file № P14-00158-MOD

A Tradition of Stewardship
A Commitment to Service

Napa County
Conservation, Development, and Planning Department
1195 Third Street, Suite 210, Napa, California, 94559 *phone* (707) 253-4417
web www.countyofnapa.org/cdp/ *email* cdp@countyofnapa.org

Use Permit Application

To be completed by Planning staff...

Application Type: Major Mod

Date Submitted: 5/13/2014 Resubmittal(s): _____ Date Complete: _____

Request: Modification of Use Permits #P04-0204 and #P12-00105 MOD to allow an increase in annual production from 36,000 gallon/year to 75,000 gallons/year; to increase the number of daily visitors (by appointment only) from 40 to 150 per day; to increase the hours of visitation; to expand the existing parking to construct 10 additional parking spaces for a total 25 spaces; expand the sanitary and process waste water system; and to modify the Marketing Plan to allow for additional private wine and food tasting events to a maximum 25 persons; and to add one additional special wine and food tasting events per year for a maximum 300 persons.

*Application Fee Deposit: $ 5000.00 Receipt No. 102079 Received by: SG Date: 5/13/14

**Total Fees will be based on actual time and materials*

To be completed by applicant...

Project Name: Larkmead Vineyards

Assessor's Parcel №: 020-240-001 Existing Parcel Size: 17.85 ac.

Site Address/Location: 1100 Larkmead Lane (No. / Street) Calistoga (City) CA (State) 94515 (Zip)

Primary Contact: ☐ Owner ☐ Applicant ☑ Representative (attorney, engineer, consulting planner, etc.)

Property Owner: Larkmead Vineyards Contact: General Manager, Colin MacPhail

Mailing Address: 1100 Larkmead Lane (No. / Street) Calistoga (City) CA (State) 94515 (Zip)

Telephone №(707) 942 - 0167 E-Mail: colin@larkmead.com

Applicant (if other than property owner): SAME

Mailing Address: _____ (No. / Street) _____ (City) _____ (State) _____ (Zip)

Telephone №(____) _____ - _____ E-Mail: _____

Representative (if applicable): Beth Painter

Mailing Address: 1455 First Street, Suite 217 (No. / Street) Napa (City) CA (State) 94559 (Zip)

Telephone №(707) 287 - 9089 E-Mail: beth@bpnapa.com

USE PERMIT MODIFICATION: PROJECT STATEMENT
Larkmead Winery
1100 Larkmead Lane, Calistoga

APPLICANT/OWNER
Larkmead Vineyards
General Manager, Colin MacPhail
1100 Larkmead Lane
Calistoga, CA 94515

APPLICANT/OWNER REPRESENTATIVE:
Beth Painter
Balanced Planning
1455 First Street Suite 217
Napa, CA 94559

APN: 020-240-001 ACREAGE: 17.85 ± acres

GENERAL PLAN DESIGNATION: AR, Agricultural Resource

ZONING DESIGNATION: AP, Agricultural Preserve

GENERAL PROJECT DESCRIPTION:

In 2004, a Use Permit to establish a 36,000 gallon per year winery (#P04-0204-UP) was approved for this property and Larkmead began operations at the facility in 2005. In 2012 the Use Permit was modified (#P12-00105-MOD) to construct a 9,530 square foot barrel storage building, office/conference room, wine library and an employee break room with a commercial kitchen for food pairings. In addition, 5 parking spaces were added and the employee count was increased to 6 full time and 4 part time.

The primary purpose of this modification is to request an increase in annual production from 36,000 to 75,000 gallons per year and an increase in the daily tours and tastings (by appointment). Larkmead owns and farms 112 acres of vineyard. Over the coming years, Larkmead plans to process more of their estate fruit at the winery, which will require the approval of an increased level of annual production. No changes to the buildings are required. To accommodate the additional production and visitors, Larkmead will add 10 parking spaces and make the necessary improvements to the onsite sanitary and process waste systems as outlined in the report prepared by Always Engineering.

A site plan has been prepared showing the existing winery buildings and the new parking spaces and waste treatment areas. There is no change to the entrance

driveway. The 10 additional parking spaces will be added adjacent to the existing 15 space for a total of 25 onsite spaces, two of which are handicapped accessible.

The existing marketing plan includes tours and tasting by appointment for a maximum of 40 persons per day. Marketing includes 3 private wine and food tasting events per month for a maximum of 25 persons and 2 special wine and food tasting events per year for a maximum of 120 persons.

