTex pretreatment system.

Leachfield Sizing

The area required for a primary sanitary sewer drip system is as follows:

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Santa Rosa, CA 95401 Fax (707) 542-8798
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Area Required = Flow/Application Rate

= 1,675 gpd / 0.6 gpd/sf

= 2,792 sf

Reserve Area

200% reserve area, or 5,584 sf, is required for this site and is shown adjacneet to the primary septic area on the Use Permit Site Plan.

Irrigation Reuse Alternative

In the event that groundwater monitoring cannot occur prior to the application for construction permits, it is also desired to have the ability to provide a pretreatment and irrigation reuse system. The Lyve Wastewaer System has been used at Alpha Omega Winery to treat and reuse domestic wastewater for irrigation. Also, the Biomicrobics BioBarrier Membrane Bioreactor (MBR) is NSF 350 certified for reuse. A design for a BioBarrier MBR would include the following:

Septic Tank:	2,000 gallons
Processing Tank:	13,000 gallons
Treated Collection Sump:	1,500 gallons
Treated Storage Tank:	40,000 gallons

A storage tank would be provided for period in the winter when irrigation reuse cannot occur. As demonstrated in the process wastewater section of this study, more than sufficient vineyard is available onsite for irrigation dispersal of effluent. Approximately 3 acres is required for process wastewater and a total of 18 acres is available onsite.

If treatment, irrigation, and reuse is proposed for construction of this project, the project must first obtain approval from the San Francisco Bay Regional Water Quality Control Board (SFBREWQCB) for this use. Prior to issuance of building permits, the RWQCB will need to approve of the proposal, and issue Waste Discharge Requirements for the reuse of the sanitary sewage. If future groundwater monitoring cannot occur in a time schedule appropriate for building permits, or does not provide at least 24 inches of separation to groundwater, treatment, irrigation, and reuse will be required for the project. In this event, the RWQCB must also grant system approval prior to building permit issuance.

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Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

PROCESS WASTEWATER (PW)

Existing System

The existing on-site process wastewater system consists of 2 aerated facultative lagoons and an irrigation holding pond. This system is currently treating the process waste from the Clos Pegase winery located across Dunaweal Lane under the same ownership. No sanitary wastewater is discharged into the process wastewater system.

Before entering the process wastewater ponds, the entire flow of process wastewater is filtered through a rotary screen where suspended solids are collected and removed. Biological stabilization occurs in the facultative pond system. The total volume of the existing pond system is approximately 1.5 MG. There is a 10 hp aerator in Pond 1 and a 5 hp aerator in Pond 2. Clos Pegase is currently producing 200,000 gallons of wine with an average annual PW production of 920,000 gallons. This pond system is large enough to provide at least 200 days of retention time at current Clos Pegase average flow conditions. Treated PW is used for irrigation of the onsite vineyards.

Proposed System

The proposed PW system for the new Girard Winery will connect to the existing PW wastewater pond system. The new PW connection will include a pump sump and new aerators to accommodate the increase in flows.

Proposed Flow Calculations

The winery is currently proposing a production of 200,000 gallons of wine per year. Using a monthly PW distribution from multiple wineries and a PW generation rate of 4.6 gal PW per gal wine produced (from Clos Pegase data) flow rates are estimated as follows:

Winery Process Wastewater (PW)

Average Daily Flow	=	2,521 gal PW/day
Average Harvest Day	=	3,950 gal PW/day
Average Day, Peak Harvest Month	=	5,060 gal PW/day (See calculations spreadsheet)

The **design flow proposed** to the system is **10,120 gpd** (5,060 gpd from Girard and 5,060 gpd from Clos Pegase).

Aerator Sizing

The Aerators have been sized using a BOD mass loading and the Aqua-Jet Surface Mechanical Aerator brochure specifications. Calculations (attached) show that a total of 22.5 hp of aerators is required for both ponds. It is proposed to add a second 10 hp

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Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

aerator to Pond 1 for a total of 20 hp in Pond 1. This results in a power to volume (P/V) ratio of 0.21 hp per 1000 ft3. This is sufficient for surface mixing and aeration in Pond 1. Pond 2 has an (E) 5 hp aerator. This provided a P/V ratio of 0.05 hp per 1000 ft3. This is sufficient for surface mixing and to prevent odors in Pond 2. No aeration should be required in the irrigation pond due to dilution, level of treatment exiting Pond 2, and natural aeration from algae. In addition, an Anti-Erosion Assembly is recommended for both aerators, to minimize sediment mixing during periods of low liquid levels in the ponds.

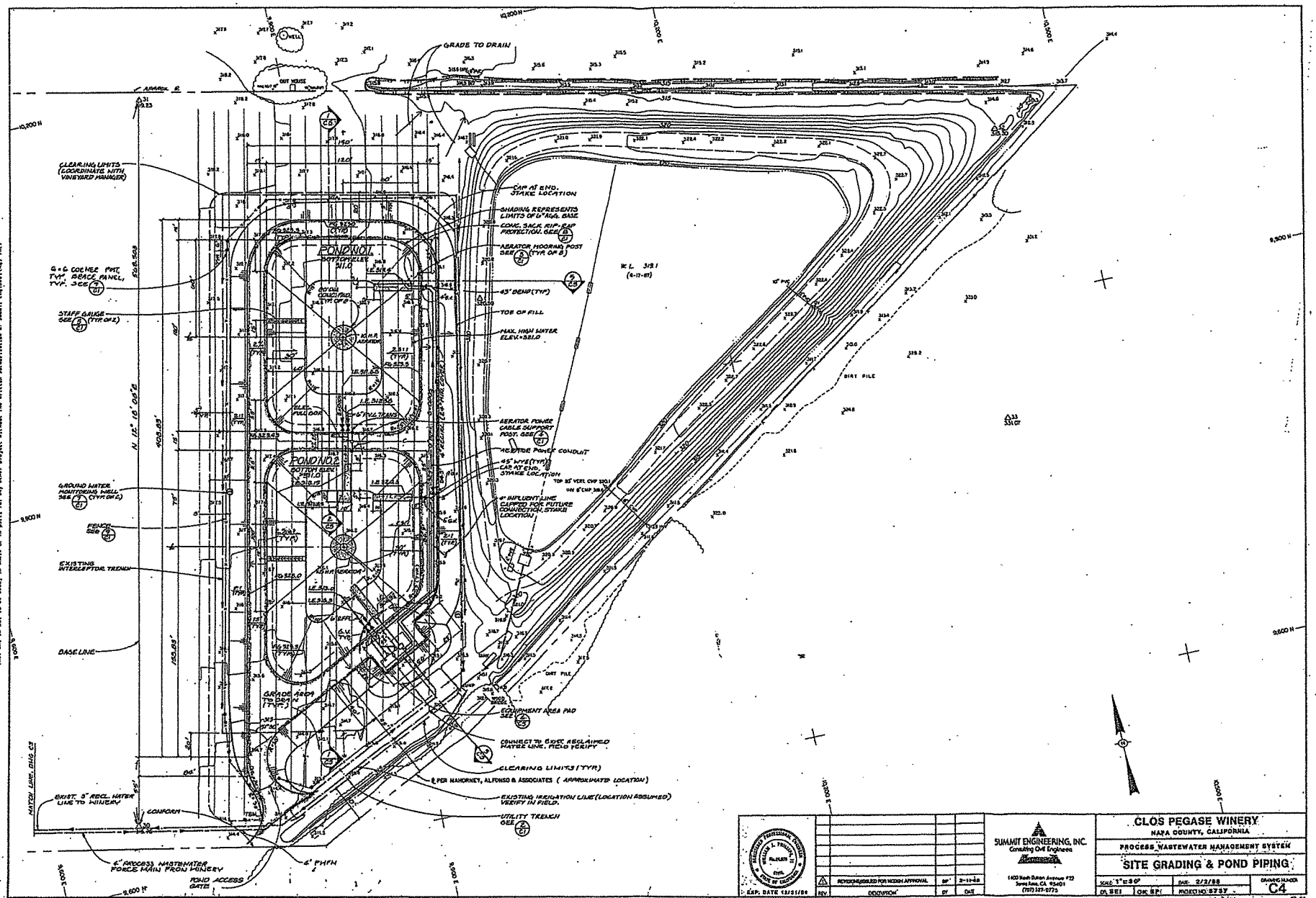
Pond Sizing
The facultative ponds combined volume is roughly 1.5 MG. This provides for a retention time of >140 days at peak month flows (see calculations spreadsheet). Facultative pond systems are sized with a minimum of 60 days in the entire system, and at least 45 days in the first pond. Therefore, this system will have sufficient contact time for treatment before discharge. During the rainy winter months when irrigation needs are low the existing irrigation pond will be used as a detention system to hold excess effluent until the spring months when increased irrigation loading is appropriate.

Irrigation Reserve/Dispersal
A total of 7.5 acres of vineyard is required for dispersal of effluent to avoid ponding and concentration.

SUMMARY AND CONCLUSIONS

Sanitary Wastewater
With the proposed installation of a new sanitary management system, as discussed in this report, the site is capable of supporting the proposed sanitary sewage loads.

Process Wastewater
With the proposed installation of additional aerators and a collection system and pump station, the existing aerated facultative pond system is sufficient for the proposed Girard Winery PW flows in addition to the existing Clos Pegase Winery PW flows.



EXP. DATE 12/31/88

NO.	DESCRIPTION	BY	DATE
1	REVISED/ISSUED FOR AGENCY APPROVAL	BF	3-11-88

SUMMIT ENGINEERING, INC.
Consulting Civil Engineers
1400 North Dutton Avenue #22
Santa Rosa, CA 95401
(707) 525-8775

CLOS PEGASE WINERY

NAPA COUNTY, CALIFORNIA

PROCESS WASTEWATER MANAGEMENT SYSTEM

SITE GRADING & POND PIPING

SCALE: 1" = 80'	DATE: 2/3/88	DRAWING NUMBER
DR. BEI	CK. BF	PROJECT NO: 8737	C4

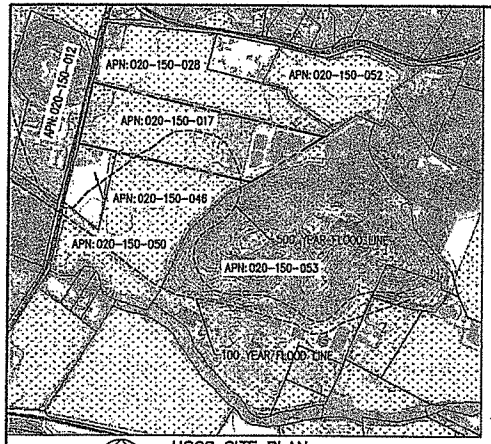
GIRARD WINERY

1077 Dunaweal Ln.

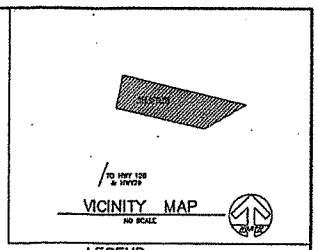
Calistoga, California 94515

APN 022-150-017

USE PERMIT APPLICATION



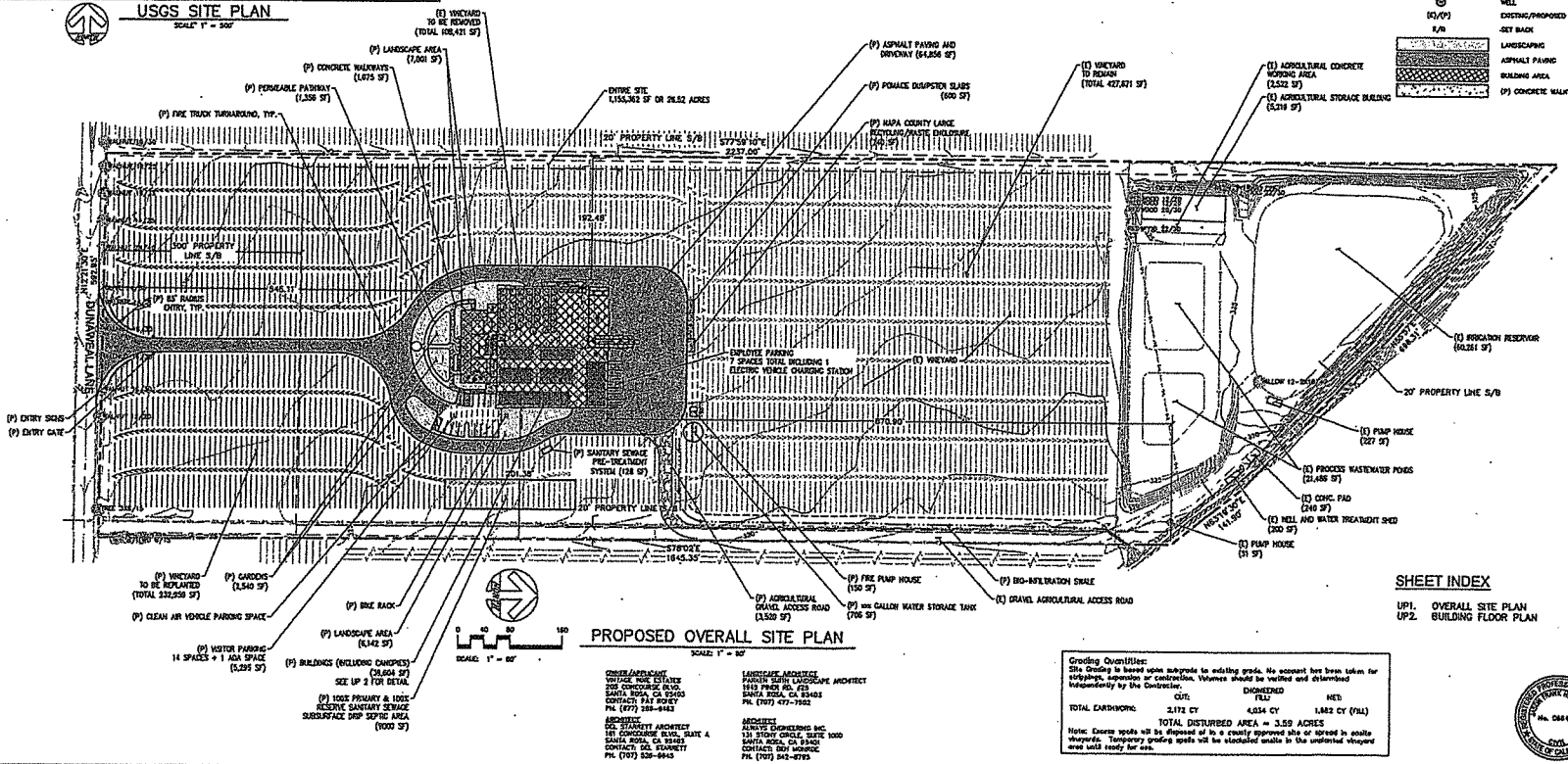
USGS SITE PLAN
SCALE: 1" = 300'



VICINITY MAP
NO SCALE

LEGEND

- APPROXIMATE PROPERTY LINE
- FENCE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- DRAINAGE COURSE FLOWLINE
- WINDROW
- OHL — OVERHEAD UTILITIES
- SETBACK
- 100 YEAR FLOOD PLAIN
- 500 YEAR FLOOD PLAIN
- 5 FOOT INDEX 1' INTERVAL CONTOURS
- WELL
- (E)/(P) EXISTING/PROPOSED
- S/B SET BACK
- LANDSCAPING
- ASPHALT PAVING
- BUILDING AREA
- (P) CONCRETE WALKWAY



PROPOSED OVERALL SITE PLAN
SCALE: 1" = 80'

OWNER/APPLICANT
VINTAGE ROSE ESTATES
2592 CONCOURSE DRIVE
SANTA ROSA, CA 95403
CONTACT: PAT FOLEY
PH. (877) 289-8463

ARCHITECT
DEL STARRETT ARCHITECT
181 CONCOURSE BLVD., STATE A
SANTA ROSA, CA 95403
CONTACT: DEL STARRETT
PH. (707) 528-8845

LANDSCAPE ARCHITECT
PARKER SHEN LANDSCAPE ARCHITECT
1910 PINE RD. #23
SANTA ROSA, CA 95403
PH. (707) 477-7502

ARCHITECT
ALWAYS ENGINEERING INC.
131 STONY CIRCLE, SUITE 1000
SANTA ROSA, CA 95401
CONTACT: DON MORROW
PH. (707) 542-8795

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for subgrade, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

	CUT:	ENGINEERED FILL:	NET:
TOTAL EARTHWORK:	2,172 CY	4,034 CY	1,862 CY (FILL)

TOTAL DISTURBED AREA = 3.59 ACRES

Note: Excess spoils will be disposed of in a county approved site or spread in onsite vineyards. Temporary grading spoils will be stockpiled onsite in the undisturbed vineyard area until ready for use.

SHEET INDEX

REVISION	DESCRIPTION	BY	DATE

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
2350 Professional Drive (707) 542-8795
Santa Rosa, CA 95403 Fax (707) 542-8147
www.alwayseng.com

Prepared for: GIRARD WINERY
1077 DUNAWEAL LN., CALISTOGA, CA

Prepared on: February 4, 2014

USE PERMIT
OVERALL SITE PLAN
1077 DUNAWEAL LN., CALISTOGA, CA
APN:020-150-017

JOB # 13530
SHEET
UP1 OF UP2

Date: 02/20/2014 Designed By: BM/RO - Always Engineering, Inc.

Project: Girard Winery Use Permit

Girard Winery

Annual Process Wastewater Flow = 920,000 gallons PW/year

*Refer to the design calculations report for additional flow estimates.

Month	Percentage of Annual Flow (%)	Monthly Flow (MGal)	Days
January	6.50%	0.060	31
February	7.00%	0.064	28
March	8.00%	0.074	31
April	7.00%	0.064	30
May	6.50%	0.060	31
June	5.50%	0.051	30
July	6.00%	0.055	31
August	10.50%	0.097	31
September	16.50%	0.152	30
October	12.50%	0.115	31
November	7.50%	0.069	30
December	6.50%	0.060	31
Total	100.00%	0.920	365

Date: 02/20/2014
Project: Girard Winery Use Permit

Designed By: BM/RO - Always Engineering, Inc.

Girard Winery
PROCESS WASTEWATER

Annual Volume

Annual Production (projected)				=	1,212 ton/year
Wine Generation Rate (assumed)[a]				=	165 gal wine/ton
Wine Produced	1,212 ton/year	x	165 gal wine/ton	=	200,013 gal wine/year
Process Wastewater (PW) Generation Rate[b]	(assumed)			=	4.60 gal PW/gal wine
Annual PW Flow	200,013 gal wine/year	x	4.60 gal PW/gal wine	=	***920,060 gal PW/year***

Average Day Flow

	920,060 gal PW/year	÷	365 days	=	***2,521 gal PW/day***

Average Harvest Day

Total Harvest Flow[c]	920,060 gal PW/year	x	39.5%	=	363,424 gal PW/harvest
Average Harvest Flow (3 month harvest)	363,424 gal PW/harvest	÷	92 days	=	***3,950 gal PW/day***

Average Day, Peak harvest Month - Pond Design

Total Peak Month Flow[c]	920,060 gal PW/year	x	16.5%	=	151,810 gal PW/month
Average Day, Peak Month Flow	151,810 gal PW/month	÷	30 days	=	***5,060 gal PW/day***

a. 165 Gal wine per ton of grapes is used as a wine industr standard
b. 4.6 gal of PW per gallon wine prodcued over the course of 1 year is based on hisotrical data from Clos Pegase and existing Griard operations.
c. Percentage of PW prodcued during each month is based on the average flow distirubtion from 16 wineries

Date: 02/20/2014 Designed By: BM/RO - Always Engineering, Inc.
Project: Girard Winery Use Permit

Clos Pegase Winery

Annual Process Wastewater Flow = 920,000 gallons PW/year
*Refer to the design calculations report for additional flow estimates.

Month	Percentage of Annual Flow (%)	Monthly Flow (MGal)	Days
January	6.50%	0.060	31
February	7.00%	0.064	28
March	8.00%	0.074	31
April	7.00%	0.064	30
May	6.50%	0.060	31
June	5.50%	0.051	30
July	6.00%	0.055	31
August	10.50%	0.097	31
September	16.50%	0.152	30
October	12.50%	0.115	31
November	7.50%	0.069	30
December	6.50%	0.060	31
Total	100.00%	0.920	365

Date: 02/20/2014
Project: Girard Winery Use Permit

Designed By: BM/RO - Always Engineering, Inc.

