

March 17, 2015

Dickenson Peatman Fogarty
C/O Scott Greenwood Meinert

RECEIVED

MAR 18 2015

Napa County Planning, Building
& Environmental Services

RE: Revision 2 to Reverie Winery Phase 1 (Tier 2) Water Availability Analysis

Dear Scott:

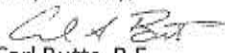
The purpose of this memorandum is to detail changes to the first revision of the Reverie Winery Phase 1 water availability analysis. In short, the following three changes were made to update the report:

1. The visitation multiplier was updated from 20 to 40 persons per week for a new net total of 0.2 acre-feet of water use per year. This update increased water use by 0.1 acre-feet for the project, or a net 1.8 percent increase in water use over the previous entitlement.
2. References to a 0.5 acre-foot per acre vineyard water demand has been revised. Two calculation methods were measured against each other:
 - a. The first calculation method uses evapotranspiration constants and crop coefficients from the California Department of Water Resources, California Irrigation Management Systems (CIMIS) database to derive crop water demand over an annual basis. This crop demand is adjusted for plant density, as a less densely planted vineyard will require less irrigation demand. The evapotranspiration method estimates 8.59 acre-feet total vineyard demand.
 - b. The second calculation method back-calculates the evapotranspiration method to derive a gallon per vine annual demand. Based on anecdotal evidence, vineyard irrigation rates in the 100-150 gallon per year range are expected. The derived 214 gallon per vine is higher than the anecdotal standard, but within a reasonable range.
3. The water demand calculation spreadsheet has been modified to note "Tier 2" as its title.

Lastly, a previous entitlement for this property stated that expected water was estimated at 50 acre-feet annually. This estimate is nearly an order of magnitude greater than what would be expected on a small vineyard and winery. Even though the well may have a capacity to supply this amount of water, the provided calculations and field observations during the last several years don't support that level of demand.

Please give me a call if there are any questions regarding Revision 2 of the Phase 1 (Tier 2) Water Availability Analysis.

Respectfully,


Carl Butts, P.E.
President

2 Attch
Water Availability Analysis
Vineyard Area Takeoff Estimate





A Tradition of Stewardship
A Commitment to Service

Department of Public Works

1195 Third Street, Suite 201
Napa, CA 94559-3092
www.co.napa.ca.us/publicworks

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

Steven Lederer, P.E.
Director

WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY (Tier 2)

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 I Water Availability Analysis (WAA) be included with your application. The purpose of this form is to assist you in the preparation of this analysis. You may present the analysis in an alternative form so long as it substantially includes the information required below. Please include any calculations you may have to support your estimates.

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

Step #1:

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

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

Determine the allowable water allotment for your parcels:

Parcel Location Factors

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

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

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

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-400-005	39.83*	See Detail Calculations*	

*See Water Demand Calculation Spreadsheet, attached

Step #3:

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

	Approved Use	Current Use	Proposed Use
Winery			
Production	0.11	0.11	0.20
Employees	0.03	0.08	0.08
Visitation	0.01	0.01	0.02
Marketing	0.01	0.01	0.01
Landscaping	0.03	0.05	0.05
Subtotal	0.18	0.24	0.36
Vineyard			
Irrigation	8.59	8.59	8.59
Frost Protection	0.00	0.00	0.00
Subtotal	8.59	8.59	8.59
Residence			
Domestic	0.75	0.75	0.75
Landscaping	0.63	0.63	0.63
Subtotal	1.38	1.38	1.38
Total	10.15	10.21	10.33

Is the proposed use less than the existing usage? () Yes (x) No () Equal

Step #4:

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

See Water Demand Calculation Spreadsheet, Attached.

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

Signature: _____ Date: _____ Phone: _____

TIER 2 WATER DEMAND CALCULATIONS

Project: Reverie Winery

	Approved Use			Current Use			Proposed Use		
	Number	Multiplier**	Total (af)	Number	Multiplier**	Total (af)	Number	Multiplier**	Total (af)
Winery									
Production (gal/yr)	5000	2.15E-05	0.11	5000	2.15E-05	0.11	9200	2.15E-05	0.20
Employees (person/day)	2	15	0.03	5	15	0.08	5	15	0.08
Visitation (avg person/wk)	20	3	0.01	20	3	0.01	40	3	0.02
Marketing (person/yr)	222	11	0.01	440	11	0.01	440	11	0.01
Landscaping (per production)	5000	5.00E-06	0.03	5000	5.00E-06	0.03	9200	5.00E-06	0.05
Subtotal			0.18			0.24			0.36
Vineyard									
Irrigation (ac)	20.54	***	8.59	20.54	***	8.59	20.54	***	8.59
Frost Protection (ac)	0	0.25	0	0	0.25	0	0	0.25	0
Subtotal			8.59			8.59			8.59
Residence									
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
Total			<u>10.15</u>			<u>10.21</u>			<u>10.33</u>