Larkmead is requesting an increase in the daily tours and tasting to 100 persons maximum on week days and 150 persons on week ends. Marketing would be increased to 4 private wine and food tasting events per month for a maximum of 25 persons and add one additional special wine and food tasting events per year for a maximum of 300 persons.

W-Trans completed a focused traffic analysis of the potential impacts from both the expanded production and increased visitation (May 2, 2014) and found that the increase would not warrant installation of a left turn lane and would result in a less-than-significant traffic impact on Larkmead Lane.

Larkmead Vineyards has made a significant effort in the area of sustainable design and have already implemented environmental measures that have a direct correlation to overall GHG emission reduction goals. Extensive solar facilities were installed on the original winery building and the newer barrel building that provide for energy efficiencies that go beyond Title 24 requirements. Larkmead is certified as a Green Business (Napa Green Certified Winery) and was verified as carbon neutral through the PG&E ClimateSmart program. In addition to solar facilities, Larkmead has undertaken other GHG emission reduction measures such as high efficiency irrigation and other water conservation measures within the landscape design, on-site waste water disposal, and infiltration methods for post-construction storm water. Although no new buildings are proposed, a summary of the voluntary measures that were completed with the existing winery and with the subsequent addition are summarized on the Checklist of Voluntary GHG Reduction Measure.

Use Permit Information Sheet

Use

Narrative description of the proposed use (please attach additional sheets as necessary):

The Use Permit for the existing winery was approved September, 2004 for construction of a 36,000 gallon per year winery within 2 separate buildings and a covered crush area. A modification was approved June 6, 2012 to construct an additional barrel storage building and make a small amendment to the parking and employee numbers. The barrel building was constructed as planned and completed February, 2013.

Larkmead is planning to include more of their own estate fruit in the total production and is requesting a production increase to 75,000 gallons per year. In addition, an increase to the tours an tasting and marketing plan is proposed.

Information has been included for traffic, water and wastewater analysis to demonstrate that the winery can operate as planned for the requested production capacity and visitation.

What, if any, additional licenses or approvals will be required to allow the use?

District_____ Regional _____

State _____ Federal _____

Improvements

Narrative description of the proposed on-site and off-site improvements (please attach additional sheets as necessary):

Access to the winery off Larkmead Lane will remain unchanged. Ten (10) new parking spaces will be provided adjacent to the existing parking area. The on site wastewater system will be improved as described in the wastewater feasibility report. No interior or exterior changes to the buildings are required.

DRAFT 8/01/14

USE Permit Modification Information Sheet
Larkmead Winery
1100 Larkmead Lane, Calistoga

APN: 020-240-001
ACREAGE: 17.85 ± acres
GENERAL PLAN DESIGNATION: AR, Agricultural Resource
ZONING DESIGNATION: AP, Agricultural Preserve

In 2004, the Use Permit (#P04-0204-UP) established Larkmead as a 36,000 gallon per year facility and the winery began operations in a newly constructed facility in 2005. Also designed by architect Howard Backen, a tasting room adjoining the winery in a similar classic "American Farmhouse & Barn" style, opened to welcome wine consumers in April 2006.

Larkmead is a deeply historical Napa Valley Vineyard and was founded in 1895. It has always been known for fine wines and garnered many awards over the years and was poured at the state dinner held for President Franklin D. Roosevelt in San Francisco in 1938. Andre Tchelistcheff and Robert Mondavi said there were 4 great historic Napa Wineries; Inglenook, Beaulieu, Larkmead and Beringer. Larkmead is the only one still in family hands. Larkmead is also one of the founding members of the Napa Valley Vintners Association established in 1944. In the 1930's and 40's Doctor Harold Olmo, a viticulturist at Davis, had a clonal station at Larkmead which became the basis for the U.C. Davis clonal station in Oakville. Larkmead consists of approximately 150 acres, some adjacent to the Napa River and Selby Creek.

The 111 vineyard acres consist of Cabernet Sauvignon, Sauvignon Blanc and Bordeaux varietal vines which are all estate bottled. All the vineyards are contiguous to the winery. Larkmead is a strong supporter of the agricultural preserve and has done extensive repair and restoration on both the Napa River and Selby Creek and was a catalyst for the Selby Creek/Dutch Henry Creek watershed project. The Larkmead winery is essentially solar and is a Napa Valley Green Certified Winery and carbon neutral. We are in the process of installing an electric car charging station.

