21 January 2015

Napa County Planning Commission

Chair Heather Phillips
Commissioners

re: Girard Winery Use Permit #P-14-00053

I apologize to the Commission, staff and the applicant for the amount of information submitted just before this hearing. The timing of the continuance granted on December 17 included 2 major holiday weeks (Christmas and New Years), limiting the time available to find experts, complete research, compile data.

Please note for the record, that although we are adjacent neighbors to both the proposed Girard parcel and Clos Pegase, and we spoke at the December hearing, the Tofanelli family did not receive any legal notice of this hearing today.

Many of our concerns are detailed in the letter to you from Ellison Folk, Shute, Mihaly and Weinberger; others remain.

As immediate neighbors, we will be forever impacted by the massive change in operations on these parcels. The Girard winery building with faux stone front and tall cupolas will block the most beautiful down valley view on Dunaweal Lane as well as the incredible view of the western hills that I have enjoyed all my life. These views will be gone for our lifetime.

Our farming operations will be irrevocably altered - fences and gates will have to be installed to keep winery visitors from wandering into our home lands, adding to the increasing burden from tourist trespass and theft.

Mr. Roney has agreed to install fence(s) and gate(s) at mutually agreeable locations as conditions of approval. These must be installed before the winery is allowed to open for business.

Mr. Roney has also agreed to conditions of approval to control construction dust to protect our organic vineyards. As many signs around the valley point out - dust IS harmful to grapes, most particularly to those that are farmed organically. It is

critical that the dust be controlled and not creep over to our vines.

While Mr. Roney has been very gracious and accommodating, we are very concerned about the operations of Girard and Clos Pegase and the changes they bring to a once quiet rural area.

Clos Pegase is a pre-WDO winery with a permit for 200,000 gallons although it produces only 25,000 cases or about 60,000 gallons of wine. Warnings from neighbors so many years ago that the clay soils of the parcel would not perc proved true and we watched as truck after truck hauled out winery waste. Then we watched the mound system fail as toxic winery waste water inched toward the Napa River. We protested when they sought to pipe the waste under Dunaweal to be treated in ponds on the second, now Girard, parcel. County code at the time mandated the merger of contiguous parcels under same ownership when the use on one parcel required services that existed on the other parcel. The county disregarded its own code and the neighbors didn't sue. Too bad.

We warned, too, that the Clos Pegase parcel could not provide water as claimed. We laughed at the well drilling rig atop a huge pile of cave tailings at the base of the hill, watched as well drilling and the original well failed and water had to be piped in from the second parcel.

As long as a winery exists on the Clos Pegase parcel, the two parcels are inextricably linked. It can't produce its own water nor get rid of its own waste. To grant another winery on this parcel is contrary to the intent of the WDO. The parcel has been used - another winery should not be allowed. Where once there were approximately 50 acres of prime producing farm land with a modest farmer's house and barn there will now be two industrial processing plants with retail and commercial uses in their place. This appears to be a policy issue for the Board of Supervisors. When has a parcel been "used"?

Once again, neighbors are concerned about water. According to staff "The County has no record of problems or complaints of diminished groundwater supplies at the project site or in the general vicinity." Astonishing. We have been submitting data to support our water concerns for over 30 years. I have presented to this very Commission the attached area well log and history so many times - most recently: Pavitt, Venge, Fisher. These should be quite familiar to most of you.

Familiar also should be the attached pages from the 1989 WDO FEIR in which Jill Pahl, Senior Environmental Health Specialist, noted that the Dunaweal Lane area

warranted study as it appears to be an "existing problem yield area" where "water is in short supply." What happens to these documents that we labor to produce as evidence? Are they "disappeared" down Orwell's memory hole?

While much of the county, and Napa city, is grappling with the problem of water being trucked to increasingly unsustainable projects, staff appears unaware of water trucking in the Dunaweal area and again assures there is plenty of water. One acre foot of water for each acre of land can supposedly be continuously extracted with no harm. GRAC and Ludorff Scalmanini do not provide data to support that assumption. Indeed, they state there is insufficient data to assume anything and, instead, identify the Calistoga area as "High Priority" for study because it is particularly data deficient.

A small winery, Venge Vineyards (8,000 cases), less than a mile away, was approved in 2009, also with assurances of ample water - from 4 wells. The 12-acre parcel had a small vineyard and private residence but needed 4 wells to survive. Neighbors were told their water concerns were baseless. One acre foot of water for every acre of land? Venge was built in 2010 and now trucks water in regularly. At least one Venge neighbor now also has to truck in water periodically.

The problem in our area is that the alluvium capable of storing water is very thin, geothermal waters with vineyard-killing boron are very close to the surface and the hills are so fissured from volcanic activity it is unclear how much water received in the eastern hills actually recharges here.

Apparently unknown to the county, and perhaps unknown also to the applicant, is that Clos Pegase has also recently trucked in water. I watched in 2012-13 as water trucks regularly chugged up the hill to the storage tank near the residence.

The new owners plan to boost production at Clos Pegase to 200,000 gallons as permitted. An increase of over 300%. If water has had to be trucked in to produce 60,000 gallons, how many more water trucks will be needed when production grows threefold? How many will be needed when Girard is in production?

What is most concerning is the change that the new owners have brought to Clos Pegase. It is well known that weddings are illegal at Napa County wineries. One of the principles, Leslie Rudd, has owned a winery here since the late 1980's and surely is aware of this unwavering WDO policy. Yet, the major marketing plan to "grow" Clos Pegase appears to be via weddings. Almost immediate to the change in ownership, Clos Pegase began an intense wedding marketing program.

Included is a packet of printed wedding promo material downloaded from the internet. Google "Clos Pegase" - "weddings" is the first item that comes up. Click on Clos Pegase "weddings" and up pops the wedding home page. Click through and you will see they have pulled out vineyard to make way for a portable altar and chairs. They aren't kidding - they are promoting the actual wedding ceremony as well as the receptions and dinners. Lovely, expensive photography with brides and grooms all over the vineyard, winery and caves.

Wedding-spot.com provides more detail: maximum outdoor ceremony = 250 guests, maximum indoor reception = 250 guests. Average wedding cost is between $17,000 and $27,000 for 100 guests, or about $70,000 for the maximum 250 guests. And make no mistake, this is all about weddings and not at all about wine marketing. Only beer and wine are allowed and the alcohol is noted to be "BYO" - Bring Your Own. They aren't even required to drink Clos Pegase wines at these weddings.

We have recently observed events for wedding planners as well as the weddings. Napa County Sheriff's complaint logs contain the details. Code enforcement should check with them. One deputy, responding to a recent wedding complaint, told me that he could not do anything other than request the music be turned down, because he said "weddings are legal in Napa County, they happen up and down the valley all the time." When I cited the facts, that weddings are illegal here, he responded - "if that's true, and you can put a stop to them, you have no idea how many calls you will save this department."

I repeat - Napa County Sheriff's deputies appear to be responding regularly to complaints generated by weddings occurring all over the valley, but do not shut them down because they are considered "legal activities". Perhaps the Board of Supervisors should chat with the Sheriff? And Code Enforcement should open some files?

The new owners have at least one more trick up their marketing sleeve - see Calistoga Winegrowers promo piece. "The winery now hosts weddings, among other events, and a remodel of the house on the property will create a new event space." Not only is this a wedding mill, the private residence is intended to be a new event space for yet more illegal special events. Clos Pegase does not hold permits to allow these activities.

We are reminded that these same winery owners also own Cosentino, which uses

State Highway 29 as a personal loading and unloading zone because the parcel is too small for the winery activities it contains. The neighbors suffer. It is astounding that the county, CHP and CalTrans allow this to continue. We are not looking forward to policing our new, scofflaw, neighbors.

Weddings and illegal events were apparently conducted at the site by the former owner as well. Included in the packet is this letter, anonymously put into my mailbox by an irate neighbor who expected me to stop the shenanigans. I'm presenting it at this time, so they know their efforts were not in vain.

Every day we learn that Napa County has very serious problems that are not being addressed. Thousands of winery waste water trucks are apparently a surprise to planners. At one Raymond hearing, staff revealed that "dozens" of left-turn lanes throughout the county, mandated as CEQA mitigations, have never been installed. Yet traffic is one of our biggest issues. This Commission has been asking for at least a year for a nexus between marketing and production, for definitions of marketing events vs food and wine pairings. (*Attached request from Chair Phillips, July 16, 2014*). The much heralded NCTPA traffic study has not been completed - how can you assess cumulative traffic impacts? No one knows yet how many water trucks are delivering how much water to which unsustainable projects all over the county. And yet, Wine Business Journal recently reported that there are 80 winery projects "in the pipeline". How can this continue? How can you keep compounding the problem by approving more projects without current and complete data?

And, how can you issue a new use permit to owners who are openly and flagrantly violating the WDO and Napa County code?

Norma J. Tofanelli
for the Tofanelli Family
1001 & 1076 Dunaweal Lane

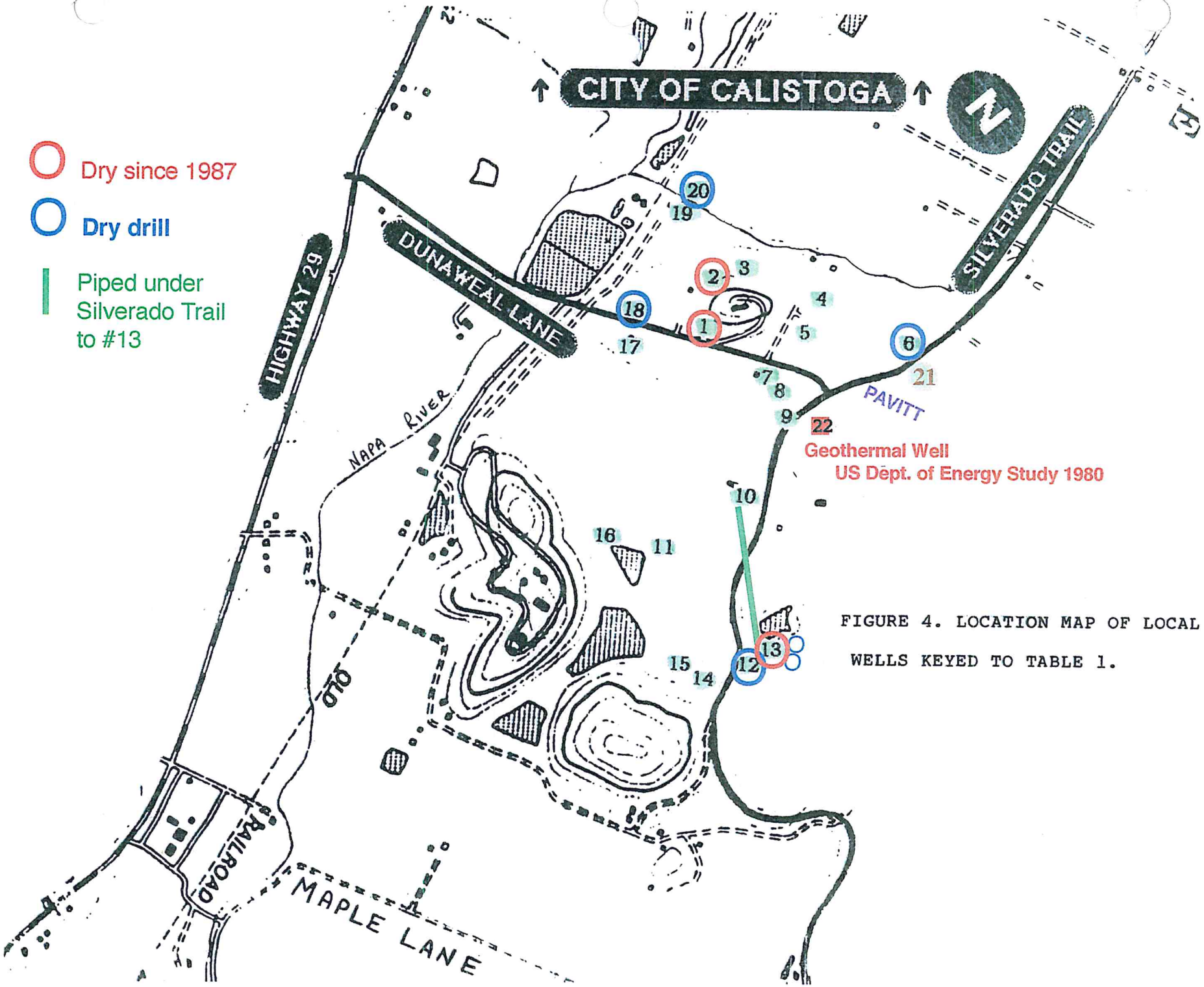

FIGURE 4. LOCATION MAP OF LOCAL WELLS KEYED TO TABLE 1.

1987 Data

Dunaweal Area Well Records

The following information was drawn from a series of interviews with property owners, winery employees, well drillers, Napa County Department of Environmental Health employees, and from personal information gathered over the 60 years that my family has been farming this area.

1. **Clos Pegase: 75', 30 gpm**

This well was drilled in July, 1985 after an unsuccessful attempt to drill (well #18) on the same parcel, southeast of this well. The well drilling rig was mounted atop the pile of debris from cave excavations and grading at the top of the hill and drilled down through the rubble. The previous vineyard manager/caretaker stated that the area drilled in had traditionally been an area of seepage from the hill.

2. **Clos Pegase: no records - depth unknown, 7 gpm?**

This is the property's historic well and hasn't been a good source according to previous owners and caretakers. It had to serve two single-family residences. *(Projected as 7 gpm because use permit claims 37 gpm total for winery site and well #1 is 30 gpm.)*

3. **Czapleski: depth unknown, 1-2 gpm.**

This was drilled about 15-20 years ago by the former owner. According to the former owner and tenants this well historically has dried up in late September. According to the former tenants they had to use bottled water for drinking in late summer and fall.

4. **Czapleski: depth unknown, hand-dug, 1-2 gpm**

This is the property's historic well dating back at least 60 years. According to conversations with former owners, (dating back to as early as 1929), this well was sufficient for domestic usage but in the last 20 years has had to be supplemented by other sources.

5. **Czapleski: 370', 1-2 gpm**

This well was drilled in May 1987. Water from wells #3, #4, and #5 is being pumped into a recently constructed concrete water storage tank in an effort to provide water for domestic as well as vineyard usage. Water was trucked in to fill the tank after construction presumably because the flow from the wells was insufficient to fill the tank within the time necessary to insure the proper curing of the concrete.

6. **Czapleski: dry, depth unknown**

This was drilled by the former owner and was abandoned before completion.

7. **Tofanelli (DiGiulio): 17', gpm unknown.**

This was the property's historic well already in existence when the property was purchased in 1929. It has served as the only source for domestic use until 1977 when it went dry. In approximately 1960, the water level began dropping seriously during summer and fall months. In 1977 the well dried up and water had to be tanked in. The

8. Tofanelli (DiGiulio): 195', 10gpm

This well was drilled in the fall of 1977 after well #7 went dry; the water is noticeably warmer than the water in well #7. This well is one of the 206 test wells being tracked in the study of the Calistoga area's geothermal resource being conducted by the US Department of Energy in conjunction with the California Division of Mines and Geology (CDMG).

This well was tested at 20°C in the most recent test and the report notes that "For the purpose of preparing Geothermal Resources Map of California, CDMG has chosen 20°C as the starting temperature for warm water." However, as it is common practice in Calistoga to store water in metal pressure tanks which can affect the temperature, so "...25°C has arbitrarily been chosen as the cutoff point for a geothermal well for the purpose of this investigation only." As no metal pressure tank is used at this well, it can be seen that this well qualifies as geothermal under the standard CDMG definition. This indicates just how close to the surface the geothermal is in this area, particularly since another well (well #22) just across the Silverado Trail from this one is also being monitored and has been tested at 41°C at 275'.

9. Tofanelli (DiGiulio): 19-20', hand dug - livestock only.

Since about 1960 this well dries up in late sumer-fall. It has been noted throughout the years that when neighbors across the Silverado Trail from this well are watering their lawns and runoff is seen, the well subsequently dries up and takes several days to recover.

10. Corry (Perry): 45', gpm unknown

This is the property's historic well. When the property was purchased by the current owners it was 15' hand-dug, but in 1959 it no longer provided sufficient water for domestic use and had to be drilled to 45'. It has been a sufficient domestic source since that time.

11. Tofanelli (DiGiulio): 18', gpm unknown - livestock only

This is one of the property's historic wells, already in existence in 1929. It has traditionally been used for livestock and was the source for the animals (horses and cows) that were pastured in this area when the vineyards were still being worked by horse (as recently as 30 years ago). It is currently used for livestock (horse) watering. In the last 20 years this source normally goes dry in late summer - fall.

As this well is currently used for livestock, and is located approximately 20-25' from the property line adjacent to the proposed wastewater ponds there is concern that it could be contaminated. Stored near the property line in this area is an old, abandoned out-house that has not been in use for about 25 years and is in unuseable condition. It has been filled with soda and beer cans and various garbage items by field workers over the years.

12. Angell: 325', dry - drilled in December 1985

This was an attempt to replace well #13, which was dry. The property owner was buying water from an adjacent property owner as there was no other source of water on this property.

13. Angell: 125', 9 gpm

This is the property's historic well and was 35' deep. For last 20 years it has been dry in summer-fall. In about 1982 it dried up totally. When the attempt to find water at well #12 failed, the driller tried to clean out this well, and somehow the bottom dropped down another 90' where water was found. It tested in January 1986 at 9 gpm.

14. Rosenberger: 135', 1.5 gpm

This well was drilled about 30 years ago. The owner indicated that it has been an increasingly poor summer-fall source.

15. Rosenberger: 250', 1.5 gpm

This was drilled about 8-9 years ago as #14 was not sufficient for domestic use even though the property owners are in residence normally only about three days per week.

16. Clos Pegase: not a well, but a sump hole

This was excavated by Blakeley construction company in about 1975.

17. D'Anneo: no information

Historically has not been a good well. The former owner was required, as a condition to serving as a foster parent family, to bring in bottled water for drinking.

18. Clos Pegase: depth unknown, dry

This was drilled in May or June 1985, during the winery permit appeal period. It was noted during the appeal hearings that the actual attempt to drill was made prior to obtaining a well permit to allow such drilling.

19. Tofanelli: 80', 1-2 gpm

This well was drilled in 1953 and has been sufficient for domestic use only; however, its recovery rate is very slow and water conservation measures have always been used by the owners. Over the last 15 years recovery rate has been increasingly slower.

20. Fisher: 600', dry; drilled approximately 1984.

The approximate depth of this well was learned in conversation with the drillers as work progressed. Its drilling was of particular concern to the Tofanelli family as its location is only a short distance from well #19. The drillers said that after drilling all of that depth only "a trickle of water" was found and the well was abandoned.

21. Curtiss: 235', 20 gpm

22. See #8 for data

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WELCOME TO **CLOS PEGASE**, the classic Napa Valley destination for award-winning, estate wines and luxury hospitality. Located just down the road from the ...

4.4 ★★★★★ 9 Google reviews · Write a review

1060 Dunaweal Lane, Calistoga, CA 94515
(707) 942-4981

Weddings
CLOS PEGASE is an idyllic setting for any wedding, from a small ...

Architecture
WHEN THE FOUNDERS OF CLOS PEGASE, Mr. and Mrs. Jan ...

Visit
VISIT. WE WELCOME YOU TO VISIT CLOS PEGASE WINERY ...

Tastings
WE WELCOME GUESTS TO VISIT CLOS PEGASE WINERY and ...

Wines
2009 Clos Pegase Pinot Noir, Mitsuko's Vineyard, Carneros ...

Event
a private event on the Cypress Lawn ... and the perfect location ...