Clos Pegase Winery
PROCESS WASTEWATER

Annual Volume

Annual Production (projected)				=	1,212 ton/year
Wine Generation Rate (assumed)[a]				=	165 gal wine/ton
Wine Produced	1,212 ton/year	x	165 gal wine/ton	=	200,013 gal wine/year
Process Wastewater (PW) Generation Rate[b]	(assumed)			=	4.60 gal PW/gal wine
Annual PW Flow	200,013 gal wine/year	x	4.60 gal PW/gal wine	=	***920,060 gal PW/year***

Average Day Flow

	920,060 gal PW/year	÷	365 days	=	***2,521 gal PW/day***

Average Harvest Day

Total Harvest Flow[c]	920,060 gal PW/year	x	39.5%	=	363,424 gal PW/harvest
Average Harvest Flow (3 month harvest)	363,424 gal PW/harvest	÷	92 days	=	***3,950 gal PW/day***

Average Day, Peak harvest Month - Pond Design

Total Peak Month Flow[c]	920,060 gal PW/year	x	16.5%	=	151,810 gal PW/month
Average Day, Peak Month Flow	151,810 gal PW/month	÷	30 days	=	***5,060 gal PW/day***

a. 165 Gal wine per ton of grapes is used as a wine industr standard
b. 4.6 gal of PW per gallon wine prodcued over the course of 1 year is based on hisotrical data from Clos Pegase and existing Griard operations.
c. Percentage of PW prodcued during each month is based on the average flow distirubtion from 16 wineries

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Date: 02/20/2014
Project: Girard Winery Use Permit

Designed By: BM/RO - Always Engineering, Inc.

Climate Data

Month	Days	Reference Evapotranspiration[1] (inches)	Pan Evaoporation (inches)	Lake Evaporation (inches)	Average Precipitation (inches)	10-Year Precipitation (inches)	100-Year Precipitation (inches)
January	31	1.0	1.5	1.2	9.0	12.9	17.6
February	28	1.5	2.2	1.7	5.6	8.0	11.0
March	31	2.9	3.8	2.9	5.7	8.1	11.2
April	30	4.7	5.8	4.5	2.6	3.7	5.1
May	31	5.8	8.9	6.9	0.6	0.9	1.2
June	30	6.9	11.0	8.5	0.2	0.3	0.4
July	31	7.2	13.2	10.2	0.1	0.1	0.2
August	31	6.4	12.1	9.3	0.2	0.3	0.4
September	30	4.9	8.7	6.7	0.3	0.4	0.6
October	31	3.5	5.7	4.4	2.4	3.4	4.7
November	30	1.6	2.5	1.9	6.8	9.7	13.3
December	31	1.2	1.7	1.3	8.2	11.7	16.1
TOTAL	365.0	47.7	77.0	59.3	41.7	59.6	81.8

1 Reference Evapotranspiration data is for the Angwin FS obtained from the California Irrigation Management Information System
See http://wwwcimis.water.ca.gov/cimis/monthlyEToReport.do
2 Average Monthly Pan Evaopration Rates observed at Berryessa Lake, Ca between 1957 and 1970.
3 Lake evaopration is pan evaporation multiplied by a 0.77 factor.
4 Average precipitation data is from TheWeatherChannel.com for Calistoga, CA
See http://www.weather.com/weather/wxclimatology/monthly/94515

Date: 02/20/2014
Project: Girard Winery Use Permit
Pond 1 Balance

Designed By: BM/RO - Always Engineering, Inc.

Month	Start Volume (Mgal)	Input		Output		Volume at end of Month (Mgal)	Water Depth at end of month (feet)	Volume Change (Mgal)
		Process Wastewater In (Mgal)	10 Year Precipitation (Mgal)	Pond Evaporation* (Mgal)	Discharge to Pond 2 (Mgal)			
January	0.300	0.120	0.173	0.009	0.000	0.593	8.7	0.293
February	0.593	0.129	0.108	0.015	0.100	0.730	10.0	0.137
March	0.730	0.147	0.110	0.027	0.257	0.730	10.0	0.000
April	0.730	0.129	0.050	0.042	0.179	0.730	10.0	0.000
May	0.730	0.120	0.012	0.061	0.231	0.630	9.1	-0.100
June	0.630	0.101	0.004	0.070	0.211	0.524	8.0	-0.106
July	0.524	0.110	0.002	0.072	0.312	0.324	5.7	-0.200
August	0.324	0.193	0.004	0.059	0.197	0.324	5.7	0.000
September	0.324	0.304	0.006	0.042	0.309	0.324	5.7	0.000
October	0.324	0.230	0.046	0.027	0.300	0.300	5.4	-0.024
November	0.300	0.138	0.131	0.012	0.269	0.300	5.4	0.000
December	0.300	0.120	0.158	0.008	0.278	0.300	5.4	0.000
Total		1.840	0.803	0.444	2.643			0.000

Date: 02/20/2014
Project: Girard Winery Use Permit
Pond 2 Balance

Designed By: BM/RO - Always Engineering, Inc.

Month	Start Volume (Mgal)	Input: Process Wastewater In From Pond 1 (Mgal)	Input: 10 Year Precipitation (Mgal)	Output: Pond Evaporation* (Mgal)	Output: Discharge to Irrigation Pond (Mgal)	Volume at end of Month (Mgal)	Water Depth (feet)	Volume Change (Mgal)
January	0.530	0.000	0.175	0.011	0.000	0.705	9.1	0.175
February	0.705	0.100	0.109	0.017	0.000	0.915	10.8	0.209
March	0.915	0.257	0.111	0.031	0.450	0.833	10.2	-0.082
April	0.833	0.179	0.051	0.044	0.400	0.662	8.7	-0.170
May	0.662	0.231	0.012	0.062	0.300	0.605	8.2	-0.057
June	0.605	0.211	0.004	0.073	0.300	0.520	7.4	-0.085
July	0.520	0.312	0.002	0.082	0.400	0.434	6.5	-0.086
August	0.434	0.197	0.004	0.068	0.300	0.335	5.4	-0.099
September	0.335	0.309	0.006	0.047	0.300	0.350	5.6	0.015
October	0.350	0.300	0.047	0.031	0.350	0.347	5.5	-0.003
November	0.347	0.269	0.133	0.013	0.450	0.299	5.0	-0.049
December	0.299	0.278	0.160	0.010	0.206	0.530	7.5	0.231
Total		2.643	0.813	0.489	3.456			0.000

Date: 02/20/2014
Project: Girard Winery Use Permit

Landscape	0.5 a
Vineyard =	2.5 a
Pasture =	0 a
Soil perc rate =	1 i

Month	Days	Reference Evapotranspiration[1] (inches)	ersal Capacity (Mgal)	Treated Effluent to Irrigation Pond (in)	(Mgal)	Residual Capacity[7] (Mgal)
January	31	1.0	0.000	0.000	0.000	0.000
February	28	1.6	0.000	0.000	0.000	0.000
March	31	3.0	0.474	0.460	0.450	0.024
April	30	4.6	0.848	0.409	0.400	0.448
May	31	6.0	1.373	0.307	0.300	1.073
June	30	7.0	1.543	0.307	0.300	1.243
July	31	8.0	2.594	0.409	0.400	2.194
August	31	7.0	2.619	0.307	0.300	2.319
September	30	5.2	2.457	0.307	0.300	2.157
October	31	3.4	1.073	0.358	0.350	0.723
November	30	1.4	0.541	0.460	0.450	0.091
December	31	0.9	0.000	0.211	0.206	-0.206
TOTAL	365.0	49.1	13.520	3.536	3.456	10.064

1 Average monthly reference evapotranspri
2 Pasture coefficient from Table 5-1, "Irrigati
3 Vineayrd coefficient from Table 5-12, "Irrig
4 Crop coefficient times the reference evapo
5 Precipitation for a 10-yr event, refer to the
6 Irrigation demand is the evapotrasnpiratio
7 Residual capacity estimates irrigation/perc

Date: 02/20/2014 Designed By: BM/RO - Always Engineering, Inc.
Project: Girard Winery Use Permit Aeration Calculations

Design Flow	=	Estimated Average Daily Flow								
	=	10,120	gal/day							
	=	0.010	Mgal/day							
	=	38	m^3/day							
	=	38,294	liters/day							

BOD MASS LOADING - Amount of Biochemical Oxygen Demand (BOD) Based on Amount of Organics in Wastewater

BOD into Pond	=	7700	mg/L	(Table 4-12 & 4-14 of *Small and Decentralized Wastewater Management Systems)*						
BOD Mass Load	=	38	m^3/day	x	7700	mg BOD/L	x	1000	mL/m^3	x 0.000001 kg/mg
	=	294.9	kg BOD/day							
	=	648.7	lb BOD/day							

OXYGEN REQUIREMENTS - The amount of oxygen requiremed to breakdown the waste in the water

O2 Requirement	=	648.7	lb BOD/day	x	1.5	lbs O2/lb BOD				
	=	973.1	lbs O2/day							

HORSEPOWER REQUIREMENTS - The horsepower of aeration required to provide the necessary amount of oxygen

Oxygen Transfer Efficiency	=	1.8	lbs O2/Hp*hr (3.4 assumes a VBT aerator , model 100)							
Horsepower Requirement	=	973.1	lbs O2/day	÷	1.8	lbs O2/Hp*hr	÷	24	hr/day	
	=	22.5	Hp required							

POWER TO VOLUME RATIO (Hp/10^3 ft^3) - This is used to estimate the amount of mixing which will occur in a pond due to aeration

Pond Volume	=	0.723	Mgal							
	=	722,797	gallons							
	=	96,631	ft^3							
Number if cells	=	2								
Ratio of first to second cell	=	2								
Volume in Pond 1	=	722,797	gallons							
	=	96,631	ft^3							
Volume in Pond 2	=	803,995	gallons							
	=	107,486	ft^3							
Horsepower in Pond 1; cell 1	=	20	Hp							
Pond 1 Power to Volume Ratio	=	20	Hp	x	1000	ft^3	÷	96,631	ft^3	÷ 1000 ft^3
	=	0.21	Hp/1000 ft^3							
Horsepower in Pond 1, cell 2	=	5	Hp							
Pond 2 Power to Volume Ratio	=	5	Hp	x	1000	ft^3	÷	107,486	ft^3	÷ 1000 ft^3
	=	0.05	Hp/1000 ft^3							
Complete Mix	=	0.75 - 1.5	Hp/1000 ft^3	(Page 463 of *Small and Decentralized Wastewater Management)*						
Partial Mix	=	0.4 - 0.75	Hp/1000 ft^3							
Facultative	=	0.1 - 0.4	Hp/1000 ft^3							

Pond 1
Retention Time (t)/ Estimated Effluent

Cn	=	Effluent BOD	
Co	=	7700	mg/L
n	=	1	for single cell pond
k	=	0.276	d^(-1)
t	=	71.4	days
Cn	=	372	mg/L
Effluent BOD	=	**372**	**mg/L**

Pond 2
Pond 1
Retention Time (t)/ Estimated Effluent

Cn	=	Effluent BOD	
Co	=	372	mg/L
n	=	1	for baffled pond
k	=	0.276	d^(-1)
t	=	71.4	days
Cn	=	18	mg/L
Effluent BOD	=	**18**	**mg/L**

Napa County Department of
Environmental Management

SITE EVALUATION REPORT

Please attach an 8.5" x 11" plot map showing the locations of all test pits triangulated from permanent landmarks or known property corners. The map must be drawn to scale and include a North arrow, surrounding geographic and topographic features, direction and % slope, distance to drainages, water bodies, potential areas for flooding, unstable landforms, existing or proposed roads, structures, utilities, domestic water supplies, wells, ponds, existing wastewater treatment systems and facilities.

Permit #: E13-00744
APN: 020-150-017
(County Use Only) Reviewed by: Date:

PLEASE PRINT OR TYPE ALL INFORMATION

Property Owner Vintage Wine Estates dba Girard Winery	x New Construction ☐ Addition ☐ Remodel ☐ Relocation ☐ Other:
Property Owner Mailing Address 205 Concourse Blvd	☐ Residential - # of Bedrooms: Design Flow : gpd
City State Zip Santa Rosa CA 95403	x Commercial – Type: Winery domestic
Site Address/Location 1077 Dunaweal Lane Calistoga, CA 94515	Sanitary Waste: 500-1675 gpd Process Waste: 0 gpd ☐ Other: Sanitary Waste: gpd Process Waste: gpd

Evaluation Conducted By:

Company Name Always Engineering, Inc.	Evaluator's Name Ben Monroe, P.E. RCE 70012	Signature (Civil Engineer, R.E.H.S., Geologist, Soil Scientist)
Mailing Address: 131B Stony Circle, Sutie 1000		Telephone Number (707) 542-8795 x 17
City State Zip Santa Rosa, Ca 95401		Date Evaluation Conducted 11/14/2013

Primary Area	Expansion Area
Acceptable Soil Depth: 24-48 in. Test pit #'s: TP1-TP6	Acceptable Soil Depth: 24-48 in. Test pit #'s: TP1-TP6
Soil Application Rate (gal. /sq. ft. /day): 0.75 to 1.0 gpd/sf	Soil Application Rate (gal. /sq. ft. /day):0.75 to 1.0 gpd/sf
System Type(s) Recommended: PD, drip – pending gw	System Type(s) Recommended: PD, drip – pending gw
Slope: 3-5 %. Distance to nearest water source: 1000 ft.	Slope: 3-5 %. Distance to nearest water source: 1000 ft.
Hydrometer test performed? No	Hydrometer test performed? No
Bulk Density test performed? No	Bulk Density test performed? No
Percolation test performed? No	Percolation test performed? No
Groundwater Monitoring Performed? Pending Rain	Groundwater Monitoring Performed? Pending Rain

Site constraints/Recommendations:

- Existing well
- Groundwater monitoring to be performed to identify perched groundwater level due to presence of mottling at less than 24 inches deep.
- Interceptor drain and surface drainage to divert away from septic area recommended.
- Proposed drainage features and grading will need to avoid.
- Additional test pits near wastewater ponds showed signs of significant seasonal saturation and lesser depths of permeable soils. Pits on map but not logged due to time onsite.

Test Pit # 1

PLEASE PRINT OR TYPE ALL INFORMATION

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
34	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
48	D/G	35	SCL	SAB,3	VF	S	SS	3,M	1,M	1,F
60+	----------	<10	SCL	SAB,2	D/L	M	M	1,VF	1,M	2,P

Test Pit #2

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
24	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
56	D/G	35	SCL	SAB,3	VF	S	SS	3,M	1,M	1,F
65+	----------	<10	SCL	SAB,2	D/L	M	M	1,VF	1,M	2,P

Test Pit # 3

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
28	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
60	D/G	15-20	SL/LS	SAB,3	F	M	SS	3,M/F	1,M	1,F
70+	----------	<10	SCL	SAB,2	D/L	M	M	1,VF	1,M	2,P

Test Pit # 4

PLEASE PRINT OR TYPE ALL INFORMATION

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
24	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
49	D/G	25	SCL	SAB,3	FR	F	S	2,M	1,M	2,F
60+	----------	<10	SCL	SAB,2	D/L	L	M	1,VF	1,M	2,P

Test Pit #5

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
24	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
49	D/G	25	SCL	SAB,3	F	M/FR	SS	2,F	1,F	1,F
54+		>50%								

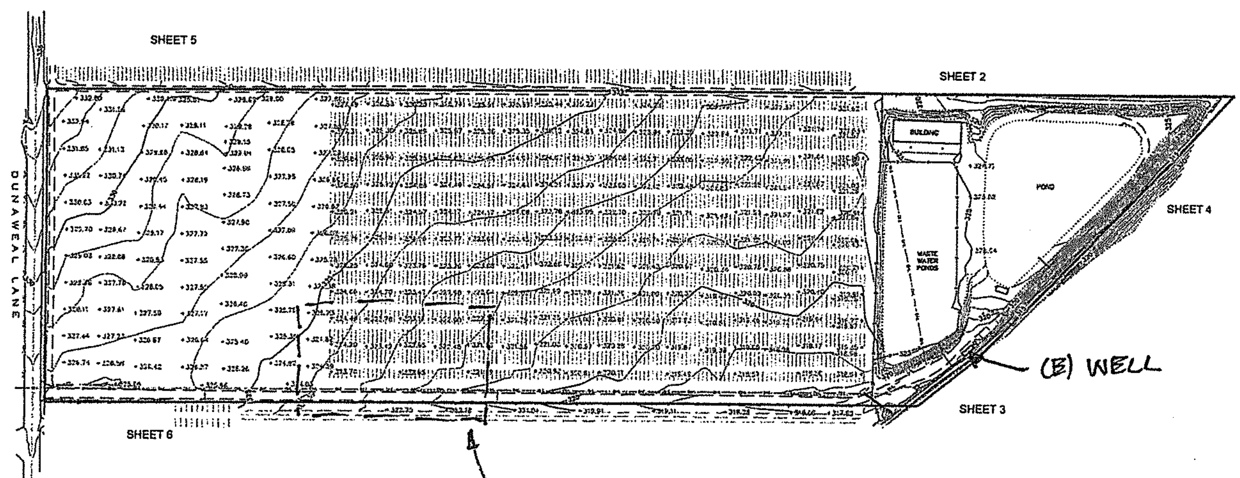
Test Pit # 6

Horizon Depth (Inches)	Boundary	%Rock	Texture	Structure	Consistence			Pores	Roots	Mottling
					Side Wall	Ped	Wet			
36	D/G	15-20	SCL	SAB,3	FR	S	S	3,C	1,M	1,VF
55	D/G	25	SL	G/B,2	L	L	SS	2,C	1,M	1,D
70+		>50%								

SHEET 1 OF 2

SITE EVALUATION
11/14/13
E13-00744

GRAPHIC SCALE
(IN FEET)
1 INCH = 100 FT.



LEGEND:

MAP OF TOPOGRAPHY
OF A PORTION OF THE LANDS OF
CLOS PEGASE
COUNTY OF NAPA STATE OF CALIFORNIA

ALBION

ALBION SURVEYS, INC.
CONSULTING LAND SURVEYORS
1113 HUNT AVENUE
ST. HELENA, CA 94574
(707) 963-1217
FAX (707) 963-1829

DRAWING NOTES

SITE INFORMATION

APN: 020-150-017
ADDRESS: 1077 DUNAWEAL LANE
CALISTOGA, CA 94515

REVISIONS & ADDITIONS

ALBION REFERENCES

PROJECT NO: 3287
ASSOCIATED DWG(S):
PROJECT MANAGER: J. SULLIVAN
DATE OF SURVEY: 1-21-2014

CONTOUR INTERVAL = 1'

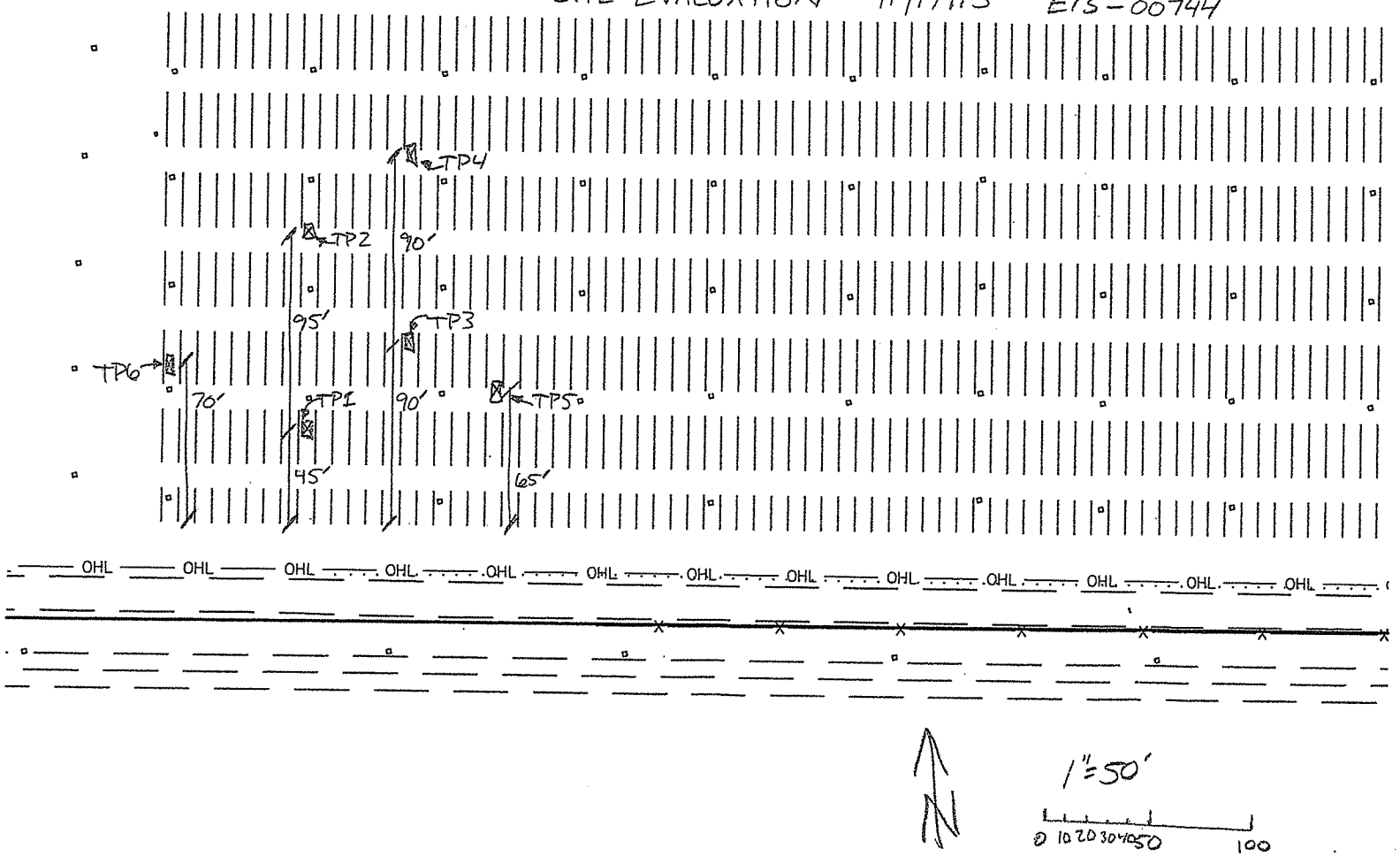
VERTICAL DATUM BASED ON
NAVD 88'

DIRECTION OF NORTH BASED ON
NAD 83' CALIFORNIA STATE PLANE ZONE 2

1077 DUNAWEAL LN
CALISTOGA, CA
APN: 020-150-017

SHEET 2 OF 2

SITE EVALUATION 11/14/13 E13-00744



13530.0 Girard Winery
Winery Use Permit
Water System Feasibility
February 21, 2014

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Stacey Harrington
Napa County Planning, Building, and Environmental Services
Department of Environmental Management
1195 3rd St. Room 101
Napa, Ca

Project: Girard Winery – New Winery and Tasting Room Use Permit
Water System Feasibility
1077 Dunaweal Lane
Calistoga, CA 94515
APN: 020-150-017

Stacey,

This letter is provided in support of the Girard Winery Use Permit application to construct a new onsite winery and tasting room. Specifically, this letter shall provide preliminary information with respect to the Technical, Managerial and Financial Capacity of the winery to operate the proposed system.