In 2012 the Use Permit was modified (#P12-00105-MOD) to construct a barrel storage building of three distinct and smaller rooms to be more energy efficient and to retrofit the existing tank room by adding more tanks to have the ability to make wine in smaller lots of measured quality and to have the capacity to make more wine from the Estate's 111 acres under vine. The new construction also included an office/conference room, a wine library and an employee break room with a commercial kitchen for food pairings. In addition, 5 parking spaces were added as

well as an additional 180 solar panels, bringing the winery's total up to 300 solar panels.

The primary purpose of this current modification is to request an increase in annual production from 36,000 to 75,000 gallons per year and an increase in the daily visits and tastings by appointment. Larkmead owns and farms 111 acres of vineyard. Currently Larkmead is working with 55 acres of vineyard with 10 acres in development. The remaining 46 acres include grapes sold to other fine wineries in the Napa Valley. Larkmead is and has only bottled Estate wines. In the coming years, Larkmead plans to vinify more of its Estate fruit at the winery as existing parcels are being redeveloped. This will require, as noted in the request above, the approval of an increased level of annual production. No changes to the buildings are required. To accommodate the additional production and visitors, Larkmead will add 10 parking spaces and make the necessary improvements to the onsite sanitary and process waste systems as outlined in the report prepared by Always Engineering. The 10 additional parking spaces will be added adjacent to the existing 15 space for a total of 25 onsite spaces, two of which are handicapped accessible.

The existing marketing plan includes visits and tasting by appointment for a maximum of 40 persons per day. Marketing includes 3 private wine and food tasting events per month for a maximum of 25 persons and 2 special wine and food tasting events per year for a maximum of 120 persons. Larkmead is requesting an increase in the daily visits and tasting to 100 persons maximum on week days and 150 persons on week ends. Marketing would be increased from 3 private wine and food tasting events per month to 4, for a maximum of 25 persons. Larkmead is requesting one additional special wine and food tasting events per year for a maximum of 300 persons.

W-Trans completed a focused traffic analysis of the potential impacts from both the expanded production and increased visitation (May 2, 2014) and found that the increase would result in a *"less-than-significant traffic impact"* on Larkmead Lane.

Larkmead has made a significant effort in the area of sustainable design and have already implemented environmental measures that have a direct correlation to overall GHG emission reduction goals. As noted above, extensive solar facilities were installed on the original winery building and the newer barrel building that provide for energy efficiencies that go beyond Title 24 requirements. Larkmead is certified as a Green Business (Napa Green Certified Winery). In addition to solar facilities, Larkmead has undertaken other GHG emission reduction measures such as high efficiency irrigation and other water conservation measures within the landscape design, on-site waste water disposal and infiltration methods for post-construction storm water. No new buildings are proposed.

We have provided the above information for what we feel is a very reasonable and balanced Use Permit application. Larkmead was founded in 1895 and we look forward to being a positive and constructive force and strong supporter of the agricultural preserve and the Napa Valley brand.

Improvements, cont.

Total on-site parking spaces: 15 existing 25 proposed

Loading areas: 1 existing 1 proposed

Fire Resistivity (check one; if not checked, Fire Marshal will assume Type V – non rated):

☐ Type I FR ☐ Type II 1 Hr ☐ Type II N (non-rated) ☐ Type III 1 Hr ☐ Type III N

☐ Type IV H.T. (Heavy Timber) ☐ Type V 1 Hr. ☑ Type V (non-rated)

(for reference, please see the latest version of the California Building Code)

Is the project located in an Urban/Wildland Interface area? ☐ Yes ☑ No

Total land area to be disturbed by project (include structures, roads, septic areas, landscaping, etc): 3,605 SF or 0.08 acres acres

Employment and Hours of Operation

Days of operation:	7 days	existing	no change	proposed
Hours of operation:	7 a.m. - 6 p.m.	existing	no change	proposed
Anticipated number of employee shifts:	1	existing	no change	proposed
Anticipated shift hours:	8 hours	existing	no change	proposed

Maximum Number of on-site employees:

☑ 10 or fewer ☐ 11-24 ☐ 25 or greater (specify number) _____

Alternately, you may identify a specific number of on-site employees:

☐ other (specify number) _____

Larkmead Vineyards
Use Permit
May 9, 2014

Winery Coverage Accessory Production Ratio

USE	AREA (SQUARE FEET)	WINERY DEVELOPMENT (SQUARE FEET)	OTHER WINERY COVERAGE (SQUARE FEET)	PRODUCTION USE (SQUARE FEET)	ACCESSORY USE (SQUARE FEET)
EXISTING					
PRODUCTION BUILDINGS (FERMENTATION)	4,938	4,938		4,938	
EAST TASTING ROOM	2,650	2,650			2,650
TASTING ROOM PARKING	3,282		3,282		
TASTING ROOM PATHWAYS	4,309		4,309		
EAST TASTING ROOM COVERED PORCH	1,546	1,546			
BBQ	410		410		410
WINE LAB	224	224		224	
OFFICES	360	360			360
COVERED CRUSH PAD	1,277	1,277		1,277	
TRASH ENCLOSURE	535	535			
MECHANICAL EQUIPMENT	588	588			
WATER TANK	587	587			
ACCESS WALK	500	500			
BREAK ROOM	385	385			385
GALLERY	513	513			
WINE STORAGE	105	105		105	
WINE LIBRARY	158	158		158	
WEST TASTING/CONFERENCE ROOM	1,118	1,118			1,118
WEST TASTING COVERED PORCH/WALKWAYS	1,628	1,628			
WEST TASTING ACCESS WALKWAY	1,926		1,926		
EMPLOYEE PARKING WEST	223	223			
DRIVEWAY	24,615	24,615			
CONC. SLAB/PAD (EQUIPMENT)	263	263			
ACCESSIBLE EMPLOYEE PARKING	252	252			
EMPLOYEE PARKING EAST	1,059	1,059			
PRODUCTION BUILDINGS (BARREL HALL)	8,270	8,270		7,870	
TOTAL EXISTING (SF):		**51,794**	**9,927**	**14,572**	**4,923**
TOTAL EXISTING (ACRE):		**1.19**	**0.23**	**0.33**	**0.11**
TOTAL EXISTING WINERY BUIDLINGS (SF)					**19,495**
EXISTING ACCESSORY TO PRODUCTION RATIO					**25.3%**

TOTAL WINERY DEVELOPMENT AREA:	**1.19 ACRES**
TOTAL WINERY DEVELOPMENT AREA:	**51,794 SF**
TOTAL WINERY COVERAGE:	**61,721 SF**
TOTAL WINERY COVERAGE:	**1.42 ACRES**
EXISTING WINERY DEVELOPMENT OF PARCEL:	**6.66 %**
EXISTING WINERY COVERAGE OF PARCEL:	**7.94 %**
PARCEL SIZE	**17.85 ACRES**
PARCEL SIZE	**777,546 SF**

Larkmead Vineyards
Use Permit
May 9, 2014

Winery Coverage Accessory Production Ratio

USE	AREA (SQUARE FEET)	WINERY DEVELOPMENT (SQUARE FEET)	OTHER WINERY COVERAGE (SQUARE FEET)	PRODUCTION USE (SQUARE FEET)	ACCESSORY USE (SQUARE FEET)
PROPOSED					
TASTING ROOM PARKING	3605		3605		
TOTAL PROPOSED (SF):		**0**	**3,605**	**0**	**0**
TOTAL PROPOSED (ACRE):		**0.00**	**0.08**	**0.00**	**0.00**
TOTAL WINERY BUILDINGS - EXISTING AND PROPOSED (SF)				**14,572**	**4,923**
TOTAL WINERY BUILDINGS - EXISTING AND PROPOSED (ACRES)				**0.33**	**0.11**
PROPOSED ACCESSORY TO PRODUCTION RATIO					**25.3%**

EXISTING AND PROPOSED	
TOTAL WINERYCOVERAGE AREA:	**1.50 ACRES**
TOTAL WINERY COVERAGE AREA:	**65,326 SF**
TOTAL WINERY DEVELOPMENT:	**51,794 SF**
TOTAL WINERY DEVELOPMENT:	**1.19 ACRES**
PROPOSED WINERY DEVELOPMENT OF PARCEL:	**6.66 %**
PROPOSED WINERY COVERAGE OF PARCEL:	**8.40 %**

Certification and Indemnification

Applicant certifies that all the information contained in this application, including all information required in the Checklist of Required Application Materials and any supplemental submitted information including, but not limited to, the information sheet, water supply/waste disposal information sheet, site plan, floor plan, building elevations, water supply/waste disposal system site plan and toxic materials list, is complete and accurate to the best of his/her knowledge. Applicant and property owner hereby authorize such investigations including access to County Assessor's Records as are deemed necessary by the County Planning Division for preparation of reports related to this application, *including the right of access to the property involved.*