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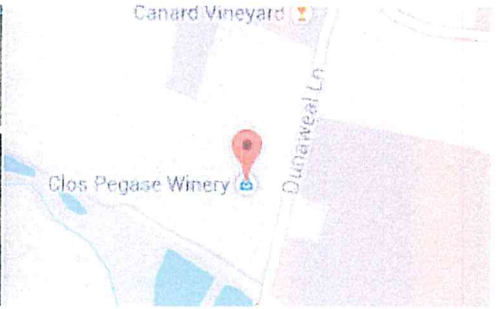

Clos Pegase Winery

Directions

4.4 ★★★★★ 9 Google reviews

Wine Store

Address: 1060 Dunaweal Lane, Calistoga, CA 94515

Phone: (707) 942-4981

Hours: Open today · 11:00 am – 5:00 pm

Menu: locu.com

Applebone Vineyard set for a wedding

EVENTS

Weddings
Event Hosting
Upcoming Events

SHOP WINE »

All Wines
Hommage
White & Rosé Wines
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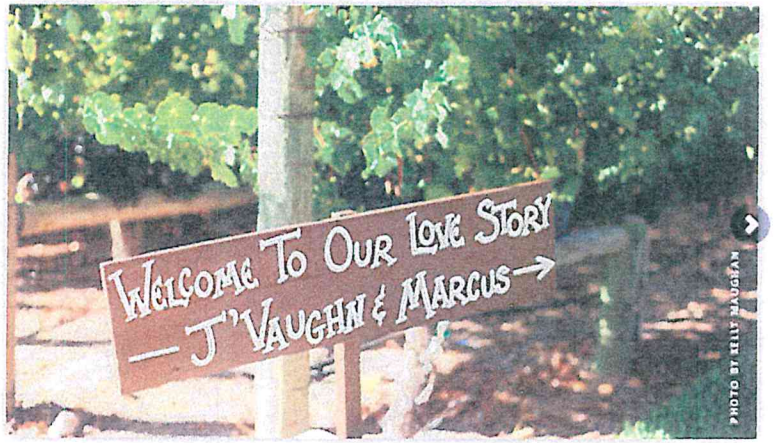
WEDDINGS



A wedding in the vineyard 1 / 15

Plan an Event:

To speak with our Event Team:

707.921.2631

EMAIL US »

WEDDINGS

Weddings
Event Hosting
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SHOP WINE »

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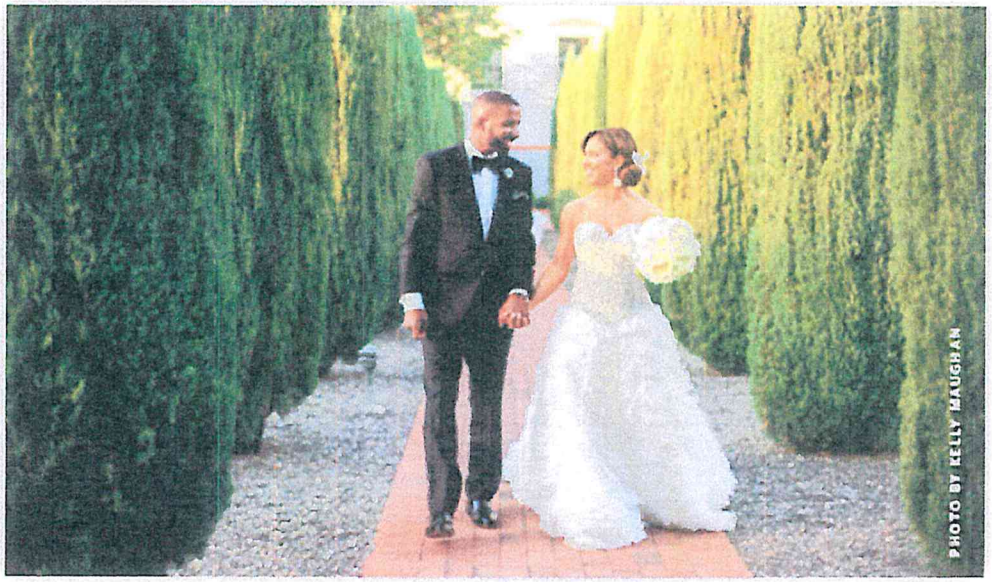





Plan an Event:

To speak with our Event Team:

707.921.2631

EMAIL US »

CLOS PEGASE is an idyllic setting for any wedding, from a small intimate affair to a grand gathering of family and friends. An architectural masterpiece surrounded by vineyards, the property has a feel of modern luxury that is like no other winery in the Napa Valley. As you enter our breathtaking portico it provides a unique window to nature that embraces the winery, the expansive lawn lined with Cypress trees; that invites you to our spacious brick

CLOS PEGASE is an idyllic setting for any wedding, from a small intimate affair to a grand gathering of family and friends. An architectural masterpiece surrounded by vineyards, the property has a feel of modern luxury that is like no other winery in the Napa Valley. As you enter our breathtaking portico it provides a unique window to nature that embraces the winery, the expansive lawn lined with Cypress trees; that invites you to our spacious brick courtyard. **Applebone Vineyard**, is our unique wedding site that is nestled amongst the vines, with Mount St. Helena as a backdrop, and the rolling hills of the valley will provide you with a stunning setting for your most special day. All this conspires to create an atmosphere that is at once intimate and grand.

Clos Pegase offers exquisite caves to entertain your guests, with a dining capacity of up to 250 guests. The main tunnel will lead you to a trail of glowing candlelight into our enchanting Cave Theater, where your guests can dance the night away. Your wedding day here will be nothing short of magical!

We would be honored to be part of your day...

Location Names:

- Portico Entrance
- Courtyard
- Cypress Lawn
- Applebone Vineyard
- Cask Room
- Caves
- Cave Theater

AT CLOS PEGASE WINERY WE HELP YOU CREATE the most unique and memorable experiences. From anniversaries, rehearsal dinners, birthdays, holiday parties, private parties and more, we will transform our winery into your unique vision for the event. Along with the stunning setting, dramatic architecture, and world-class wines, we will provide you with best in class hospitality and get all of the details just right, including food, décor, and live entertainment. No matter the occasion, events at Clos Pegase reflect a welcoming blend of elegance and magic for you to create memories you will never forget.

Clos Pegase provides several distinct spaces for your event, each delivering a unique experience depending on your needs. Whether you are looking for an indoor or outdoor location, a large area for hundreds of guests or an intimate space, Clos Pegase has several different options from which to choose.

A few locations for our events:

- Portico entrance
- Courtyard
- Cave Theater
- Visitor Center
- Cask Room
- Harvest Dining Room
- Vineyard Picnic Area

Contact our Event Team at 707.921.2631 to work with you on all of the details to have the perfect event at Clos Pegase Winery.

Clos Pegase Winery Weddings | Get Prices for Napa/Sonoma Wedding Venues in Calistoga, CA

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Clos Pegase Winery

Napa/Sonoma

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Venue Details

1060 Dunaweal Lane
Calistoga, CA 94515

Email Favorite

Style:	Winery/Vineyard, Historic/Landmark Building, Park/Garden, Outdoor
Max Capacity:	250 guests
Outdoor Ceremony:	Yes
Indoor Ceremony:	No
Outdoor Reception:	No
Indoor Reception:	Yes
Catering Options:	Choose from List
Alcohol Options:	BYO
Time Restrictions:	08:00AM to 10:00PM

Price This Venue

Book a Tour

Clos Pegase Winery Details

Overview Amenities

Description

Nothing says luxury like an elegant wedding celebration in one of Napa's exquisite wineries. Clos Pegase Winery, set in idyllic Napa Valley just minutes from Calistoga, is the epitome of modern luxury. This beautiful venue will make you feel as though you have been transported to Tuscany. As you enter the portico, the unparalleled view of the lush lawn lined with Cypress trees will take your breath away as you make your way into the brick courtyard. Imagine walking down the aisle with Mount St. Helena providing a grand backdrop for your special day, surrounded by your friends and family amongst the verdant vines of Applebone Vineyard. After your stunning vows, your guests can make their way through an elegant tunnel to enjoy gourmet food and exquisite wines in the soft, glowing candlelight of the Cave Theater. Full of vintage luxury, the Cask Room offers fantastic photo opportunities for your wedding album, and the unique caves will have your guests impressed the whole night through. Time to raise a glass and cheers to your new life together!

Wedding Style

Winery/Vineyard, Historic/Landmark Building, Park/Garden, Outdoor

Services

Outdoor Ceremony, Indoor Reception

Capacity

Max Outdoor Ceremony: 250 guests
Max Indoor Reception: 250 guests

Time Restrictions

Set up can start 3 hours prior to event. Events must end by 10:00PM.

Rental Fees

The rental fee ranges from $12,000 to $15,000 for ceremony and reception and includes 5 hours of event time excluding set up and clean up. Additional hours can be arranged.

Wedding Cost

The average wedding cost at Clos Pegase Winery is estimated at between $17,115 and $27,625 for a ceremony & reception for 100 guests.

Catering

Choose from List

Alcohol

BYO

Book a Tour **Price This Venue**

Calistoga Food and Wine Festival, continued...

The winery dinner will be the third portion of the festival and the cost will be based on a price set by the participating winery. Ultimately, it is **our goal to have multiple wineries hosting a Saturday night wine dinner, giving the attendees several options and a variety of unique experiences.** This may still be possible for this year depending on the responses we receive from the members of the CWG.

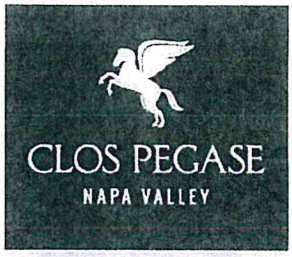
Sign ups are now open. Please respond to Adam Fox to ensure your participation and to help make the Calistoga Food and Wine Festival a success!

SEEKING MAGNUMS FOR AUCTION NAPA VALLEY E-AUCTION LOT

Calistoga Winegrowers is again participating in Auction Napa Valley with an E-Auction lot. **We are seeking two things to fufill this lot: Magnums of wine.** These do not need to be a Calistoga AVA wine, per se, but winery must be a member of Napa Valley Vintners and Calistoga Winegrowers. **Experiences:** This is a "Calistoga Experience" lot. So if you have any contacts that might be able to provide lodging, meals, museum tickets, spa treatments, etc.. please forward their information to us.

Contact Carolyn Czapleski to donate to this lot.

MEMBER PROFILE: CLOS PEGASE



Founder: Jan Shrem **Current owner: Vintage Wine Estates**

General manager: Samantha Rudd

Winemaker: Richard Sowalsky, with Marco Di Giulio as consulting winemaker

When Vintage Wine Estates, owned by Leslie Rudd and Pat Roney, purchased Clos Pegase from founder Jan Shrem in August 2013, it was a bit like coming full circle for Leslie. "Clos Pegase was one of the first wineries my father visited when he came to Napa Valley, and always thought Calistoga was a special place," says Clos Pegase general manager Samantha Rudd. "We're honored to be the new stewards of this brand and winery."

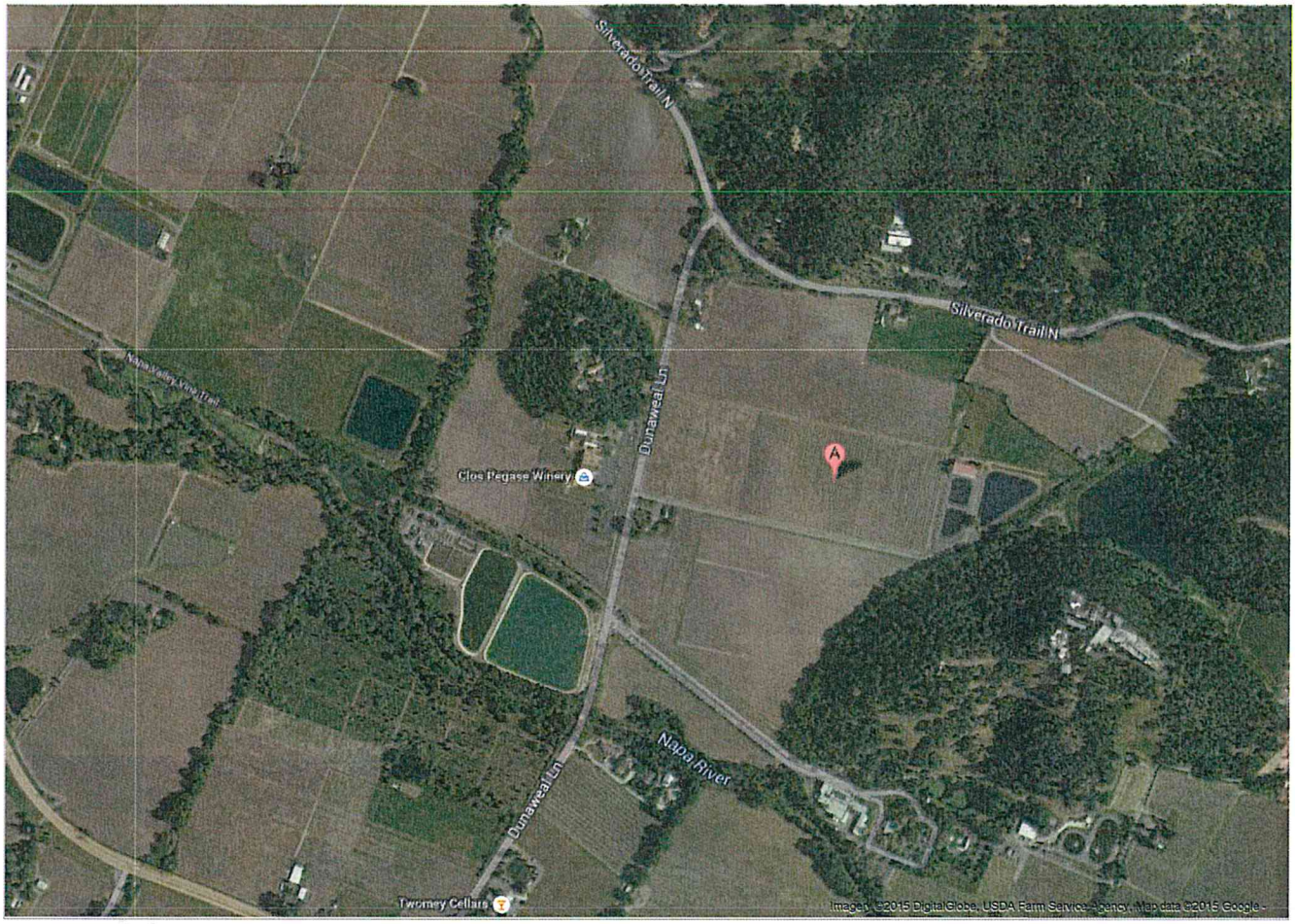
Samantha joined Clos Pegase after a lunch with Jan and Leslie, where the talk turned to family. Leslie thought it would be valuable for Samantha—who at that time was managing hospitality at Rudd Estate—to spend some time earning her own success outside the family estate. Jan thought Clos Pegase could be a good fit for her. A month later, Samantha started as general manager of Clos Pegase.

Jan established the winery in 1984 with the help of Andre Tchelistcheff, who made the first vintage of wines, and legendary architect/designer Michael Graves, who designed the winery and its grounds. So Samantha's vision is to maintain the integrity of property and the brand while making both more accessible to wine lovers.

The winery now hosts weddings, among other events, and a remodel of the house on the property will create a new event space. "The house is a beautiful jewel, so we look forward to making that available," says Samantha. Wine production, which is currently at 25,000 cases, will be increased to make use of the winery's extensive vineyard acreage while still remaining focused on producing estate wines.

To see all the details that are visible on the screen, use the "Print" link next to the map.

Google



Planning Commission Mtg.

JAN 21 2015

Agenda Item # 9A

Bill Hocker Letter

Planning Commission Mtg.

JAN 21 2015

Agenda Item # 9A

John McDowell
Deputy Planning Director
Napa County

January 19, 2015

Regarding: Girard Winery Application

Dear John and Planning Commissioners,

My wife and I live at 4704 Silverado Trail, where Dunaweal intersects the Trail. I have concerns, and critical, relevant information about the Girard Winery application, regarding water supply in the area. The applicants have not adequately proved that sufficient water is available on the property, nor that there are no significant negative effects of pumping the projected volume of groundwater. I respectfully request the opportunity to speak longer than the normal 3 minutes at this Wednesday's hearing, to express this to the Commission; thank you.

My wife and I own 33 acres, with three wineries bordering our parcel. Our well is on the valley floor, and provided plenty of water. When a neighbor's 12.5 acres of valley floor vineyard and home needed more water than their existing 3 wells could provide, they drilled another well 50 ft from ours. Our available water then decreased.

Later, new owners converted some of that vineyard into Venge Winery, and constructed a large metal water storage tank to increase their capacity. However, during the growing season, despite pumping as much as they can from groundwater, their system does not supply enough. They've had to truck water in regularly for years, perhaps more than once a week. They probably would have had to show sufficient supply was available to get their winery permit, but that "proof" clearly turned out to be wrong.

Properties around us have multiple wells (some abandoned) in order to try to meet their water needs. After the neighboring vineyards reduced our well's output, we drilled 3 or 4 "dry" wells before we found more water. Only the variety of terrain on our property allowed that; we could have drilled on the valley floor forever without success, and simply drilling deeper to reach more water was not an option because drillers want to avoid hitting boron and geothermal, common to the Calistoga area.

Girard Winery water:

The Clos Pegas #2 well is designated to provide the water for Girard Winery, as well as continuing to provide for Clos Pegas Winery. It is currently providing for Clos Pegas winery production, reported to be 25,000 cases, or 60,000 gallons, with plans to increase that production and a permit for 200,000 cases (*Wine Spectator 8/21/13*). The Girard application is also for 200,000 gallons. The total production of the two wineries would be 400,000 gallons, or 6.7 times the current 60,000 gallons of Clos Pegas wine. This also means 6.7 times as much water would be used. That's a major change.

Well #2 may have produced enough water historically for Girard's past, lower production, but there has been no proof that 6.7 times the water can be pumped regularly over a prolonged period from this well, or as a whole from the property. Girard's Water System Feasibility report claims that the well logs show that well #2 produces 23 gallons per minute (gpm), and with its pump produces 18gpm, calculating that pumping for 13.8 hours daily will provide the required volume of 14,978 gallons. That's a theoretical conclusion, assuming the water level in the well doesn't drop; a lower level makes a pump work harder, producing less water; and if the water level falls too low from pumping… there is no water left to pump.

The Water Well Driller's Report #384909 reports the static water level in the well was 25ft, and that after a well test removed 30gpm for 3 hours, the water level had lowered to 200ft; the test may have stopped because the 220ft deep well was almost empty. This would equate to 5,400 gallons produced in this single test, which emptied the well. Well recovery time and prolonged water production have not been evaluated. The Peak Daily Water Demand (*Water System Feasibility study, pg 4*) is calculated to be 14,978 gallons, almost 3 times the test volume, per day. Because we don't know how long it takes this well to recover and be able to produce again, we don't know if the well can pump that test volume 3 times per day, or what the long term effects of such pumping will be on the well. Given that 14,978 gallons would be needed to produce 6.7 times the current Clos Pegas wine volume, then the calculated daily volume of production water this well currently produces for Clos Pegas could be estimated to be:

14,978 / 6.7 = 2235 gallons

Apparently the well can produce that much, but that's all that might reasonably be "proved" at this time; long-term capacity beyond that volume hasn't been proved. If this well can't produce sufficient water, the application mentions 1 (or 2?) other existing wells, which currently may be disconnected and/or not a potable source. The production of these wells has not been referenced, and the same concerns over proving actual production exist. Drilling additional wells is possible, but as my neighbor and I have experienced on our properties, it is no guarantee of water.

Trucking:

If sufficient water isn't available from the property, Girard and Clos Pegas would end up trucking water, probably lots of water. Does Napa County really believe in approving such a scenario? What if this becomes a County wide occurrence? That is not a sustainable policy. With the water information before you now, the Girard project should not be allowed to proceed and become a precedent for poor planning and trucking water. If wine can't be made on a site, there should not be a winery there. It's that simple.

This is exactly what has happened to Venge's 20,000 gallon winery, even after drawing as much water as possible from multiple wells on a 12.5 acre valley floor site. The Girard/Clos Pegas wineries will produce 20 times more wine, and need 20 times more water, but they will be drawing water from a valley floor site only 2 times the size.

That's 10 times the water per acre that my neighbor could find… will Girard be that lucky? Will the County bet on that?

Consider that, from the Phase 1 study, page 5:

> "…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.
>
> *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."

The winery process water comes from well #2, and a significant volume of process wastewater, 920,000 gallons, is earmarked for vineyard irrigation. If that well doesn't produce enough for the winery, the calculated wastewater would not be available for irrigation either; and all the project calculations fall apart.

So, if there is a need to truck water for winery production, that same trucked water would end up as process wastewater for irrigation. I understand the trucked water comes from municipalities… is irrigation with that water legal in this county?

The GRAC report:

The Napa Valley GRAC report is often referenced to claim that there is no known water shortage on the Valley floor. It can also be used to claim there is no known water abundance on the Valley floor, because the report actually says neither. It's an intelligent, highly professional, comprehensive report, but recognizes the need to state repeatedly throughout the text that available monitoring and data are often insufficient, especially in the Calistoga area, the site of the Girard proposal:

> **"2.3 Napa Valley Floor Geologic Subareas**
> The Napa Valley Floor is informally divided into four areas for this Report. The upper valley extends from the northern end of the valley just north of the town of

St. Helena. This area is about nine miles long and about one mile or less in width. Except for near St. Helena, the upper valley was not examined for this study." *(GRAC, pg. 25)*

"The upper Napa Valley and the MST area were largely excluded from the present study because of the small size of the upper valley and the previous detailed studies of the MST." *(GRAC, pg. 25)*

"As with the calculated depth to groundwater values along the Napa river thalweg, the groundwater elevation contours in Spring 2010 were interpreted with limited well control (wells in the groundwater level monitoring program with known well construction information) and, therefore, calculated values in many area of the valley have great uncertainty." *(GRAC, pg. 69)*

"Figure 8-7 illustrates annual root-zone water balance model results for the Napa river near Calistoga watershed. This watershed is located at the north end of the Napa Valley and includes developed and undeveloped lands. The streamflow gage near Calistoga was only in operation for eight years..." *(GRAC, pg. 89)*

"10.3 Aquifer Testing

As explained in this Report, the distribution of the hydraulic conductivities in the Napa Valley as presented by Faye (1973) was based on data recorded on historical drillers' reports. During the current study, it became evident, based on the approximately 1,300 reports reviewed, that most of the "test" data are insufficient to adequately determine or estimate aquifer characteristics, since most of these data were recorded during airlift operations rather than a pumping test. Currently, test methods accepted in the County's Well and Groundwater Ordinance allow bailing, airlifting, pumping, or any manner of testing generally acceptable within the well drilling industry to determine well yield. Recommendations for modifying the Napa County's Well and Groundwater Ordinance (Title 13, Chapter 13.04) have been proposed to improve the quality of data received by Environmental Management concerning reporting of well yield (LSCE, 2011c). These recommendations included removal of bailing and airlifting as acceptable methods; pumping is recommended to gather the appropriate data to reliably determine well yield, particularly in areas where such information along with aquifer characteristics is determined to be important to accomplish other County groundwater objectives. In 2013, County staff and the GRAC plan to review this recommendation and provide guidance for updating the County's Well and Groundwater Ordinance. *(GRAC, pg.126)*

10.5 Groundwater Monitoring Network

This Report illustrates the distribution of current groundwater level monitoring locations, which is primarily located in the Napa Valley Floor-Napa and MST Subareas. Very little groundwater level monitoring is currently conducted elsewhere in Napa County outside these two subareas. *(GRAC, pg. 127)*

Luhdorff & Scalmanini's Figure 5-2 (page 152) map stops before Calistoga, and shows far fewer wells in the Girard project area than in St. Helena and south; their Figure 5-11 map goes no further north than St. Helena.

Some of the calculations and models do not reflect real world conditions, and so further calculations based on them for water analysis of projects such as the Girard proposal, will be increasingly inaccurate:

> **"8.10.1 Considerations Related to Overall Water Balance**
> The root-zone water balance has resulted in recharge estimates for the Napa River Basin Watershed and sub-watersheds. As noted in the discussion of the root-zone water balance components, this model does not include groundwater pumping or subsurface groundwater outflow from the underlying aquifer system." *(GRAC, pg.108)*

Conclusion:

In the absence of factual or accurate data from the GRAC report for the Girard region, the known facts from other sources concerning existing wells in the area become much more important. The water situation at Venge winery is one of the few comparisons available, and does not bode well for the much larger Girard project. At the very least, the project needs further data and studies. Tripling production at Clos Pegas to the permitted 200,000 gallons may itself create water problems; granting the Girard Winery permit will double that effect.