PROJECT AND SITE BACKGROUND

Vintage Wine Estates owns and operates the existing "Clos Pegase" water system (ID # 28-01007) located at 1060 Dunaweal Ln in Calistoga, Ca (APN: 020-150-017). The system is currently regulated as a Transient Non-Community water system. Attached please find the most recent water system permit dated 3/22/13.

Vintage Wine Estates is applying for a Use Permit to construct a new winery and tasting room onsite; the Girard Winery. With the Use Permit, it is proposed to also serve water to the proposed Girard Winery using the same system. A new supply main, storage tank, booster pump, and distribution system will be required.

The existing water system permit will need to be updated to include additional piping and service connections for the Girard Winery, as well as any additional documents which must be updated as a result.

WATER SYSTEM NAME

The water system shall be known as:

The Clos Pegase and Girard Wineries Water System

REPORT PREPARATION

This report was prepared for Girard Winery by Ben Monroe, P.E. of Always Engineering, Inc. Questions or comments regarding the content of this report should be directed to:

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Ben Monroe
Always Engineering, Inc.
131 Stony Circle, Suite 1000
Santa Rosa, Ca 95401
Office: (707) 542-8795 x17
Cell: (707) 318-7099
BenM@alwayseng.com

TECHNICAL CAPACITY

A. System Description

The existing water system for Clos Pegase Winery consists of the following features; one active onsite well (Well #2), pressure tanks, sediment filter, softeners, 58,000 gallon storage tank, pressure tanks, ultraviolet disinfection, and potable use. The well is located on 1077 Dunaweal Lane, Calistoga (APN: 020-150-012), where it supplies the residence and Clos Pegase Winery.

A water system schematic is attached.

B. Source Adequacy Assessment and Evaluation

The Clos Pegase and Girard Wineries Water System is sized for ultimate build-out of the parcel and therefore the supply and demand, and infrastructure is expected to be sufficient for at least the next 10 to 20 years. In order to determine the adequacy of the water system, the volume of supply from each source and demand from each use is estimated and evaluated on the following pages:

a. Supply Capacity Assessment

The proposed source for the Water System is as follows:

- Source 1: Well #2

Well #2 produces approximately 23 gpm per the well logs, but the current pump supplies 18 gpm. A copy of the well log is on file with the County and can be provided upon request. There is one additional onsite well which is not used. No surface water is used in the system and therefore the Surface Water Treatment Rule does not apply.

Therefore, the current available supply for the domestic uses onsite is approximately 18 gpm. An 18 gpm supply is sufficient to supply 1,080 gallons an hour which is sufficient to supply 8,640 gallons over 8 hours or 25,920 gallons operating for 24 hours a day. This is capable of producing 9,460,800 gallons when operating for 24 hours a day, for 365 days a year.

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

b. Demand Assessment

Onsite water use demand from the system is from the following uses:

Clos Pegase and Girard Wineries

- Winery Processing
- Winery Employees
- Wine Tasting
- Wine Events

All vineyard irrigation is provided by the onsite reservoir pond. Well No .2 is dedicated to potable uses only.

Demand from each winery is presented below:

Clos Pegase

Winery Process Amended Permit Application

Annual Use	=	920,000 gal/year
Peak Harvest Day	=	5,759 gpd

Winery and Residence Domestic Use

Annual Use (assumes peak day 365 days/year)	=	651,702 gal/year
Peak Day	=	1,785 gpd

Therefore the total water demand for the Clos Pegase is calculated:

Peak Daily Demand		
Winery PW + Winery Domestic + Residence	=	7,544 gpd
Annual Demand		
Winery PW + Winery Domestic + Residence	=	1,517,702 gal

Girard Winery

Winery Process

Annual Use	=	920,000 gal/year
Peak Harvest Day	=	5,759 gpd

Winery Domestic

Peak Day	=	1,675 gpd
Annual Use	=	611,375 gal/year

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Therefore the total water demand for the Girard Winery is calculated:

Peak Daily Demand		
Winery PW + Winery Domestic	=	7,434 gpd
Annual Demand		
Winery PW + Winery Domestic	=	2,183,077 gal

Landscape Irrigation

Landscape Irrigation is provided by another onsite well and/or treated process wastewater and therefore does not impact the public water system demands.

TOTAL WATER DEMAND
For the purposes of simplifying this analysis, all peak water uses are assumed to occur on the same day. This is not the case, as peak winery use only occurs during the months of harvest (Sept – Oct) and typically does not overlap with events. Given the above water demands, the peak water use for the Clos Pegase and Girard Wineries is estimated as follows:

Peak Daily Water Demand

Peak flows are estimated as follows:

Peak Daily Demand for Clos Pegase + Peak Daily Demand for Girard =

7,544 gpd + 7,434 gpd = 14,978 gpd

As demonstrated above, the Well No. 2 can produce 25,920 gpd alone and is more than sufficient to supply water to meet the peak onsite daily uses. The well will only have to operate for 832 minutes (13.8 hours) to provide this volume of water. A storage tank of sufficient volume will be provided for the proposed Girard Winery. A booster pump system will meet the peak hourly use from this tank.

Annual Water Demand

Annual demand for the Clos Pegase and Girard Wineries is the summation of all onsite annual average use and is calculated as follows:

Winery PW + Winery Domestic +Residential =

1,840,000 gal + 1,095,475 gal + 325,851 gal = 3,261,326 gal

The well only needs to operate for a period of approximately 125 days (3,020 hours) in order to supply water for the entire year.

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This analysis assumes winery peak domestic uses occur 365 days a year, which will not be the case.

c. Water Quality Assessment

Previous testing indicates that the water is of good quality. Sediment filters, pH adjustment, water softening, and Ultraviolet disinfection are the only treatment components provided. The existing Well No. 2 has been sampled and only requires treatment to remove hardness. If required, a current sample will be collected and submitted for testing.

A review of all parcels within 500' of the property line has been done to identify any potential hazardous spills. A map is provided to demonstrate this. There are no spills within 500' on any adjacent parcels

d. Consolidation Feasibility

It is proposed to connect to the Clos Pegase Winery to supply Girard Winery, as described in this report.

MANAGERIAL CAPACITY

A. Ownership

The parcel and water system is owned by a Vintage Wine Estates, with Pat Roney being the corporate officer. A copy of the Deed of Trust for the parcel can be submitted to the County to document this. Vintage Wine Estates also owns and operates the existing public water system for Clos Pegase Winery and Cosentino Winery.

B. Organization

The Clos Pegase and Girard Wineries Water System will be operated by Jason Duval, the Clos Pegase Water System Manager. Mr. Duval reports directly to Mr. Roney and has experience operating the water system at the Clos Pegase water system for 15 years. In the event that Mr. Duval is not available during a water system emergency, Glen Hugo the Girard winemaker shall be responsible for water system operation. Vintage Wine Estates will contract out for all legal, engineering, and maintenance of the water system.

C. Water Rights

The Owner's water rights to the groundwater sources have been demonstrated by a copy of the Deed of Trust for the Parcel on file at the County. The parcel is not located within a groundwater basin that has been classified as being in overdraft, or subject to groundwater adjudication procedures.

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D. Emergency/Disaster Response Plan

A complete Emergency/Disaster Response Plan has been submitted to the Napa County office of Environmental Management (NCEM) for the Clos Pegase Winery Water System. An updated plan will be generated when the Girard Winery Water System is designed

FINANCIAL CAPACITY

A. Budget Projection

Vintage Wine Estates, Clos Pegase, and Girard Wineries are not currently encumbered by any judgments, liens, or other financial liability that would prevent operation of the Clos Pegase and Girard Wineries Water System. The majority of the system components are already installed with the exception of the new storage tank, booster pump, and distribution to Girard. Purchase and installation of these components for the system is projected to cost approximately $50,000. Replacement of the entire treatment system is also expected to cost approximately $15,000. Approximately $6,000 per year and $30,000 for the first five years will be required for operation of the Clos Pegase and Girard Wineries Water System. The costs of system maintenance and replacement will be covered by wholesale and retail wine sales.

We trust that this letter and attachments is sufficient to allow processing of the Girard Winery Use Permit for a new winery and tasting room. Please feel free to contact us with any additional questions, comments, or requirements.

Sincerely,

Robert Osborn, EIT
ALWAYS ENGINEERING, INC.
Engineering Technician

Ben Monroe, P.E., QSD/QSP
ALWAYS ENGINEERING, INC.
Project Manager

Enclosures

cc: Heather McCollister
Pat Roney (Vintage Wine Estates)

A Tradition of Stewardship
A Commitment to Service

Planning, Building & Environmental Services

1195 Third Street, Suite 210
Napa, CA 94559
www.countyofnapa.org

Hillary Gitelman
Director

March 22, 2013

CLOS PEGASE WINERY
JASON DUVAL
1060 DUNAWEAL LANE
CALISTOGA, CA 94515

Dear Water Purveyor,

Subject: Clos Pegase Water System Amendment (WS/484/PMT)

On March 7, 2013 an application was submitted for an amendment to the Clos Pegase Winery Water System located at 1060 Dunaweal Lane, Calistoga, CA 94515. At this time the application has been ***approved***. The permit to operate has been attached, please read the permit in its entirety and note that this permit amendment is an addendum to the previously issued permit and all conditions noted therein.

Please feel free to contact me if you have questions or comments regarding this notice at (707)251-1072.

Regards,

Jahniah McGill
Registered Environmental Health Specialist

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Clos Pegase Winery

28-01007

By

The Environmental Health Division of Planning, Building, and Environmental Services

PERMIT NO.: ***484***

EFFECTIVE DATE: ***3/21/2013***

WHEREAS:

1. ***Jason Duval*** on behalf of ***Clos Pegase Winery Water System*** submitted an application to the Division of Environmental Health on ***3/7/ 2013*** for an amendment to the Domestic Water Supply Permit issued to the ***Clos Pegase Winery Water System.***

2. The purpose of the amendment, as stated in the application, is to allow the ***Clos Pegase Winery Water System*** to make the following modifications to the public water system:

   a) Add sodium hydroxide injection for pH adjustment
   b) Remove the Calcite filters
   c) And a kinetic softener

3. The ***Clos Pegase Winery Water System*** has submitted all of the supporting information required to evaluate the application.

4. The Division of Environmental Health has evaluated the application and the supporting material and has determined that the proposed modifications comply with all applicable State drinking water requirements.

THEREFORE:

1. The Napa County Department of Environmental Management hereby approves the application submitted by the ***Clos Pegase Winery Water System*** for a permit amendment. The Domestic Water Supply Permit issued to the ***Clos Pegase Winery Water System*** is hereby amended as follows:

   a) Sodium Hydroxide injection is approved for pH adjustment.

2. This permit amendment is subject to the following conditions:

   a) The only sources approved for potable water supply is as follows:

Source	PS Code	Status	Capacity	Comments
001	2801007-001	Disconnected	unknown	Well 1
003	2801007-003	Active	23 gpm	Well 2

   Two-40 gallon Sanitron Ultra Violet water purifiers, both with 40 gpm flow restrictors, and an additional 40 gpm ultraviolet unit with a 20 gpm flow restrictor are approved as *precautionary* treatment for this water system. Replacement bulbs must be stored onsite at all times and an employee must be trained to replace the bulbs.

   One sodium hydroxide injection unit using the filter cases for contact time to assist with pH adjustment

   One Kinetico Softener is approved for the removal of iron and manganese.

   A 58,000-gallon tank which is lined with a COOLPRO Polypropylene PP78 sanitary liner is approved for water storage.

   b) Bacteriological and chemical tests shall be performed in compliance with the requirements of the California Drinking Water Standards, and the water system shall comply with all reporting requirements. See attached chemical testing schedules

      Quarterly bacteriological reports from an approved lab must be submitted to this office no later than the 10th day following the end of the sampling period. The bacteriological samples shall be collected from the location specified on the Bacteriological Sample Siting Plan. The source chemical monitoring sampling must be completed as shown on the attached chemical testing schedule

   c) The application states that the backwashing filter is plumbed to a sump which disposes to the processed wastewater ponds. This connection must be via an air gap to provide adequate backflow prevention.

d) The system is required to contact their local Pollution Prevention team and update the Hazardous Materials Business Plan (HMBP).

e) A pH sample must be submitted prior to treatment and post treatment to ensure that the pH levels are no longer corrosive in the distribution system.

f) No changes, additions, or modifications shall be made to the sources or treatment unless an amended water permit has first been obtained from the Department.

g) The **Clos Pegase Winery Water System** is operated and maintained in compliance with the California Safe Drinking Water Act.

h) This permit may be revoked or suspended for failure to comply with the California State Health and Safety Code, California Code of Regulations and Title 13 of the Napa County Code Relating to Wells and Water Supply Systems.

This permit supersedes all previous domestic water supply permits issued for this public water system and shall remain in effect unless and until it is amended, revised, reissued, or declared to be null and void by the Division of Environmental Health. This permit is non-transferable. Should the ***Clos Pegase Winery Water System*** undergo a change of ownership, the new owner must apply for and receive a new domestic water supply permit.

Any change in the source of water for the water system, any modification of the method of treatment as described in the Permit Report, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the Division of Environmental Health.

FOR THE Division of Environmental Health

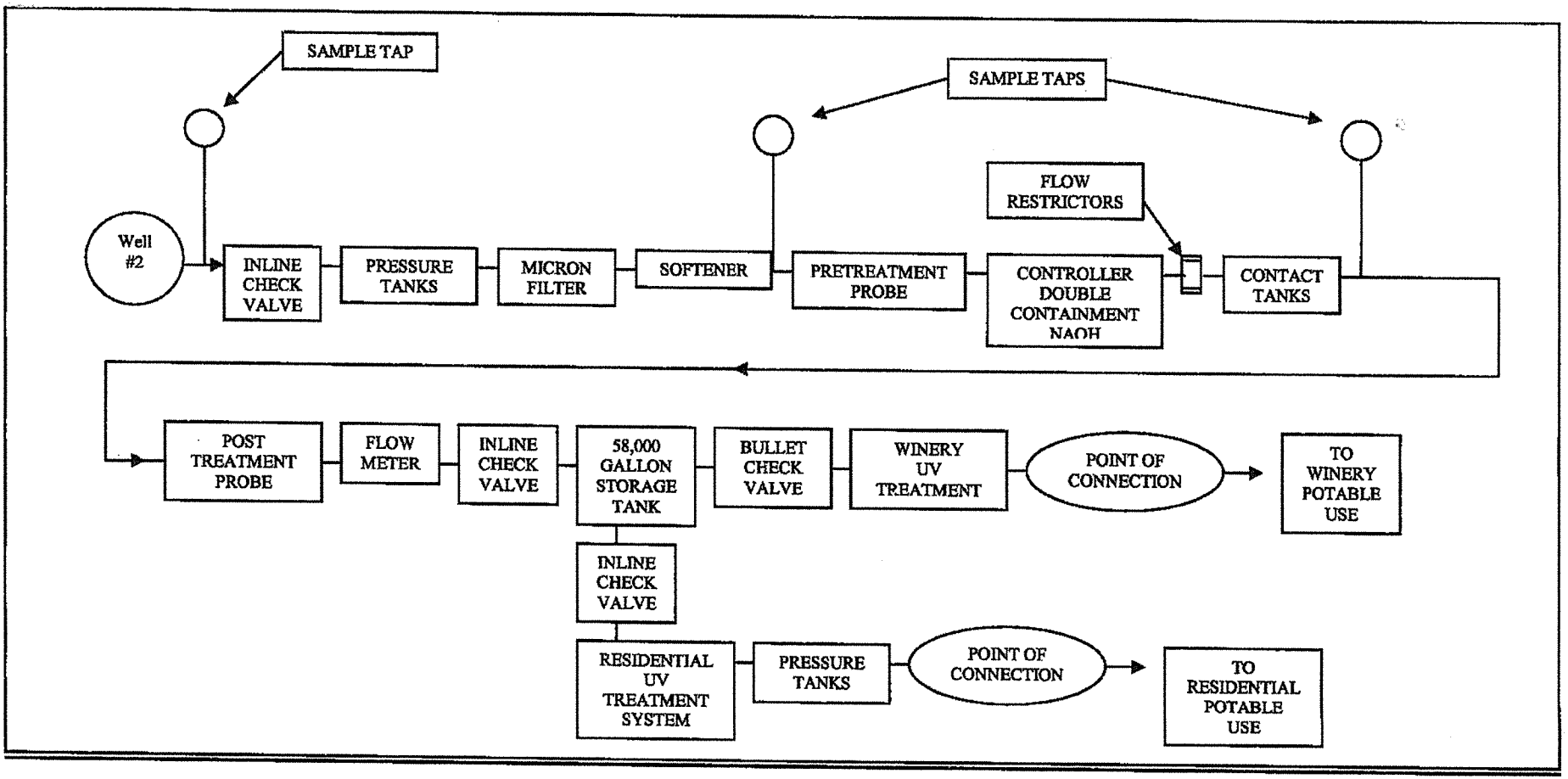
3/21/2013

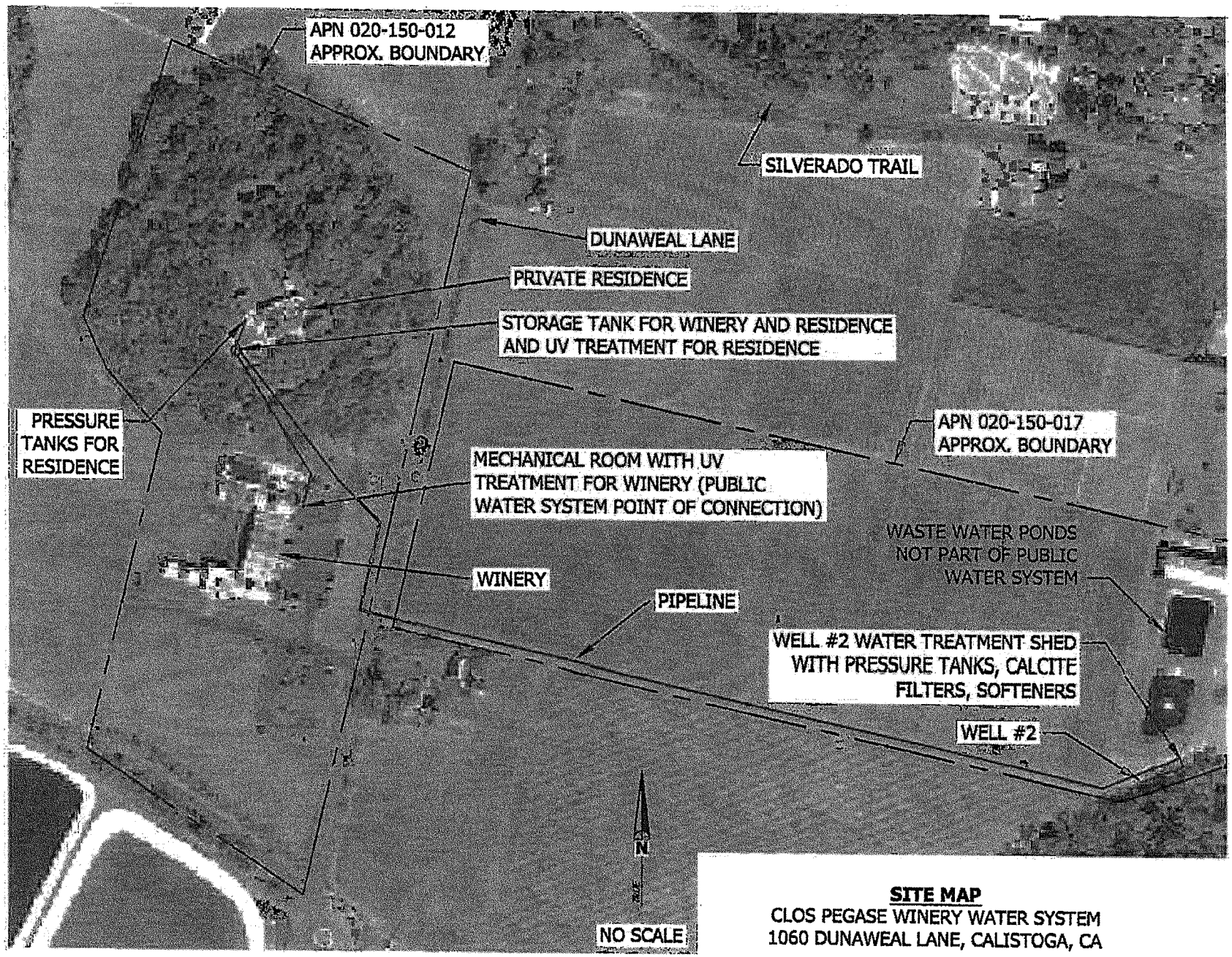
Date

Jahnigh McGill, R.E.H.S.