*From WAA First Page: A Preliminary ALTA Survey recently performed for APN 020-400-005 indicates the parcel may only be approximately 32 acres, not 39.83 acres. Analysis of this discrepancy is ongoing. For WAA purposes, assuming the parcel is 32 acres, the projected future water use would be commensurately reduced.

** See Atch A Use Guidelines

*** See Vineyard Demand Calculation

Acre-Feet per Gallon 3.069E-06

Percent Increase Over Approved Use 1.8%

CIMIS Calculation

Month	ETO (Inches)	Kc	ETc	ET (Inches)	Water Demand (ac-ft)
january	1.78	0	0	0.00	0.00
february	0.32	0	0.00	0.00	0.00
march	3.55	0	0.00	0.00	0.00
april	5.01	0.45	2.25	3.95	0.90
may	6.94	0.45	3.12	5.47	1.25
june	7.27	0.7	5.09	8.91	2.04
july	6.97	0.7	4.88	8.54	1.95
august	5.76	0.7	4.03	7.06	1.61
september	4.68	0.45	2.11	3.69	0.84
october	3.41	0	0.00	0.00	0.00
november	1.74	0	0.00	0.00	0.00
december	0.89	0	0.00	0.00	0.00
Total Annual Demand				37.60	8.59

CIMIS Calculation Methodology:
 ETO - From CIMIS Station 77 - Oakville
 Kc - From CIMIS Basic Irrigation Scheduling Spreadsheet, BISE, (Rev 2014)
 ETc = ETO x Kc
 ET = ETc x Vineyard Area
 Water Demand = ET x Percent Wetted Area

Gallon per Vine Calculation

Gallons per vine	214 gallons			
Vineyard Area*	21 ac			
Vine Wetted Area**	16 sf			
	L (ft)	W (ft)	Area (sq-ft)	Percent Wetted Area
Vine spacing	7	10	70	23%
Total Vines	13068			
	Gallons/yr	Cu Ft/yr	Ac Ft/yr	
Total Vineyard Water Demand	2796552.00	373870.59	8.58	

*See Attached Aerial Exhibit

**4' x 4' drip emitter dosing area assumed

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

See Reference Detail Irrigation Calculations

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"

(E) Vineyard Takeoff	
Main Vineyard Block on Hillside	873164
Vineyards S of No Name Creek	21638
(E) Subtotal Vineyard Area (sf)	894802
(E) Subtotal Vineyard Area (ac)	20.54

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FEB 03 2015

Napa County Planning, Building
& Environmental Services

WATER SYSTEM TECHNICAL MANAGERIAL AND FINANCIAL REPORT

FOR

REVERIE WINERY

(APN 020-400-005)

BY

CAB CONSULTING ENGINEERS

DATE: Revision 1 January 22, 2015



Contact Info:

Owner:
Reverie Winery
c/o Norm Kiken
1520 Diamond Mtn Road
Calistoga, CA 94515

Civil Engineer:
Carl Butts
CAB Consulting Engineers
851 Napa Valley Corp
Way Suite D
Napa, CA 94558
707.694.6479

**Reverie Winery
Non-Community Water System
Technical, Managerial and Financial Capacity Report**

Water System Name: Reverie Winery

Report Prepared By: CAB Consulting Engineers, Carl Butts, P.E.

The purpose of this report is to demonstrate the technical, managerial and financial capabilities of a proposed Non-Community Water system required by Napa County to support additional visitation per Use Permit Major Modification #P13-00027-MOD.

Technical Capacity

System description

The existing water system at Reverie Winery consists of a single well and distribution for both domestic and irrigation water demand. The existing well does not meet the source requirements for a Transient Non-Community Water system due to the lack of a 50-foot annular seal. Therefore, a new well located adjacent to the existing well is proposed. The new well will connect to the existing distribution system for domestic and irrigation demands.

The new well, located on the engineering site plan, will be tied to existing hydro-pneumatic tanks, and be plumbed to the winery, cave and irrigation. The irrigation system will be independent of the domestic water system, isolated with an approved backflow preventer. A new ultraviolet disinfection system is proposed prior to distribution to the winery and cave. A schematic diagram of the proposed well system is included in Appendix A.