Even if the subject properties can produce the water, there have been no studies of the effects to neighbors or to the region in general. As in the case of Venge Winery, repercussions to neighbors do exist. The effects from the Girard/Clos Pegas project will be 20 times as great. No permit should be issued to Girard unless more extensive studies demonstrate a favorable outcome.

Sincerely,

David Clark
4704 Silverado Trail
Calistoga

Frost, Melissa

Subject: FW: Girard Winery hearing
ttachments: Girard.1.19.15.doc

-----Original Message-----

From: McDowell, John

Sent: Tuesday, January 20, 2015 10:11 AM

To: Balcher, Wyntress; Frost, Melissa

Cc: Gallina, Charlene; Anderson, Laura

Subject: FW: Girard Winery hearing

Correspondence on Girard item for tomorrow.

-----Original Message-----

From: David Clark [mailto:david@davidsjewelers.com]

Sent: Tuesday, January 20, 2015 10:07 AM

To: McDowell, John

Cc: heather@vinehillranch.com; terry scott; napacommissioner@yahoo.com; fidd@comcast.net; mattpope384@gmail.com

Subject: Girard Winery hearing

Hi John,

Would you please read my attached letter, enter it into the Girard file, and ensure that the Planning Commissioners get a copy? Thanks very much.

Best regards,

David Clark

4704 Silverado Trail

Calistoga

Mr. John McDowell
Deputy Planning Director

Napa County Planning Commission
1195 Third Street, Suite 210
Napa, CA 94559

Re: Girard Winery, Use Permit P14-00053

Mr. McDowell, Planning Commissioners;

Please place the following comments of California Fisheries & Water Unlimited into the administrative record of Use Permit P14-00053 for the proposed Girard Winery, Calistoga, CA.

California Fisheries &Water Unlimited opposes the approval of this Use Permit and project as proposed because of the potential for adverse impacts to the Northern Napa River and its tributaries. CF&WU is interested in all projects, whether of county or municipal origin, which have the potential to adversely impact the Napa River watershed, its aquatic resources, and those species protected under state and federal law. It is the opinion of CF&WU that the information provided does not support a Negative Declaration, that additional analysis is needed to better determine the cumulative impacts to Napa Valley resources, and that an Environment Impact Report is warranted.

The Girard project is of particular concern because of cumulative impacts to the Napa River watershed. It is a critical time for the Northern Napa River. This neglected stretch of the Napa River system appears at last to be receiving the attention it sorely deserves and which is legally due it under the premise of the Public Trust Doctrine, the guiding principle which obligates government to protect and preserve US waterways "in trust" for public uses. Efforts at Northern Napa River restoration are just beginning. These include:

~ Recent litigation which has resulted in the bypassing of water from Calistoga's municipally-owned Ghisolfo Dam to Kimball Creek, the headwaters of the Napa River, for the first time since the dam's construction in 1939. This bypass is intended for the sole purpose of sustaining fisheries pursuant to California Fish & Game Code section 5937.

~ Agreement between Calistoga city managers and representives from Friends of the Napa River, Living Rivers Council, Napa Chapter of the Sierra Club, Napa County Resource Conservation District, and CF&WU on September 30, 2014, to support the modification and/or removal of a second municipally-owned dam and reservoir on Cyrus Creek, a tributary of the Northern Napa River. Feige Dam has been a barrier to migratory fisheries since its construction in 1885;

~ Joint efforts by the Napa County Flood Control, Napa County Resource Conservation District, California Department of Fish & Game, and City of Calistoga for the removal of a concrete footbridge on the Napa River in downtown Calistoga. The footbridge has been a barrier to migratory fisheries for many decades;

~ Receipt of a state grant in 2014 by the California Land Stewardship Institute to assess the condition of the Napa River from Bale Lane (approximately 4.1 miles south of Calistoga) to Lincoln Avenue (in downtown Calistoga) in an effort to plan for stream restoration, similarly to what has been done in Rutherford and Oakville. The Napa County Resource Conservation District will be acting as the sub-

contractor responsible for the fisheries assessment component of the plan, and notes that "improving and expanding habitat for steelhead trout and chinook salmon is a top priority in the Napa River watershed".

~ Recent adoption by the San Francisco Bay Regional Water Quality Control Board on November 12, 2014, of Cease and Desist Orders for the City of Calistoga for violations at its Dunaweal Wastewater Treatment Plant. The CDO includes a laundry list of demands to correct past violations, prevent additional emergency discharges of tertiary-treated wastewater to the Napa River, resolve seepage from the plant's unlined riverside effluent storage ponds to groundwater and the river environment, provide data on its "constituents of concern" (including boron, arsenic, copper, lead, thallium, zinc, and antimony), plan for future pollution prevention, and protect agricultural interests and authorized water users downstream. The close proximity of the Girard project to this problematic plant is especially concerning to CF&WU.

~ Continuing protest by the San Francisco Bay Regional Water Quality Control Board of plans for aggressive logging targeted on Calistoga's steep west side. Timber Harvest Plan 1-13-126 NAP, which requires the approval of multiple agencies to proceed, will decide the fate of the controversial Calistoga Hills Resort, located approximately 1.5 miles from the proposed Girard Winery project. The Regional Water Board is citing serious concerns with erosion, sedimentation, and adverse impacts to anadromous Salmonids (steelhead and salmon) in all freshwater life stages.

In light of these and other restoration efforts currently planned for the Northern Napa River, the extended drought conditions and climate changes associated with it, and four very ambitious projects approved and/or under construction in the City of Calistoga (the Indian Springs Resort, Silver Rose Resort, Calistoga Hills Resort, and the Calistoga Family Apartments low-income housing project), it is the opinion of CF&WU that now is not the time to be adding more stresses to the unique hydrogeology of the area, the greater Napa Valley groundwater basin, and the Napa River system, which is impaired and 303D-listed for sediments, nutrients, and pathogens, pursuant to the federal Clean Water Act. It is shortsighted to ignore consideration of city projects combined with those under county jurisdiction. All current and future projects that extract groundwater need to be assessed in order to fully assess undetermined cumulative effects created by this and future projects in order to assure that water resources are protected for future generations of Californians. As an example, the County must consider the fact that groundwater extraction from the Napa Valley groundwater basin is occuring within the municipalities of Calistoga, St. Helena, Napa, and American Canyon and are not regulated by the County. Like the human circulatory system, all water is interconnected, and water quantity and water quality go hand in hand: this is part of the larger California Basin Plan. Long-range, cumulative impacts to the Napa Valley groundwater basin, or to surface waters such as the Napa River and its tributaries must be considered in order to sustain a healthy, viable watershed. Much of this is law; some is simply common sense.

CF&WU has the following concerns with regard to Use Permit P14-00053 and the Girard Winery project as proposed, and urges further hydrogeologic analysis in order to better determine appropriate mitigations, if any.

Should further, detailed hydrogeologic analysis demonstrate that groundwater levels in the area are in decline, the Use Permit should not be approved, since the project has the potential to further deplete critical groundwater resources;

If further hydrogeologic analysis demonstrates the water table is in fact dropping as local sources report,

whether it is due to climatic conditions, the cumulative effects from the pumping of neighboring wells, or otherwise, the Use Permit should not be approved. Additional groundwater extraction from the Napa Valley groundwater basin has the potential to contribute to diminished stream flows and/or to dewater portions of the Napa River and/or its tributaries;

If further hydrogeologic analysis demonstrates that the additional extraction of groundwater has the potential to cause problematic pollutants of the Dunaweal Wastewater Treatment Plant to move towards the Napa River and/or its tributaries, the Use Permit should not be approved. The interaction between the Napa River, its underflow, and the groundwater system must be taken into consideration when determining whether groundwater pumping has the potential to cause or create adverse environmental impacts;

If further hydrogeologic analysis demonstrates the possibility that additional groundwater extraction in the area will drawdown the water table, especially in dry years, and has the potential to change the flow gradient for discharge to the Napa River and/or its tributaries, then the Use Permit should not be approved;

And should there be any evidence after further study(s) that threatened or protected Salmonid species in all freshwater life stages of the Napa River system will be adversely impacted or will result in juvenile mortality, and budding efforts at restoring what was once a viable fishery are undermined in the process, then the Permit should be unequivocally denied. It is the County's responsibility to ensure that no adverse impacts to protected species of the Napa River occur due to conditions such as dewatering, groundwater extraction, or otherwise, in order to protect the beneficial uses of the Napa River and to prevent future degradation.

… As late as 1963, the Napa River was reported by the California Department of Fish & Game as the "most important steelhead stream bordering San Francisco Bay". In fact, the Napa River and many streams in the county historically supported large numbers of steelhead trout, chinook salmon, and coho salmon. Unfortunately, their populations have declined sharply in the past several decades. Steelhead were listed as threatened in Napa County in 1997 under the federal Endangered Species Act and are under the authority of the US NOAA Fisheries agency; they are also protected by the State of California Endangered Species Act under the authority and management of the California Department of Fish and Game. A small chinook salmon run still exists in the Napa River, but is remains unclear whether they are wild fish or hatchery strays originating from the Sacramento or San Joaquin river systems. Coho salmon became extinct in the Napa River in the 1960's.

I am unaware of any grape varieties in the valley nearing extinction.

CF&WU urges denial of Use Permit P14-00053 and strongly recommends preparation of an EIR for the Girard Winery project.

Respectfully submitted,

Christina Baiocchi Aranguren
California Fisheries & Water Unlimited

Dated: January 16, 2015
bcc: Interested parties

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January 20, 2015

Via E-Mail

Commissioner Phillips and Members of the
Planning Commission
Napa County
1195 Third Street, Suite 210
Napa, CA 94559

Attn: David Morrison, Department Director
David.Morrison@countyofnapa.org

Re: Girard Winery Use Permit P14-00053 Initial Study/Proposed Negative Declaration.

Dear Commissioners:

On behalf of the Tofanelli family, we submit these comments on the Initial Study/proposed Negative Declaration ("IS") for the proposed Girard Winery Use Permit ("Project"). Substantial evidence shows that the Project could have a number of potentially significant impacts on the environment. Accordingly, and as a matter of law, the Planning Commission would be in violation of the California Environmental Quality Act, Pub. Res. Code § 21000 et seq. ("CEQA") if it adopts the proposed Negative Declaration and approves the Project without first requiring the preparation of an environmental impact report ("EIR").

As discussed below, the IS neither accurately identifies nor analyzes the extensive project-specific and cumulative environmental impacts that will accompany the Project. The document lacks the necessary evidentiary support that the Project will not adversely impact water supply, water quality, transportation, parking, noise, and visual resources. Furthermore, the mitigation measures the IS relies on are vague, deferred and unenforceable. In the absence of an enforceable and proven plan for mitigation for the extensive significant environmental impacts, there remains more than a fair argument that the Project will have significant environmental effects not analyzed nor acknowledged in the IS.

In addition to these CEQA deficiencies, the Project violates the Winery Definition Ordinance and significant provisions of the Napa County General Plan. Thus, approval of the Project would not just violate CEQA, but would also violate California Planning and Zoning Law, Gov't Code § 65000 et seq.

As an initial matter, we request that the Planning Commission delay consideration of this Project for a minimum of 30 days. The abbreviated public review period for a project of this magnitude, and with such potentially severe environmental consequences, is particularly troubling. As we explained in our December 15, 2014 letter to the Commission, the County released the IS on November 25, 2014, just two days before Thanksgiving with an initial public hearing date of December 17, 2014. The County granted a brief extension of the comment period –till January 21, 2014 -- but the extension included the holiday season when members of the public were otherwise occupied. In essence, therefore, the County is providing only 12 additional days since the end of the holiday season to complete our review, retain experts and prepare a letter for submission. Of critical importance, the Commission is being asked to consider approval of this Project, without having the opportunity to review the public comment on the IS.

This letter, along with the hydrologic report prepared by Tom Myers, Ph.D., (Exhibit 1), as well as a separate letter and/or oral testimony to be submitted by the Tofanelli family, constitute the Tofanelli family's comments on the IS.

I. The Project Violates CEQA and the Project's Potentially Significant Impacts Prohibit the County From Approving the Project Without First Preparing an EIR.

A. Legal Standard

It is well settled that CEQA establishes a "low threshold" for initial preparation of an EIR, especially in the face of conflicting assertions concerning the possible effects of a proposed project. Pocket Protectors v. City of Sacramento, 124 Cal. App. 4th 903, 928 (2005). CEQA provides that a lead agency may issue a negative declaration and avoid preparing an EIR only if "[t]here is no substantial evidence, in light of the whole record before the lead agency, that the Project may have a significant effect on the environment." CEQA § 21080(c)(1). A lead agency may adopt a negative declaration only when all potentially significant impacts of a project will be avoided or reduced to insignificance. Pub. Res. Code § 21080(c)(2); Guidelines § 15070(b).[1] A

[1] The CEQA Guidelines, 14 Cal. Code Regs. § 15000 *et seq.*, are referred to as "Guidelines."

negative declaration will also be set aside if its conclusions are not based on substantial evidence in the record. *Sundstrom v. County of Mendocino*, 202 Cal.App.3d 296, 311 (1988).

An initial study must provide the factual and analytic basis for an agency's determination that no significant impact will result from the project. Guidelines § 15063(d)(3). An agency must prepare an EIR whenever it is presented with a "fair argument" that a project may have a significant effect on the environment, even if there is also substantial evidence to indicate that the impact is not significant. *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68, 75 (1974); Guidelines § 15064(f)(1). Where there are conflicting opinions regarding the significance of an impact, the agency must treat the impact as significant and prepare an EIR. Guidelines § 15064(f)(1); *Stanislaus Audubon Soc'y v. County of Stanislaus*, 33 Cal. App. 4th 144, 150-51 (1995).

Further, where the agency fails to study an entire area of environmental impacts, deficiencies in the record "enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Sundstrom v. County of Mendocino*, 202 Cal.App.3d 296, 311 (1988). In marginal cases, where it is not clear whether there is substantial evidence that a project may have a significant impact and there is a disagreement among experts over the significance of the effect on the environment, the agency "shall treat the effect as significant" and prepare an EIR. Guidelines § 15064(g); City of Carmel-By-The-Sea v. Board of Supervisors, 183 Cal.App.3d 229, 245 (1986). Given this standard, an EIR is required for this Project.[2] As discussed below, there is a fair argument that the proposed Project will have potentially significant environmental impacts.

B. The IS's Hydrology and Water Quality Analysis is Inadequate, and There is a Fair Argument That These Impacts Are Potentially Significant.

1. Water Supply Impacts

The IS asserts that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with shallow depth to water. IS at 13. It then asserts that "because the water demand for the Clos Pegase Winery and the Girald Winery is below the minimum threshold for water use, the Project would not substantially deplete

[2] Although it is our unwavering legal opinion that the County must prepare an EIR for this Project, if the County decides to rely on the IS, but modify the Project or adopt additional mitigation measures, it must, at the very least, recirculate the IS for further public review and comment. Guidelines § 15073.5.

groundwater supplies or interfere substantially with groundwater recharge. *Id.* at 13. As the Myers Report explains, the IS is wrong on both counts. Groundwater pumping for the Project may exceed the rate that groundwater is replenished because the IS appears to substantially overstate groundwater recharge. This pumping would cause depletion of the groundwater table and water to be drawn from the Napa River. In addition, the well proposed to be used for the Project may cause sufficient drawdown which would adversely affect neighboring wells.

(a) There is No Evidence that Napa Valley Has Stable Long Term Water Supply Trends.

According to Tom Myers, hydrographs for a nearby Project well (8N/6W-06L4) show declining groundwater levels commencing in about 2007. Myers Report at 2. In addition, at least four of eleven well hydrographs in the Calistoga area show downward trends in groundwater elevation. *Id.* at 3. Inasmuch as the drought has effectively continued since 2007, the groundwater level may have continued to decrease. *Id.* As Myers explains, in the absence of a detailed hydrogeologic study, there is insufficient support for the IS's determination that Napa Valley has stable long term water supply trends.

(b) Pumping For the Project Could Unacceptably Lower Groundwater Levels Because There is Not as Much Recharge in the Area as the County Assumes.

The Myers' report demonstrates that recharge for the area is likely overestimated. Myers Report pgs. 2 through 9. Consequently, it is possible that the County's water use criteria of 1.0 acre foot per acre per year ("af/y") is too high and that pumping at that rate, or even at a fraction of that rate, will draw down the groundwater table. Drawdown occurs when the pumping rate exceeds the rate recharge is replenishing the water table. Drawdown will also eventually change the flow gradient for discharge to the Napa River and pumping will affect the river. *Id.*

Myers' Report goes on to explain that the well proposed to be used for the Project may also cause sufficient drawdown, thereby potentially affecting neighboring wells. The Project applicant reports that the well that will provide water for the Project, currently serving the Clos Pegase Winery, has a yield of 23 gallons per minute (gpm) but has been fitted with a pump that will provide 18 gpm, or 9,460,800 gallons per year if

operated full time[3], which is 29 af/y. Myers examined the log for this well and determined it is doubtful that this well could actually pump at 18 gpm and yield 29 af/y without going dry. Myers Report at 7,8. "The drawdown shown on the well log, if maintained for a significant period, would likely cause substantial drawdown of neighboring wells." *Id.*

C. Water Quality Impacts

In addition to depleting groundwater levels, the pumping associated with the Project could cause boron and arsenic plumes to expand through the area. According to the Myers Report, very high concentrations of each contaminant exist northwest of the Project site area and along the base of the mountains south of the site. Myers Report at 9 through 11. Pumping groundwater for the Project, especially if it causes substantial drawdown due to too little recharge, could create a drawdown which pulls contaminants toward the Project.

Most boron is due to relatively shallow geothermal water being drawn into the alluvial aquifers. Myers Report at 9. Just northwest of the Project site, the boron concentrations are quite high, as much as 14,000 ug/l, or almost five times the health advisory level of 3 mg/l. Arsenic concentrations range from 40 to 85 ug/l in the same area which are four to eight and a half times the maximum contaminant level. *Id.* One arsenic observation just south of the project site is 75 ug/l. Groundwater water quality in the Project area also shows that chloride, specific conductance, nitrate and total dissolved solids also occasionally exceed standards in the Calistoga area. *Id.*

Cumulative pumping in the Calistoga area controls the flow directions in the area. Additional pumping downgradient of the high concentrations, in what appears to be both an arsenic and boron plume, will draw the contaminants further into Calistoga and beyond to the southeast. *Id.* Additionally, pumping in surface aquifers which increases the gradient from depth to more shallow aquifers may draw boron or metals from geothermal water into shallow waters, thereby increasing the boron concentration.

Ample evidence exists that the Project could deplete groundwater supplies and contaminate groundwater in the Project vicinity. The County must thoroughly analyze these significant impacts in an EIR and identify mitigation measures capable of minimizing these impacts.

---

[3] Letter from Robert Osborn, Ben Monroe, Always Engineering, to Stacey Harrington, Napa County Planning, Building and Environmental Services, Project: Girard Wintery – New Winery and Tasting Room Use Permit. February 21, 2014. P 2.

D. The IS's Transportation Analysis is Inadequate, and There is a Fair Argument that the Project May Have Significant Transportation Impacts.

The IS concedes that the Project will have significant impacts relating to the Project's increase in traffic. IS at 20. However, as discussed below, the document fails to adequately identify or analyze these impacts and fails to propose feasible mitigation. Consequently, the IS lacks the evidentiary support to conclude that these impacts would be mitigated to less than significant levels.

First, the IS's traffic analysis fails from its inception because it contains an inadequate study area for determining the Project's traffic impacts as it includes only two intersections -- Silverado Trail/Dunaweal Lane and SR 29/Dunaweal Lane. *Id.* at 20. By focusing only on these two intersections, the IS ignores the Project's contribution to traffic congestion north and south of Dunaweal Lane on both Silverado Trail and SR 29. Visitors to the proposed winery would, of course, not stop at these two intersections but would travel well beyond these points – north to Calistoga or south to Marin, San Francisco or Oakland.[4]

An analysis of other intersections and roadway segments along SR 29 and Silverado Trail is critical because these roadways are projected to operate at LOS F and LOS C, respectively, in 2030. *Id.* at 20. There is no doubt that traffic from the Project will contribute to these deficient service levels. Consequently, the County must evaluate the specific effect the Project's traffic will have along roadway segments and intersections north and south of Dunaweal on Silverado Trail and SR 29 and identify feasible mitigation for these impacts.

Second, the IS does not establish proper thresholds of significance for determining whether traffic from the Project will result in significant impacts on the two intersections it does analyze. The document merely recites the CEQA Appendix G checklist, which, among other things, requires the County to determine whether added traffic is "substantial in relation to the existing traffic load or capacity of the street system." IS at 19. But the IS never offers a specific numerical threshold to determine whether the new traffic from the site will be "substantial." CEQA recognizes that "the significance of an activity may vary with the setting." Guidelines § 15064(b). Without establishing how many new daily trips would constitute a significant traffic impact, it is

[4] The County's General Plan also requires impacts at unsignalized intersections (like those surrounding the Project site) to be evaluated on a case-by-case basis. General Plan at CIR-16.

impossible for the public and County decision makers to evaluate the Project's traffic impact.