CLOS PEGASE WINERY WATER SYSTEM

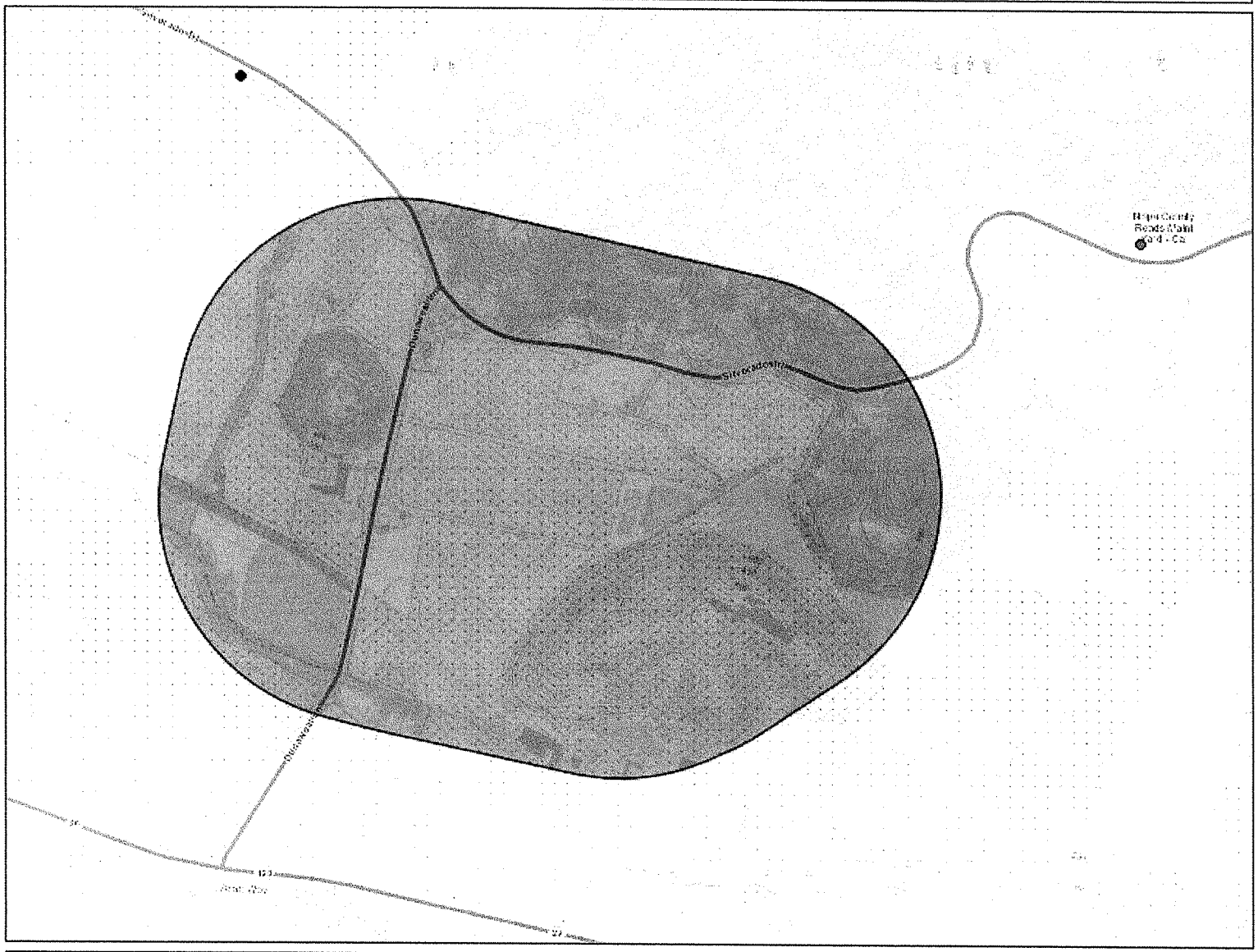
SYSTEM SCHEMATIC

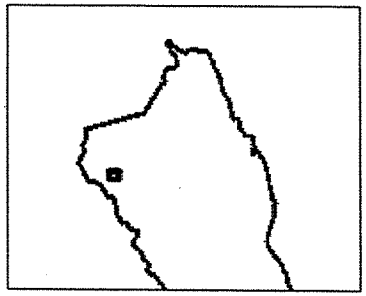




SITE MAP
CLOS PEGASE WINERY WATER SYSTEM
1060 DUNAWEAL LANE, CALISTOGA, CA

County of Napa GIS





Legend

- HazMat Spills (LOP)
- HazMat Spills (Non-LOP)
- Corner Records
- County Boundary

2,572.3 0 1,286.15 2,572.3 Feet

Disclaimer: This map was prepared for informational purposes only.
No liability is assumed for the accuracy of the data delineated hereon.

This map was printed on 11/6/2013

Notes

DECLARATION

(Nontransient-Noncommunity)

I, PATRICK ROWE, declare that I understand the definition of a public
(name of owner or legally authorized representative)
water system, as defined in the California Health and Safety Code (CH&SC), Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 1, Section 116275(h), to mean that a **public** water system is "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."

Furthermore, I understand the definition of a nontransient-noncommunity water system, as defined in Section 116275(k), to mean "a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year."

Furthermore, I declare that I understand that Section 116275(e) defines human consumption as "the use of water for drinking, bathing or showering, hand washing, or oral hygiene."

Furthermore, I declare that I understand that Section 116725 of the CH&SC states that "Any person who knowingly makes any false statement or representation in any application, record, report, or other document submitted, maintained, or used for purposes or compliance with this chapter (California Safe Drinking Water Act (AB 2995)), may be liable for a civil penalty not to exceed five thousand ($5,000) for each separate violation or, for continuing violations, for each day that violation continues." In addition, Section 116730 of the CH&SC states that violators may be prosecuted in criminal court and upon conviction, be punished by a fine of not more than $25,000 for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment.

In recognition of the above, declaring that I understand the definition of a public water system and the penalty for giving false information, I declare that my facility, Clos Pegase and Girard Wineries Water System, does not meet the definition of a nontransient noncommunity water system because ***it does not serve more than 24 people more than 6 months out of the year.***

5/2/14
Date

Signature

file № P14-00053

A Tradition of Stewardship
A Commitment to Service

Napa County
Conservation, Development, and Planning Department
1195 Third Street, Suite 210, Napa, California, 94559 *phone* (707) 253-4417
web www.countyofnapa.org/cdp/ *email* cdp@countyofnapa.org

Use Permit Application

To be completed by Planning staff...

Application Type: Use Permit

Date Submitted: 2.28.14 Resubmittal(s): Date Complete:

Request: New Winery - 200,000 gpy

*Application Fee Deposit: $ Receipt No. Received by: SS Date: 2.28.14

**Total Fees will be based on actual time and materials*

To be completed by applicant...

Project Name: Girard Winery

Assessor's Parcel №: APN 020-150-017 Existing Parcel Size: 26.53 ac.

Site Address/Location: 1077 Dunaweal Lane Calistoga, CA
(No. / Street / City / State / Zip)

Primary Contact: ☐ Owner ☐ Applicant ☑ Representative (attorney, engineer, consulting planner, etc.)

Property Owner: Vintage Wine Estates

Mailing Address: 205 Concourse Blvd Santa Rosa, CA 95403
(No. / Street / City / State / Zip)

Telephone №: 877 289 9463 E-Mail:

Applicant (if other than property owner): Pat Roney

Mailing Address: 205 Concourse Blvd Santa Rosa, CA 95403
(No. / Street / City / State / Zip)

Telephone №: 877 289 9463 E-Mail:

Representative (if applicable): Heather McCollister

Mailing Address: 1512 D St Napa, CA 94559
(No. / Street / City / State / Zip)

Telephone №: 707 287 5999 E-Mail: bhmccolli@sbcglobal.net

Use Permit Information Sheet

Use

Narrative description of the proposed use (please attach additional sheets as necessary):
Request for a new 200,000 gallon per year winery facility. (See attached project description/write up.

What, if any, additional licenses or approvals will be required to allow the use?

District_____ Regional _____

State _____ Federal _____

Improvements

Narrative description of the proposed on-site and off-site improvements (please attach additional sheets as necessary):
New winery of _____square feet, upgrade existing on-site waste water treatment facility (used by Clos Pagause Winery), _____square feet of parking/driveway/turnaround, _____square feet of crush pad,

Project and Site Background

Vintage Wine Estates owns and operates the existing "Clos Pegase" Winery located at 1060 Dunaweal Ln in Calistoga, CA (APN: 020-150-012). Vintage Wine Estates also owns the parcel across Dunaweal Ln., (1077 Dunaweal Ln., APN: 020-150-017), which has the existing process wastewater ponds and water well for Clos Pegase.

Vintage Wine Estates is proposing to construct a new winery and tasting room (the Girard Winery) on APN: 020-150-017. A production capacity of 200,000 gal of wine annually is proposed for the new Girard Winery. Crushing is proposed inside the facility, with a covered work area/concrete slab for loading & unloading. (refer to site plan provided). A small tasting room and bar area is proposed, with 2 smaller VIP tasting areas.

The parcel consists of existing vineyards, water supply well and treatment, an agricultural storage building, 2 treatment ponds and an irrigation storage pond. The parcel is generally flat, with a small flow line along the southern property line.

A site plan is provided displaying the existing site and proposed improvements.

With the Use Permit, it is proposed to also treat the process waste (PW) generated by Girard Winery using the existing Clos Pegase Pond Treatment system. A new collection system and transfer pump sump will be required for Girard Winery. A new aerator in the process waste ponds will also be required. A new sanitary sewage system on-site is proposed to accommodate the winery employees, visitors, and events.

1) Construct new winery building to include: a 39,604 square foot winery building, for fermentation and barrel storage, tasting room, administrative, covered work area and tanks and crush pad;

2) Hours of operation from 10:00am-4:00pm to 7:00am-7:00pm seven days per week and hours of visitation from 10:00am-4:00pm to 10:00am-6:00pm seven days per week; and,

3) Maximum visitation

Revised 6/10/14

Tours and tastings by appointment only for a maximum of 294 visitors per week;

- Four (4) events per year with a maximum of 75 guests,
- Four (4) events per year with a maximum of 200 guests,
- One (1) harvest event per year with a maximum of 500 guests;
- Allow a small prep kitchen for catered events;
- Number of employees: 20 full-time and 10 part-time

- Hours of operation from 8:00am-6:00pm (except harvest & events;

Allow Evans Bill (AB2004) on premise consumption

4) Allow on-site consumption consistent with AB2004 to occur in landscaped winery gardens.

All new wineries and any existing (pre-WDO) winery expanding beyond its winery development area must comply with the 75% rule and complete the attached "Initial Statement of Grape Source". See Napa County Code §18.104.250 (B) & (C).

Marketing Program

Please describe the winery's proposed marketing program. Include event type, maximum attendance, food service details, etc. Differentiate between existing and proposed activities. (Attach additional sheets as necessary.)

- Tours and tastings by appointment only for a maximum of 294 visitors per week;
- Establish the marketing plan to include:
- Four (4) events per year with a maximum of 75 guests,
- Four (4) events per year with a maximum of 200 guests,
- One (1) harvest event per year with a maximum of 500 guests;
- Allow Evans Bill (AB2004) on premise consumption,
- Number of employees: 20 full-time and 10 part-time,
- Hours of operation from 8:00am-6:00pm (except harvest & events).

Revised 6/10/11

NOTE: Hours of operation, employee shift 8am, open for visitors 10am.
Daily employees will not exceed 20 including full time and part time, except during harvest and events.

Food Service

Please describe the nature of any proposed food service including type of food, frequency of service, whether prepared on site or not, kitchen equipment, eating facilities, etc. Please differentiate between existing and proposed food service. (Attach additional sheets as necessary.)

All food to be catered.
Small prep/staging area to be provided.

P14-00053
APN 020-150-017

Day	FT employees	PT employees	Tasting Visitors
Harvest Weekday	20	10	42
Harvest Weekend	20	10	100
Non-harvest Weekday	8	3	42
Non-Harvest Weekend	8	3	100

* For the Wastewater feasibility study, weekends are assumed to represent the peak.
The traffic study presents only averages.
**Events - the traffic study provides for the largest event of 500 visitors and 30 event staff. The wastewater feasibilit
study,
Provides portable toilets for this event, and provides the largest event with septic as 200 visitors as peak and 75 visito
No additional employees are assumed onsite for the events.

Marketing/visitors/hours of operation:

- Tours and tastings by appointment only for a maximum of 354 visitors per week;
- Establish the marketing plan to include:
- Four (4) events per year with a maximum of 75 guests,
- Four (4) events per year with a maximum of 200 guests,
- One (1) harvest event per year with a maximum of 500 guests;
- Number of employees: 8 full-time and 3 part-time (except for harvest 20 FT/10PT);
- Hours of operation from 8:00am-6:00pm (except harvest & events;

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Total on-site parking spaces: 0 existing 22 proposed

Loading areas: 0 existing 2 proposed

Fire Resistivity (check one; if not checked, Fire Marshal will assume Type V – non rated):

☐ Type I FR ☐ Type II 1 Hr ☐ Type II N (non-rated) ☐ Type III 1 Hr ☐ Type III N

☐ Type IV H.T. (Heavy Timber) ☐ Type V 1 Hr ☐ Type V (non-rated)

(for reference, please see the latest version of the California Building Code)

Is the project located in an Urban/Wildland Interface area? ☐ Yes ☑ No

Total land area to be disturbed by project (include structures, roads, septic areas, landscaping, etc): _____ acres

Employment and Hours of Operation

Days of operation: _____ existing Sun-Sat(7 days/wk) proposed

Hours of operation: _____ existing 8am-6pm proposed

Anticipated number of employee shifts: _____ existing 20 max proposed

Anticipated shift hours: _____ existing 8 hrs proposed

Maximum Number of on-site employees:

☐ 10 or fewer ☐ 11-24 ☑ 25 or greater (specify number) 20 FT/ 10 PT

Alternately, you may identify a specific number of on-site employees:

☐ other (specify number) _____

Certification and Indemnification

Applicant certifies that all the information contained in this application, including all information required in the Checklist of Required Application Materials and any supplemental submitted information including, but not limited to, the information sheet, water supply/waste disposal information sheet, site plan, floor plan, building elevations, water supply/waste disposal system site plan and toxic materials list, is complete and accurate to the best of his/her knowledge. Applicant and property owner hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, *including the right of access to the property involved.*

Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

Vintage Wine Estate

Print Name of Property Owner

Print Name Signature of Applicant (if different)

2/25/14

Signature of Property Owner Date

Signature of Applicant Date

Operations

Please indicate whether the activity or uses below are already legally **EXISTING**, whether they exist and are proposed to be **EXPANDED** as part of this application, whether they are **NEWLY PROPOSED** as part of this application, or whether they are neither existing nor proposed (**NONE**).

Retail Wine Sales	☐ Existing	☐ Expanded	☑ Newly Proposed	☐ None
Tours and Tasting- Open to the Public	☐ Existing			
Tours and Tasting- By Appointment	☐ Existing	☐ Expanded	☑ Newly Proposed	☐ None
Food at Tours and Tastings	☐ Existing	☐ Expanded	☑ Newly Proposed	☐ None
Marketing Events*	☐ Existing	☐ Expanded	☑ Newly Proposed	☐ None
Food at Marketing Events	☐ Existing	☐ Expanded	☑ Newly Proposed	☐ None
Will food be prepared...	☐ On-Site?	☑ Catered?		
Public display of art or wine-related items	☐ Existing	☐ Expanded	☐ Newly Proposed	☑ None

** For reference please see definition of "Marketing," at Napa County Code §18.08.370* - http://library.municode.com/index.aspx?clientId=16513

Production Capacity *

Please identify the winery's...

Existing production capacity: 0 gal/y Per permit №: _____ Permit date: _____

Current maximum actual production: _____ gal/y For what year? _____

Proposed production capacity: 200,000 gal/y

** For this section, please see "Winery Production Process," at page 11.*

Visitation and Hours of Operation

Please identify the winery's...

Maximum daily tours and tastings visitation:	_____ existing	125 proposed
Average daily tours and tastings visitation[1]:	_____ existing	125 proposed
Visitation hours (e.g. M-Sa, 10am-4pm):	_____ existing	8am-6pm proposed
Non-harvest Production hours[2]:	_____ existing	8am-6pm proposed

See amendments 1/10/14

See amendments

[1] Average daily visitation is requested primarily for purposes of environmental review and will not, as a general rule, provide a basis for any condition of approval limiting allowed winery visitation.
[2] It is assumed that wineries will operate up to 24 hours per day during crush.

Winery Development Area. Consistent with the definition at "a.," at page 11 and with the marked-up site plans included in your submittal, please indicate your proposed winery development area. If the facility already exists, please differentiate between existing and proposed.

Existing	22,206	sq. ft.	0.51	acres
Proposed	139,763	sq. ft.	3.21	acres

Winery Coverage. Consistent with the definition at "b.," at page 11 and with the marked-up site plans included in your submittal, please indicate your proposed winery coverage (maximum 25% of parcel or 15 acres, whichever is less).

132,793	sq. ft.	3.05	acres	11.49	% of parcel

Production Facility. Consistent with the definition at "c.," at page 11 and the marked-up floor plans included in your submittal, please indicate your proposed *production* square footage. If the facility already exists, please differentiate between existing and proposed.

Existing	0	sq. ft.	Proposed	37,129	sq. ft.

Accessory Use. Consistent with the definition at "d.," at page 11 and the marked-up floor plans included in your submittal, please indicate your proposed *accessory* square footage. If the facility already exists, please differentiate between existing and proposed. (maximum = 40% of the production facility)

Existing	0	sq. ft.	0	% of production facility
Proposed	7,006	sq. ft.	15.9	% of production facility

Caves and Crushpads

If new or expanded caves are proposed please indicate which of the following best describes the public accessibility of the cave space:

☐ None – no visitors/tours/events (**Class I**) ☐ Guided Tours Only (**Class II**) ☐ Public Access (**Class III**)

☐ Marketing Events and/or Temporary Events (**Class III**)

Please identify the winery's...

Cave area	Existing:	sq. ft.	Proposed: 0	sq. ft.
Covered crush pad area	Existing:	sq. ft.	Proposed: 3491	sq. ft.
Uncovered crush pad area	Existing:	sq. ft.	Proposed: 0	sq. ft.