Source adequacy

The proposed source would be installed to meet Class 1B well standards with a 50' annular seal. This source will also be located 100' from any known or proposed septic system, thereby meeting setback requirements to a drinking water source based on Napa County Code Section 13.28.040. The nearest adjacent well based on preliminary research and field visit is located on the Von Strasser parcel, APN 020-400-005. This well is approximately 640-feet from the proposed well location and down-gradient adjacent to Diamond Mountain Creek.

The well will not be located in an adjudicated basin, or known groundwater deficient area, and therefore does not require a demonstration of right according to California or Napa County Code.

Water Supply Capacity

The existing source has an approximate 100 gallon per minute capacity based on well logs provided in Appendix B. It is anticipated that the proposed source, based on its location, will have similar yields. During the irrigation season a minimum 20.43 gallons per minute sustained yield would be required to

meet both domestic and irrigation demands. The 100 gallon per minute capacity of the existing well exceeds that requirement by a factor of 4.9.

One Year Water Demand Projection

	Approved Use	Current Use	Proposed Use
Winery			
Production	0.11	0.11	0.20
Employees	0.03	0.08	0.08
Visitation	0.01	0.01	0.01
Marketing	0.01	0.01	0.01
Landscaping	0.03	0.05	0.05
Subtotal	0.18	0.24	0.35
Vineyard			
Irrigation	10.27	10.27	10.27
Frost Protection	0.00	0.00	0.00
Subtotal	10.27	10.27	10.27
Residence			
Domestic	0.75	0.75	0.75
Landscaping	0.63	0.63	0.63
Subtotal	1.38	1.38	1.38
Total	11.83	11.89	12.00

Table 1

Average Daily Water Use (non-irrigation September 16- June 15):	1,542 gallons per day
Average Daily Water Use (irrigation June 16 – September 15):	29,430 gallons per day

Characterization of Water Quality

Water quality data for the existing well was not available to CABCE at the time of this report. Water quality from public sources for a nearby well was available. This well, located at Castello Di Amorosa lies approximately 1.5 miles from the project site and within the same geologic setting as the project.

Boron and Arsenic are leading disqualifiers in regards to a system’s ability to meet current water quality standards. The well at Castello Di Amorosa meets these standards based on current water quality data. It is expected, due to proximity and similar geology, that the water quality at Reverie Winery will match or be nearly equal to that of Castello Di Amorosa. The water quality data from Castello Di Amorosa is provided in Appendix C.

Feasibility of Consolidation with Existing Water Systems

The nearest public water source lies within the City of Calistoga nearly ¼ mile south of the intersection of Highway 29/Foothill Boulevard and Lincoln Avenue. This source is approximately 2 miles from the project with nearly 1 mile of Caltrans right of way requirements. It is estimated that the cost of this distribution line would be well over 1.5 million dollars.

The feasibility of providing water from an existing public water system is exceptionally limited due to the following issues:

1. Cost
2. Access and Grant of Rights from Caltrans
3. Expansion of Calistoga Service Area and Local Agency Formation Commission Requirements
4. CEQA and Impact of Construction adjacent to Kortum Creek.

Managerial

Organization and Operations

Primary responsibility for the system oversight and management will rest with the Owner at Reverie Winery. The Operating Personnel List is provided to identify key system personnel for contact and oversight of the new system:

Operating Personnel List

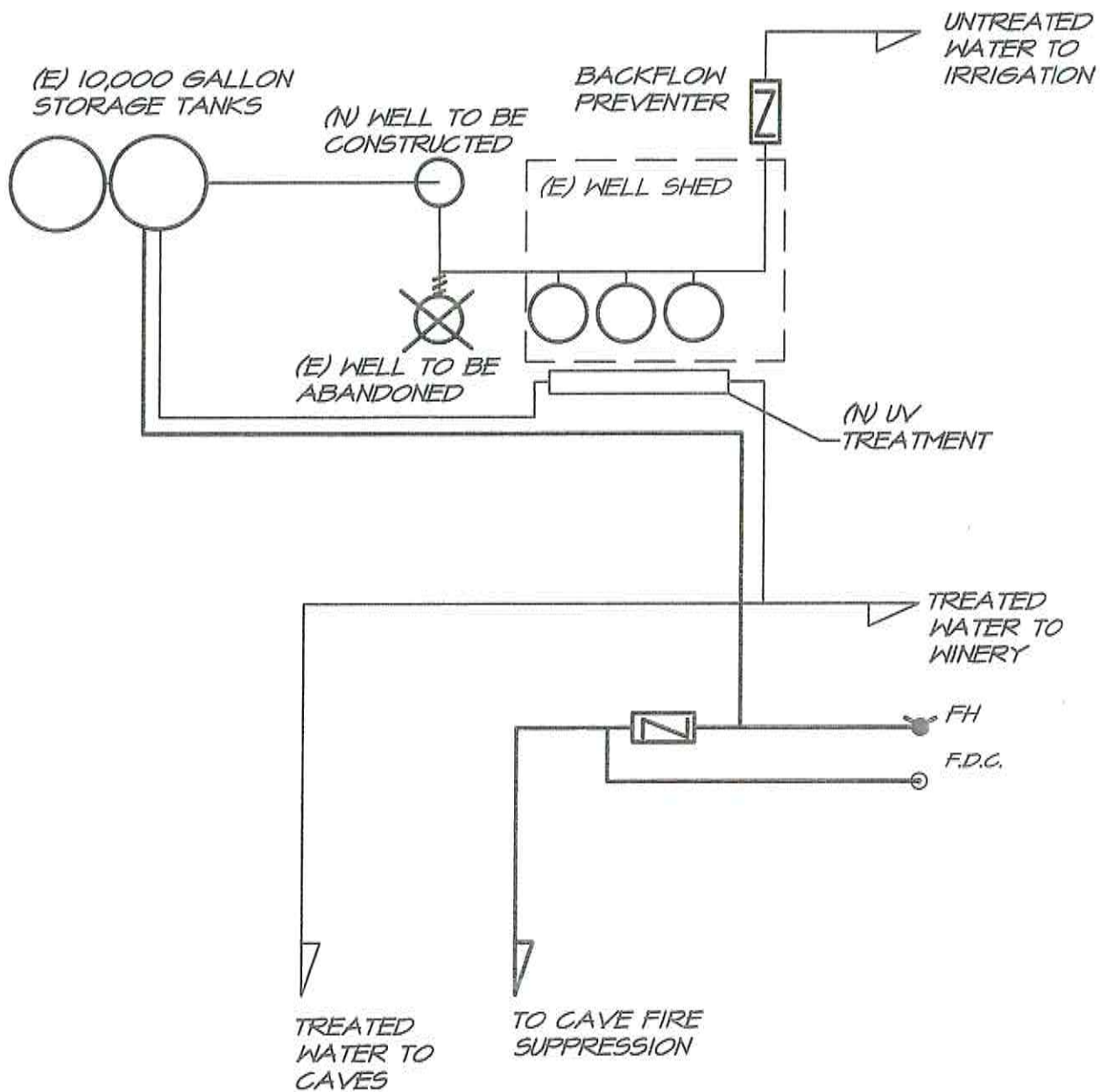
	Name	Title	System Responsibilities
1.	Norm Kiken	Board Chairman	Pays bills and makes major decisions
2.	Norm Kiken	Manager	Maintains office and performs related duties, keeps Board informed. Makes routine/normal financial decisions.
3.	Heritage Systems ¹	Maintenance Man/Operator	Operate and maintain the water system components.
4.	Heritage Systems	Laboratory Tech	Take samples as necessary

Financial

A five year budget project, following completion of the system, is provided in Appendix D for reference.

Financial support for this water system will be derived from Reverie Winery sales and company performance. While not a requirement under current Napa County Code, it is recommended that the Winery either maintain a \$10,000 bond or reserve for support of this public water system in the event of necessary maintenance requirements or failure of individual systems.

¹ Heritage Systems is provided for information only to represent a qualified T1/D1 operator under the proposed public system permit. A qualified T1/D1 operator will be required to monitor and operate the system.



CAB
CONSULTING
ENGINEERS

851 NAPA VALLEY
CORPORATE WAY
SUITE D
NAPA, CA 94558
V 707.252.2011
C 707.694.6479

REVERIE WINERY
WATER SYSTEM SCHEMATIC
NAPA COUNTY CALIFORNIA
NO SCALE

HAMPSON, ALFRED

DUPLICATE
Driller's Copy

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 103384

Permit No. or Date

State Well No.
Other Well No.