Third, notwithstanding the IS's failure to identify proper thresholds of significance, the IS does acknowledge that the Project would contribute to significant impacts at the two intersections it analyzes. Under future (2030) traffic conditions, 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 in the P.M. peak hour. *Id.* at 20. Unfortunately, the IS relies on vague and unenforceable mitigation measures to conclude the Project's impacts would be reduced to a less than significant level. *Id.*

The IS asserts that these impacts could be mitigated merely by altering employee shifts and the finish times of the nine scheduled events and by installing directional signs at the winery exit directing traffic to turn-right. The document concludes, absent evidence or analysis, that these measures would reduce the Project's traffic impacts to less than significant levels. *Id.* at 20. Yet these measures would be ineffective for numerous reasons. First, by focusing on traffic during the winery's nine marketing events, it does nothing to ensure that the Project's traffic will not impact area intersections and roadways on routine days of winery operation, i.e., the remaining 356 days of operation. Second, the provision calling for the winery to shift finish times during the winery's numerous events is vague and unenforceable. It does not describe how the winery will ensure that all traffic leaves the winery by 4:00 P.M. Indeed such an assertion is nonsensical inasmuch as the hours of operation and visitation extend until 6:00 P.M. daily. Finally, while the installation of directional signs may result in certain visitor's following these directions, unless the traffic is monitored and enforced, visitors will travel in the direction they find most convenient.

Fourth, the IS addresses only average trip generation and ignores the effect that traffic from the winery's events would have on nearby roadways and intersections. Nine marketing events per year are proposed: four with maximum 75 guests; four events with a maximum 200 guests and one harvest event with a maximum 500 guests. *Id.* While the winery would generate 74 weekday trips on an average day, it would generate a substantially greater number of trips during the winery's nine marketing events and during the crush. In fact, according to the IS's traffic study, the harvest event is projected to generate 437 daily trips. Traffic Study at 15. Furthermore, it is not clear if this figure includes the 242 daily truck trips associated with the crush days. *Id.* While we understand that these events would not occur on a daily basis, the IS may not simply ignore the severe traffic congestion that will accompany these events. Moreover, inasmuch as all of the wineries harvest during the same week or two, the cumulative effect of harvest truck trips and harvest events must be taken into account.

It is also critical to note that the Clos Pegase Winery routinely holds weddings despite the fact that such events are explicitly prohibited. Inasmuch as the proposed Project would be operated by the owner of Clos Pegase, the IS must acknowledge the potential for weddings at the Girard Winery and analyze the associated traffic impacts. Alternatively, the County must prohibit weddings as a condition of approval.

Finally, the IS fails entirely to examine the cumulative transportation impacts that will result from the Project and planned or recently approved projects in the County. Notably, the Yountville Hill Winery's September 2013 traffic study identifies 12 planned or approved new wineries or winery expansions that could have cumulatively significant traffic impacts. *See* Yountville Hill Winery's September 2013 Traffic Study, attached as Exhibit 2. But even the Yountville Winery traffic study does not include all of the new or modified wineries. In fact, the County has approved at least 19 new wineries or significant modifications to existing permits since the applicant released its traffic study last September. *See* List of Winery Projects, attached as Exhibit 3. The Girard Winery IS's failure to take into account traffic from any of these winery projects, let alone other planned land use development, is a fatal flaw. The County must properly analyze the Project-specific and cumulative traffic impacts. The appropriate forum for such an analysis is in an EIR.

E. The IS Fails to Adequately Consider Parking-related Impacts From the Project, and There is a Fair Argument That These Impacts Will Be Significant.

The IS ignores aspects of the Project that could worsen parking in the area. For instance, the proposed winery will only contain 22 parking spaces to accommodate 90 visitors and 25 employees per day, an unspecified number of trucks delivering grapes and to be used for bottling purposes, and even marketing events of up to 500 people. IS at 1, 20. The IS never considers whether this amount of parking is adequate to accommodate the maximum number of daily visitors, staff, and trucks serving the winery. Instead, it simply asserts that additional parking at the rear of the winery is available or visitors can be shuttled from off-site lots. *Id.* at 20.

The IS fails as an informational document because it does not identify how many extra vehicles the paved area at the rear of the winery could hold, or whether emergency vehicles will have adequate access with vehicles parked throughout the property. Even if the winery would have extra parking space, the County must condition the approval of the Project or adopt a mitigation measure requiring the applicant to use such space for overflow parking. *See* Guidelines § 15126.4(a) ("Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding

instruments"). The IS must fully analyze the parking issue to adequately inform the public about this potential environmental impact. *Taxpayers for Accountable School Bond Spending v. San Diego Unified School District* 215 Cal.App.4th 1013, 1052-54 (2013).

The IS errs further because it does not identify or analyze the transportation – or other environmental impacts – that would result from these shuttle bus operations. For example, it does not identify the location or size of the off-site parking lot, the number of shuttle buses that would be in operation, or the effect that motorists and buses accessing this parking lot would have on roadway operations. The IS's failure to identify and analyze these impacts is a fatal flaw.

Finally for reasons relating to overflow parking and other nuisances (e.g., noise, litter, vandalism) from visitors to the winery, it is imperative that a secure fence or wall be constructed between the winery and the Tofanelli family property. Such a fence or wall must be included as a condition of approval.

F. The IS's Noise and Air Quality Analyses Are Inadequate, and There is a Fair Argument That These Impacts Would Be Significant.

A particularly glaring inadequacy of the IS is its analysis of and mitigation for the Project's noise impacts. Although construction and operation of the Project is all but certain to result in a significant increase in noise levels, the IS makes no attempt to quantify these impacts. Instead it provides a generic overview, simply stating the obvious: that noise could create additional impacts and that these impacts would be less than significant. IS at 16,17. To conclude as the IS does that an impact is less than significant, the analysis must be supported with substantial evidence. Substantial evidence consists of "facts, a reasonable presumption predicated on fact, or expert opinion supported by fact," not "argument, speculation, unsubstantiated opinion or narrative." Pub. Res. Code § 21080(e)(1)-(2). Once again, the IS fails on many levels.

First, the IS provides no information as to the Project's environmental setting, other than to state that the nearest residences are located about 400 feet to the south. IS at 17. An environmental document "must include a description of the physical environmental conditions in the vicinity of the project." CEQA Guidelines § 15125(a). "Without a determination and description of the existing physical conditions on the property at the start of the environmental review process, [an environmental document] cannot provide a meaningful assessment of the environmental impacts of the proposed project." *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, 87 Cal.App.4th 99, 119 (2001). Moreover, as discussed above, the significance of an impact may vary with the setting. While increased noise levels may not be significant in an

urban area, they may be extraordinarily burdensome in a rural area. Due to the surrounding hills and knolls, the area acts as a natural amphitheater. Noise reverberates from hill to hill. Here, without any information on the area's acoustical setting, including an identification of existing ambient noise levels, an impacts analysis or proposed mitigation become meaningless.

Nor does the IS identify the standard or threshold of significance for determining a significant noise impact.[5] This is critical; without a significance threshold, there is no means by which to conclude whether impacts would or would not be significant. Since the requirement to provide mitigation is triggered by the identification of a significant impact, the IS's failure to identify all of the Project's significant impacts also results in a failure to mitigate these impacts.

Given the failure to describe the existing noise environment and to establish thresholds of significance, it comes as no surprise that the IS fails to identify the noise levels that would accompany construction of the Project. In fact, the document, never even attempts to predict noise levels during each phase of construction at nearby sensitive receivers. As the attached table shows, construction-related equipment and operations can be extraordinarily loud. A typical noise level for a jackhammer, for example, is upwards of 96 decibels, while loaders, backhoes and bulldozers can generate noise upwards of 85 decibels. *See* OSHA Construction-Related Noise levels, attached as Exhibit 4. The County must analyze how construction of the Project will impact noise levels in the vicinity.

Operational noise from the winery can also be quite intrusive. Noise from the winery's marketing events, in particular, such as vehicular traffic, truck traffic, buses and amplified sound could be particularly burdensome to the Project's neighbors, yet the IS provides no analysis of these impacts. Finally, as discussed above, unless weddings are prohibited as a condition of approval, the County is obligated to analyze the increase in noise from wedding-related activities.

The IS also errs in its analysis of air quality impacts because it fails to analyze the threat to neighboring farms from the dust that will accompany Project construction. Dust from Clos Pegase' vineyard operations is already harmful to the Tofanelli family's organic farms. The IS must evaluate the effect that the dust from the

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[5] The IS does refer to the Napa County Noise Ordinance, explaining that it sets a maximum permissible sound level for rural residences as 45 dB between the hours of 10 P.M. and 7 A.M. (at 17), but since the proposed Project will not normally be operating during those hours, this information is not relevant.

Project's construction and operation would have on nearby properties and identify mitigation to reduce these impacts to a less than significant level.

G. The IS's Visual Resources Analysis is Inadequate, and There is a Fair Argument That the Project May Have Significant Aesthetic Impacts.

The proposed Project will result in potentially significant visual impacts. Project construction and operation will require the installation of additional lighting. IS at 4. This light pollution will dramatically alter the visual character of the site and further erode dark skies in the area. Nevertheless, instead of grappling with these readily-apparent aesthetic impacts, the IS largely dismisses them. First, the IS fails to establish a proper baseline for lighting impacts, a flaw that is fatal to any purported analysis of light pollution impacts.

Even if it had established a proper baseline, the IS effectively concedes that light pollution from the Project could create significant impacts: "the installation of additional lighting may have the potential to impact nighttime views." IS at 4. The IS assumes that certain design features for outside lighting could reduce the significance of such impacts (*Id.*), but offers no analysis of how much these measures will reduce light and glare on the Project site. In fact, the IS cannot offer this analysis because the applicant has not even disclosed which types of outdoor lighting it will use or where it will be placed. *See* Conditions of Approval at 7, indicating that a lighting plan has yet to be prepared. This approach directly violates CEQA. An agency is required to fully evaluate potentially significant environmental impacts before it approves a project. *See Laurel Heights Improvement Assn. v. Regents of Univ. of Ca*l. 6 Cal.4th 1112, 1123 (1993).

The IS identifies measures intended to reduce light and glare such as the use of motion detectors and the low-level lighting. But the record contains no evidence that these measures will be adequate to reduce the site's light pollution to less-than-significant levels. Indeed, the IS does not even adopt a threshold of significance for making this determination, much less account for how much light pollution the building will generate with these lighting techniques. Moreover the use of these lighting techniques are voluntary and unenforceable since they include language such as "to the greatest extent practical." *Id.* Consequently, the IS provides no evidence that the light and glare from the Project would be reduced to a less than significant level.

In addition, the IS concludes that the Project would result in less than significant visual impacts because "the buildings will not obstruct the scenic distant hillsides." IS at 4. Here too, the document does not include any thresholds for

determining the significance of these impacts. Nor does it provide any photographs of the site or any photo simulations of how the Project would look superimposed on the landscape. Consequently, the IS provides no basis whatsoever for this less than significant conclusion. Had the IS included a proper analysis, it would have disclosed that the 35-foot building plus the 45-foot cupola will forever degrade one of the most beautiful parts of the downvalley scenic view. The County must provide a comprehensive analysis of these impacts. The appropriate forum for such an analysis is an EIR.

II. The Project is Inconsistent With the Winery Definition Ordinance and the County General Plan.

A. The Project Is Inconsistent with the Winery Definition Ordinance.

The Winery Definition Ordinance ("WDO") contains several statements of legislative intent directly relevant to this Project. These include a declaration that the ordinance must be interpreted to achieve the goal of protecting agriculture and open space use as the primary land use in the Agricultural Preserve, and to "prohibit" the use of agricultural land for non-agricultural purposes "except to the extent expressly permitted" by the General Plan and County ordinances. *See* WDO, § 6.

The Project is inconsistent with the WDO provisions that restrict the scope and maximum square footage of "accessory uses" such as "marketing of wine" and "tours and tastings." Specifically, all such accessory uses, "in their totality[,] must remain clearly incidental, related and subordinate to the primary operation of the winery as a production facility." *See*, e.g., NCC § 18.08.370; 18.16.030(G)(5); 18.08.020. In addition, the WDO places an absolute numerical cap of the square footage of structures that may be "used for accessory uses." *See* NCC 18.104.200 ("The maximum square footage of structures used for accessory uses that are related to a winery shall not exceed forty percent of the area of the production facility.").

In addition to the 3,800 square feet of accessory uses identified in the staff report, the Project also includes a 13,000 square foot outdoor garden and tasting area, as well as a 2,600 square foot covered veranda.[6] Together these uses constitute 67 percent

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[6] It is unclear how the County concludes that the Project's accessory uses comprise only 10.2 percent of the production area. The staff report states that the production area is 28,955 square feet. Other uses identified in the staff report do not meet the definition of production facilities in the WDO and should not be included in that area when determining the total percentage of the Project that is dedicated to accessory, tourist serving uses.

of the area of the production facility – far in excess of the 40 percent limit in the WDO. Both areas are clearly intended to serve visitors. The architect's drawing of the covered veranda depicts tables and chairs in the area and the applicant has designated the 13,000 square foot garden area as a tasting area under AB 2004. Accordingly, excluding them from the 40 percent calculation is inconsistent with NCC section 18.104.200. This exclusion is also inconsistent with the manner in which the Planning Commission calculated accessory use square footage in two recent actions concerning the B Cellars and Titus Vineyards projects. For both projects, the outdoor terraced spaces were counted as part of the percentage of the project used for accessory uses. The County should treat the present Project in the same manner.

Moreover, it is clear from the past activity of the Clos Pegase Winery that the Girard Winery will use these areas for tourist serving uses and other activities that are prohibited by the WDO. As discussed above, the Clos Pegase Winery (which also owns the Girard Winery) holds weddings at its facility throughout the year, even though weddings are not permitted under the WDO. NCC § 18.08.370 (social events are only permitted to the extent they are "directly" related to the education and development of potential customers and only as part of an approved marketing plan.) In adopting the WDO in 1990, the Board of Supervisors made an express factual finding that "[t]he interspersing of non-agricultural structures and activities throughout agricultural areas in excess of what already exists will result in significant increase in the problems and costs of maintaining vineyards and discourage continued use of the land for agricultural purposes." The Board acknowledged this same concern when it amended the WDO just four years ago, finding that the WDO had been successful in achieving its purposes, in part by "limiting commercial uses in agricultural areas by ensuring that wineries remain focused on the business of producing wines, and by ensuring that tours and tastings and marketing of wine play an accessory role."

In addition to violating the letter of the WDO, the Project contravenes the intent expressed in these findings by elevating nonagricultural uses over agricultural uses. The accessory, tourism-focused uses of the Project are not "clearly incidental, related and subordinate" to the Project's primary operation as a winery. Rather, these nonagricultural uses are the Project's core purpose.

Therefore, the Project cannot be approved unless it is modified to reduce the amount of accessory uses and the County expressly prohibits any weddings or social events that are not directly related to the education and development of customers at the facility.

B. The Project is Inconsistent with the County's General Plan.

Contrary to the IS's conclusions, the Project is not consistent with the Napa County General Plan. In particular, the Project is inconsistent with the Plan's Agricultural Preservation and Land Use provisions including but not limited to: Goals AG/LU-1, AG/LU-3, AG/LU-4, the Agricultural Resources ("AR") designation on the General Plan's Land Use Map, and Economic Development Policy E-1. The purpose of these goals and policies, and of the AR designation, is to preserve and promote the existing agricultural land uses on agriculturally designated lands and to support the economic viability of agriculture, including the necessary industries that support agriculture.

Although the IS provides almost no analysis, it appears that its finding that the Project is consistent with the General Plan is predicated on its determination that the Project's accessory uses comply with the WDO and "would allow for the continuation of agriculture as a dominant land use within the County." *Id.* at 15. As demonstrated above, however, the Project's visitor-serving uses do not comply with the WDO and do not qualify as permissible accessory uses. These uses are not necessary to support the economic vitality of agriculture and will, if anything, undermine the continued economic vitality of agriculture by allowing and encouraging excessive reliance on tourism.

Perhaps even more importantly, these uses are clearly inconsistent with the intent of the General Plan's Agricultural Resources designation. As County voters reaffirmed in approving Measure P in 2008, "agriculture is and should continue to be the predominant land use, where uses incompatible with agriculture should be precluded . . .". In short, the offices, tasting rooms, retail storage, catered food prep area, veranda and garden bar are commercial uses, not agricultural ones. Accordingly, they are inconsistent with the General Plan and may not lawfully be approved.

C. The Girard Parcel and The Clos Pegase Winery Parcel Should be Treated as a Single Parcel.

Finally, the County is not required to approve the Project in order to assure the owner an economic use of its property. The Girard parcel is part of a larger holding by the owner of the adjacent Clos Pegase winery, which relies on the Girard property to provide potable water and waste water disposal. Waste water is pumped from Clos Pegase under Dunaweal Road to the Girard Parcel, where it is treated. In addition, the well on the Girard parcel provides water to the Clos Pegase Winery. The well on the Clos Pegase winery is utilized only as back up irrigation water. As a result, the Girard parcel is inextricably linked to the Clos Pegase winery parcel. Indeed, the Clos Pegase winery could not operate without the water and waste disposal provided by the Girard

parcel. Where a "developer treats several legally distinct parcels as a single economic unit, together they may constitute the relevant parcel." *See Forest Props., Inc. v. United States,* 177 F.3d 1360, 1365 (Fed. Cir. 1999) (holding relevant parcel included 53 upland acres and 9 acres of lake bottom where tracts were acquired at different times but "economic reality" was that owner treated the property as single integrated project). Because the Girard parcel and the Clos Pegase parcel are under single ownership and operate as a single unit, the County is not required to approve any development on the Girard property, much less a proposal of the scope and intensity proposed here.

III. Conclusion

For the reasons set forth above, the Tofanelli family requests that the County defer action on the proposed Project until an EIR is prepared that fully complies with CEQA. As described above, there is substantial evidence to indicate that the proposed Project may have a number of significant environmental impacts. Under CEQA, the County must provide an adequate analysis of these adverse effects and include feasible measures to mitigate impacts.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Ellison Folk

Laurel L. Impett, AICP, Urban Planner

Exhibits:

Exhibit 1: Hydrologic Report prepared by Tom Myers, Hydrologic Consultant
Exhibit 2: Yountville Hill Winery's September 2013 Traffic Study
Exhibit 3: List of Winery Projects
Exhibit 4: OSHA Construction-Related Noise Levels

cc: Norma Tofanelli
Vince Tofanelli

647746.4

Exhibit 1

Exhibit 1

Tom Myers, Ph.D.
Hydrologic Consultant
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Reno, NV 89523
775-530-1483
tom_myers@charter.net

Technical Memorandum

Review of Girard Winery Use Permit P14-00053

January 20, 2015

Prepared for:

Laurel L. Impett, AICP, Urban Planner
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, CA 94102-4421

Summary

The proposed expansion of pumping for the Girard Winery project could possibly have two potentially significant impacts. First, the pumping could unacceptably lower the groundwater levels because there is not as much recharge in the area as the County assumes. This memorandum considers the river baseflow and suggests that existing recharge estimates may be too high. Pumping could also draw water from the river.

Second, the pumping could affect groundwater flow directions and cause boron and arsenic plumes to expand through a larger portion of the Calistoga area. There are very high concentrations of each contaminant northwest of the project site and along the base of the mountains south of the site. The project pumping, especially if it causes substantial drawdown due to too little recharge, could create a drawdown which pulls contaminants toward the project.

Because of these potentially significant impacts, the project should not be permitted until a much more detailed hydrogeologic study is completed. This would include the completion of a flow and transport model to assess the change in groundwater levels, flow paths, and the extent of the boron and arsenic plumes. If the project goes forward after such a study, the flow and transport model should be used to determine where monitoring is necessary to detect the movement of the plumes.

Introduction

This memorandum reviews the negative declaration for the Girard Winery Use Permit P14-00053 (hereinafter NegDec) and various supporting documents, county studies, and letters, as cited in the reference section or in a footnote. Specifically, this review is of section IX, Hydrology and Water Quality, questions b and f. The review considers whether the project will pump more water than is available, thereby causing a deficit in aquifer volume and the potential for the project to increase pollution in the area under question f.

My experience includes a Ph.D. and M.S. in Hydrology/Hydrogeology from the University of Nevada, Reno, and a B.S. in Civil Engineering from the University of Colorado. I have approximately 20 years of experience consulting and researching hydrogeology, including groundwater modeling and contaminant transport. My curriculum vitae is attached after the reference section.

The project area is on the Napa Valley Floor, Calistoga district (L&S 2013, 2011). Based on the location map, the project is very near a constriction on the valley floor about one mile downvalley from the town of Calistoga (southeast of town). Based on the topographic map, there is a bedrock high just downgradient from the project site. The geology map (L&S 2013) shows this outcrop to be Tst, or tuffs and sediments.

The following sections describe and review questions b and f in detail.

Question b

The statement in the NegDec (p 13) that "recent studies have found that groundwater levels in the Napa Valley Floor exhibit stable long-term trends with shallow depth to water" is incorrect. Figure 4-2 in L&S (2011) shows hydrographs for wells throughout Napa Valley; of relevance to this review is the hydrograph for well 8N/6W-06L4 (129) which shows declining groundwater levels commencing in about 2007 (this hydrograph is reproduced here as Figure 1). Considering that the drought has effectively continued since 2007 through the present, the water level may have continued to decrease. The County should have attempted to obtain a more complete data set for this well.

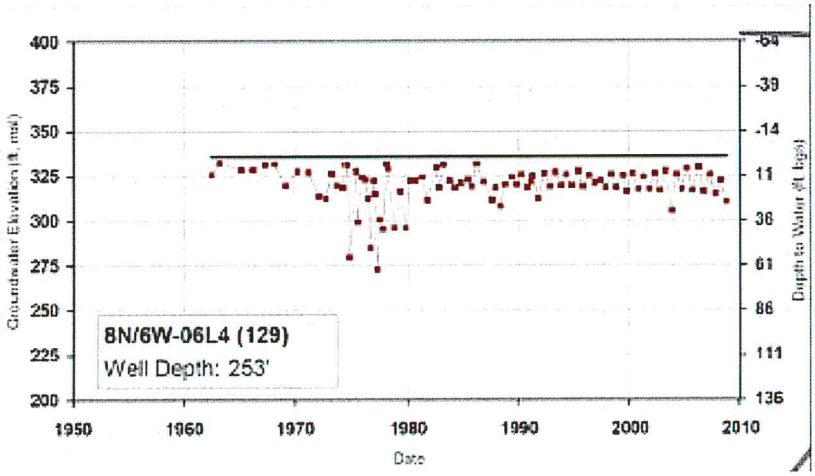

Figure 1: Snapshot of a hydrograph from Figure 4-2 from L&S (2011).