G.ard Winery
Use Permit
February 12, 2014, 2014

Winery Coverage Accessory Production Ratio

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Existing					
USE	AREA (SQUARE FEET)	WINERY COVERAGE (SQUARE FEET)	OTHER WINERY DEVELOPMENT (SQUARE FEET)	PRODUCTION USE (SQUARE FEET)	ACCESSORY USE (SQUARE FEET)
Agricultural Storage Building and Concrete Slabs	7,741				
Waste water ponds	21,488	21,488			
Irrigation Reservoir	60,261				
Well Pump House and Irrigation pump House	718	718			
TOTAL EXISTING (SF):	**90,208**	**22,206**	**0**	**0**	**0**
TOTAL EXISTING (ACRE):		**0.51**	**0.00**	**0.00**	**0.00**
TOTAL EXISTING WINERY BUIDLINGS (SF)					**0**
EXISTING ACCESSORY TO PRODUCTION RATIO					**NA**
TOTAL WINERY DEVELOPMENT AREA:		**0.51**	**ACRES**		
TOTAL WINERY DEVELOPMENT AREA:		**22,206**	**SF**		
TOTAL WINERY COVERAGE:		**22,206**	**SF**		
TOTAL WINERY COVERAGE:		**0.51**	**ACRES**		
EXISTING WINERY COVERAGE OF PARCEL:		**1.92**	**%**		
EXISTING WINERY DEVELOPMENT OF PARCEL:		**1.92**	**%**		
PARCEL SIZE		**26.53**	**ACRES**		
PARCEL SIZE		**1,155,647**	**SF**		
*** Refere to the Use Permit Site Plan UP1 and UP2 for location of square footage onsite**					

Girard Winery
Use Permit
February 12, 2014, 2014

Winery Coverage Accessory Production Ratio

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Existing and Proposed					
USE	AREA (SQUARE FEET)	WINERY COVERAGE (SQUARE FEET)	OTHER WINERY DEVELOPMENT (SQUARE FEET)	PRODUCTION USE (SQUARE FEET)	ACCESSORY USE (SQUARE FEET)
Covered Work Area and Truck Loading Dock	3,491	3,491		3,491	
Crush Area	4,030	4,030		4,030	
Wine Tanker Truck Loading Area	738	738		738	
Wine Storage Area	12,840	12,840		12,840	
Offices	843	843			843
Wine Tasting Room and Bar	1,490	1,490			1,490
Covered Porch	2,560	2,560			2,560
Vip Tasting Area	830	830			830
Retail Storage	194	194			194
Non-Employee Designated Restrooms	189	189			189
Barrell Storage and Barrell Working Area	15,640	15,640		15,640	
Site Concrete Walkways	1,675		1,675		
Pomace Dumpster Slabs	600	600			
Large Recycling/Waste Enclosure	240	240		240	
Fire Pump House	150	150		150	
Water Storage Tank	706	706			
Visitor Parking	5,295		5,295		
Agricultural Storage Building and Concrete Slabs	7,741				
Waste water ponds	21,488	21,488			
Irrigation Reservoir	60,261				
Well Pump House and Irrigation pump House	718	718			
Asphalt Paving and Driveway (excluding visitor parking)	66,046	66,046			
TOTAL PROPOSED (SF):		**132,793**	**6,970**	**37,129**	**6,106**
TOTAL PROPOSED (ACRE):		**3.05**	**0.16**	**0.85**	**0.14**
TOTAL WINERY BUILDINGS - EXISTING AND PROPOSED (SF)				**37,129**	**7,006**
TOTAL WINERY BUILDINGS - EXISTING AND PROPOSED (ACRES)				**0.85**	**0.16**
PROPOSED ACCESSORY TO PRODUCTION RATIO					**15.9%**
EXISTING AND PROPOSED					
TOTAL WINERY DEVELOPMENT AREA:		**3.21**	**ACRES**		
TOTAL WINERY DEVELOPMENT AREA:		**139,763**	**SF**		
TOTAL WINERY COVERAGE:		**132,793**	**SF**		
TOTAL WINERY COVERAGE:		**3.05**	**ACRES**		
PROPOSED WINERY COVERAGE OF PARCEL:		**11.49**	**%**		
PROPOSED WINERY DEVELOPMENT OF PARCEL:		**12.09**	**%**		
*** Refere to the Use Permit Site Plan UP1 and UP2 for location of square footage onsite**					

Initial Statement of Grape Source

Pursuant to Napa County Zoning Ordinance Sections 12419(b) and (c),
I hereby certify that the current application for establishment or expansion of a winery pursuant to the Napa County Winery Definition Ordinance will employ sources of grapes in accordance with the requirements of Section 12419(b) and/or (c) of that Ordinance.

Owner's Signature

2/25/14
Date

Letters of commitment from grape suppliers and supporting documents may be required prior to issuance of any building permits for the project. Recertification of compliance will be required on a periodic basis. Recertification after initiation of the requested wine production may require the submittal of additional information regarding individual grape sources. Proprietary information will not be disclosed to the public.

Water Supply

Please attach completed Phase I Analysis sheet.

	Domestic	Emergency
Proposed source of water (e.g., spring, well, mutual water company, city, district, etc.):	Well	Storage Tank
Name of proposed water supplier (if water company, city, district):	NA	NA
Is annexation needed?	☐ Yes ☑ No	☐ Yes ☑ No
Current water use:	0 gallons per day (gal/d)	
Current water source:	Well	Well
Anticipated future water demand:	6,735 gal/d	NA gal/d
Water availability (in gallons/minute):	18 gal/m	TBD gal/m
Capacity of water storage system:	see fire storage gal	25,000 total gal
Type of emergency water storage facility if applicable (e.g., tank, reservoir, swimming pool, etc.):	Tank - combined fire, process, and potable	

Liquid Waste

Please attach Septic Feasibility Report

	Domestic	Other
Type of waste:	sewage	Winery Process
Disposal method (e.g., on-site septic system, on-site ponds, community system, district, etc.):	on-site septic or irrigation reuse	ponds with irrigation reuse
Name of disposal agency (if sewage district, city, community system):	NA	NA
Is annexation needed?	☐ Yes ☑ No	☐ Yes ☑ No
Current waste flows (peak flow):	0 gal/d	5,020 (from Clos Pegase) gal/d
Anticipated future waste flows (peak flow):	1675 gal/d	10,040 (combined) gal/d
Future waste disposal design capacity:	1675 gal/d	17,000 gal/d

Solid Waste and Recycling Storage and Disposal

Please include location and size of solid waste and recycling storage area on site plans in accordance with the guidelines available at www.countyofnapa.org/dem.

Hazardous and/or Toxic Materials

If your facility generates hazardous waste or stores hazardous materials above threshold planning quantities (55 gallons liquid, 500 pounds solid or 200 cubic feet of compressed gas) then a hazardous materials business plan and/or a hazardous waste generator permit will be required.

Grading Spoils Disposal

Where will grading spoils be disposed of?
(e.g. on-site, landfill, etc. If off-site, please indicate where off-site): onsite vineyards or offsite landfill

Winery Traffic Information / Trip Generation Sheet

Traffic during a Typical Weekday

Number of FT employees: 8 x 3.05 one-way trips per employee = 24 daily trips.

Number of PT employees: 3 x 1.90 one-way trips per employee = 6 daily trips.

Average number of weekday visitors: 52 / 2.6 visitors per vehicle x 2 one-way trips = 40 daily trips.

Gallons of production: 200,000 / 1,000 x .009 truck trips daily[3] x 2 one-way trips = 4 daily trips.

Total = 74 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (sum of visitor and truck trips x .38) = 26 **PM peak trips.**

Traffic during a Typical Saturday

Number of FT employees (on Saturdays): 2 x 3.05 one-way trips per employee = 6 daily trips.

Number of PT employees (on Saturdays): 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of Saturday visitors: 62 / 2. 8 visitors per vehicle x 2 one-way trips = 44 daily trips.

Total = 58 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (visitor trips x .57) = 29 **PM peak trips.**

Traffic during a Crush Saturday

Number of FT employees (during crush): 20 x 3.05 one-way trips per employee = 61 daily trips.

Number of PT employees (during crush): 10 x 1.90 one-way trips per employee = 19 daily trips.

Average number of Saturday visitors: 62 / 2. 8 visitors per vehicle x 2 one-way trips = 44 daily trips.

Gallons of production: 200,000 / 1,000 x .009 truck trips daily x 2 one-way trips = 4 daily trips.

Avg. annual tons of grape on-haul: 1,000 / 144 truck trips daily[4] x 2 one-way trips = 14 daily trips.

Total = 142 **daily trips.**

Largest Marketing Event- Additional Traffic

Number of event staff (largest event): 30 x 2 one-way trips per staff person = 60 trips.

Number of visitors (largest event): 500 / 2.8 visitors per vehicle x 2 one-way trips = 357 trips.

Number of special event truck trips (largest event): 10 x 2 one-way trips = 20 trips.

[3] Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

[4] Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

Checklist of Voluntary Greenhouse Gas Emission Reduction Measures

A Tradition of Stewardship
A Commitment to Service

An addendum to the Entitlement Application and a supplement for Initial Studies as required by CEQA

PROJECT NAME	Girard Winery
PROJECT ADDRESS	
APPLICANT	Vintage Wine Estates
CONTACT INFO	Heather McCollister 707-287-5999
	email phone

		yes	no	I don't know
1	Have you designed to U.S.G.B.C.™ LEED™ or Build It Green™ standards? If yes, please include a copy of their required spreadsheets.		X	
2	Do you have an integrated design team? if yes, please list:		X	

3 SITE DESIGN

3.1	Does your design encourage community gathering and is it pedestrian friendly?	X		
3.2	Are you building on existing disturbed areas?	X		
3.3	Landscape Design			
3.31	native plants?	X		
3.32	drought tolerant plants?	X		
3.33	Pierce Disease resistant planting?	X		
3.34	Fire resistant planting?		X	
3.35	Are you restoring open space and/or habitat?		X	
3.36	Are you harvesting rain water on site?	X		
3.37	planting large trees to act as carbon sinks?	X		
3.38	using permeable paving materials for drive access and walking surfaces?	X		
3.4	Does your parking lot include bicycle parking?	X		
3.5	Do you have on-site waste water disposal?			
3.6	Do have post-construction stormwater on site detention/filration methods designed?	inert		
3.7	Have you designed in harmony with existing natural features, such as preserving existing trees or rock outcroppings?			
3.8	Does the project minimize the amount of site disturbance, such as minimizing grading and/or using the existing topography in the overall site design (such as cave design)?	X		
3.9	Is the structure designed to take advantage of natural cooling and passive solar aspects?	X		

4 ENERGY PRODUCTION & EFFICIENCY

4.1	Does your facility use energy produced on site? If yes, please explain the size, location, and percentage of off-set: proposed solar size TBD.	X		
4.2	Does the design include thermal mass within the walls and/or floors?			
4.3	Do you intend to commission the performance of the building after it is built to ensure it performs as designed?			X
4.4	Will your plans for construction include:			
4.41	High density insulation above Title 24 standards?	X		
4.42	Zones for heating and cooling to provide for maximum efficiency?	X		
4.43	Energy Star™ or ultra energy efficient appliances?	X		
4.44	A "cool" (lightly colored or reflective) or a permeable/living roof?		X	
4.45	Timers/time-outs installed on lights (such as the bathrooms)?	X		

If yes, please explain:

5 WATER CONSERVATION

5.1	Does your landscape include high-efficiency irrigation?	X		
5.2	Does your landscape use zero potable water irrigation?	X		
5.3	Is your project in the vicinity to connect to the Napa Sanitation reclaimed water?	n/a		
5.4	Will your facility use recycled water?	X		
5.41	If no, will you prepare for it by pre-installing dual pipes and/or purple lines?			
5.5	Will your plans for construction include:			
5.51	a meter to track your water usage?	X		
5.52	ultra water efficient fixtures and appliances?	X		
5.53	a continuous hot water distribution method, such as an on-demand pump?			
5.54	a timer to insure that the systems are run only at night/early morning?	X		

6 MATERIAL RECYCLING

6.1	Are you using reclaimed materials? If yes, what and where:		X
6.2	Are you using recycled construction materials-		
6.21	finish materials?		X
6.22	aggregate/concrete road surfaces?		X
6.23	fly ash/slag in foundation?		X
6.3	Will your contractor be required to recycle and reuse construction materials as part of your contract?	X	
6.4	Does your facility provide access to recycle-		
6.41	Kitchen recycling center?	X	
6.42	Recycling options at all trash cans?	X	
6.43	Do you compost green waste?	X	
6.44	Provide recycling options at special events?		

7 NATURAL RESOURCES

7.1	Will you be using certified wood that is sustainably harvested in construction?		X
7.2	Will you be using regional (within 500 miles) building materials?		X
7.3	Will you be using rapidly renewable materials, such as bamboo?		X
7.4	Will you apply optimal value engineering (studs & rafters at 24" on center framing)?	X	
7.5	Have you considered the life-cycle of the materials you chose?		X

8 INDOOR AIR QUALITY

8.1	Will you be using low or no emitting finish and construction materials indoors-		
8.11	Paint?		X
8.12	Adhesives and Sealants?		X
8.13	Flooring?		X
8.14	Framing systems?		X
8.15	Insulation?		X
8.2	Does the design allow for maximum ventilation?	X	
8.3	Do you plan for a wood burning fireplace (US EPA Phase II certified)?		X
8.4	Does your design include dayling, such as skylights?		X

9 TRANSPORTATION DEMAND MANAGMENT MENT

9.1	*After your project is complete, will you offer your employees incentives to carpool, bike, or use transit?*	X	
9.2	After your project is complete, will you allow your employees to telecommute or have alternative work schedules?	X	
9.3	Does your project include design features that encourage alternatives modes of transportation, such as		
	preferred parking for carpooling, ridesharing, electric vehicles?	X	
	secured bicycle parking, safe bicycle access?	X	
	loading zones for buses/large taxi services?	X	

9.4 How close is your facility to public transportation? _____

10 Are there any superior environmental/sustainable features of your project that should be noted?

_____

_____

11 What other studies or reports have you done as part of preparing this application?

1 _____

2 _____

3 _____

4 _____

12 If your project involves an addition or modification to an existing building, are you planning to improve energy conservation of existing space (such as insulation, new windows, HVAC, etc.)? X

If yes, please describe: _____

13 Once your facility is in operation, will you:

13.1	calculate your greenhouse gas emissions?		X
13.2	implement a GHG reduction plan?		
13.3	have a written plan to reduce your vehicle miles traveled of your operations and employee's commute?	X	

14 Does your project provide for education of green/sustainable practices? X

If yes, please describe: _____

15 Any comments, suggestions, or questions in regards to the County's efforts to reduce greenhouse gases?

_____

_____

_____

Form filed out by: Heather McCollister

Please feel free to include additional sheets of paper as necessary.

A Tradition of Stewardship
A Commitment to Service

1195 Third Street, Suite 201
Napa, CA 94559-3092
www.co.napa.ca.us/publicworks

Main: (707) 253-4351
Fax: (707) 253-4627

Donald G. Ridenhour, P.E.
Director

WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY

Introduction: As an applicant for a permit with Napa County, It has been determined that Chapter 13.15 of the Napa County Code is applicable to approval of your permit. One step of the permit process is to adequately evaluate the amount of water your project will use and the potential impact your application might have on the static groundwater levels within your neighborhood. The public works department requires that a Phase 1 Water Availability Analysis (WAA) be included with your application. The purpose of this form is to assist you in the preparation of this analysis. You may present the analysis in an alternative form so long as it substantially includes the information required below. Please include any calculations you may have to support your estimates.

The reason for the WAA is for you, the applicant, to inform us, to the best of your ability, what changes in water use will occur on your property as a result of an approval of your permit application. By examining the attached guidelines and filling in the blanks, you will provide the information we require to evaluate potential impacts to static water levels of neighboring wells.

Step #1:

Provide a map and site plan of your parcel(s). The map should be an 8-1/2"x11" reproduction of a USGS quad sheet (1:24,000 scale) with your parcel outlined on the map. Include on the map the nearest neighboring well. The site plan should be an 8-1/2"x11" site plan of your parcel(s) with the locations of all structures, gardens, vineyards, etc in which well water will be used. If more than one water source is available, indicate the interconnecting piping from the subject well to the areas of use. Attach these two sheets to your application. If multiple parcels are involved, clearly show the parcels from which the fair share calculation will be based and properly identify the assessor's parcel numbers for these parcels. Identify all existing or proposed wells

Step #2: Determine total parcel acreage and water allotment factor. If your project spans multiple parcels, please fill a separate form for each parcel.

Determine the allowable water allotment for your parcels:

Parcel Location Factors

The allowable allotment of water is based on the location of your parcel. There are 3 different location classifications. Valley floor areas include all locations that are within the Napa Valley, Pope Valley and Carneros Region, except for areas specified as groundwater deficient areas. Groundwater deficient areas are areas that have been determined by the public works department as having a history of problems with groundwater. All other areas are classified as Mountain Areas.

Please underline your location classification below (Public Works can assist you in determining your classification if necessary):

Valley Floor	**1.0 acre feet per acre per year**
Mountain Areas	**0.5 acre feet per acre per year**
MST Groundwater Deficient Area	**0.3 acre feet per acre per year**

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-150-017	26.52	1	26.52

Using the guidelines in Attachment A, tabulate the existing and projected future water usage on the parcel(s) in acre-feet per year (af/yr). Transfer the information from the guidelines to the table below.

EXISTING USE:		**PROPOSED USE:** See phase 1 water	
Residential	_____ af/yr	Residential	_____ af/yr
Farm Labor Dwelling	_____ af/yr	Farm Labor Dwelling	_____ af/yr
Winery	_____ af/yr	Winery	_____ af/yr
Commercial	_____ af/yr	Commercial	_____ f/yr
Vineyard*	_____ af/yr	Vineyard*	_____ af/yr
Other Agriculture	_____ af/yr	Other Agriculture	_____ af/yr
Landscaping	_____ af/yr	Landscaping	_____ af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
Waste water pond	_____ af/yr	_____	_____ af/yr
Agriculture	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr

TOTAL:	_____ af/yr	**TOTAL:**	_____ af/yr **TOTAL:**
	_____ gallons**	**TOTAL:**	_____ gallons**

Is the proposed use less than the existing usage? ☐ **Yes** ☑ **No** ☐ **Equal**

Step #4:

Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses, the usage if other water sources such as city water or reservoirs, the timing of the development, etc. Use additional sheets if necessary.

Conclusion: Congratulations! Just sign the form and you are done! Public works staff will now compare your projected future water usage with a threshold of use as determined for your parcel(s) size, location, topography, rainfall, soil types, historical water data for your area, and other hydrogeologic information. They will use the above information to evaluate if your proposed project will have a detrimental effect on groundwater levels and/or neighboring well levels. Should that evaluation result in a determination that your project may adversely impact neighboring water levels, a phase two water analysis may be required. You will be advised of such a decision.

Signature: _____ **Date:** 2/25/14 **Phone:** _____

Planning, Building & Environmental Services - Hillary Gitelman, Director
1195 Third Street, Napa, CA 94559 - (707) 253-4417 - www.countyofnapa.org

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Project name & APN: Girard winery
Project number if known:
Contact person: Heather Mccollister
Contact email & phone number: Bhmccolli@sbcglobal.net (707)287-5999
Today's date: 01/07/2014

Voluntary Best Management Practices Checklist for Development Projects

Napa County General Plan Policy CON-65 (e) and Policy CON-67 (d) requires the consideration of Greenhouse Gas (GHG) emissions in the review of discretionary projects and to promote and encourage "green building" design. The below Best Management Practices (BMPs) reduce GHG emissions through energy and water conservation, waste reduction, efficient transportation, and land conservation. The voluntary checklist included here should be consulted early in the project and be considered for inclusion in new development. It is not intended, and likely not possible for all projects to adhere to all of the BMPs. Rather, these BMPs provide a portfolio of options from which a project could choose, taking into consideration cost, co-benefits, schedule, and project specific requirements. Please check the box for all BMPs that your project proposes to include and include a separate narrative if your project has special circumstances.

Practices with Measurable GHG Reduction Potential

The following measures reduce GHG emissions and if needed can be calculated. They are placed in descending order based on the amount of emission reduction potential.

Already Doing	Plan To Do	ID #	BMP Name
☐	☑	BMP-1	**Generation of on-site renewable energy**

If a project team designs with alternative energy in mind at the conceptual stage it can be integrated into the design. For instance, the roof can be oriented, sized, and engineered to accommodate photovoltaic (PV) panels. If you intend to do this BMP, please indicate the location of the proposed PV panels on the building elevations or the location of the ground mounted PV array on the site plan. Please indicate the total annual energy demand and the total annual kilowatt hours produced or purchased and the potential percentage reduction of electrical consumption. Please contact staff or refer to the handout to calcuate how much electrical energy your project may need.

☐	☐	BMP-2	**Preservation of developable open space in a conservation easement**

Please indicate the amount and location of developable land (i.e.: under 30% slope and not in creek setbacks or environmentally sensitive areas for vineyards) conserved in a permanent easement to prohibit future development.