1) OWNER: Name Alfred Hampson
Address 520 S.W. Yamhill St
City Portland, Oregon Zip 97204
2) LOCATION OF WELL (See instructions):
County Napa Owner's Well Number 20-440-05
Well address if different from above Diamond Mtn. Rd
Township Calistoga Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. _____

(12) WELL LOG: Total depth 250 ft. Depth of completed well 250 ft.

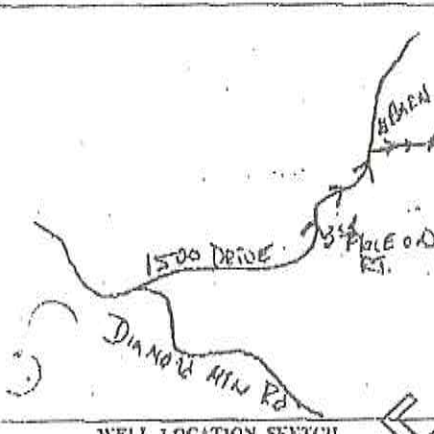
From ft.	To ft.	Formation (Describe by color, character, size or material)
0	25	Topsoil brown clay soft
25	50	black rock brown clay soft
50	75	green red lt gray rock med har
75	125	red brown green rock fract
125	190	red & brown rock med hard
190	250	red brown green rock med hard

(3) TYPE OF WORK:

- New Well Deepening
- Reconstruction
- Reconditioning
- Horizontal Well
- Destruction (Describe destruction materials and procedures in item 1)

(4) PROPOSED USE:

- Domestic
- Irrigation
- Industrial
- Test Well
- Stock
- Municipal
- Other



WELL LOCATION SKETCH

5) EQUIPMENT:
Rotary Reverse
Spiral Air
Other Bucket

(6) GRAVEL PACK:
Yes No Size _____
Diameter of bore _____
Material from _____

7) CASING INSTALLED:

From ft.	To ft.	Dis. in.	Casing or Wall
0	190	8	160

(8) PERFORATIONS:

From ft.	To ft.	Size
190	250	1/8x3

8) WELL SEAL:
Is surface sanitary seal provided? Yes No If yes, to depth 27 ft.
Are strata sealed against pollution? Yes No Interval _____ ft.
Method of sealing grout

10) WATER LEVELS:
Depth of first water, if known 24 ft. SAME
Standing level after well completion 30 ft.

11) WELL TESTS:
Was well test made? Yes No If yes, by whom? driller
Type of test Pump Air lift
Rate of test _____ ft. At end of test _____ ft.
Discharge 100 gal/min after _____ hours Water temperature _____
Chemical analysis made? Yes No If yes, by whom? _____
Is electric log made? Yes No If yes, attach copy to this report

Work started 10/5/79 Completed 7/27/79

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED: J.P. Doshier (Well Driller)

NAME Doshier-Gregson Drilling, Inc.
Address 5365 Napa-Vallejo Hwy
City Vallejo, CA Zip 94590
License No. 294001 Date of this report 8/1/79

RIG #4 J. MILLER

System Number: 2800043

System Name: CASTELLO DI AMOROSA

STORET NUMBER	TESTING INTERVAL (MONTHS)*	LAST TEST DATE (yyy/mm/dd)	LAST RESULT REPORTED	NEXT TEST DATE (yyy/mm)
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PS Code: 2800043-001

Source Name: WELL 001

Source Number: 001

Source Status: ACTIVE UNTREATED

Water type: GROUNDWATER OR WELL

INORGANIC

ALUMINUM	01105	036	2011/11/21	< .000	2014/11
ANTIMONY	01097	036	2011/11/21	< .000	2014/11
ARSENIC	01002	036	2011/11/21	4.900	2014/11
ASBESTOS	81855	108	2008/12/17	.000	2017/12
BARIUM	01007	036	2011/11/21	< .000	2014/11
BERYLLIUM	01012	036	2011/11/21	< .000	2014/11
CADMIUM	01027	036	2011/11/21	< .000	2014/11
CHROMIUM (TOTAL)	01034	036	2011/11/21	< .000	2014/11
FLUORIDE (F) (NATURAL-SOURCE)	00951	036	2011/11/21	< .000	2014/11
MERCURY	71900	036	2011/11/21	< .000	2014/11
NICKEL	01067	036	2011/11/21	< .000	2014/11
PERCHLORATE	A-031	036	2010/05/12	.000	2013/05
SELENIUM	01147	036	2011/11/21	< .000	2014/11
THALLIUM	01059	036	2011/11/21	< .000	2014/11