Also, at least four of eleven well hydrographs in the Calistoga area presented in the appendix of L&S (2011) show downward trends in groundwater elevation. In addition to the well cited above (NapaCounty-129), well 08N06W06LL04M decreased from more than 330 ft above mean sea level (AMSL) in the 1960s to near 320 ft amsl around 2008. Well NapaCounty-128 decreased from above 337 ft amsl in the 1960s to about 328 ft amsl in 2008. Well NapaCounty-127 decreased from about 378 in the 1960s to about 365 in 2008. Additionally, well 09N06W31Q001M appears to decrease but the elevations cannot be correct; the hydrograph shows groundwater elevations in the 100s of feet amsl in an area that the ground surface elevation exceeds 300 feet amsl and the depth to water is just two to twelve feet. Also, several well hydrographs have too short a period of record to analyze.

The water level maps in L&S (2011, Figures 4.8 and 4.9) are not sufficiently detailed to compare changes between the 1940s and 2008. Figures 7-1 and 7-2 in L&S (2013) should provide a comparison between 2008 and 2010 but in the Calistoga area appear to be based on different sets of wells so the contours in that area are not comparable.

Additionally, the statement that well levels "recover from dry periods during subsequent wet or normal periods" is not supported by the data shown in the well hydrographs. In fact, several of the wells showed a lack of recovery from the 1970s drought period. The additional statement that wells are "more affected by climatic conditions" is correct based on the seasonal changes shown on the graphs but there is no evidence that the long-term trends are based on climate, except for the drought in the 1970s, but rather based on pumping.

The NegDec also indicates the allotment for the project is 26.53 af/y, based on its area multiplied by the 1 af/y/acre "fair share water use factor" which is also called the allotment for a Napa Valley bottom acre. This allotment is compared with recharge in the area. The average

Frost, Melissa

Subject: Girard Winery, Use Permit P14-00035
Attachments: Girard Winery Use Permit.odt

From: McDowell, John
Sent: Tuesday, January 20, 2015 10:09 AM
To: Frost, Melissa; Balcher, Wyntress
Cc: Gallina, Charlene; Anderson, Laura
Subject: FW: Girard Winery, Use Permit P14-00035

Correspondence on Girard item for tomorrow's hearing.

From: California Fisheries & Water Unlimited [mailto:calfisheriesandwaterunlimited@gmail.com]
Sent: Monday, January 19, 2015 8:56 PM
To: McDowell, John
Subject: Girard Winery, Use Permit P14-00035

Mr. McDowell;

If you could please reply that you/Planning Commissioners have received the comments of CF&WU (attached), it would be much appreciated.

Thank you, Christina Aranguren

On Jan 16, 2015, at 11:18 AM, California Fisheries & Water Unlimited <calfisheriesandwaterunlimited@gmail.com> wrote:

Planning Commission Mtg.

JAN 21 2015

Agenda Item # 9A

Frost, Melissa

Subject: FW: Girard Winery

From: Bill Hocker [mailto:bill@wmhocker.org]
Sent: Tuesday, January 20, 2015 11:14 AM
To: Heather Phillips; napacommissioner@yahoo.com; tkscottco@aol.com; mattpope384@gmail.com; Wagenknecht, Brad; Luce, Mark; Dillon, Diane; Pedroza, Alfredo; Caldwell, Keith; Morrison, David; McDowell, John; Balcher, Wyntress; anne.cottrell@lucene.com
Subject: Girard Winery

Supervisors, Commissioners and Planners,

I know this will seem like I'm just wasting everyone's time, and I agree with Supervisor Dillon that the big picture issues aren't going to be resolved through individual projects, and I know that I have no standing in the Girard project. But since I learned last March of a project proposed in my backyard I lie awake at night, every night, thinking about these things. Writing these letters helps.

"Napa County is one of the smallest counties in California and within the County areas suitable for quality vineyards are limited and irreplaceable. Any project that directly or indirectly results in the removal of existing or potential vineyard land from use depletes the inventory of such land forever."
- From the 1990 WDO

I ask your indulgence for a moment to please take a look at the Girard vineyard on Google Maps by clicking here: https://maps.google.com/maps?q=1077+Dunaweal+Ln,+Calistoga,+CA&hnear=1077+Dunaweal+Ln,+Calistoga,+California+94515&t=h&z=16

GIven the propitious placement of the ponds, the vineyard is a perfect rectangle. It is almost an archetypal piece of agricultural land. But now imagine the Girard Winery, about the size of the Clos Pegase winery development area, located right in the middle of it.

Now zoom out a bit on the map and imagine a similar winery in the middle of every vineyard plot in the vicinity, including perhaps those nice rectangles on Larkmead Lane, another area of concern this week. Continue to mouse down through the entire length of the valley and imagine a winery on every empty vineyard you see. And then roam around the splotches of deforestation throughout the hills and imagine a similar winery on every splotch.

Is this the best way to protect agriculture? Is this what you want the Napa Valley to become?

The owner of the Girard vineyard has other properties already occupied by winery buildings, including the one across the street. Other developers are also coming before you seeking their 2nd or 3rd winery. Let them expand their existing wineries to increase capacity. I mean, what reason is there to build a winery other than to provide winemaking capacity? It would be a much more efficient use of the limited and irreplaceable land than the development of new facilities on undeveloped land. Please, begin here and let this plot, and all other plots in the county that have yet to be compromised by development, remain devoted purely to agriculture (in its pre-

WDO definition) . If the intentions that led to the creation of the ag preserve cannot protect this virgin field from development then the ag preserve is meaningless.

Bill Hocker

sodacanyonroad.org

January 19, 2015

TO: Ben Monroe, PE, Always Engineering, Inc.

FROM: Jeremy Kobor, MS
O'Connor Environmental, Inc.

SUBJECT: Review of Girard Winery Phase I Water Availability Analysis, Public Water System Feasibility Study, and Water Supply Permit Amendment

Introduction

This memorandum summarizes the findings from the review of three documents related to the pending Girard Winery Use Permit application process. The documents reviewed include the following: a Phase I Water Availability Analysis completed by Always Engineering dated November 26, 2014, a Water System Feasibility Study for the Girard Winery completed by Always Engineering dated February 21, 2014, and an Amended Water System Technical Report for Clos Pegase Winery completed by Acme Engineering dated May 2009. In addition to commenting on the existing documentation, some additional perspective regarding the proposed water use relative to water availability and potential impacts to neighboring properties is also provided.

Summary of Findings

The different documents make different assumptions regarding the source of irrigation water and the Winery Water Use values. Despite these varied assumptions, even when the most conservative (highest water use) assumptions/values are used, the total proposed use for the Girard Winery is still below the 26.53 ac-ft/yr Allowable Water Allotment. Similarly, even using the most conservative water use values, the stated well capacity is sufficient to meet both peak and total annual demands under the proposed combined use by the Clos Pegase and Girard wineries.

It is my understanding that concerns have been raised that the proposed increase in production from the existing well could interfere with water availability on neighboring dry-farmed vineyards. Review of the driller's log for the project well reveals that the upper 90-ft contain primarily clay and that the well produces water over a screened interval of 80 to 220-ft below ground surface. The static water level at the time of well completion was 25-ft below ground surface. Given the presence of a thick clay layer(s) between the land surface and the zone of well production, and the separation between the water table and the land surface it is highly unlikely that groundwater production from this well would impact soil moisture conditions in the surrounding area.

Frost, Melissa

Subject: FW: Girard-Review of well information
Attachments: GirardWaterAvailability-Revised1-19-3.pdf

From: Heather McCollister [mailto:bhmccolli@sbcglobal.net]
Sent: Monday, January 19, 2015 5:42 PM
To: Balcher, Wyntress; McDowell, John; Gallina, Charlene
Cc: Pat Roney; Ben Monroe
Subject: Girard-Review of well information

Hi there,
Attached is a brief summary for independent review of our water availability/well data for Girard.

Thank you

Heather McCollister

Frost, Melissa

Subject: FW: Please forward to Planning Commissioners

Planning Commission Mtg.
JAN 21 2015
Agenda Item # 9A

From: Norma Tofanelli [mailto:keepnvap@sonic.net]
Sent: Tuesday, January 20, 2015 7:35 AM
To: McDowell, John
Cc: Morrison, David; Balcher, Wyntress; Pat Roney; Vince Tofanelli
Subject: Please forward to Planning Commissioners

Hi, John

Please forward the following apology to the Planning Commissioners - not all have contact info on the county planning web page.

The Tofanelli family apologizes for the late submission of data for the Girard hearing tomorrow.
Unfortunately, we are submitting most of our data later today. This does not allow you much time to read and absorb.
This unfortunate timing was mandated by the short continuance that you granted - over major holiday weeks.

Not only was the proposed Neg Dec issued just before Thanksgiving, the period of continuance from the original 12/17 hearing included several major holidays.
Christmas and New Year's fell in the middle of the week so that many offices were closed both weeks. and many professionals were on holiday.
In addition, yesterday was also a national holiday.
This timing allowed only about 2 weeks (from January 5 until today) to seek out and hire experts; proof and assemble final data and submit to you.
This was very difficult - most hydrologists require a minimum 45 days to prepare data. We were fortunate to find one who was familiar with Napa County and previous studies in the area. We just received his final proof.

We were able to meet with the project proponents and have agreement on conditions of approval for mutually agreeable fencing to prevent winery visitors from trespassing on neighbors' lands as well as dust control measures.

We hope that you understand and are able to study our submissions before the hearing tomorrow.

Thank you for understanding,
Norma Tofanelli

recharge for the Napa River near Calistoga watershed is 10,500 af/y (L&S 2013)[1], although this is based on the 1975 through 1983 period which includes very dry and very wet years (Figure 2). The recharge averages 19% of precipitation, but that should probably not be considered an annual value but only applied to the overall average. The gage is USGS gage #11455900 and the drainage area is 21.9 square miles. Distributing the entire recharge estimate of 10,500 af/y over the area above the gage yields an average recharge of 0.75 ft/y, which is less than the allotment. However, L&S (2013) notes that recharge varies by surface geology type; their Table 8-10 suggests that only 5867 acres or 42% of the total basin will accept recharge. If that is correct, the recharge is about 1.79 ft/y and the allotment value is conservative.

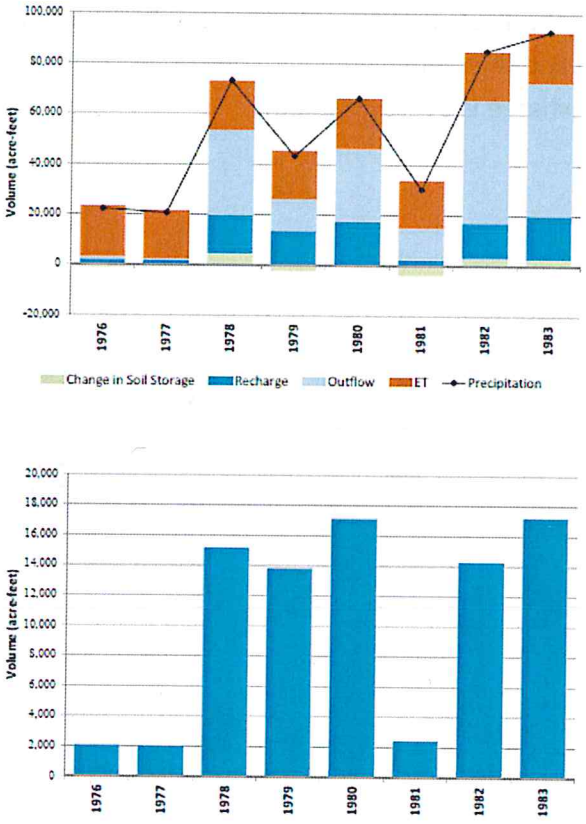

Figure 8-7. Annual Results for Napa River near Calistoga Watershed

Figure 2: Snapshot of Figure 8-7 from L&S (2013) showing the annual water balance (top) and recharge (bottom) for the Napa River near Calistoga watershed.

Recharge for the watershed above the Napa River at Calistoga gage may however be overestimated. The hydrograph for the gage is shown in Figure 3. Average flow is 32.5 cfs or

[1] Reviewing the development of this recharge value is beyond the scope of this review.

23,556 af/y, so the estimated recharge, 14 cfs, equals 44% of the average flow. Recharge is commonly considered to equal baseflow in a river, because groundwater discharge supports a river during baseflow (Cherkauer 2004, Scanlon et al. 2002). For much of the period of record the flow for months is below 0.1 cfs (Figure 3); when the flow is that low it is without doubt baseflow especially since these low flows primarily occur during summer and early fall when there has not been substantial rainfall for months. During 1977, the highest flow was 9.9 cfs (Figure 3) or lower than the estimated recharge for the basin. Observed streamflow is often below the recharge average which indicates that the watershed had dried substantially since the previous significant recharge period; the basin is draining and the gradient for flow entering the river is decreasing as is the discharge to the river. However, even during the driest year with a peak flow of 9.9 cfs, it is likely that some flow is runoff. In summary, because of the wide range in flows at this gage and that very high flows control the average and likely the calculated recharge, it is likely that recharge is overestimated.

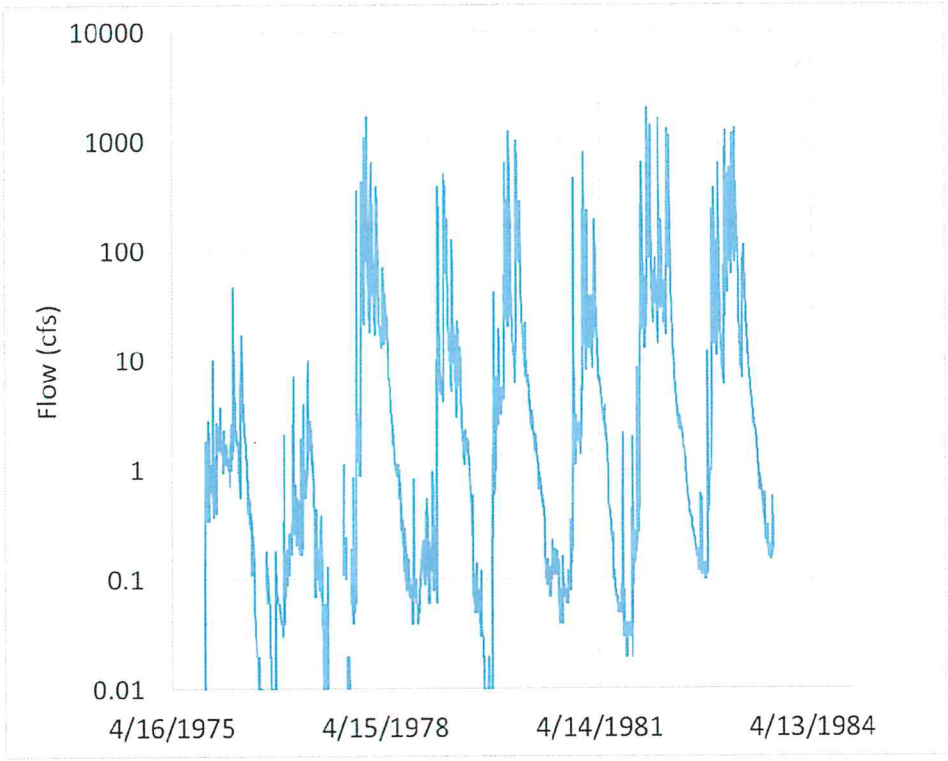

Figure 3: Hydrograph for Napa River at Calistoga gage # 11455900

Because recharge is likely overestimated, it is possible that the allotment of 1 af/y/acre is too high and that pumping at that rate, or even at a fraction of that rate, will draw down the groundwater table. Drawdown occurs when the pumping rate exceeds the rate recharge is replenishing the water table. Also, drawdown will eventually change the flow gradient for discharge to the Napa River and pumping will affect the river.

The groundwater level is above the thalweg[2] of the river through most of the Calistoga section of the valley based on measurements during spring 2010 (Figure 7-8 in L&S 2013). During spring, groundwater levels are at their seasonal highest and the groundwater is likely to discharge to the river. It is not possible to say with certainty that it does, however, because river water level is above the thalweg and the gradient for flow depends on the difference between groundwater and river water level. At times the river flow is very low, the water level would be only a few inches deep, so the approximation is that the locations on Figure 7-8 where the groundwater level exceeds the thalweg are likely locations where the groundwater discharges to the river. However, drawdown of wells, especially near the river, equaling just a few feet could reverse the flow. The effect of pumping on groundwater levels near the river is a cumulative effect based on all of the wells in the area, but it is certain that pumping this project will either prevent groundwater from discharging into the river or at worst will cause river water to enter the aquifer.

The applicant reports that the well that will provide water for the project, currently serving the Clos Pegase Winery, has a yield of 23 gallons per minute (gpm) but has been fitted with a pump that will provide 18 gpm, or 9,460,800 gallons per year if operated full time[3], which is 29 af/y. Presumably, this well is the log attached to the revised permit application[4]. This log shows the well to be 220 feet deep, screened from 80 to 220 feet, in clay or grey ash. It shows an air lift well test with 30 gpm discharge for 3 hours caused drawdown from 25 to 200 feet. This is a significant drawdown and there is no indication whether the well had reached an equilibrium after the three hours. Clay and grey ash do not likely have a high conductivity. Faye (1973) shows the alluvium has conductivity (K) from 30 to 50 ft/d and less than 100 feet thick. Faye's K value seems high based on the description provided on the well log.

There are too many unknown variables for detailed modeling of potential drawdown, but standard Theis computations (Fetter 2001) for a confined aquifer can be completed to consider the order of magnitude of potential drawdown. Treating the aquifer as confined is preferable based on the low conductivity clay in the upper part of the log. Figures 4 through 7 show drawdown with time for pumping 22, 18, 10, and 5 gpm at a radius of 1, 100, 1000, and 10,000 ft to demonstrate drawdown what could occur for continuous pumping. Radius equal to 1 approximates the drawdown at the pumping well and the analysis assumes the pumping is continuous. The transmissivity is 3000 ft^2/d, based on Faye (1973) and storage coefficient of

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[2] The thalweg is the lowest point of a river's cross-section. A line drawn along this point is the plan of the thalweg and the elevation is the profilt.

[3] Letter from Robert Osborn, Ben Monroe, Always Engineering, to Stacey Harrington, Napa County Planning, Building and Environmental Services, Project: Girard Wintery – New Winery and Tasting Room Use Permit. February 21, 2014. P 2.

[4] Letter from Always Engineering, to John McDowell, Deputy Planning Direct, Project: Girard Winery Use Permit Application, Revised November 25, 2014.

0.0001. A sensitivity analysis of storage coefficient suggested that an increase to 0.0008 would decrease the drawdown by about 20 feet.

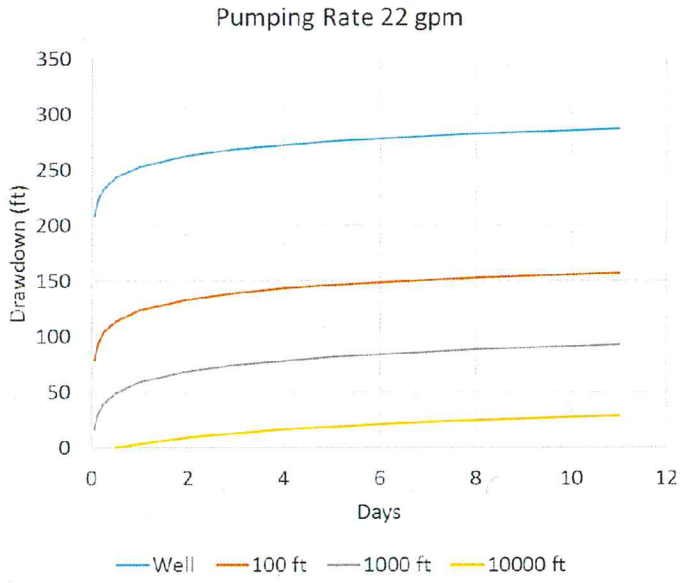

Figure 4: Drawdown for a well pumping 22 gpm in a confined aquifer for S=0.0001 and T=3000 ft2/d at specified radii.

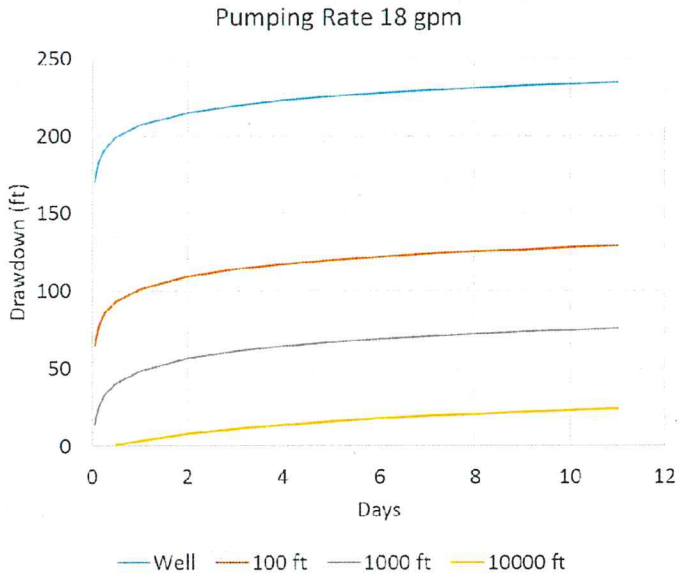

Figure 5: Drawdown for a well pumping 18 gpm in a confined aquifer for S=0.0001 and T=3000 ft2/d at specified radii.