Already Doing	Plan To Do		
☐	☑	BMP-3	**Habitat restoration or new vegetation (e.g. planting of additional trees over 1/2 acre)**

Napa County is famous for its land stewardship and preservation. Restoring areas within the creek setback reduces erosion potential while planting areas that are currently hardscape (such as doing a bio-retention swale rather than underground storm drains) reduces storm water and helps the groundwater recharge. Planting trees can also increase the annual uptake of CO2e and add the County's carbon stock.

☐	☑	BMP-4	**Alternative fuel and electrical vehicles in fleet**

The magnitude of GHG reductions achieved through implementation of this measure varies depending on the analysis year, equipment, and fuel type replaced.

Number of total vehicles
Typical annual fuel consumption or VMT
Number of alternative fuel vehicles (1) Propane forklift, (1) electric cart
Type of fuel/vehicle(s)
Potential annual fuel or VMT savings

☐	☑	BMP-5	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 2**

The California Building Code update effective January 1, 2011 has new mandatory green building measures for all new construction and has been labeled CALGREEN. CALGREEN provides two voluntary higher levels labeled CALGREEN Tier I and CALGREEN Tier II. Each tier adds a further set of green building measures that go above and beyond the mandatory measures of the Code. In both tiers, buildings will use less energy than the current Title 24 California Energy Code. Tier I buildings achieve at least a 15% improvement and Tier 2 buildings are to achieve a 30% improvement. Both tiers require additional non-energy prerequisites, as well as a certain number of elective measures in each green building category (energy efficiency, water efficiency, resource conservation, indoor air quality and community).

☐	☑	BMP-6	**Vehicle Miles Traveled (VMT) reduction plan**

Selecting this BMP states that the business operations intend to implement a VMT reduction plan reducing annual VMTs by at least 15%.

Tick box(es) for what your Transportation Demand Management Plan will/does include:

- ☐ employee incentives
- ☐ employee carpool or vanpool
- ☑ priority parking for efficient transporation (hybrid vehicles, carpools, etc.)
- ☐ bike riding incentives
- ☑ bus transportation for large marketing events
- ☐ Other:

Estimated annual VMT

Potential annual VMT saved
% Change

Already Doing	Plan To Do		
☐	☐	BMP-7	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 1**

See description below under BMP-5.

☐	☐	BMP-8	**Solar hot water heating**

Solar water heating systems include storage tanks and solar collectors. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which don't. Both of them would still require additional heating to bring them to the temperature necessary for domestic purposes. They are commonly used to heat swimming pools.

☐	☑	BMP-9	**Energy conserving lighting**

Lighting is approximately 25% of typical electrical consumption. This BMP recommends installing or replacing existing light bulbs with energy-efficient compact fluorescent (CF) bulbs or Light Emitting Diode (LED) for your most-used lights. Although they cost more initially, they save money in the long run by using only 1/4 the energy of an ordinary incandescent bulb and lasting 8-12 times longer. Typical payback from the initial purchase is about 18 months.

☐	☑	BMP-10	**Energy Star Roof/Living Roof/Cool Roof**

Most roofs are dark-colored. In the heat of the full sun, the surface of a black roof can reach temperatures of 158 to 194 °F. Cool roofs, on the other hand, offer both immediate and long-term benefits including reduced building heat-gain and savings of up to 15% the annual air-conditioning energy use of a single-story building. A cool roof and a green roof are different in that the green roof provides living material to act as a both heat sink and thermal mass on the roof which provides both winter warming and summer cooling. A green (living) roof also reduces storm water runoff.

☐	☑	BMP-11	**Bicycle Incentives**

Napa County Zoning Ordinance requires 1 bicycle rack per 20 parking spaces (§18.110.040). Incentives that go beyond this requirement can include on-site lockers for employees, showers, and for visitor's items such as directional signs and information on biking in Napa. Be creative!

☐	☐	BMP-12	**Bicycle route improvements**

Refer to the Napa County Bicycle Plan (NCPTA, December 2011) and note on the site plan the nearest bike routes. Please note proximity, access, and connection to existing and proposed bike lanes (Class I: Completely separated right-of-way; Class II: Striped bike lane; Class III: Signed Bike Routes). Indicate bike accessibility to project and any proposed improvements as part of the project on the site plan or describe below.

Not close to main transportation system

Already Doing | Plan To Do

☐ ☑ **BMP-13 Connection to recycled water**

Recycled water has been further treated and disinfected to provide a non-potable (non-drinking water) water supply. Using recycled water for irrigation in place of potable or groundwater helps conserve water resources.

See engineer report provided

☐ ☑ **BMP-14 Install Water Efficient fixtures**

WaterSense, a partnership program by the U.S. Environmental Protection Agency administers the review of products and services that have earned the WaterSense label. Products have been certified to be at least 20 percent more efficient without sacrificing performance. By checking this box you intend to install water efficient fixtures or fixtures that conserve water by 20%.

☐ ☑ **BMP-15 Low-impact development (LID)**

LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Please indicate on the site or landscape plan how your project is designed in this way.

☐ ☑ **BMP-16 Water efficient landscape**

If your project is a residential development proposing in excess of 5,000 sq. ft. or a commercial development proposing in excess of 2,500 sq. ft. The project will be required to comply with the Water Efficient Landscape Ordinance (WELO).

Please check the box if you will be complying with WELO or If your project is smaller than the minimum requirement and you are still proposing drought tolerant, zeroscape, native plantings, zoned irrigation or other water efficient landscape.

☐ ☑ **BMP-17 Recycle 75% of all waste**

Did you know that the County of Napa will provide recycling collectors for the interior of your business at no additional charge? With single stream recycling it is really easy and convenient to meet this goal. To qualify for this BMP, your business will have to be aggressive, proactive and purchase with this goal in mind.

Already Doing | Plan To Do

☐ ☑ **BMP-18 Compost 75% food and garden material**

The Napa County food composting program is for any business large or small that generates food scraps and compostable, including restaurants, hotels, wineries, assisted living facilities, grocery stores, schools, manufacturers, cafeterias, coffee shops, etc. All food scraps (including meat & dairy) as well as soiled paper and other compostable - see http://www.naparecycling.com/foodcomposting for more details.

☐ ☑ **BMP-19 Implement a sustainable purchasing and shipping programs**

Environmentally Preferable Purchasing (EPP) or Sustainable Purchasing refers to the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. By selecting this BMP, you agree to have an EPP on file for your employees to abide by.

☐ ☑ **BMP-20 Planting of shade trees within 40 feet of the south side of the building elevation**

Well-placed trees can help keep your building cool in summer. If you choose a deciduous tree after the leaves drop in autumn, sunlight will warm your building through south and west-facing windows during the colder months. Well-designed landscaping can reduce cooling costs by 20%. Trees deliver more than energy and cost savings; they are important carbon sinks. Select varieties that require minimal care and water, and can withstand local weather extremes. Fruit or nut trees that produce in your area are great choices, providing you with local food as well as shade. Please use the site or landscape plan to indicate where trees are proposed and which species you are using.

☐ ☑ **BMP-21 Electrical Vehicle Charging Station(s)**

As plug-in hybrid electric vehicles (EV) and battery electric vehicle ownership is expanding, there is a growing need for widely distributed accessible charging stations. Please indicate on the site plan where the station will be.

☐ ☐ **BMP-22 Public Transit Accessibility**

Refer to http://www.ridethevine.com/vine and indicate on the site plan the closest bus stop/route. Please indicate if the site is accessed by transit or by a local shuttle. Provide an explanation of any incentives for visitors and employees to use public transit. Incentives can include bus passes, informational hand outs, construction of a bus shelter, transportation from bus stop, etc.

N/A

Already Doing | Plan To Do

☐ ☑ **BMP-23**

Site Design that is oriented and designed to optimize conditions for natural heating, cooling, and day lighting of interior spaces, and to maximize winter sun exposure; such as a cave.

The amount of energy a cave saves is dependent on the type of soil, the microclimate, and the user's request for temperature control. Inherently a cave or a building burned into the ground saves energy because the ground is a consistent temperature and it reduces the amount of heating and cooling required. On the same concept, a building that is oriented to have southern exposure for winter warmth and shading for summer cooling with an east-west cross breeze will naturally heat, cool, and ventilate the structure without using energy. Please check this box if your design includes a cave or exceptional site design that takes into consideration the natural topography and sitting. Be prepared to explain your approach and estimated energy savings.

☐ ☑ **BMP-24 Limit the amount of grading and tree removal**

Limiting the amount of earth disturbance reduces the amount of CO2 released from the soil and mechanical equipment. This BMP is for a project design that either proposes a project within an already disturbed area proposing development that follows the natural contours of the land, and that doesn't require substantial grading or tree removal.

☐ ☐ **BMP-25 Will this project be designed and built so that it could qualify for LEED?**

BMP-25 (a)	☐	**LEED™ Silver** (check box BMP-25 and this one)
BMP-25 (b)	☐	**LEED™ Gold** (check box BMP-25, BMP-25 (a), and this box)
BMP-25 (c)	☐	**LEED™ Platinum** (check all 4 boxes)

Practices with Un-Measured GHG Reduction Potential

☐ ☐ **BMP-26 Are you, or do you intend to become a Certified Green Business or certified as a"Napa Green Winery"?**

As part of the Bay Area Green Business Program, the Napa County Green Business Program is a free, voluntary program that allows businesses to demonstrate the care for the environment by going above and beyond business as usual and implementing environmentally friendly business practices. For more information check out the Napa County Green Business and Winery Program at www.countyofnapa.org.

☐ ☐ **BMP-27 Are you, or do you intend to become a Certified "Napa Green Land"?**

Napa Green Land, fish friendly farming, is a voluntary, comprehensive, "best practices" program for vineyards. Napa Valley vintners and growers develop farm-specific plans tailored to protect and enhance the ecological quality of the region, or create production facility programs that reduce energy and water use, waste and pollution. By selecting this measure either you are certified or you are in the process of certification.

Already Doing | Plan To Do

☐ ☑ **BMP-28 Use of recycled materials**

There are a lot of materials in the market that are made from recycled content. By ticking this box, you are committing to use post-consumer products in your construction and your ongoing operations.

☐ ☐ **BMP-29 Local food production**

There are many intrinsic benefits of locally grown food, for instance reducing the transportation emissions, employing full time farm workers, and improving local access to fresh fruits and vegetables.

N/A

☐ ☑ **BMP-30 Education to staff and visitors on sustainable practices**

This BMP can be performed in many ways. One way is to simply put up signs reminding employees to do simple things such as keeping the thermostat at a consistent temperature or turning the lights off after you leave a room. If the project proposes alternative energy or sustainable winegrowing, this BMP could include explaining those business practices to staff and visitors.

☐ ☑ **BMP-31 Use 70-80% cover crop**

Cover crops reduce erosion and the amount of tilling which is required, which releases carbon into the environment.

☐ ☑ **BMP-32 Retain biomass removed via pruning and thinning by chipping the material and reusing it rather than burning on-site**

By selecting this BMP, you agree not to burn the material pruned on site.

☐ ☐ **BMP-33 Are you participating in any of the above BMPS at a 'Parent' or outside location?**

☐ ☐ **BMP-34 Are you doing anything that deserves acknowledgement that isn't listed above?**

Comments and Suggestions on this form?

NAPA COUNTY POST-CONSTRUCTION RUNOFF MANAGEMENT REQUIREMENTS
APPENDIX A – APPLICABILITY CHECKLIST

Post-Construction Runoff Management Applicability Checklist	County of Napa Department of Public Works 1195 Third Street Napa, CA 94559 (707) 253-4351 for information

Project Address:	Assessor Parcel Number(s):	Project Number: *(for County use Only)*
1077 Dunaweal Lane Calistoga ca	020-150-017	

Instructions:

Structural projects requiring a use permit, building permit, and/or grading permit must complete the following checklist to determine if the project is subject to the Post-Construction Runoff Management Requirements. In addition, the impervious surface worksheet on the reverse page must also be completed to calculate the amount of new and reconstructed impervious surfaces proposed by your project. This form must be completed, signed, and submitted with your permit application(s). Definitions are provided in the Post-Construction Runoff Management Requirements policy. **Note:** If multiple building or grading permits are required for a common plan of development, the total project shall be considered for the purpose of filling out this checklist.

POST-CONSTRUCTION STORMWATER BMP REQUIREMENTS (Parts A and B)

- ✓ If any answer to Part A are answered "yes" your project is a "Priority Project" and is subject to the Site Design, Source Control, and Treatment Control design standards described in the Napa County Post-Construction Runoff Management Requirements.
- ✓ If all answers to Part A are "No" and any answers to Part B are "Yes" your project is a "Standard Project" and is subject to the Site Design and Source Control design standards described in the Napa County Post-Construction Runoff Management Requirements.
- ✓ If every question to Part A and B are answered "No", your project is exempt from post-construction runoff management requirements.

Part A: Priority Project Categories

Does the project meet the definition of one or more of the priority project categories?

1.	Residential with 10 or more units	Yes (No)
2.	Commercial development greater than 100,000 square feet	(Yes) No
3.	Automotive repair shop	Yes (No)
4.	Retail Gasoline Outlet	Yes (No)
5.	Restaurant	Yes (No)
6.	Parking lots with greater than 25 spaces or greater than 5,000 square feet	(Yes) No

*Refer to the definitions section for expanded definitions of the priority project categories.

Part B: Standard Project Categories

Does the project propose:

1.	A facility that requires a NPDES Permit for Stormwater Discharges Associated with **Industrial** Activities?	Yes (No)
2.	New or redeveloped impervious surfaces 10,000 square feet or greater, excluding roads?	(Yes) No
3.	Hillside residential greater than 30% slope	Yes (No)
4.	Roadway and driveway construction or reconstruction which requires a Grading Permit	(Yes) No
5.	Installation of new storm drains or alteration to existing storm drains?	(Yes) No
6.	Liquid or solid material loading and/or unloading areas?	(Yes) No
7.	Vehicle and/or equipment fueling, washing, or maintenance areas, excluding residential uses?	Yes (No)
8.	Commercial or industrial waste handling or storage, excluding typical office or household waste?	Yes (No)

Note: To find out if your project is required to obtain an individual General NPDES Permit for Stormwater discharges Associated with Industrial Activities, visit the State Water Resources Control Board website at, www.swrcb.ca.gov/stormwtr/industrial.html

NAPA COUNTY CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS
APPENDIX A – PROJECT APPLICABILITY CHECKLIST

Part A: Determine Construction Phase Stormwater Requirements

Would the project meet any of these criteria during construction?

1. Propose any soil disturbance of one acre or more? ..... (Yes) No
2. Does the project propose any soil disturbance greater than 10,000 square feet?..... (Yes) No
3. Does the project propose grading, earth moving, or soil disturbance on slopes 15% or greater?..... Yes (No)
4. Does the project propose earthmoving of 50 cubic yards or more?..... (Yes) No
5. Does the project propose soil disturbance within 50 feet of a stream, ditch, swale, curb and gutter, catch basin or storm drain that concentrates and transports stormwater runoff to a "receiving water" (i.e., Waters of the State defined as all waters, including but not limited to, natural streams, creeks, rivers, reservoirs, lakes, ponds, water in vernal pools, lagoons, estuaries, bays, the Pacific Ocean, and ground water)? (Yes) No

Part B: Determine Construction Site Priority

Projects that are subject to the Construction Site Runoff Control Requirements must be designated with a priority of high, medium, or low. This prioritization must be completed with this form, noted on the plans, and included in the SWPPP or SQMP. Indicate the project's priority in one of the checked boxes using the criteria below. The County reserves the right to adjust the priority of projects both before and during construction.

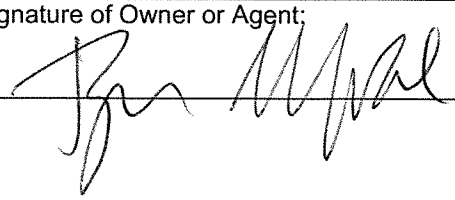
Note: The construction priority does NOT change construction Best Management Practice (BMP) requirements that apply to projects. The construction priority does affect the frequency of inspections that will be conducted by County staff and associated fees.

Select the highest priority category applicable to the project.

☒ High Priority
- a) Projects with soil disturbance of one acre or greater.
- b) Projects on slopes of 30% or greater.
- c) Projects proposing new storm drains.

☐ Medium Priority
- a) Projects on slopes from 5% to 29%.
- b) Projects with soil disturbance between 10,000 sq. ft and one acre.
- c) Projects with earthmoving of 50 cubic yards or more.

☐ Low Priority
- a) Projects with soil disturbance within 50 feet stream, ditch, swale, curb and gutter, catch basin or storm drain that concentrates and transports stormwater runoff to a "receiving water".

Name of Owner or Agent (Please Print):	Title:
Ben Monroe	PE
Signature of Owner or Agent:	Date:
	2/20/14

NAPA COUNTY CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS
APPENDIX A – PROJECT APPLICABILITY CHECKLIST

Construction Site Runoff Control Applicability Checklist	County of Napa Department of Public Works 1195 Third Street, Suite 201 Napa, CA 94559 (707) 253-4351 www.co.napa.ca.us/publicworks

Project Address:	Assessor Parcel Number(s):	Project Number: *(for County use Only)*
Girard Winery 1077 Dunaweal Lane Calistoga, Ca	020-150-017	

INSTRUCTIONS

Structural projects that require a building and/or grading permit must complete the following checklist to determine if the project is subject to Napa County's Construction Site Runoff Control Requirements. This form must be completed and submitted with your permit application(s). Definitions are provided in the Napa County Construction Site Runoff Control Requirements policy. **Note:** If multiple building or grading permits are required for a common plan of development, the total project shall be considered for the purpose of filling out this checklist.

DETERMINING PROJECT APPLICABILITY TO THE CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

- ✓ If the answer to question 1 of Part A is "Yes" your project is subject to Napa County's Construction Site Runoff Control requirements and must prepare a Stormwater Pollution Prevention Plan (SWPPP). The applicant must also comply with the SWRCB's NPDES General Permit for Stormwater Associated with Construction Activity and must provide a copy of the Notice of Intent (NOI) and Waste Discharge Identification (WDID).
- ✓ If the answer to question 1 of Part A is "No", but the answer to any of the remaining questions is "Yes" your project is subject to Napa County's Construction Site Runoff Control requirements and must prepare a Stormwater Quality Management Plan (SQMP).
- ✓ If every question to Part A is answered "No" your project is exempt from Napa County's Construction Site Runoff Control Requirements, but must comply will all construction site runoff control standard conditions attached to any building or grading permit (see Appendix D of the Napa County Construction Site Runoff Control Requirements).
- ✓ If any of the answers to the questions in Part A is "Yes", complete the construction site prioritization in Part B below.

OVER

NAPA COUNTY POST-CONSTRUCTION RUNOFF MANAGEMENT REQUIREMENTS
APPENDIX A – APPLICABILITY CHECKLIST

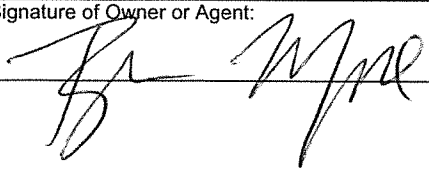
Impervious Surface Worksheet

Project phasing to decrease impervious surface area shall not exempt the project from Post-Construction Runoff Management requirements. A new development or redevelopment project must comply with the requirements if it is part of a larger common plan of development that would result in the creation, addition and/or reconstruction of one acre or more of impervious surface. (For example, if 50% of a subdivision is constructed and results in 0.9 acre of impervious surface, and the remaining 50% of the subdivision is to be developed at a future date, the property owner must comply with the Post-Construction Runoff Management requirements.

Type of Impervious Surface	Impervious Surface (Sq Ft)			Total New and Reconstructed Impervious Surfaces (Sq Ft)
	Pre-Project (if applicable)	New (Does not replace any existing impervious area)	Reconstructed (Replaces existing impervious area)	
Buildings, Garages, Carports, other Structures with roofs	5,697	41,300	0	46,997
Patio, Impervious Decking, Pavers and Impervious Liners	2,762	0	0	2,762
Sidewalks and paths	0	1,675	0	1,675
Parking Lots	0	5,295	0	5,295
Roadways and Driveways,	0	66,046	0	66,046
Off-site Impervious Improvements	0	0	0	0
Total Area of Impervious Surface (Excluding Roadways and Driveways)	8,459	114,316	0	122,775

Incorrect information on proposed activities or uses of a project may delay your project application(s) or permit(s).

I declare under penalty of perjury, that to the best of my knowledge, the information presented herein is accurate and complete.