DUE

NITRATE/NITRITE

NITRATE (AS NO3)	71850	012	2012/11/26	< .000	2013/11
NITRITE (AS N)	00620	036	2011/11/21	< .000	2014/11

RADIOLOGICAL

GROSS ALPHA	01501	108	2010/05/12	1.430	2019/05
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REGULATED SOC

ATRAZINE	39033	036	2011/11/21	< .500	2014/11
CARBOFURAN	81405	036	2011/11/21	< 5.000	2014/11
DALAPON	38432	036	2011/11/21	< 10.000	2014/11
DINOSEB	81287	036	2011/11/21	< 2.000	2014/11
DIQUAT	76885	036	2011/11/21	< 4.000	2014/11
ENDOTHALL	36926	036	2011/11/21	< 45.000	2014/11
HEPTACHLOR	39410	000			DUE
HEPTACHLOR EPOXIDE	36420	000			DUE

*Testing interval is in months;
 0 = No data for this constituent and is DUE NOW
 I = Invalid (NOT) valid analyses reported
 Any analyses not listed as required for testing has been Waive (not required)

System Number: 2800043

System Name: CASTELLO DI AMOROSA

STORET NUMBER	TESTING INTERVAL (MONTHS)	LAST TEST DATE (yyyy/mm/dd)	LAST RESULT REPORTED	NEXT TEST DATE (yyyy/mm)
---------------	---------------------------	-----------------------------	----------------------	--------------------------

PS Code: 2800043-001

Source Name: WELL 001

Source Number: 001

Source Status: ACTIVE UNTREATED

Water type: GROUNDWATER OR WELL

REGULATED SOC

LINDANE	39340	000			DUE
METHOXYCHLOR	39480	000			DUE
OXAMYL	38866	036	2011/11/21	< 20.000	2014/11
PENTACHLOROPHENOL	39032	036	2011/11/21	< .200	2014/11
PICLORAM	39720	036	2011/11/21	< 1.000	2014/11
SIMAZINE	39055	036	2011/11/21	< 1.000	2014/11
TOXAPHENE	39400	000			DUE

REGULATED VOC

1,1,1-TRICHLOROETHANE	34506	072	2008/12/17	.000	2014/12
1,1,2,2-TETRACHLOROETHANE	34516	072	2008/12/17	.000	2014/12
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	81611	072	2008/12/17	.000	2014/12
1,1,2-TRICHLOROETHANE	34511	072	2008/12/17	.000	2014/12
1,1-DICHLOROETHANE	34496	072	2008/12/17	.000	2014/12
1,1-DICHLOROETHYLENE	34501	072	2008/12/17	.000	2014/12
1,2,4-TRICHLOROBENZENE	34551	072	2008/12/17	.000	2014/12
1,2-DICHLOROBENZENE	34536	072	2008/12/17	.000	2014/12
1,2-DICHLOROETHANE	34531	072	2008/12/17	.000	2014/12
1,2-DICHLOROPROPANE	34541	072	2008/12/17	.000	2014/12
1,3-DICHLOROPROPENE (TOTAL)	34561	072	2008/12/17	.000	2014/12
1,4-DICHLOROBENZENE	34571	072	2008/12/17	.000	2014/12
BENZENE	34030	072	2008/12/17	.000	2014/12
CARBON TETRACHLORIDE	32102	072	2008/12/17	.000	2014/12
CIS-1,2-DICHLOROETHYLENE	77093	072	2008/12/17	.000	2014/12
DICHLOROMETHANE	34423	072	2008/12/17	.000	2014/12
ETHYLBENZENE	34371	072	2008/12/17	.000	2014/12
METHYL-TERT-BUTYL-ETHER (MTBE)	46491	072	2008/12/17	.000	2014/12
MONOCHLOROBENZENE	34301	072	2008/12/17	.000	2014/12
STYRENE	77128	072	2008/12/17	.000	2014/12
TETRACHLOROETHYLENE	34475	072	2008/12/17	.000	2014/12

*Testing interval is in months;

0 = No data for this constituent and is DUE NOW

I = Invalid (NOT) valid analyses reported

Any analyses not listed as required for testing has been Waive (not required)

System Number: 2800043
System Name: CASTELLO DI AMOROSA

<u>STORET NUMBER</u>	<u>TESTING INTERVAL (MONTHS)*</u>	<u>LAST TEST DATE (yyyymmdd)</u>	<u>LAST RESULT REPORTED</u>	<u>NEXT TEST DATE (yyyymm)</u>
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PS Code: 2800043-001
Source Name: WELL 001
Source Number: 001
Source Status: ACTIVE UNTREATED
Water type: GROUNDWATER OR WELL