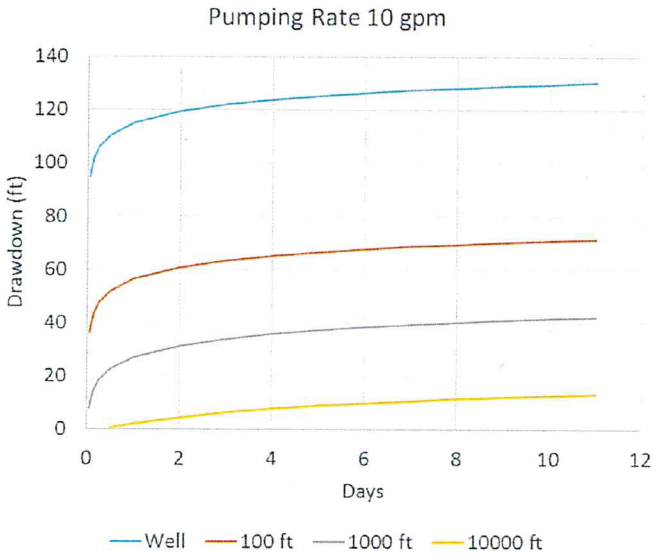

Figure 6: Drawdown for a well pumping 10 gpm in a confined aquifer for S=0.0001 and T=3000 ft2/d at specified radii.

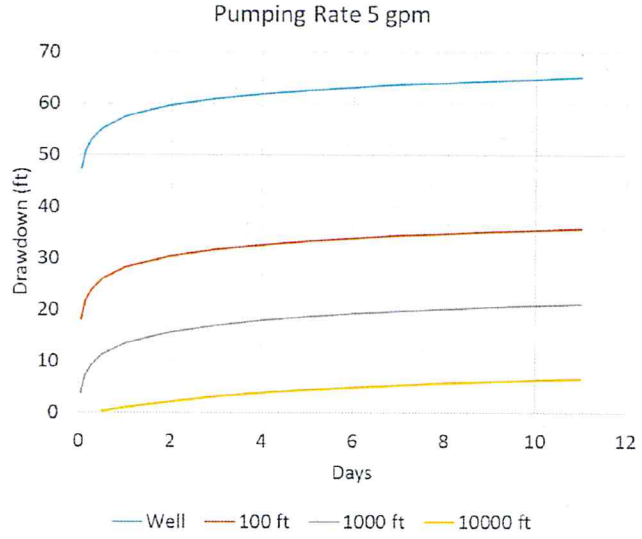

Figure 7: Drawdown for a well pumping 5 gpm in a confined aquifer for S=0.0001 and T=3000 ft2/d at specified radii.

It is doubtful that this well could actually pump at 18 gpm and yield 29 af/y without going dry. The drawdown shown on the well log, if maintained for a significant period, would likely cause substantial drawdown at the neighbors' wells. The results of this simplified analytical modeling are similar to those observed in the pump test; after three hours pumping at 22 gpm the simulated drawdown at the well was over 200 feet. This justifies the confined aquifer assumption.

Figures 4 and 5 indicate that drawdown at the well will exceed the distance from the water table to the bottom of the screen for pumping at 22 or 18 gpm. At 10 and 5 gpm, the drawdown at the well remains within the screen for the simulation period. Based on these simple hydraulic calculations, it does not appear that the well can pump at 22 or 18 gpm continuously without going dry. Also, at 22 gpm and 1000 and 10,000 feet, the drawdown would approach 100 feet and 25 feet (Figure 4) which would certainly affect nearby neighbors more than should be considered reasonable. Drawdown is progressively decreased as pumping rate decreases and the radius to the point of interest increases. However, even pumping at 10 and 5 gpm will impact neighboring wells; at 1000 and 10,000 feet from the well, the calculations suggest that pumping 10 gpm will cause drawdown to exceed 40 and 15 feet at 1000 and 10,000 feet, respectively, and for pumping 5 gpm, drawdown could exceed 20 and 8 feet at 1000 and 10,000 feet, respectively. Pumping from the proposed well for long-term periods at rates projected for the combined projects will cause significant drawdown at neighboring wells up to at least 10,000 feet away. The County should require a much more extensive pump test with monitoring of neighboring wells prior to granting this permit.

In summary, the NegDec's conclusion that the project will have "less than significant impact" is wrong because the pumping may exceed the rate that groundwater is replenished, based on the potential that recharge is less than the allotment. This would cause the groundwater table to be depleted and water to be drawn from the river. These impacts would be "potentially significant". The well proposed to be used may also cause sufficient drawdown to affect the neighbors' wells more than would be considered reasonable, which could also be a "potentially significant impact".

Question f

The NegDec declares the project will have a "less than significant" impact on water quality, but this is incorrect. The primary reason for this is that the project pumping will draw contaminated water from the northwest in the Calistoga area. The primary contamination is very high boron and arsenic concentrations, as seen on Figures 4 and 5, reproduced from L&S (2011). Most boron is due to relatively shallow geothermal water being drawn into the alluvial aquifers (L&S 2011, Faye 1973). The project site is at about the number 120 just southeast of Calistoga on Figure 4. The number 120 is a concentration in ug/l, which is much less than critical values for boron[5]. However, just northwest of the project site the boron concentrations are much higher, as much as 14,000 ug/l, or almost five times the health advisory level of 3 mg/l. Arsenic concentrations range from 40 to 85 ug/l in the same area which are four to eight

[5] Boron has no MCL, but there is a health advisory for 3 mg/l (http://water.epa.gov/action/advisories/drinking/upload/dwstandards2012.pdf) and California sets a "notification level" at 1000 ug/l (U&S 2011).

and a half times the MCL[6]. One arsenic observation just south of the project site is 75 ug/l. L&S (2011, Table 4-2) summarizes groundwater water quality showing that chloride, specific conductance, nitrate and total dissolved solids (TDS) also occasionally exceed standards in the Calistoga area.

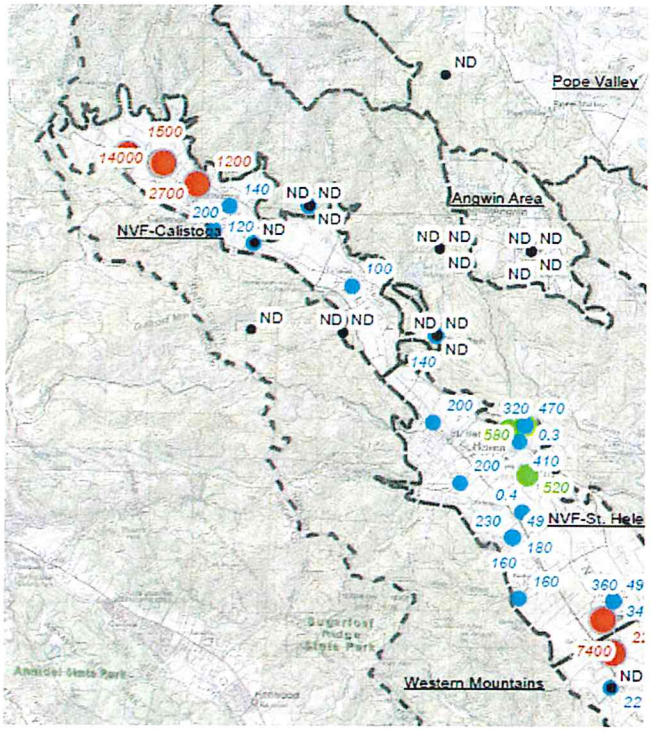

Figure 8: Snapshot of L&S (2011) Figure 4.19 showing groundwater boron concentrations in ug/l. The figure shows the northwest end of Napa Valley.

[6] The MCL for arsenic is 10 ug/l.

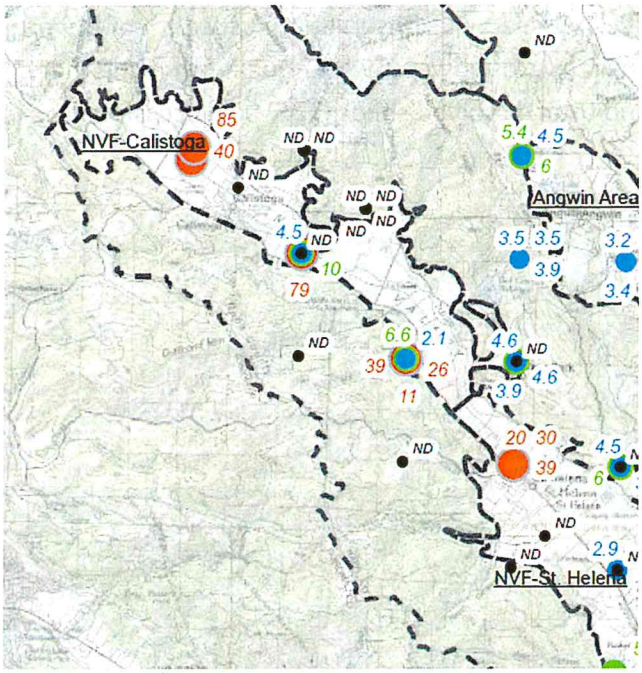

Figure 9: Snapshot of L&S (2011) Figure 4.18 showing groundwater arsenic concentrations in ug/l. The figure shows the northwest end of Napa Valley.

The higher concentrations all occur in or northwest of Calistoga or along the base of the mountains (L&S 2011). The reports do not discuss the cause of the higher values. Those of arsenic and boron are of the most significant concern.

Cumulative pumping in the Calistoga area controls the flow directions in the area. Additional pumping downgradient of the high concentrations, in what appears to be both an arsenic and boron plume, will draw the contaminants further into Calistoga and beyond to the southeast. Additionally, pumping in surface aquifers which increases the gradient from depth to more shallow aquifers may draw boron or metals from geothermal water into shallow waters, thereby increasing the boron concentration. Because of these potentials, the proposed pumping could increase the potential for water pollution to spread and cause a "potentially significant impact", contrary to the conclusion in the NegDec.

Conclusion and Recommendations

The proposed expansion of pumping for the Girard Winery could have two potentially significant impacts. First, the pumping could unacceptably lower the groundwater levels because there is not as much recharge in the area as the County assumes. This could also draw water from the river. Second, the pumping could affect groundwater flow directions and cause boron and arsenic plumes to expand through a larger portion of the Calistoga area.

Because of these potentially significant impacts, the project should not be permitted until a much more detailed hydrogeologic study is completed. This would include the completion of a flow and transport model to assess the change in groundwater levels, flow paths, and the extent of the boron and arsenic plumes. If the project goes forward after such a study, the flow and transport model should be used to determine where monitoring is necessary to detect the movement of the plumes.

References

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Tom Myers, Ph.D.
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Curriculum Vitae

Objective: To provide diverse research and consulting services to nonprofit, government, legal and industry clients focusing on hydrogeology specializing in mine dewatering, contaminant transport, natural gas development, groundwater modeling, NEPA analysis, federal and state regulatory review, and fluvial morphology.

Education

Years	Degree	University
1992-96	Ph.D. Hydrology/Hydrogeology	University of Nevada, Reno Dissertation: Stochastic Structure of Rangeland Streams
1990-92		University of Arizona, Tucson AZ Classes in pursuit of Ph.D. in Hydrology.
1988-90	M.S. Hydrology/Hydrogeology	University of Nevada, Reno Thesis: Stream Morphology, Stability and Habitat in Northern Nevada
1981-83		University of Colorado, Denver, CO Graduate level water resources engineering classes.
1977-81	B.S., Civil Engineering	University of Colorado, Boulder, CO

Professional Experience

Years	Position	Duties
1993-Pr.	Hydrologic Consultant	Completion of hydrogeology studies and testimony focusing on mine dewatering, groundwater modeling, natural gas development, contaminant transport, NEPA review, and water rights for nonprofit groups and government agencies.
1999-2004	Great Basin Mine Watch, Exec Director	Responsible for reviewing and commenting on mining projects with a focus on groundwater and surface water resources, preparing appeals and litigation, organizational development and personnel management.
1992-1997	Univ of NV, Reno, Res. Assoc.	Research on riparian area and watershed management including stream morphology, aquatic habitat, cattle grazing and low-flow and flood hydrology.
1990-1992	U of AZ, Res. and Teach. Assistant	Research on rainfall/runoff processes and climate models. Taught lab sections for sophomore level "Principles of Hydrology". Received 1992 Outstanding Graduate Teaching Assistant Award in the College of Engineering
1988-1990	U of NV, Reno Res. Asst	Research on aquatic habitat, stream morphology and livestock management.
1983-1988	US Bureau of Reclamation Hydraulic Eng.	Performed hydrology planning studies on topics including floodplains, water supply, flood control, salt balance, irrigation efficiencies, sediment transport, rainfall-runoff modeling and groundwater balances.

Peer-Reviewed Publications

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Myers, T. 2014. Technical Memorandum: Twin Metals and the Boundary Waters Canoe Area Wilderness, Risk Assessment for Underground Metals Mining. Prepared for Northeastern Minnesotans for Wilderness. August 8 2014

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Special Coursework

Years	Course	Sponsor
2011	Hydraulic Fracturing of the Marcellus Shale	National Groundwater Association
2008	Fractured Rock Analysis	MidWest Geoscience
2005	Groundwater Sampling Field Course	Nielson Environmental Field School
2004	Environmental Forensics	National Groundwater Association
2004 and -5	Groundwater and Environmental Law	National Groundwater Association

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Exhibit 2

Exhibit 2

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ENGINEERS · PLANNERS

September 19, 2013

Mr. Eric Sklar
CS2 Wines, LLC
P.O. Box 47
Oakville, CA 94562

Subject: ***Focused Traffic Analysis for the Proposed Yountville Hill Winery - Located at 7400 St. Helena Highway (SR-29) in Napa County***

Dear Mr. Sklar:

This report provides a focused traffic analysis for the proposed Yountville Hill Winery project located at 7400 St. Helena Highway in Napa County (see Figure 1 for Project Vicinity Map). This study reflects our discussions with County Planning staff regarding the project analysis approach and other adjacent approved/pending projects in the study area. In addition, the analysis will build on previous work conducted by George W. Nickelson, P.E. with regard to winery access to/from State Route 29 and driveway access. Some of the key issues evaluated in this study include the following:

- Existing and future weekday PM and weekend mid-day peak hour operations at the Yountville Hill Winery Project Driveway intersection with State Route 29;
- Near-term (Year 2015) traffic conditions reflecting other approved/pending projects in the study area;
- Project trip generation from proposed winery production, employment, and/or visitors;
- Project site circulation and vehicle access at State Route 29 project driveways and truck circulation;
- Cumulative year 2030 (no project) conditions along State Route 29 based on the Napa County General Plan Update EIR.

The following sections outline existing and future traffic conditions with and without the proposed Yountville Hill Winery project. Where necessary, measures have been recommended to ensure acceptable traffic flow, circulation, and/or fair share contribution to regional cumulative traffic improvements along State Route 29. I trust that this report responds to your needs. Please review this information and call me with any questions or comments.

Sincerely,

Peter J. Galloway

Peter J. Galloway, Transportation Planner
OMNI-MEANS, Ltd. Engineers & Planners

Cc: Mr. Lester Hardy, Attorney
Mr. George W. Nickelson, P.E.

Attachments: Appendices

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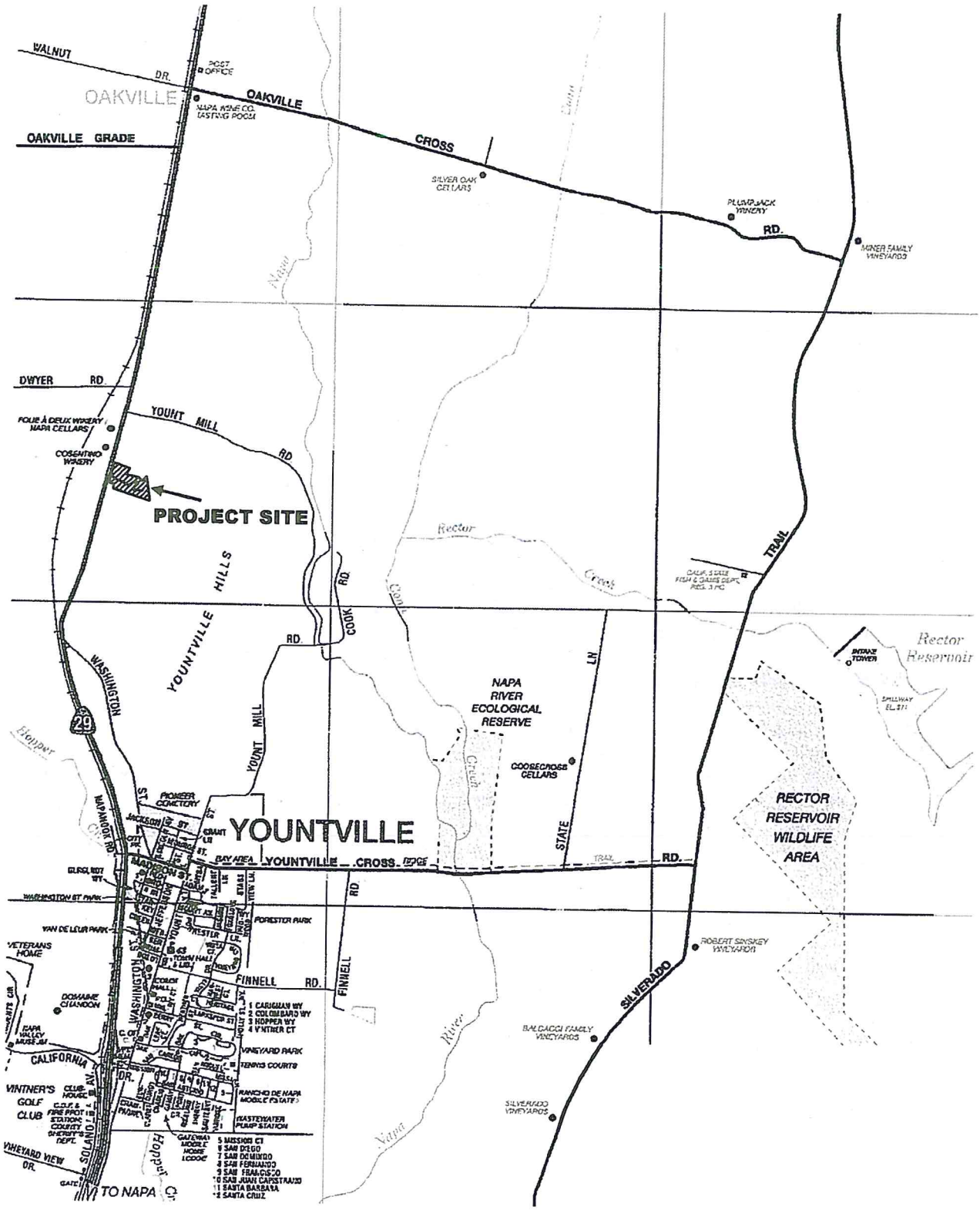

Project Vicinity Map

North

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figure 1

1. EXISTING TRAFFIC CONDITIONS

Roadways

The proposed Yountville Hill Winery project is located at 7400 State Route 29 (SR-29 or St. Helena Highway) on the northeast side of the highway. It is noted that SR-29 is primarily a north-south facility through the Napa Valley. However, SR-29 extends in a northwest-southeast direction immediately adjacent to the project site. A brief description of each roadway follows:

State Route 29 extends in a northwest-southeast direction between Yountville and Oakville in the project study area. Classified as a two-lane rural arterial roadway, SR-29 provides access northwest to Oakville, Rutherford, St. Helena, and Calistoga as well as southeast to Napa and American Canyon. In the immediate project site area SR-29 functions as a two-lane rural arterial road with two 12-foot travel lanes, a 12-foot two-way-left-turn-lane (TWLTL), and wide 8-10 foot shoulders (striped each side) at the project driveway intersection. The speed limit on SR-29 is 55 mph.

Yountville Hill Winery Driveway (existing configuration) extends east from SR-29 to provide access to the winery grounds and other parcels located in the project vicinity. The current driveway is paved with an 11-12 foot width and extends to an electronic access gate situated approximately 105 feet east of highway. Past the gate, the driveway continues east extending up a hill to an existing (former) Bed and Breakfast building. The driveway circles the building to create a one-way loop road that allows visitors to return via the same route. Prior to extending up the hill to the B&B building, a second driveway extends north approximately 360 feet to provide access to an existing residence.

Existing Roadway/Intersection Volumes

SR-29 acts as the primary north-south regional route through the Napa Valley and provides direct access to the project site. Based on the most recent Caltrans daily traffic counts conducted along SR-29 (south of Oakville Grade Road), SR-29 has a current annual average daily traffic volume of 22,800 vehicles.[1] During the peak month, the roadway carries 24,800 ADT. Based on Napa County roadway segment level-of-service (LOS) thresholds, these volumes are approaching the roadway capacity and represent LOS F conditions for a two-lane rural arterial roadway.[2] This would certainly be true of the peak month season (which typically occurs during the summer-fall season), and can result in southbound congestion approaching Yountville. As this heavy southbound flow approaches the traffic signal at Madison Avenue, vehicle queues can extend back towards the project area. Field observations made during peak weekday/weekend data collection at the SR-29/Project Driveway indicate relatively stable-flow conditions in both directions with occasional platoons/congestion in the southbound direction approaching Yountville.

As a part of this study, intersection turning movement counts were conducted on SR-29 at the proposed winery's access driveway during a weekday PM peak commute period (4-6 PM) and the Saturday afternoon peak period (1-3 PM).[3] (Winery visitor activity is expected to be highest during a Saturday afternoon). From these peak period counts, the "peak hour" of traffic flow was derived to calculate existing vehicle delay. These counts indicate a weekday PM peak hour flow of 1,755 vehicles and a Saturday afternoon peak hour

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[1] *Caltrans, 2012 Traffic Volumes Book, State Route 29 average annual daily traffic (AADT) and peak month average daily traffic (ADT).*
[2] *Napa County Baseline Data Report, Table 11-1; Napa County Roadway Segment Daily LOS Volume Thresholds, Transportation and Circulation, November 2005.*
[3] *Omni-Means Engineers & Planners, Weekday PM peak period (4:00-6:00 p.m.) and weekend mid-day peak period (1:00-3:00 p.m.) intersection turning movement counts, SR-29/Project Driveway, July 13 & 17, 2013.*

flow of 1,675 vehicles. The counted peak hour volumes are somewhat lower than the expected typical day peak hour flow based on Caltrans data. To simulate "typical" peak conditions as indicated by Caltrans data, the volumes counted as a part of this analysis were increased by 16.5% These volumes reflect a two-way SR 29 operation that would be categorized as in the Level of Service (LOS) "E" range. Based on Caltrans count data, the peak hour volumes would be about 9% of the daily total or about 2,050 peak hour vehicles on a typical day.