Name of Owner or Agent (Please Print):	Title:
Ben Monroe	PE
Signature of Owner or Agent:	Date:
	2/20/14

Certification and Indemnification

Applicant certifies that all the information contained in this application, including all information required in the Checklist of Required Application Materials and any supplemental submitted information including, but not limited to, the information sheet, water supply/waste disposal information sheet, site plan, floor plan, building elevations, water supply/waste disposal system site plan and toxic materials list, is complete and accurate to the best of his/her knowledge. Applicant and property owner hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, *including the right of access to the property involved.*

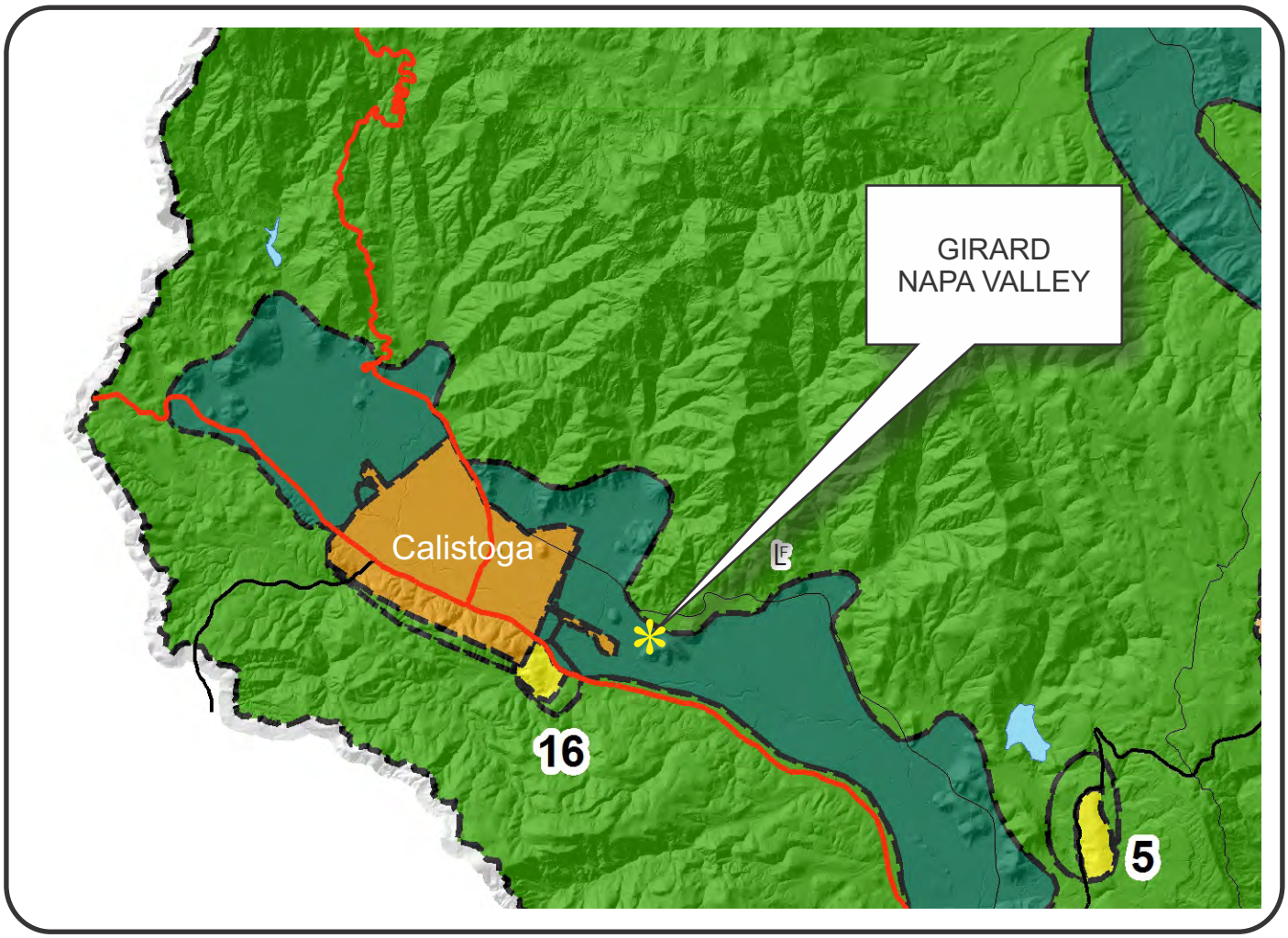
Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

Vintage Wine Estate	
Print Name of Property Owner	Print Name Signature of Applicant (if different)
[signature] 2/25/14	
Signature of Property Owner Date	Signature of Applicant Date

NAPA COUNTY LAND USE PLAN 2008 - 2030



SCALE IN MILES
0 2

LEGEND

N

URBANIZED OR NON-AGRICULTURAL

- Study Area
- Cities
- Urban Residential*
- Rural Residential*
- Industrial
- Public-Institutional
- Napa Pipe Mixed Use

OPEN SPACE

- Agriculture, Watershed & Open Space
- Agricultural Resource

TRANSPORTATION

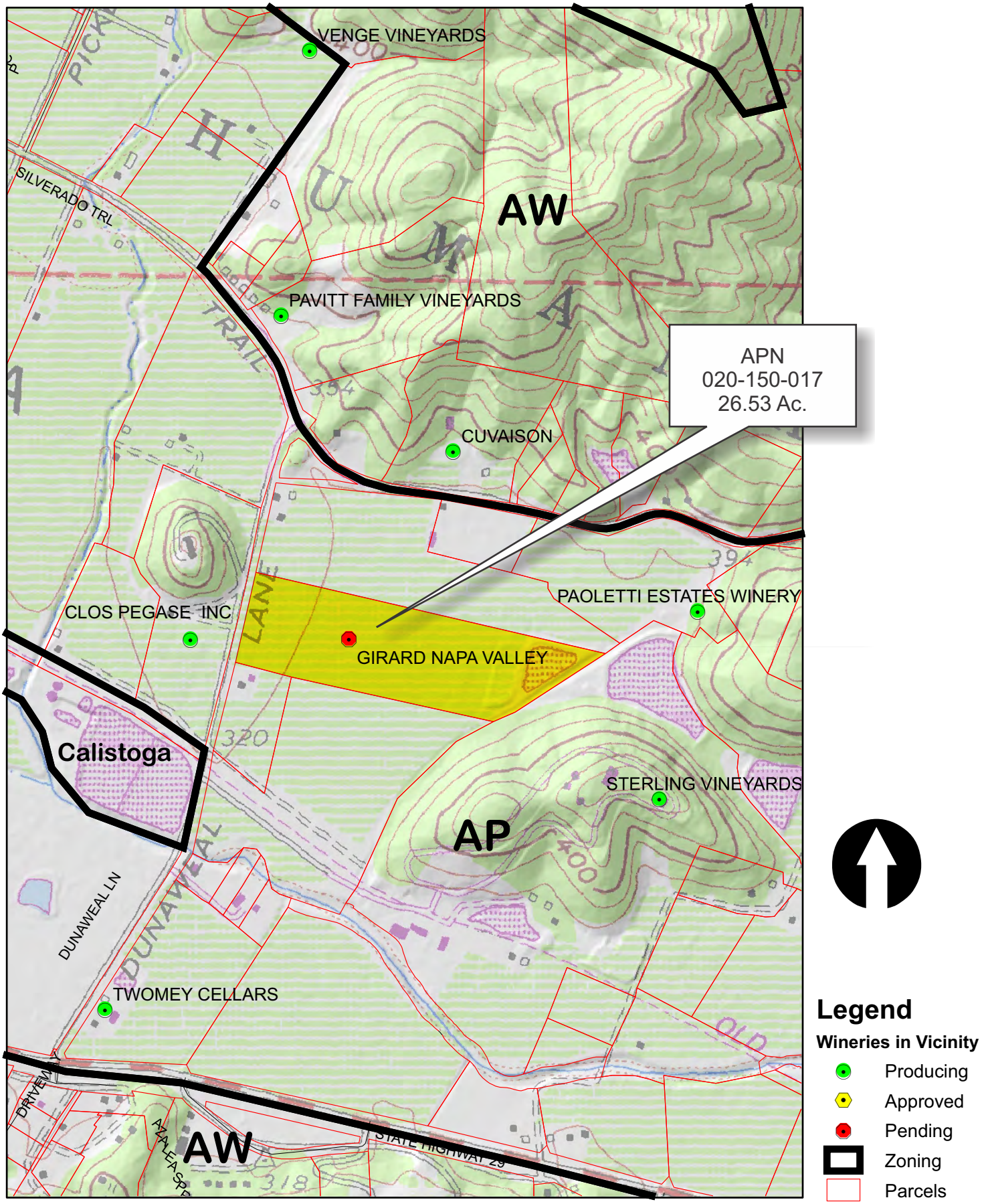
- Mineral Resource
- Limited Access Highway
- Major Road
- American Canyon ULL
- City of Napa RUL
- Landfill - General Plan
- Secondary Road
- Airport
- Railroad
- Airport Clear Zone

* See Action Item AG/LU-114.1 regarding agriculturally zoned areas within these land use designations

APN
020-150-017
11-17-2014
UP
01

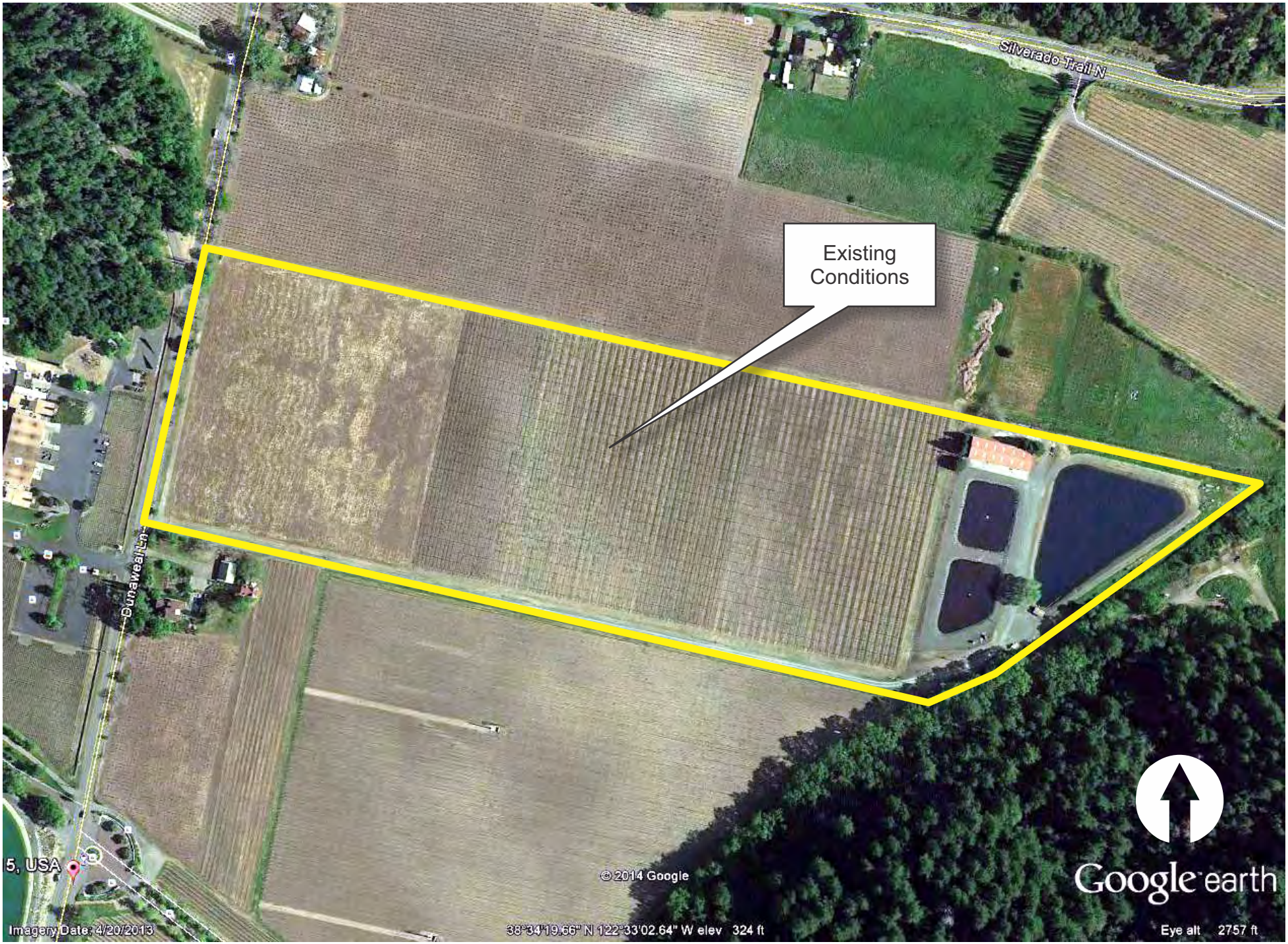
GirardWinery-up1.cdr

GIRARD NAPA VALLEY



11-17-2014	UP	02	Napa County Conservation Development and Planning Department	GirardWinery-up1.cdr

GIRARD NAPA VALLEY



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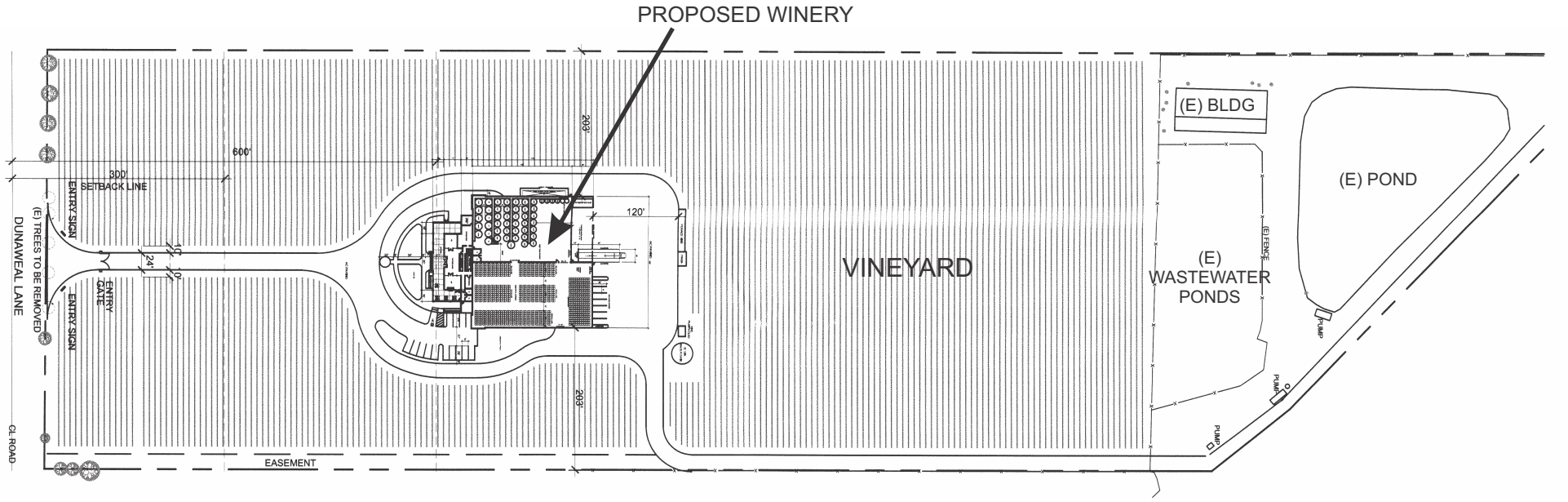
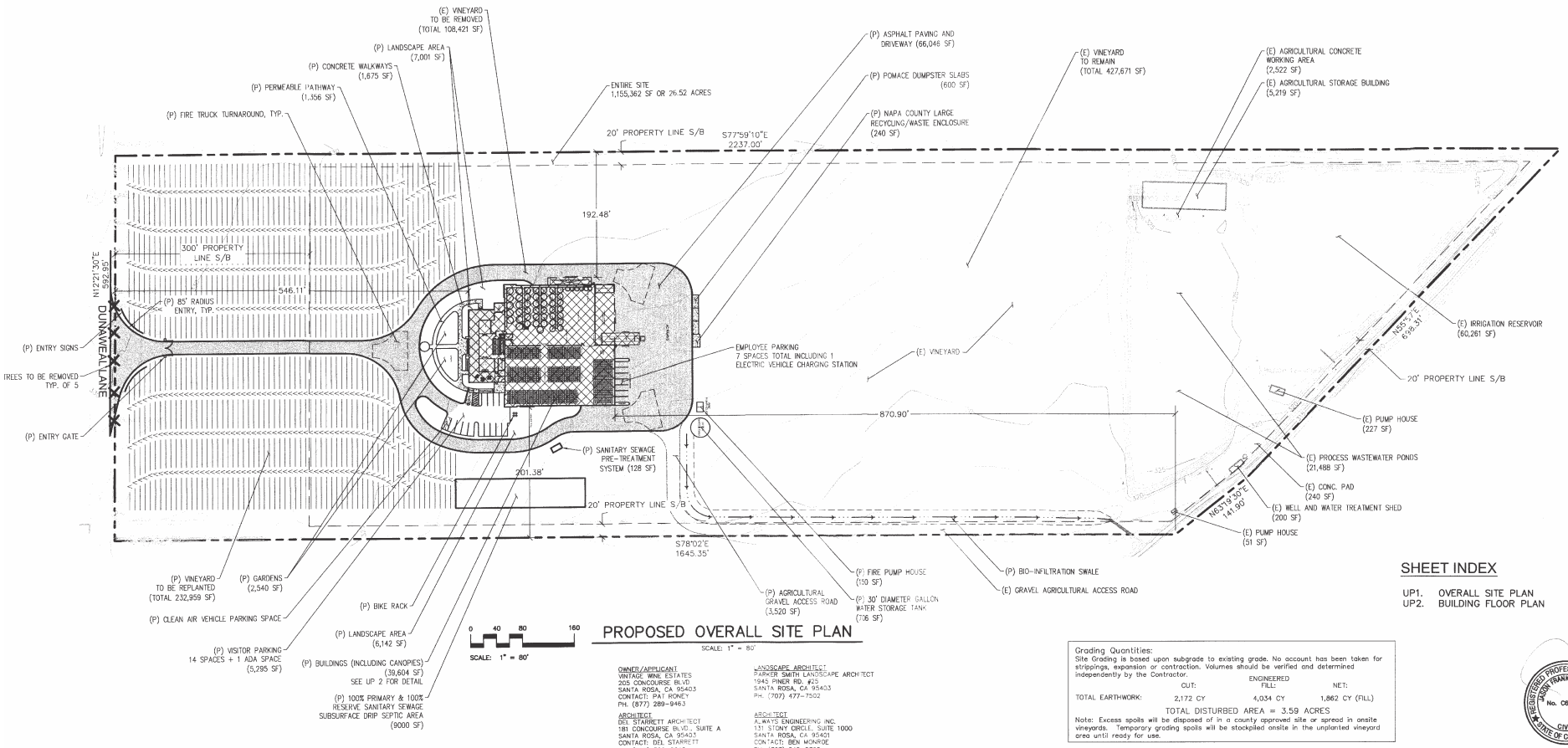
GIRARD NAPA VALLEY



Proposed Site Plan

GIRARD NAPA VALLEY



PROPOSED OVERALL SITE PLAN

SCALE: 1" = 80'

OWNER/APPLICANT
VINTAGE WINE ESTATES
205 CONCOURSE BLVD
SANTA ROSA, CA 95403
CONTACT: PAT RONEY
PH. (877) 289-9463

ARCHITECT
DEL STARRETT ARCHITECT
181 CONCOURSE BLVD., SUITE A
SANTA ROSA, CA 95403
CONTACT: DEL STARRETT
PH. (707) 526-9645

LANDSCAPE ARCHITECT
PARKER SMITH LANDSCAPE ARCHITECT
1945 PINER RD. #25
SANTA ROSA, CA 95403
PH. (707) 477-7502

ARCHITECT
ALWAYS ENGINEERING INC.
131 STONY CIRCLE, SUITE 1000
SANTA ROSA, CA 95401
CONTACT: BEN MONROE
PH. (707) 542-8795

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

	CUT:	ENGINEERED FILL:	NET:
TOTAL EARTHWORK:	2,172 CY	4,034 CY	1,862 CY (FILL)