REGULATED VOC

TOLUENE	34010	072	2008/12/17	.000	2014/12
TRANS-1,2-DICHLOROETHYLENE	34546	072	2008/12/17	.000	2014/12
TRICHLOROETHYLENE	39180	072	2008/12/17	.000	2014/12
TRICHLOROFLUOROMETHANE	34488	072	2008/12/17	.000	2014/12
VINYL CHLORIDE	39175	072	2008/12/17	.000	2014/12
XYLENES (TOTAL)	81551	072	2008/12/17	.000	2014/12

PS Code: 2800043-002
Source Name: TREATMENT PLANT
Source Number: 002
Source Status: ACTIVE TREATED
Water type: GROUNDWATER OR WELL

*** ALL SCHEDULE CONSTITUENTS ARE WAIVED *** 999

PS Code: 2800043-003
Source Name: WELL 002
Source Number: 003
Source Status: PENDING
Water type: GROUNDWATER OR WELL

INORGANIC

ALUMINUM	01105	036	2012/07/24	< .000	2015/07
ANTIMONY	01097	036	2012/07/24	< .000	2015/07
ARSENIC	01002	036	2012/07/24	6.200	2015/07
ASBESTOS	81855	000			DUE
BARIUM	01007	036	2012/07/24	< .000	2015/07
BERYLLIUM	01012	036	2012/07/24	< .000	2015/07
CADMIUM	01027	036	2012/07/24	< .000	2015/07
CHROMIUM (TOTAL)	01034	036	2012/07/24	< .000	2015/07

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System Number: **2800043**

System Name: **CASTELLO DI AMOROSA**

<u>STORET NUMBER</u>	<u>TESTING INTERVAL (MONTHS)</u>	<u>LAST TEST DATE (yyyy/mm/dd)</u>	<u>LAST RESULT REPORTED</u>	<u>NEXT TEST DATE (yyyy/mm)</u>
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PS Code: **2800043-003**

Source Name: **WELL 002**

Source Number: **003**

Source Status: **PENDING**

Water type: **GROUNDWATER OR WELL**

INORGANIC

FLUORIDE (F) (NATURAL-SOURCE)	00951	036	2012/07/24	< .000	2015/07
MERCURY	71900	036	2012/07/24	< .000	2015/07
NICKEL	01067	036	2012/07/24	< .000	2015/07
PERCHLORATE	A-031	006	2010/05/12	.000	2010/11
SELENIUM	01147	036	2012/07/24	< .000	2015/07
THALLIUM	01059	036	2012/07/24	< .000	2015/07

DUE

NITRATE/NITRITE

NITRATE (AS NO3)	71850	012	2012/11/26	< .000	2013/11
NITRITE (AS N)	00620	036	2012/07/24	< .000	2015/07

RADIOLOGICAL

GROSS ALPHA	01501	108	2010/05/12	.980	2019/05
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REGULATED SOC

ATRAZINE	39033	036	2013/03/11	< .500	2016/03
CARBOFURAN	81405	036	2013/03/11	< 5.000	2016/03
DALAPON	38432	036	2013/03/11	< 10.000	2016/03
DINOSEB	81267	036	2013/03/11	< 2.000	2016/03
DIQUAT	78885	036	2013/03/11	< 4.000	2016/03
ENDOTHALL	38928	036	2013/03/11	< 45.000	2016/03
OXAMYL	38865	036	2013/03/11	< 20.000	2016/03
PENTACHLOROPHENOL	39032	036	2013/03/11	< .200	2016/03
PICLORAM	39720	036	2013/03/11	< 1.000	2016/03
SIMAZINE	39055	036	2013/03/11	< 1.000	2016/03

REGULATED VOC

1,1,1-TRICHLOROETHANE	34506	072	2010/02/24	.000	2016/02
1,1,2,2-TETRACHLOROETHANE	34516	072	2010/02/24	.000	2016/02
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	81611	072	2010/02/24	.000	2016/02
1,1,2-TRICHLOROETHANE	34511	072	2010/02/24	.000	2016/02
1,1-DICHLOROETHANE	34496	072	2010/02/24	.000	2016/02

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System Number: 2800043

System Name: CASTELLO DI AMOROSA

<u>STORE NUMBER</u>	<u>TESTING INTERVAL (MONTHS)</u>	<u>LAST TEST DATE (yyyy/mm/dd)</u>	<u>LAST RESULT REPORTED</u>	<u>NEXT TEST DATE (yyyy/mm)</u>
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PS Code: 2800043-003