It is noted that construction for the undergrounding of utilities is occurring along segments of SR-29 northwest of the project site. Based on the Caltrans website, this construction work is currently taking place between Mee Lane and Sulphur Springs Road on SR-29 and can require lane closures, flagmen, and cause moderate to severe traffic delays. With the project site being located south of the construction area, overall vehicle flow on SR-29 was not significantly affected.

Existing weekday PM peak hour and weekend mid-day peak hour intersection volumes have been shown in Figure 2.

Project Driveway/Access Operations

At the Yountville Hill Winery site access intersection, SR-29 has two travel lanes, paved shoulders and a standard two-way-left-turn-lane (TWLTL). Just to the north of the project driveway, the TWLTL provides access to the Mustard's Grill restaurant driveway on the west side of SR-29. The distance between the north side of the project site driveway and the south side of the Mustard's Grill driveway is about 40-45 feet. Both driveways share the existing TWLTL on SR-29 that allows motorists to make left-turn movements into the driveways without interrupting through-traffic flow on the highway. This same TWLTL allows outbound motorists from the same driveways refuge on SR-29 when making a left-turn movement and merging into through-traffic. This is noted because all outbound traffic from both the proposed project driveway and Mustards Restaurant driveway must yield the right-of-way to any vehicle in the TWLTL.

The Yountville Hill Winery project site currently has a 4-room inn (not in operation) and an off-site residence that gains access via the site driveway. The existing residence traffic activity is very low. During this study's peak period counts, only two vehicle trips in/out of the driveway occurred during the weekday PM and weekend mid-day peak hour (representing the single family dwelling). However, to provide an existing baseline for analysis, trips that would be generated by a 4-room inn were calculated and added to the driveway.[4]

Existing Intersection Operation

Intersection operation is one of the primary factors in evaluating the carrying capacity of a roadway network. Traffic conditions are measured by Level of Service (LOS), which applies a letter ranking to successive levels of intersection performance. LOS 'A' represents optimum conditions with free-flow travel and no congestion. LOS 'F' represents severe congestion with long delays at the approaches. For intersections with minor street stop control, the LOS reflects the delays experienced by the minor street approach. (LOS definitions and calculation worksheets are provided in the Appendix).

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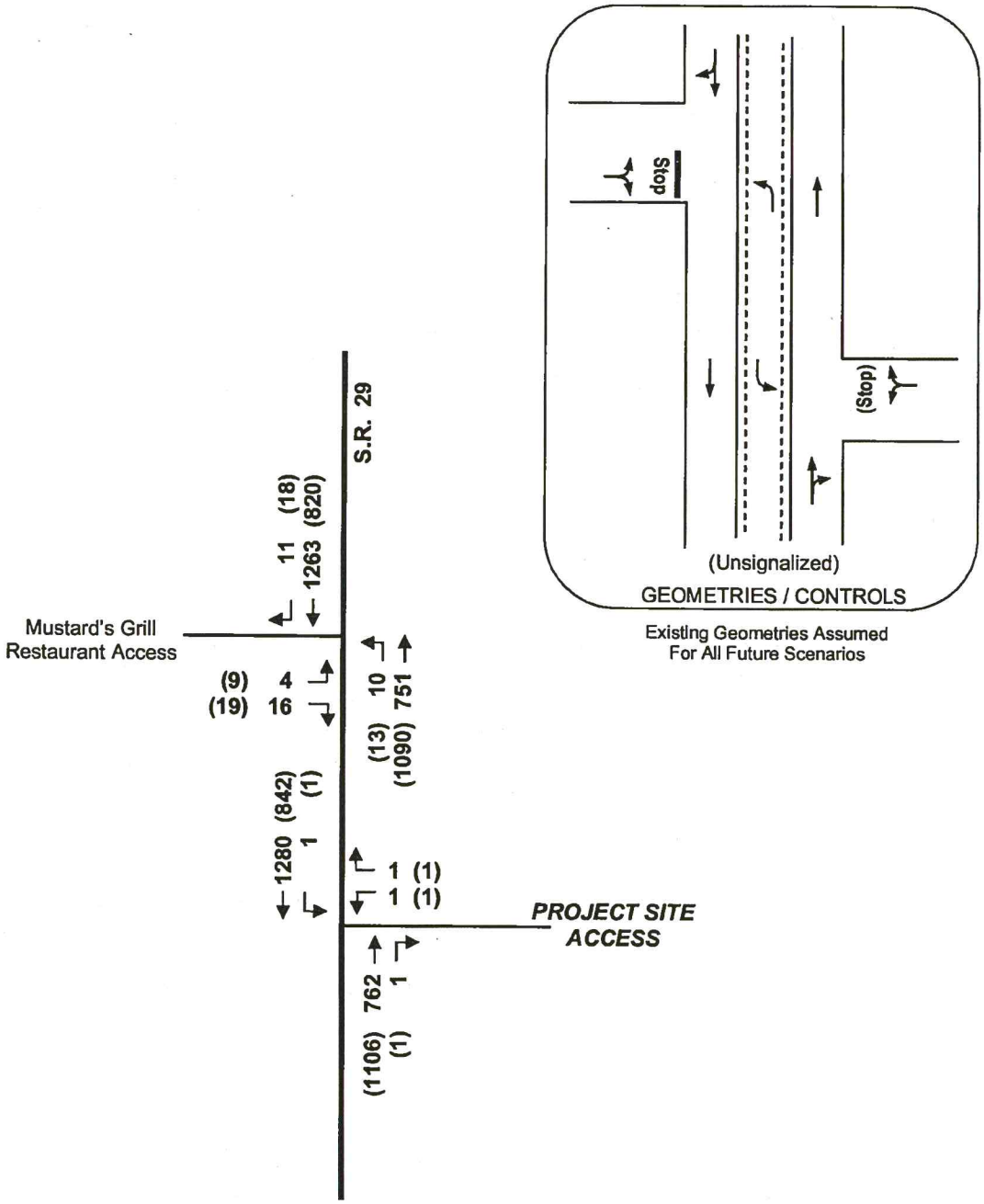
[4] *Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Resort Hotel (#330), Based on 0.37 trips/room (= 2 peak hour trips) during both weekday PM and weekend mid-day peak hour, 2012.*



NOT TO SCALE

Existing Weekday P.M. and (Weekend Mid-day)
Peak Hour Volumes

North

omni-means

figure 2

The project study intersection at SR-29 is an unsignalized, minor-street stop-sign controlled intersection. Based on the Highway Capacity Manual (*HCM 2010*) operations methodology for unsignalized intersections, existing weekday PM peak and weekend mid-day peak hour existing (no project) level-of-service has been shown in Table 1. As calculated, during the weekday PM peak hour the Yountville Hill Project Driveway/SR-29 intersection is operating at LOS C (17.9 seconds delay) for the stop-sign controlled outbound turning movements onto SR-29. During the weekend (Saturday) mid-day peak hour, the same outbound turning movements are operating at LOS C (19.8 seconds of delay).

TABLE 1
EXISTING AND NEAR-TERM (NO PROJECT) CONDITIONS: INTERSECTION LEVELS-OF-SERVICE WEEKDAY PM PEAK AND WEEKEND MID-DAY PEAK HOUR

			Wkdy. PM LOS/Delay		Wknd. Mid-Day LOS/Delay	
#	Intersection	Control Type	Existing (No Project)	Near-Term (No Project)	Existing (No Project)	Near-Term (No Project)
1	Yountville Hill Driveway/SR-29	Stop	C 17.9 secs.	C 19.7 secs.	C 19.8 secs.	C 22.0 secs.

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for stop-sign controlled (unsignalized) intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds. Stated LOS refers to the minor street (stop-sign) controlled movement.

Based on the California Manual on Uniform Traffic Control Devices (CAMUTCD) peak hour signal warrant criteria, the Yountville Hill Project Driveway/SR-29 intersection was evaluated for signalization.[5] The peak hour warrants are one of several standards to help determine if installation of a traffic signal is appropriate. Qualifying for signalization using the peak hour warrants does not necessarily mean a signal should be installed. The Yountville Hill Project Driveway/SR-29 intersection does not qualify for signalization under the peak hour warrants using existing volumes (the warrant graphs are provided in the Appendix).

Vehicle Speeds/Sight Distance

The primary issues for access design are the vehicle visibility and operation relative to vehicles traveling on SR 29 and vehicles turning in/out of the winery access. The required vehicle visibility or "corner sight distance" is a function of the travel speeds on SR-29. Caltrans design standards indicate that for appropriate corner sight distance, "a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the cross road and the driver of an approaching vehicle in the right lane of the main highway." [6] Based on radar surveys conducted as a part of this study, the "critical" vehicle speeds (85% of all surveyed vehicles travel at or below the critical speed) along SR-29 at the proposed project driveway were observed to be approximately 49-54 miles per hour (mph) during the weekday PM peak period and the Saturday afternoon peak period. Based on Caltrans design standards, these vehicle speeds require a sight distance of about 450-500 feet, measured along the travel lanes on SR-29. [7]

The proposed Yountville Hill winery project driveway intersection is located on a straight section of SR-29. Field observations indicate sight distances to the north and south are well in excess of the 500 feet needed for the measured vehicle speeds. However, there is an existing shrub/low tree situated on the north side of project driveway that blocks sight distance to the north. This shrub would have to be removed if/when project approval is granted.

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[5] *California Manual on Uniform Traffic Control Devices (CAMUTCD), Chapter 4C, Peak hour signal warrant (#3), 2012.*
[6] *Caltrans, Highway Design Manual, Sixth Edition, July 1, 20009.*
[7] *George W. Nickelson, P.E., Radar speed surveys on State Route 29 at Yountville Hill Winery driveway(s), October 30 and November 5, 2009.*

2. NEAR-TERM (NO PROJECT) CONDITIONS

Near-Term (Approved/Pending Projects)

Near-term (no project) conditions represent a reasonable period of time in which the proposed project could be approved and/or constructed. Based on discussions with County staff, a two-year period to the year 2015 has been established for near-term (no project) conditions representing all approved/pending projects within the study area. In addition, recent approved/pending projects within the Town of Yountville are included in the overall project list. To generate near-term (no project) conditions, approved and pending projects provided by both Napa County and Town of Yountville Planning staff for other recent traffic analyses in the area have been used.[8] [9] To the best of our knowledge, these approved/pending projects are either new wineries or existing wineries applying for use permit modifications to increase production, employees, visitors, and/or marketing events. These projects are located both north and south of the project site off of State Route 29, in the City of St. Helena, or east of the project site off northern crossroad(s) that connect SR-29 with Silverado Trail and are described as follows:

Town of Yountville

Stewart Mixed-Use 6572 Washington St. Yountville, CA 94599	Wine Tasting Rm.: 2,350 square feet Bookstore: 1,420 square feet Café: 690 square feet Apartment: One Bedroom

City of St. Helena:

Crocker & Starr Winery 700 Dowdell Lane St. Helena, CA 94574	Production: 25,000 gallons per year Visitors: 16 visitors/day Employees: 7 full-time, 3 part-time

Napa County:

Raymond Winery 849 Zinfandel Lane St. Helena, CA 94575	Production: 1,500,000 gallons per year Visitors: 500 visitors/day Employees: 90 full-time
Kelham Winery 360 Zinfandel Lane St. Helena, CA 94575	Production: 75,000 gallons per year Visitors: 140 visitors/week Employees: 6 full-time
The Ranch Winery 105 Zinfandel Lane St. Helena, CA 94575	Production: 12,500,000 gallons per year Visitors: 15 visitors/week Employees: 85 full-time
Del Dotto Family Winery 1455 St. Helena Hwy. St. Helena, CA 94575	Production: 48,000 gallons per year Visitors: 15 visitors/week Employees: 5 full-time

8 Mr. Greg Desmond, Interim Planning Director, City of St. Helena, Personal communication; Crocker & Starr Winery project, April 12, 2013.
9 Ms. Linda St. Clair, Planner III, Planning, Building, and Environmental Services Department, Personal communication, Yountville Hill Winery Use Permit Modification (dated 6-6-12), April 15, 2013.

Whitehall Lane Winery 1563 St. Helena Hwy. St. Helena, CA 94575	Production: 50,000 gallons Visitors: 500 visitors/week Employees: 5 full-time
The Sullivan Family Estate 1090 Galleron Road St. Helena, CA 94575	Production: 22,500 gallons per year Visitors: 7 visitors/week Employees: 4 full-time
Franciscan Winery 1178 Galleron Road St. Helena, CA 94575	Production: 1,200,000 gallons per year Visitors: 3,500 visitors/week Employees: 65 full-time
Flynnville Winery 1184 Maple Lane Calistoga, CA 94515	Production: 300,000 gallons per year Visitors: 500 visitors/day Employees: 30 full-time
Martini Winery 254 St. Helena Hwy. St. Helena, CA 94575	Production: 2,000,000 gallons per year Visitors: 1,400 visitors (+296 trade visitors)/week Employees: 54 full-time
Sinegal Estate Winery 2125 Inglewood Ave. St. Helena, CA 94575	Production: 60,000 gallons per year Visitors: 21 visitors/week Employees: 3 full-time

Near-Term (No Project) Trip Generation

Near-term (approved/pending) projects' weekday PM hour, weekend mid-day peak hour, and daily traffic volumes have been taken directly from previous transportation analyses performed for those projects and these include the following:

- *Omni-Means Engineers & Planners, Updated Traffic Study for the Proposed Raymond Winery Use Permit Application (#P11-00156), Napa County, Draft Report, April 5, 2013;*
- *Omni-Means Engineers & Planners, Focused Trip Generation Analysis for the Proposed Crocker & Starr Winery Project at 700 Dowdell Lane (APN 009-120-059), City of St. Helena, Draft Report, April 12, 2013;*
- *Omni-Means Engineers & Planners, Focused Traffic Analysis for the Proposed Flynnville Winery Project, Located at State Route 29/Maple Lane in Napa County, January 15, 2013:*
- *Omni-Means Engineers & Planners, Updated Focused Traffic Analysis for the Proposed Louis M. Martini Winery Master Plan—Located at 254 St. Helena Highway (SR-29) in St. Helena (Napa County), May 16, 2013.*

For all approved/pending winery projects, daily and peak hour trip generation was calculated using employee peaking factors, auto occupancy rates for visitors, and production ratios based on recent winery research conducted by the Napa County Conservation, Development, and Planning Department. For approved development in the Town of Yountville, peak hour trip generation was based on the Institute of Transportation Engineers (ITE) trip research for specialty retail and residential uses.[10] Near-term projects would generate 202 weekday PM peak hour trips and 206 mid-day weekend peak hour trips on

[10] Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Specialty Retail (#826) and Apartment (#210) uses, 2012.

SR-29 adjacent to the Yountville Hill Winery. On a daily basis, near-term projects would generate 845 ADT and 828 ADT on a weekday and weekend, respectively.

Near-term (no project) daily and peak hour volumes for the weekday and weekend have been added to existing intersection volumes on State Route 29 based on previous transportation analyses conducted in the area. Near-term (no project) volumes for weekday PM peak hour and weekend mid-day peak hour have been shown in Figure 3.

Near-Term (No Project) Intersection/Roadway Operation

With near-term (no project) volumes, study intersection LOS has been calculated and is shown in Table 1. During the weekday PM peak hour, the Yountville Hill Winery Driveway/SR-29 intersection would be operating at LOS C (19.7 seconds). LOS operation during the mid-day weekend peak would be similar at LOS C (22.0 seconds). Near-term (no project) intersection LOS would represent minor increases in vehicle delay for outbound traffic from the Yountville Hill winery driveway of 2-3 seconds (all referenced intersection LOS refers to the stop-sign controlled outbound turning movements from the project driveway).

Based on CAMUTCD peak hour signal warrant criteria (Warrant #3), the Yountville Hill Winery Driveway/SR-29 intersection would not qualify for signalization with near-term (no project) volumes.

AADT volumes on SR-29 would increase from 22,800 to 23,645 vehicle under near-term (no project) conditions. Based on Napa County roadway thresholds, this would continue to represent LOS F conditions as under existing conditions.

3. NAPA COUNTY SIGNIFICANCE CRITERIA

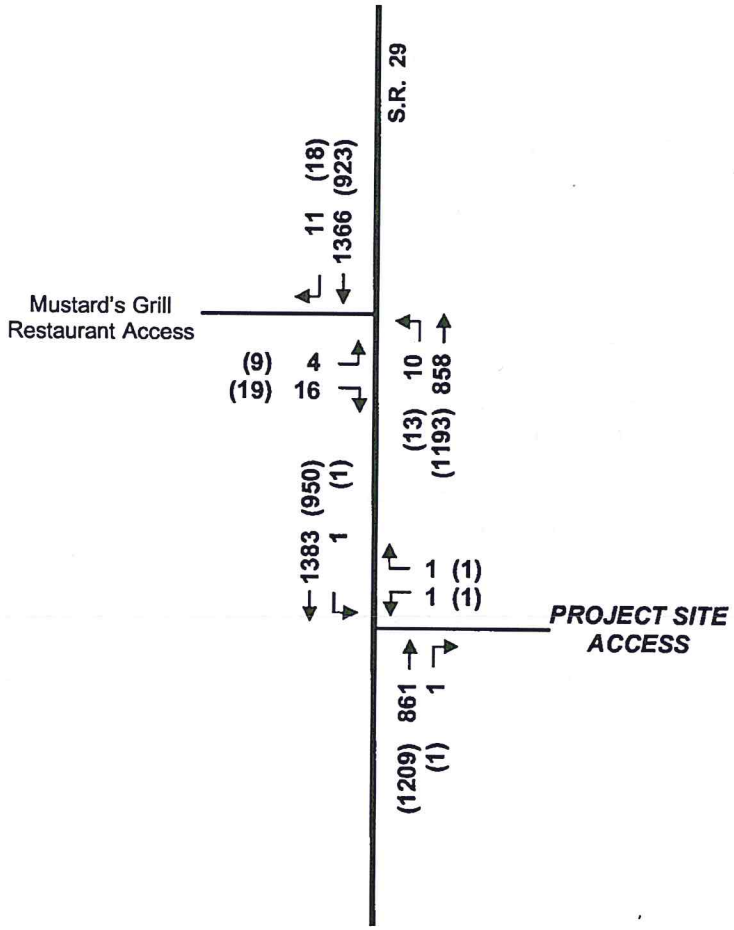
The County of Napa's significance criteria has been based on a review of the Napa County Transportation and Planning Agency and Napa County General Plan documentation on roadway and intersection operations. Specifically, the Circulation Element of the County's General Plan outlines the following significance criteria specific to intersection operation:

Intersections

- The County shall seek to maintain a Level of Service D or better at all intersections, except where the level of service already exceeds this standard (i.e. Level of Service E or F) and where increased intersection capacity is not feasible without substantial additional right-of-way.
- 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.

Further significance criteria are based on County and CEQA guidelines and apply mainly to intersection operation and access. A significant impact occurs if project traffic would result in the following:

- Cause an increase in traffic which is substantial in relation to existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume capacity ratio on roads, or congestion at intersections);
- Exceed either individually or cumulatively, an LOS standard established by the county congestion management agency for designated roads or highways;
- Result in a change of traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;



NOT TO SCALE

Near Term Approved/Pending Development
Weekday P.M. and (Weekend Mid-day) Peak Hour Volumes

North

omni-means

figure 3

- Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
- Result in inadequate emergency vehicle access;
- Project site or internal circulation on the site is not adequate to accommodate pedestrians and bicycles;

4. PROPOSED PROJECT IMPACTS

Project Components

The proposed Yountville Hill winery project would consist of wine production, full-time employees, visitation tours/tasting, and marketing events throughout the year. The project applicant's use permit application indicates there would be no part-time employees (except during Crush). Full-time employees would either work a weekday shift and/or combination of weekday/weekend shift. Proposed project components can be described as follows: [11]

• Production	Annual:	100,000 gallons
• Employees:	Weekday:	19 full-time
	Weekend:	8 full-time
• Visitors:	Weekday:	110 visitors
	Weekend:	285 visitors
• Trucks:	Weekday:	2 truck per day
	Weekend:	2 trucks per day

Daily operations for the proposed Yountville Hill Winery project would involve an all on-site winery operation with a maximum annual production of 100,000 gallons (40,500 cases). All fruit (100,000 gallons of production) would be processed on-site during the year with the majority occurring during the harvest/crush season. Visitors (by appointment only) are expected; an average of 110 daily visitors on a typical weekday and 285 daily visitors on a Saturday. Visitor hours would be limited between 10:00 a.m. – 6:00 p.m. Employment is expected to be a maximum of 19 full-time employees during weekday and/or weekend periods. Winery operations for staff would occur between 6:00 a.m. – 6:30 p.m. The employment shift hours would vary dependent on specific work applications; five production staff (6:00 a.m. – 3:00 p.m.), six administrative staff (8:00 a.m. – 5:00 p.m.), and eight hospitality staff (9:30 a.m. – 6:30 p.m.). The largest marketing event would involve 200 guests occurring on an annual basis. All new marketing events would only be held during off-peak hours.

Annual winery production would be estimated at 100,000 gallons. With regard to truck activity, the winery would generate approximately 4-5 deliveries on its busiest day (crush season).

Project Trip Generation/Distribution

The proposed project's weekday and weekend peak hour and daily traffic volumes have been calculated and are shown in Table 3. Overall trip generation calculations have been based on employee peaking factors and auto occupancy rates for event visitors based on recent winery research conducted by the

[11] *Yountville Hill Winery, Winery Traffic Information/Trip Generation Sheet, Preliminary project data for production, employment, visitors, and marketing, Mr. Lester Hardy, Attorney, Personal communication, August, 2013.*

Napa County Conservation, Development, and Planning Department and existing driveway volumes.[12] It is noted that for peak hour traffic generation, only full time employees traveling to/from the site were included in project trip generation calculations. For the weekday PM peak hour, this included six administrative staff (production staff would be gone, hospitality staff still on-site). For the weekend mid-day peak hour, this included the eight hospitality staff (production and administrative staff would be gone). Based on production, employment, and visitor activity, the project would be expected to generate 145 daily weekday trips with 39 PM peak hour trips (16 in, 23 out). During a typical weekend, the project would be expected to generate 228 daily trips with 59 mid-day peak hour trips (30 in, 29 out).

