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**Department of Public Works**

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**Steven Lederer, P.E.**  
Director

**WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY**

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

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

**Step #1:**

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

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

Determine the allowable water allotment for your parcels:

**Parcel Location Factors**

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

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

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

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
036-110-030	7.84	1.0	7.84

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# WATER DEMAND CALCULATIONS

Project: Bell Winery

	Approved Use			Current Use			Proposed Use		
	Number	Multiplier*	Total (af)	Number	Multiplier*	Total (af)	Number	Multiplier*	Total (af)
<b>Winery</b>									
Production (gal/yr)	40000	2.15E-05	0.86	40000	2.15E-05	0.86	60000	2.15E-05	1.29
Employees (person/day)	15	15	0.25	15	15	0.25	15	15	0.25
Visitation (avg person/wk)	76	3	0.04	210	3	0.10	420	3	0.20
Marketing (person/yr)	528	11	0.02	528	11	0.02	9120	15	0.42
Landscaping (per production)	40000	5.00E-06	0.20	40000	5.00E-06	0.20	60000	5.00E-06	0.30
Subtotal			1.37			1.43			2.46
<b>Vineyard</b>									
Irrigation (ac)	4.60	0.5	2.30	4.60	0.5	2.30	4.60	0.5	2.30
Frost Protection (ac)	0	0.25	0	0	0.25	0	0	0.25	0
Subtotal			2.30			2.30			2.30
<b>Residence</b>									
Domestic (per home)	1	0.75	0.75	1	0.75	0.75	1	0.75	0.75
Landscaping (per ac/home)	0.25	2.5	0.63	0.25	2.5	0.63	0.25	2.5	0.63
Subtotal			1.38			1.38			1.38
<b>Total</b>			<b>5.04</b>			<b>5.11</b>			<b>6.14</b>

\* See Atch A Use Guidelines

Gallons per AF 325828.8

(E) Vineyard Takeoff

Main Vineyard West of Winery 200376

(E) Subtotal Vineyard Area (sf) 200376

(E) Subtotal Vineyard Area (ac) 4.60

(P) Vineyard Takeoff 0.00

(P) Subtotal Vineyard 0.00

## Attachment A: Estimated Water Use Guidelines

### Typical Water Use Guidelines:

Primary Residence	0.5 to 0.75 acre-feet per year (includes some landscaping)
Secondary Residence	0.20 to 0.30 acre-feet per year
Farm Labor Dwelling	0.06 to 0.10 acre-feet per person per year

### Non-Residential Guidelines:

#### Agricultural:

##### Vineyards

Irrigation only	0.2 to 0.5 acre-feet per acre per year
Heat Protection	0.25 acre feet per acre per year
Frost Protection	0.25 acre feet per acre per year

Farm Labor Dwelling	0.06 to 0.10 acre-feet per person per year
Irrigated Pasture	4.0 acre-feet per acre per year
Orchards	4.0 acre-feet per acre per year
Livestock (sheep or cows)	0.01 acre-feet per acre per year

#### Winery:

Process Water	2.15 acre-feet per 100,000 gal. of wine
Visitation	3 gal per daily visitor
Marketing	
Full Meal Prepared onsite *	15 gallons per visitor
Catered Meal Prepared offsite **	11 gallons per visitor
Domestic and Landscaping	0.50 acre-feet per 100,000 gal. of wine

#### Industrial:

Food Processing	31.0 acre-feet per employee per year
Printing/Publishing	0.60 acre-feet per employee per year

#### Commercial:

Office Space	0.01 acre-feet per employee per year
Warehouse	0.05 acre-feet per employee per year

\*Napa County ASTS Standards, 2006, "Restaurant, Conventional Sit Down, Multi Use Utensils"

\*\*Napa County ASTS Standards, 2006, "Restaurant, Conventional Sit Down, Disposable Utensils"

Average Daily Water Use

Average Non Irrigation	3426.10
Average Irrigation	9671.15

**BELL WINE CELLARS**  
**PROJECT STATEMENT**  
**MODIFICATION OF USE PERMIT**

Owner/Applicant: Anthony Bell, Bell Wine Cellars  
6200 Washington Street  
Yountville, CA 94559  
(707) 944-1673

Project Location: 6200 Washington Street, Yountville

APN: 036-110-030

Zoning: AP, Agricultural Preserve

Project Description:

Bell Wine Cellars is applying for a major use permit modification to Use Permit numbers U-90-42, 02129-MOD and 03315-MOD and to increase annual production from 40,000 gallons to 60,000 gallons, remodel the interior of the winery building and to modernize visitation and marketing activities using the existing approved visitor numbers.