Source Name: WELL 002

Source Number: 003

Source Status: PENDING

Water type: GROUNDWATER OR WELL

REGULATED VOC

1,1-DICHLOROETHYLENE	34501	072	2010/02/24	.000	2016/02
1,2,4-TRICHLOROBENZENE	34551	072	2010/02/24	.000	2016/02
1,2-DICHLOROBENZENE	34536	072	2010/02/24	.000	2016/02
1,2-DICHLOROETHANE	34531	072	2010/02/24	.000	2016/02
1,2-DICHLOROPROPANE	34541	072	2010/02/24	.000	2016/02
1,3-DICHLOROPROPENE (TOTAL)	34561	072	2010/02/24	.000	2016/02
1,4-DICHLOROBENZENE	34571	072	2010/02/24	.000	2016/02
BENZENE	34030	072	2010/02/24	.000	2016/02
CARBON TETRACHLORIDE	32102	072	2010/02/24	.000	2016/02
CIS-1,2-DICHLOROETHYLENE	77093	072	2010/02/24	.000	2016/02
DICHLOROMETHANE	34423	072	2010/02/24	.000	2016/02
ETHYLBENZENE	34371	072	2010/02/24	.000	2016/02
METHYL-TERT-BUTYL-ETHER (MTBE)	46491	072	2010/02/24	.000	2016/02
MONOCHLOROBENZENE	34301	072	2010/02/24	.000	2016/02
STYRENE	77128	072	2010/02/24	.000	2016/02
TETRACHLOROETHYLENE	34475	072	2010/02/24	.000	2016/02
TOLUENE	34010	072	2010/02/24	.000	2016/02
TRANS-1,2-DICHLOROETHYLENE	34546	072	2010/02/24	.000	2016/02
TRICHLOROETHYLENE	39180	072	2010/02/24	.000	2016/02
TRICHLOROFLUOROMETHANE	34488	072	2010/02/24	.000	2016/02
VINYL CHLORIDE	39175	072	2010/02/24	.000	2016/02
XYLENES (TOTAL)	81551	072	2010/02/24	.000	2016/02

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FIVE YEAR BUDGET PROJECTION

Noncommunity Water System

INFLATION FACTOR (%) - 5.0

System Name:

PWS I.D. Number:

Reverie Winery

LINE	EXPENSES	Current Year	Year 2	Year 3	Year 4	Year 5
1	OPERATIONS & MAINTENANCE					
2	Salaries and benefits	0.00	0.00	0.00	0.00	0.00
3	Contract operation and maintenance	4500.00	4725.00	4961.25	5209.31	5469.78
4	Power and other utilities	300.00	315.00	330.75	347.29	364.65
5	Fees	500.00	525.00	551.25	578.81	607.75
6	Treatment chemicals	0.00	0.00	0.00	0.00	0.00
7	Coliform monitoring	240.00	252.00	264.60	277.83	291.72
8	Chemical monitoring	0.00	0.00	0.00	0.00	0.00
9	Transportation	0.00	0.00	0.00	0.00	0.00
10	Materials, supplies, and parts	1500.00	1575.00	1653.75	1736.44	1823.26
11	Miscellaneous	0.00	0.00	0.00	0.00	0.00
12			0.00	0.00	0.00	0.00
13			0.00	0.00	0.00	0.00
14	Total Operation and Maintenance	\$7,040.00	\$7,392.00	\$7,761.60	\$8,149.68	\$8,557.16
15						
16	GENERAL & ADMINISTRATIVE					
17	Engineering and professional services	1000.00	1050.00	1102.50	1157.63	1215.51
18	Depreciation and amortization	0.00	0.00	0.00	0.00	0.00
19	CIP Reserve (from Sheet 2, Column J Total)	3000.00	3150.00	3307.50	3472.88	3646.52
20	Insurance	0.00	0.00	0.00	0.00	0.00
21			0.00	0.00	0.00	0.00
22			0.00	0.00	0.00	0.00
23	Total General and Administrative	\$4,000.00	\$4,200.00	\$4,410.00	\$4,630.50	\$4,862.03
24						
25	TOTAL EXPENSES	\$11,040.00	\$11,592.00	\$12,171.60	\$12,780.18	\$13,419.19

Report Prepared by: Carl Butts, P. E.

Date: July 9, 2013

Title: Project Engineer