TOTAL DISTURBED AREA = 3.59 ACRES

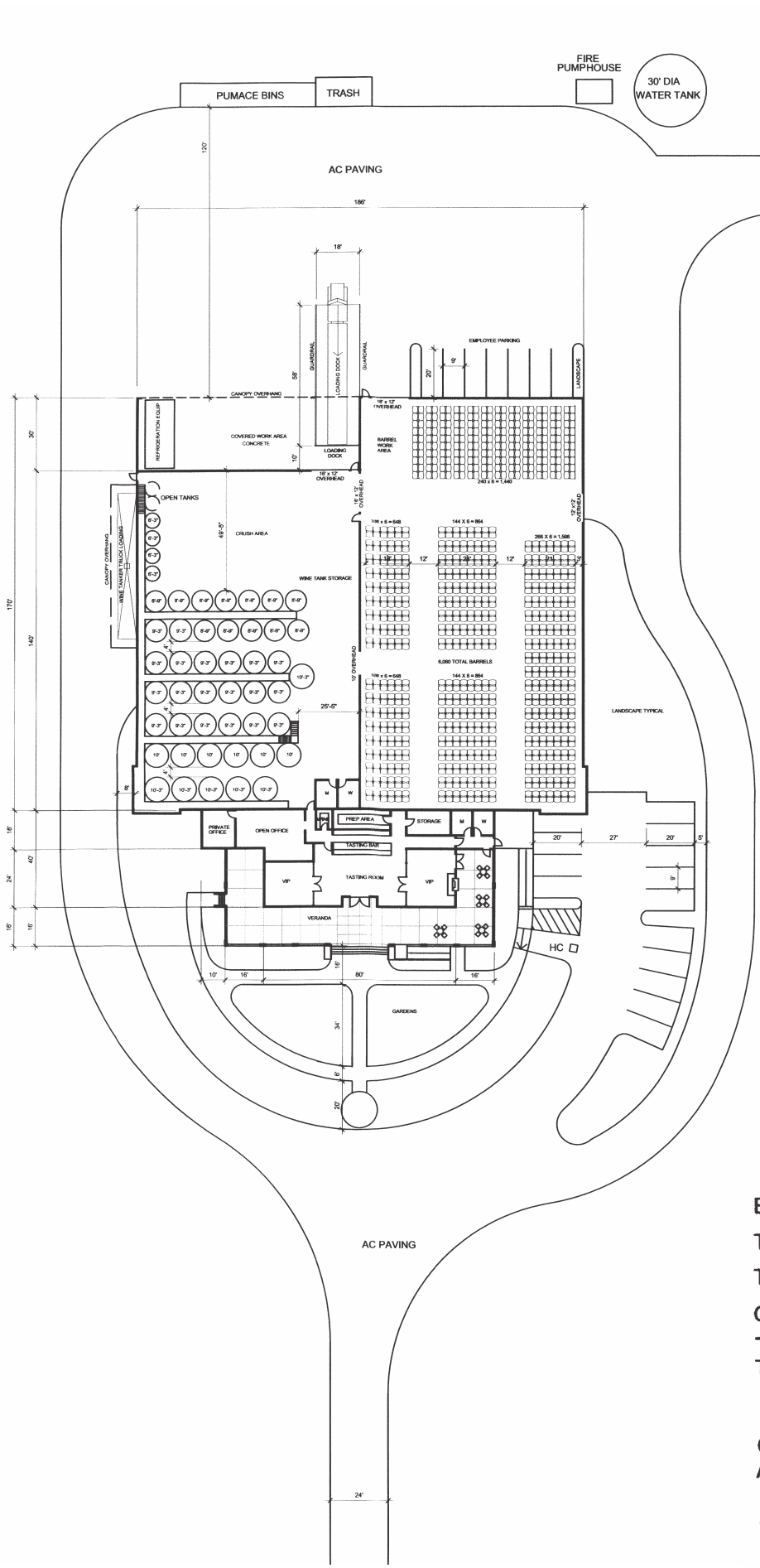
Note: Excess spoils will be disposed of in a county approved site or spread in onsite vineyards. Temporary grading spoils will be stockpiled onsite in the unplanted vineyard area until ready for use.

SHEET INDEX

REGISTERED PROFESSIONAL ENGINEER JOHN FRANK HOECKER No. C66429 CIVIL STATE OF CALIFORNIA

Engineering Site Plan

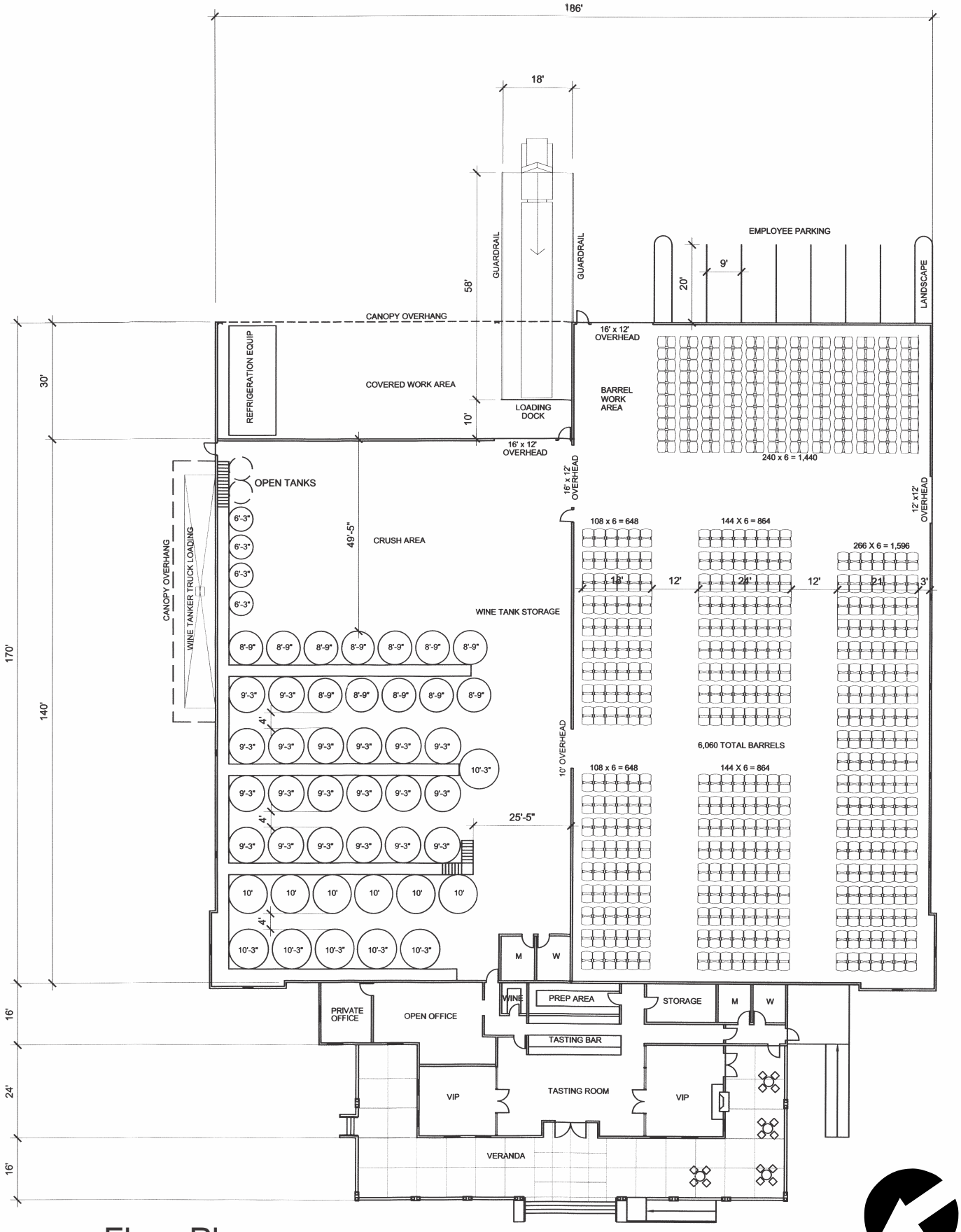
GIRARD NAPA VALLEY



Site Plan Detail

BARRELS	15,875 SF
TANKS	13,080 SF
TASTING	3,010 SF
OFFICE	806 SF
TOTAL BUILDING	32,771 SF
COVERED WORK AREA	2,781 SF
COVERED VERANDA	2,628 SF

GIRARD NAPA VALLEY



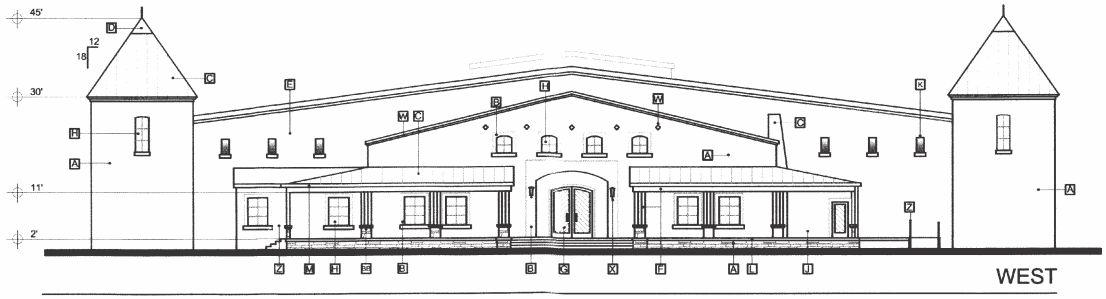
Floor Plan

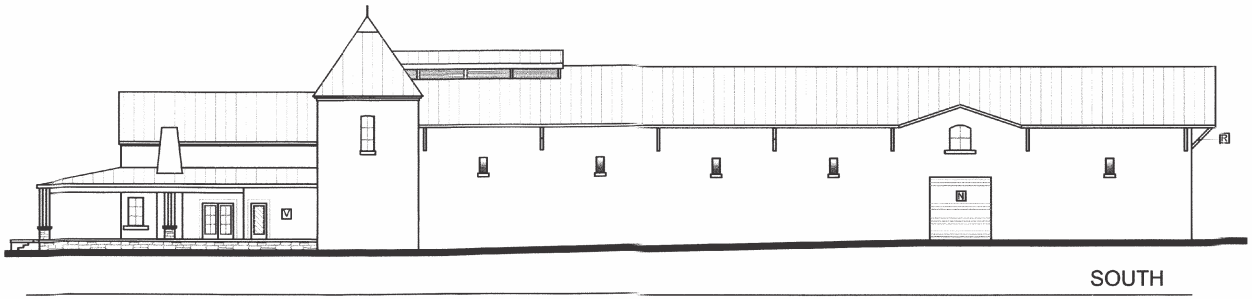
11-17-2014	UP	07	Napa County Conservation Development and Planning Department	GirardWinery-up1.cdr

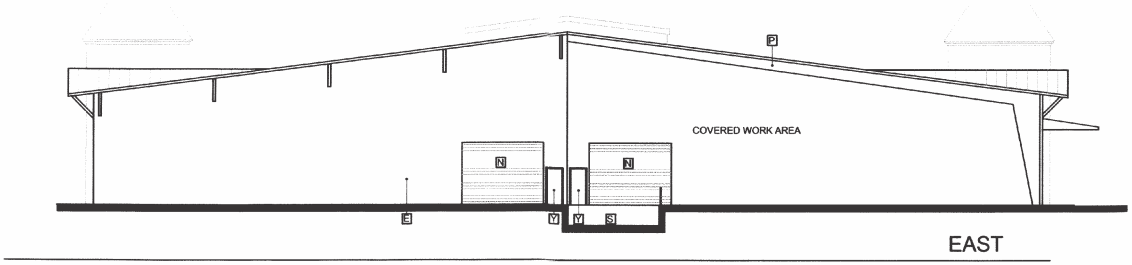
GIRARD NAPA VALLEY

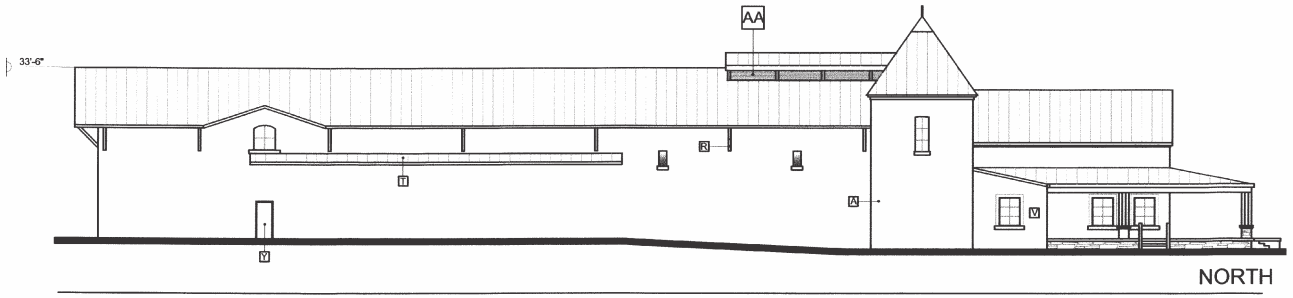
MATERIAL LEGEND

- A CONCRETE WITH STONE VENEER
- B PLASTER TRIM
- C METAL ROOFING
- D METAL CAPPING
- E CONCRETE
- F WOOD BEAM AND POSTS
- G WOOD DOORS
- H DIVIDED LITE WINDOWS WITH LOW E GLASS AND STONE LEDGE
- J EXTERIOR PLASTER
- K RECESSED WINDOW WITH STONE LEDGE
- L CONCRETE VERANDA
- M PAINTED METAL GUTTER
- N ROLL-UP DOOR
- P EXPOSED METAL FRAMING
- Q STONE CHIMNEY
- R METAL KICKERS
- S LOADING DOCK
- T TRUCK LOADING CANOPY
- V PLASTER
- W DECORATIVE BOLTED IRON PLATES
- X ENTRANCE LIGHTS
- Y PAINTED METAL MANDOORS
- Z PAINTED METAL HANDRAILS
- AA VENTED LOUVERS
- BB STONE BASE WITH CAP



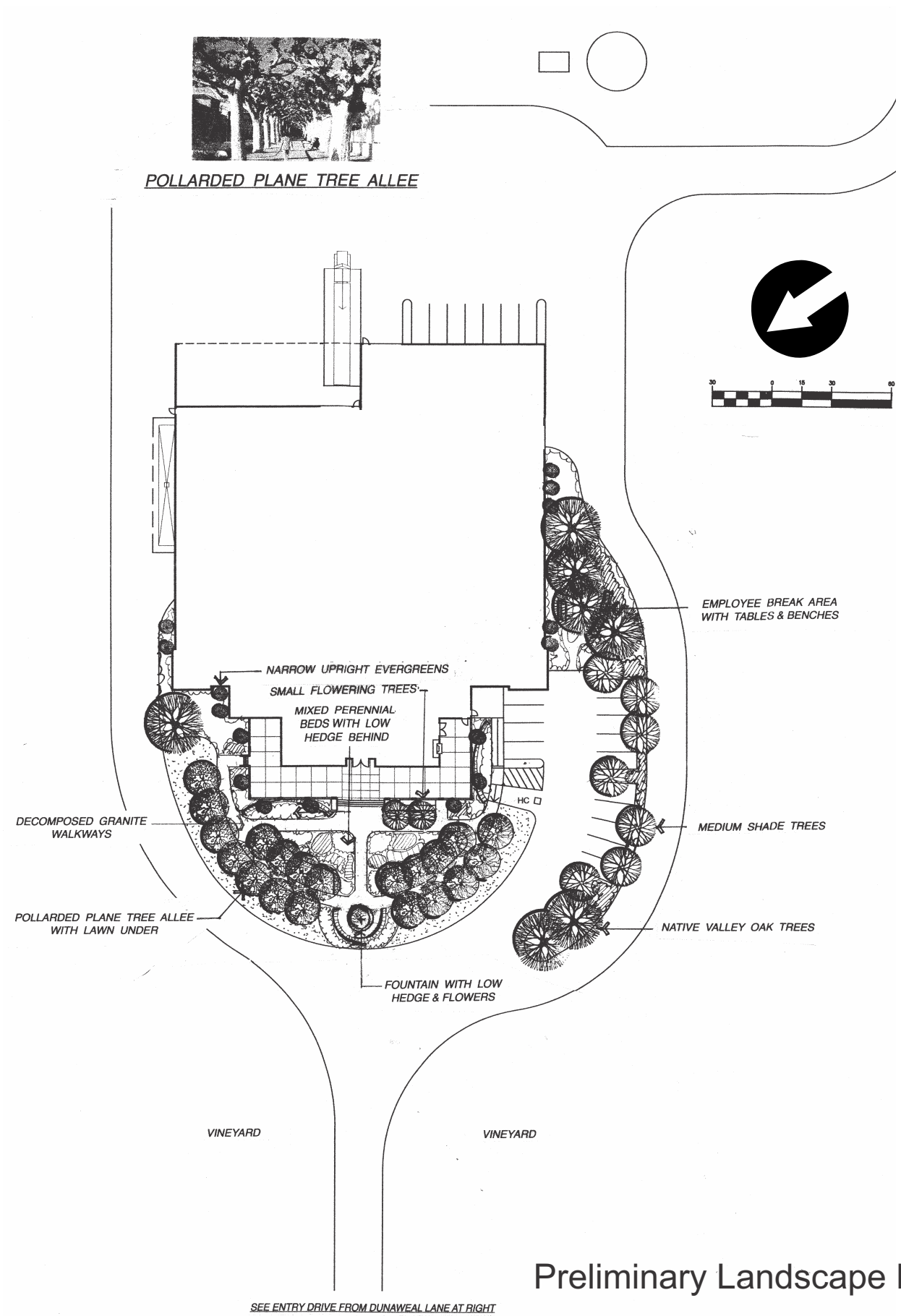






GIRARD NAPA VALLEY

POLLARDED PLANE TREE ALLEE



Preliminary Landscape Plan

PLANT LEGEND

SYMBOL	PLANT DESCRIPTION & SPECIES	PLANTING SIZE	WATER USE
	EXISTING TREES TO REMAIN		
	Olea europea / Olive		
	Juglans hybrid / Walnut		
	EXISTING TREES TO BE REMOVED		
	Juglans hybrid / Walnut		
	LARGE NATIVE SHADE TREES		
	Quercus lobata./ CA Valley Oak	*24" Box*	*Low*
	MEDIUM SHADE TREES WITH FALL COLOR		
	Pistacia chinensis 'Keith Davey'/ Chinese Pistache	*24" Box*	*Low*
	ALLEE OF POLLARDED TREES		
	Platanus acerifolia 'Columbia' / London Plane Tree	*24" Box*	*Moderate*
	SMALL FLOWERING TREES		
	Lagerstoemia hybrid 'Tuscarorra' / Coral Crape Myrtle	*24" Box*	*Low*
	NARROW, UPRIGHT EVERGREEN SHRUB/TREES		
	Juniperus chinensis 'Skyrocket' / Skyrocket Juniper	*15 Gal.*	*Low*
	LOW & TALL HEDGES	*5 Gal.*	*Low/Mod.*
	Buxus microphylla 'Var.' / Boxwood (Low)		
	Prunus lyoni / Catalina Island Cherry (Tall)		
	LOW TO MEDIUM SHRUBS & GRASSES	*5 Gal.*	*Low*
	Arctostaphylos densiflora 'Howard McMinn' / McMinn Manzanita		
	Ceanothus 'Skylark' / CA Lilac		
	Mahonia pinnata 'Ken Hartman' / CA False Holly		
	Loropetalum chinensis var. / Purpleleaf Loropetalum		
	Arctostaphylos 'Emerald Carpet' / G.C. Manzanita		
	Erigeron karvinskianus / Santa Barbara Daisy		
	Calamagrostis arundinacea 'Karl Foerster' / Feather Reed Grass		
	Myoporum parviflora 'Putah Creek' / Ground Cover Myoporum		
	PERENNIALS & ACCENT GROUND COVERS	*1/2 Gal.*	*Low/Mod.*
	Lavendula Varieties / Lavender		
	Rosa floribunda varieties / Floribunda Roses		
	Salvia gregii, spathacea, leucantha / Sage		
	Gaura lindheimeri 'Siskiyou Pink' / Pink Gaura		
	Hemerocallis 'Evergreen Pink or Yellow' / Evergreen Daylilies		
	Pennisetum orientale / Oriental Fountain Grass		
	ACCENT GROUND COVERS & FLOWERS	*4"/1 Gal.*	*Low/Mod.*
	Annuals / Seasonal Flowers		
	Festuca californica 'Serpentine Blue' / Blue CA Fescue		
	Tulbaghia violacaea 'Silver Lace' / Variegated Society Garlic		
	Rosa 'Flower Carpet' var. / Ground Cover Roses		
	LAWN	*Sod*	*Mod./High*

LANDSCAPE NOTES

1. ALL PLANTINGS TO BE IRRIGATED WITH AUTOMATIC DRIP IRRIGATION SYSTEM (SUBSURFACE DRIP EMITTERS FOR LAWN AREAS). CONTROLLER TO HAVE MULTIPLE PROGRAMS & RAIN SHUTOFF DEVICE. PLANTINGS AND IRRIGATION SYSTEM WILL MEET THE LATEST REQUIREMENTS OF NAPA COUNTY'S 'WATER EFFICIENCY ORDINANCE'.

2. A TREE PROTECTION PLAN WILL BE INCLUDED ON THE CIVIL ENGINEERING PLANS THAT WILL REQUIRE PROTECTIVE FENCING; RESTRICTIONS ON GRADING OR TRENCHING WITHIN THE DRIPLINES OF PROTECTED TREES, NO STORAGE OF MATERIALS WITHIN FENCED AREAS, ETC.