During the six-week harvest crush season, the proposed project is expected to generate an average of 250 daily trips. This daily trip total would represent 285 visitors, 9 full-time and 4 part-time employees on-site during weekend periods, 100,000 gallons of wine production, and approximately 35 daily tons (on-haul) of grapes.

Based on the largest marketing event attendance of 200 persons (twice per year), there would total generation of 191event trips.

To determine traffic conditions with the proposed project, the calculated project trips were added to existing volumes. Based on observed turning percentages, the project trips were distributed 25% to/from the north and 75% to/from the south on State Route 29.

Existing plus project and near-term plus project volumes have been shown in Figure 4 and 5.

Project Effects on Roadway/Intersection Operation

A. Existing Plus Project Conditions

The project would be expected to add approximately 109 daily trips south of the site and 36 daily trips north of the site on State Route 29. This would represent an addition of less than 1 percent (0.006) to the daily volumes on the highway. The combined existing plus project volume of 22,945 daily trips would remain at LOS F operating conditions for a two-lane rural arterial roadway based on established County thresholds.

During the peak winery activity periods, the project would generate 39 weekday PM peak hour and 59 Saturday mid-day peak hour trips. Weekday PM peak hour and weekend mid-day peak hour intersection levels of service were evaluated with proposed project traffic and are shown in Table 4.

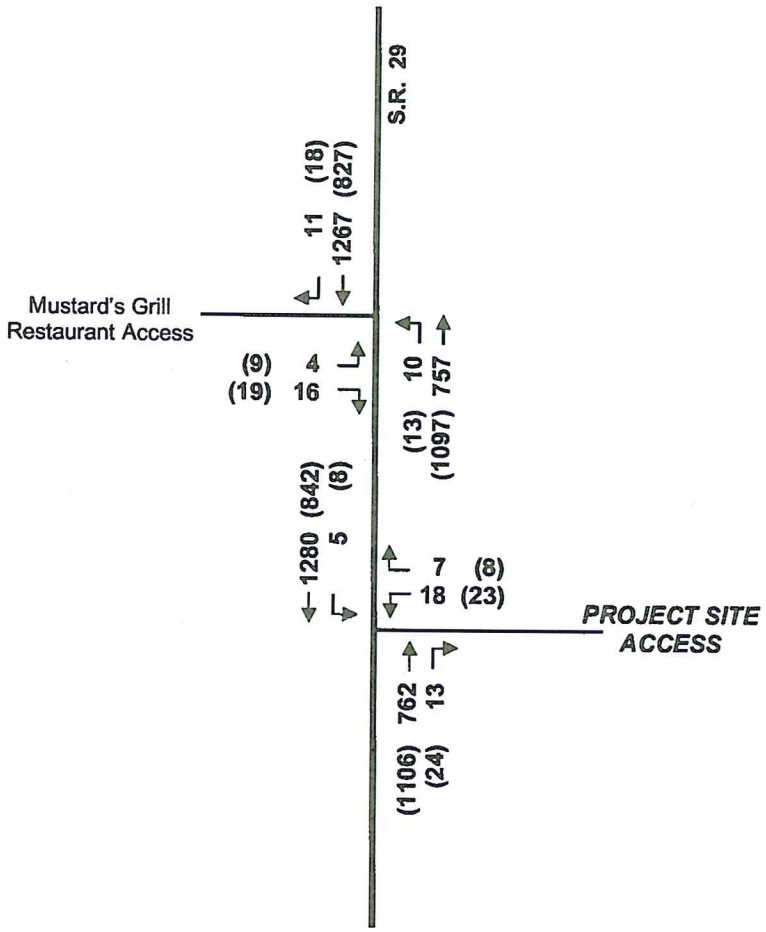
With existing plus project traffic volumes, the two project study intersections would continue to operate at acceptable levels (LOS C or better) during both the weekday PM peak hour and weekend mid-day peak hour periods. At shown in Table 4, intersection LOS would remain unchanged from existing conditions with proportional increases in overall vehicle delay.

[12] *County of Napa, Conservation, Development, and Planning Department, "Use Permit Application Package," Napa County Winery Traffic Generation Characteristics, 2012.*

TABLE 3
PEAK HOUR AND DAILY TRIP GENERATION:
PROPOSED YOUNTVILLE HILL WINERY PROJECT

Weekday Daily Traffic:		
110 visitors/2.6 persons per vehicle x 2 one-way trips	=	85 daily trips
19 full time employees x 3.05 one-way trips	=	58 daily trips
0 part-time employees x 1.90 one-way trips	=	0 daily trips
100,000 gallons/1,000 x .009 daily trucks x 2 o-w trips	=	2 daily trips
Total Weekday Daily Trips	=	**145 daily trips**
Weekday PM Peak Hour Traffic:		
(85 daily visitor trips + 2 daily truck trips) x 0.38 peak	=	33 peak hour trips
6 full time employees x 1 trip/employee	=	6 peak hour trips
0 part-time employees/2	=	0 peak hour trips
Total Weekday PM Peak Hour Trips	=	**39 trips (16 in, 23 out)**
Weekend (Saturday) Daily Traffic:		
285 visitors/2.8 persons per vehicle x 2 one-way trips	=	204 daily trips
8 full time employees x 3.05 one-way trips	=	24 daily trips
0 part-time employees x 1.90 one-way trips	=	0 daily trips
Total Weekend (Saturday) Daily Trips	=	**224 daily trips**
Weekend (Saturday) Peak Hour Traffic:		
204 daily visitor trips x 0.25 peak	=	51 peak hour trips
8 full time employees x 1 trip/employee	=	8 peak hour trips
0 part-time employees/2	=	0 peak hour trips
Total Weekend (Saturday) Peak Hour Trips	=	**59 trips (30 in, 29 out)**
Weekend (Saturday) Daily Harvest/Crush Traffic:		
285 visitors/2.8 persons per vehicle x 2 one-way trips	=	204 daily trips
9 full time employees x 3.05 one-way trips	=	27 daily trips
4 part-time employees x 1.90 one-way trips	=	4 daily trips
20,000 gallons/1,000 x .009 daily trucks x 2 o-w trips	=	1 daily trips
0 annual ton grapes (on-haul)/144 daily trucks x 2 o-w trips	=	0 daily trips
Total Weekend (Saturday) Daily Harvest/Crush Trips	=	**55 daily trips**
Largest Marketing Event – Additional Traffic		
6 event staff x 2 one-way trips per person	=	12 event trips
125 visitors / 2.8 visitors per vehicle x 2 o-w trips	=	89 event trips
4 trucks x 2 one-way trips	=	8 event trips
Total Largest Event Marketing Trips:	=	**109 event trips**

Source: Production, employee, and visitor data provided by Mr. Eric Sklar (project applicant) and Mr. Lester Hardy (Attorney).



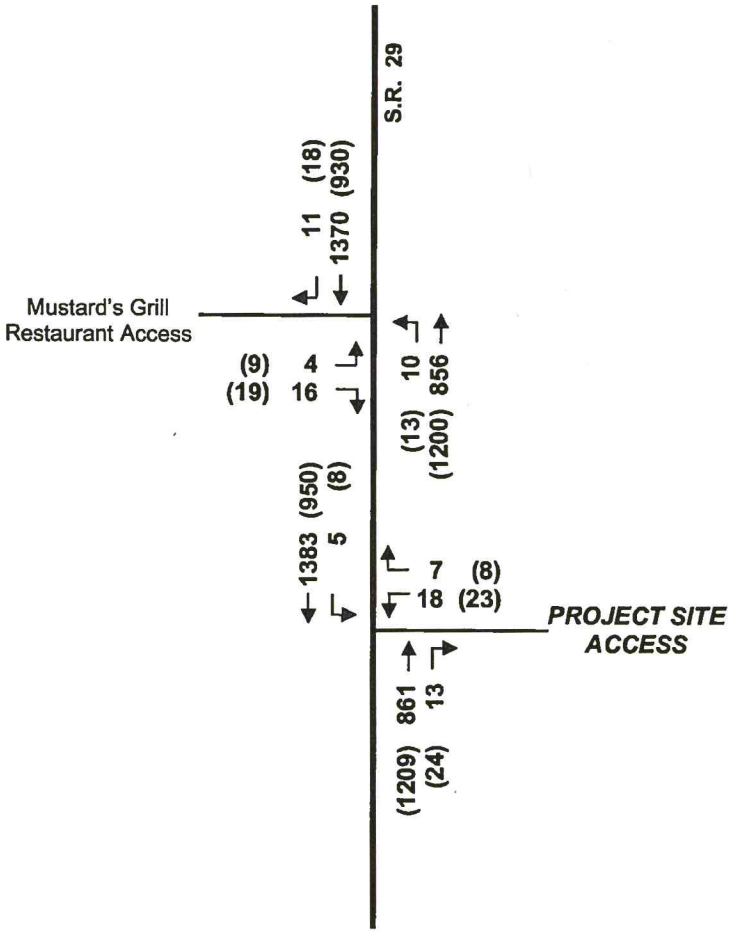
NOT TO SCALE

Existing + Project Weekday P.M. and (Weekend Mid-day) Peak Hour Volumes

North

omni-means

figure 4



NOT TO SCALE

Near Term + Project Weekday P.M. and (Weekend Mid-day) Peak Hour Volumes

North

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figure 5

B. Near-Term Plus Project Conditions

With near-term plus project conditions, daily traffic volumes on State Route 29 would increase to 23,873 ADT. Again, this would represent LOS F conditions for a two-lane, rural arterial roadway based on County thresholds. However, the existing continuous two-way-left-turn-lane on SR-29 improves overall vehicle delay and adds some additional capacity to the roadway.

Both driveway study intersections would operate at acceptable levels (LOS C or better) during both the weekday PM peak hour and weekend mid-day peak hour under near-term with project conditions.

TABLE 4
EXISTING PLUS PROJECT AND NEAR-TERM PLUS PROJECT CONDITIONS:
INTERSECTION LEVELS-OF-SERVICE
WEEKDAY PM PEAK AND WEEKEND MID-DAY PEAK HOUR

			Wkdy. PM LOS/Delay		Wknd. Mid-Day LOS/Delay	
#	Intersection	Control Type	Existing + Project	Near-Term + Project	Existing + Project	Near-Term + Project
1	Yountville Hill Driveway/SR-29	Stop	C 21.1 secs.	C 23.6 secs.	C 21.4 secs.	C 24.2 secs.

Based on Highway Capacity Manual (HCM) 2000, Operations methodology for stop-sign controlled (unsignalized) intersections using Synchro-Simtraffic software. Intersection calculation yields an LOS and vehicle delay in seconds. Stated LOS refers to the minor street (stop-sign) controlled movement.

5. SITE ACCESS/DESIGN PARAMETERS

Sight Distance

As noted in the discussion of existing conditions, sight distances to the north and the south are well in excess of the minimum sight distances needed for the measured vehicle speeds. Based on radar surveys conducted in the vicinity of the proposed Yountville Hill Winery project, the "critical" vehicle speed (85% of all surveyed vehicles travel at or below the critical speed) along SR-29 at the winery were observed to be 49-54 miles per hour (mph).[13] Based on Caltrans design standards, these vehicle speeds require a stopping sight distance of 400-450 feet, measured along the travel lanes on SR-29.[14]

The Yountville Hill winery access intersection is located on a straight section of SR-29. Field observations indicate sight distances to the north and south are well in excess of the 450 feet needed for the measured vehicle speeds with the existing southerly and new northern driveway locations. However, a large shrub/tree (volunteer) would need to be removed on the north side of the driveway entrance to ensure unobstructed views to the north up SR-29.

Two-Way-Left-Turn-Lane-Operation

The proposed project's driveway intersects SR-29 at a point where a TWLTL exists. As shown on Figures 4 and 5, the driveway would have 5 inbound left-turns during a weekday PM peak hour and 8 inbound left turns during a Saturday afternoon peak hour. During these same periods, the inbound left turns counted at the Mustard's Grill driveway were 10 vehicles and 13 vehicles, respectively. Based on Caltrans guidelines for left turn queuing, the Mustard's Grill volumes would require a maximum of one vehicle storage during the

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[13] *George W. Nickelson, P.E., Radar speed surveys on State Route 29 at Yountville Hill Winery driveway(s) October 30 and November 5, 2009*
[14] *Caltrans, Ibid....*

peak hours.[15] During the peak period counts, the actual observed left turn queues never exceeded one vehicle. The very low inbound left turn volumes at the project driveway would not be expected to significantly conflict with the left turns into Mustard's Grill.

Project Access and Circulation

Based on the Yountville Hill Winery site plan, a new driveway (improved) would extend to parking and winery facilities located on the hillside east of SR-29 (see Figure 6--Project Site Plan). The project driveway would have a minimum width of 20-feet to provide for two-way travel and comply with County standards. Approximately mid-way up the hillside, the driveway would provide access to a parking area and visitor entrance to the winery. The parking area would have a 25-foot drive aisle and multiple access points (three) from the driveway to allow for vehicle entry/exit and return to SR-29. Continuing up the hill, the driveway would terminate in a large cul-de-sac at the winery's visitor tasting room/office. There would be limited parking spaces at this building (two). This area would primarily be for project staff and/or ADA visitors not parking in the lower parking areas. The large cul-de-sac would allow vehicles to turn around and/or back out of parking spaces to exit the site.

The proposed project driveway has been evaluated for right-turn lane warrants. Caltrans guidelines suggest that the combination of northbound through volumes on SR-29 and the expected inbound right turn volumes would not warrant a separate right turn lane at the site driveway. However, the driveway would have inbound right turn volumes that would warrant a right turn taper (not a separate right turn lane). The right turn volume would just meet the minimum volume threshold during only the Saturday afternoon peak hour (with visitor activity at the maximum permitted levels).

The Napa County Transportation & Planning Agency (NCTPA) in cooperation with Napa County and local City agencies is developing bicycle routes as outlined in the Napa Countywide Bicycle Plan.[16] The plan encourages new developments to incorporate bicycle friendly design. State Route 29 has wide striped shoulder areas (unofficial Class II bike lanes) in both directions. Some visitors may utilize bicycles to access the proposed project. The project would provide bicycle racks for visitors to the proposed winery.

Marketing Events

With regard to special event traffic, the largest (200 visitors) event would be an all day event on a weekend. This event would involve visitors arriving and departing throughout the entire day. The event would be scheduled to ensure that the majority of visitor arrivals and/or departures would not coincide with the Saturday afternoon peak hour background traffic flows on SR-29.

Based on standard auto occupancy rates, the largest special event (200 people) would generate up to 191 trips (96 in, 95 out). As noted, these events are typically of sufficient duration in length that the inbound and outbound trips occur in separate hours, thus the number of trips on the street network at one time are half of the total volume. These events are usually held outside of typical peak traffic periods (throughout the entire day or later than 6:00 p.m.) and therefore generally do not impact peak hour operations during the weekday/weekend peak periods.

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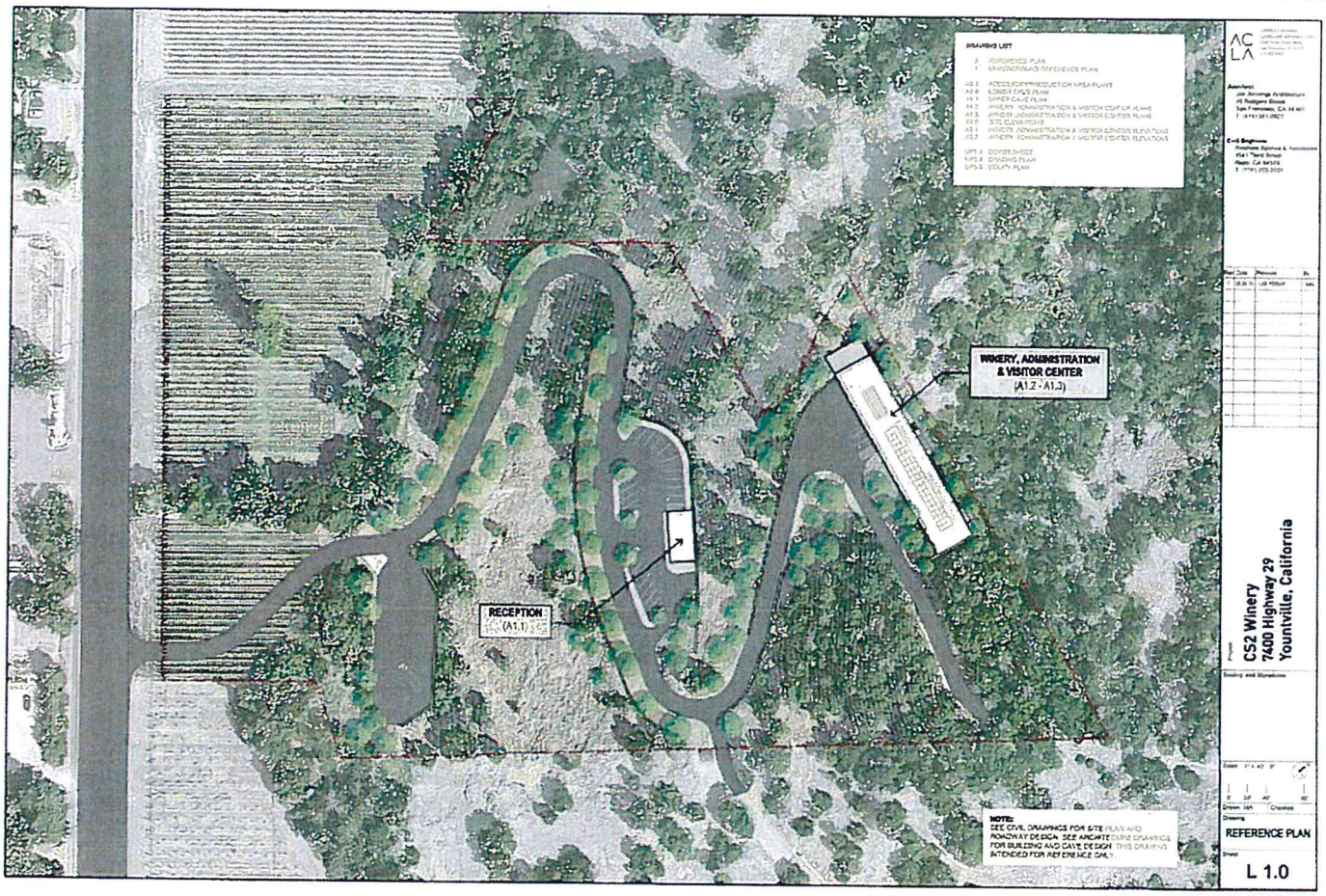
[15] *Caltrans, Guidelines for Reconstruction of Intersections, August 1985. The maximum peak hour northbound left-turn volume is 13 vehicles, requiring 1 vehicle storage calculated as follows: 13 hourly vehicles/60 x 2 minutes of storage = 0.43 or 1 vehicle.*

[16] *Napa County, Countywide Bicycle Plan (2012), Planning Area-North Valley, May 2012.*



Project Site Plan

North

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figure 6

Construction Impacts

With regard to construction impacts, the contractor responsible for cave construction has estimated an 18-month schedule during which time approximately 28,400 cubic yards of cave spoils would be hauled off-site. Based on an 18-month schedule, the spoils quantity would equate to approximately 75 cubic yards daily or 7-8 trucks each day. Truck volumes of this magnitude would not be measurably affect traffic flows on SR-29 during the weekday PM peak period.

6. CUMULATIVE CONDITIONS

Cumulative Year 2030 Projections

Model Forecast

Cumulative (Year 2030) volume projections on State Route 29 (SR-29) were derived from the Napa County Transportation & Planning Agency's traffic volume forecasts in the Napa County General Plan Update EIR. The forecast increase in volume-to-capacity (v/c) ratio from Year 2003 to Year 2030 on SR-29 in the project vicinity between Madison Street and Oakville Grade Road was applied to the provided Year 2003 peak hour two-way volume (2,017 trips) on SR-29, yielding a volume of 4,098 weekday PM peak hour trips on SR-29 in Year 2030.

The projected PM peak hour cumulative volume on SR-29 represents a large (200%) increase compared to the existing (Year 2013) peak hour counted volume of 2,042 trips on SR-29 at the project driveway. With projected cumulative forecasts, the existing daily volume on SR-29 would increase from 22,800 trips to 45,600 daily trips.

Historical Data

For comparison, average annual daily traffic volumes on SR-29 between Madison Street and Oakville Grade Road over the previous twenty years were reviewed. The average annual daily traffic (AADT) on SR-29 in 1992 was 15,500 trips. By comparison, the AADT on SR-29 2012 was 22,800 trips. Daily volumes were highest in the year 2007, reaching 26,500 AADT. Daily volumes on SR-29 have since declined and are lower today than they were in 2002. Increases in daily volumes between year 1992 and the highest year of 2007 equates to an annual increase of 4.5% per year on SR-29. Applying the same annual increase to the current ADT on SR-29 of 22,800 results in about 38,760 ADT in year 2030 (4.1% per year added for 17 years).

Cumulative volumes based on historical data are approximately 85% of the model forecast volumes on SR-29. The difference between the model numbers and historical growth trends indicates volumes are not increasing to the model's forecasted levels. However, in order to proactively address potential traffic volumes under cumulative conditions, the County has adopted several measures identified in the General Plan to improve the street network and also reduce vehicle trips.

In order to identify weekend cumulative conditions, the General Plan Update provides a ratio of weekday to weekend peak hour volumes on key streets within the valley. Several segments on SR-29 in the vicinity of the project were shown to have an average ratio of 0.76-0.80, indicating weekend peak hour volumes are expected to be about 80% of weekday volumes. Therefore the future weekend peak hour volumes would be expected to remain roughly in the same ratio as the existing volumes and lower than the weekday volume projections.