In 1992, the winery was authorized to have a combination of various visitors, including visitors by appointments, trade representatives and marketing events. Daily visitation ranged from 24 to 76 persons per week. Annual approved marketing events included 6 events with up to 8 guests, 4 events with up to 40 guests, 2 events with up to 60 guests and one wine auction event with up to 200 guests (528 Total Marketing Visitors per year).

Over the past 20 years the visitation and marketing patterns have evolved. The winery currently averages approximately 30 visitors per day with a peak of 50 (210 visitors per week). This is consistent with the current trend in winery operations emphasizing direct sales as opposed to past reliance on distributors. Wineries must provide a unique experience to attract and retain customers, which is why the County has seen many applications over the past several years to increase the number and size of marketing events wineries are allowed to have.

This application proposes to increase visitation from what is currently occurring to allow up to 100 visitors on a peak day with an average of 420 visitors per week. A commercial kitchen is proposed to be constructed within the winery and daily wine tastings may include light food pairings such as cheese and charcuterie. Tours and tastings may also include picnicking and the sale of wine by the glass or bottle for consumption on site in the winery or outside on the patio or lawns adjacent to the bocce ball courts.

Likewise, marketing events have evolved over time and there is an emphasis on having a greater number of smaller, intimate events than previously proposed, while still being allowed to hold

the occasional larger event. Marketing Events for up to 40 guests may occur up to a maximum of four per week. No more than one such event will occur on any given day. Events may include meals. Large events may occur on any day of the week with up to 200 guests, with a maximum of 4 events in any given year (9.120 marketing guests per year). The winery will also participate in Auction Napa Valley. For those limited number of events with more than 60 guests portable toilets would be utilized.

There are 11 existing paved parking spaces with an additional five spaces available adjacent to the winery on a "grass-crete" hard surface. An additional 9 spaces are available in the residence driveway and up to 80 spaces along the side of the access road for overflow parking during larger events. Most daily visitors arrive by small bus or limousine which reduces the parking demand. This application proposes elimination of a previous use permit condition limiting the number of busses allowed to transport visitors to the property, but does not eliminate the restriction prohibiting bus idling on the property.

The major concerns with increased visitation and marketing are the increase in traffic, generation of wastewater and potential noise. Bell Wine Cellars is located immediately off of Washington Street which is a frontage road to Highway 29. There is very little traffic in the vicinity, with Washington Street having a peak daily traffic of 499 vehicles in this location, less than half of Solano Avenue, the frontage road on the opposite side of Highway 29. Visitors to the winery can safely exit Highway 29 by turning right off of the highway at Hoffman Lane and on to Washington Street. Visitors from the north would be advised at the time they make an appointment or in the invitation to an event that the best route to the winery is to exit Highway 29 on the off-ramp at California Drive and turn left to get to Washington Street. Even if a visitor ignores this advice there is a fully developed left turn lane on Highway 29 at Hoffman Lane that provides a safe harbor while waiting to turn left and exit the highway. Likewise, visitors and guests leaving the winery are advised to travel less than one mile north to the full freeway interchange to get back onto the highway. There is adequate parking for most events in the existing parking lot and on the crush pad, with additional parking between the access road and vineyard without impeding emergency access. Larger events may include shuttle buses with off-site parking.

The project also proposes several interior modifications. A new commercial grade kitchen will be installed, and two mezzanines will be constructed, one with 410 square feet to be used as a conference room/office and another with 638 square feet to be used for winery storage. The only exterior improvements will be the following:

1. New Domestic Waste Water System to be installed to accommodate increase in visitation. New system will include an additional three underground tanks, two AX-100 pods for wastewater treatment and approximately 5,000 square foot of subsurface drip dispersal lines for wastewater disposal.
2. The existing water system will be modified to isolate vineyard irrigation water and domestic drinking water via an approved backflow prevention system so that the project can comply with the requirements of a small water system under California Code.



Bell Wine Cellars  
Project Statement  
Modification of Use Permit

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Finally, also submitted with this Application is a traffic analysis prepared by Omni – Means Engineering Solutions, an engineering firm that has prepared numerous such analyses for wineries within the Napa Valley, indicating that the project will not have significant impacts on traffic. This traffic analysis was prepared out of an abundance of caution and should allay any traffic related concerns about this project.