Pursuant to Chapter 1.30 of the Napa County Code, as part of the application for a discretionary land use project approval for the project identified below, Applicant agrees to defend, indemnify, release and hold harmless Napa County, its agents, officers, attorneys, employees, departments, boards and commissions (hereafter collectively "County") from any claim, action or proceeding (hereafter collectively "proceeding") brought against County, the purpose of which is to attack, set aside, void or annul the discretionary project approval of the County, or an action relating to this project required by any such proceeding to be taken to comply with the California Environmental Quality Act by County, or both. This indemnification shall include, but not be limited to damages awarded against the County, if any, and cost of suit, attorneys' fees, and other liabilities and expenses incurred in connection with such proceeding that relate to this discretionary approval or an action related to this project taken to comply with CEQA whether incurred by the Applicant, the County, and/or the parties initiating or bringing such proceeding. Applicant further agrees to indemnify the County for all of County's costs, attorneys' fees, and damages, which the County incurs in enforcing this indemnification agreement.

Applicant further agrees, as a condition of project approval, to defend, indemnify and hold harmless the County for all costs incurred in additional investigation of or study of, or for supplementing, redrafting, revising, or amending any document (such as an EIR, negative declaration, specific plan, or general plan amendment) if made necessary by said proceeding and if the Applicant desires to pursue securing approvals which are conditioned on the approval of such documents.

In the event any such proceeding is brought, County shall promptly notify the Applicant of the proceeding, and County shall cooperate fully in the defense. If County fails to promptly notify the Applicant of the proceeding, or if County fails to cooperate fully in the defense, the Applicant shall not thereafter be responsible to defend, indemnify, or hold harmless the County. The County shall retain the right to participate in the defense of the proceeding if it bears its own attorneys' fees and costs, and defends the action in good faith. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved by the Applicant.

COLIN HAZPHAL

Print Name of Property Owner

Print Name Signature of Applicant (if different)

Signature of Property Owner

5/9/14

Date

Signature of Applicant

Date

Operations

Please indicate whether the activity or uses below are already legally **EXISTING**, whether they exist and are proposed to be **EXPANDED** as part of this application, whether they are **NEWLY PROPOSED** as part of this application, or whether they are neither existing nor proposed (**NONE**).

Retail Wine Sales	☑ Existing	☐ Expanded	☐ Newly Proposed	☐ None
Tours and Tasting- Open to the Public	☐ Existing			
Tours and Tasting- By Appointment	☐ Existing	☑ Expanded	☐ Newly Proposed	☐ None
Food at Tours and Tastings	☐ Existing	☑ Expanded	☐ Newly Proposed	☐ None
Marketing Events*	☐ Existing	☑ Expanded	☐ Newly Proposed	☐ None
Food at Marketing Events	☑ Existing	☐ Expanded	☐ Newly Proposed	☐ None
Will food be prepared...	☑ On-Site?	☐ Catered?		
Public display of art or wine-related items	☑ Existing	☐ Expanded	☐ Newly Proposed	☐ None

** For reference please see definition of "Marketing," at Napa County Code §18.08.370 - http://library.municode.com/index.aspx?clientId=16513*

Production Capacity *

Please identify the winery's...

Existing production capacity: 36,000 gal/y Per permit №: #P04-0204 Permit date: Sept. 1, 2004

Current maximum actual production: 32,000 gal/y For what year? 2013

Proposed production capacity: 75,000 gal/y

** For this section, please see "Winery Production Process," at page 11.*

Visitation and Hours of Operation

Please identify the winery's...

Maximum daily tours and tastings visitation:	40/day	existing	150/day	proposed
Average daily tours and tastings visitation[1]:	40/day	existing	43/day	proposed
Visitation hours (e.g. M-Sa, 10am-4pm):	10 am-4:30 pm	existing	9 am-6:00 pm	proposed
Non-harvest Production hours[2]:	7 a.m - 6 p.m.	existing	no change	proposed

[1] Average daily visitation is requested primarily for purposes of environmental review and will not, as a general rule, provide a basis for any condition of approval limiting allowed winery visitation.
[2] It is assumed that wineries will operate up to 24 hours per day during crush.

Grape Origin

All new wineries and any existing (pre-WDO) winery expanding beyond its winery development area must comply with the 75% rule and complete the attached "Initial Statement of Grape Source". See Napa County Code §18.104.250 (B) & (C).

Marketing Program

Please describe the winery's proposed marketing program. Include event type, maximum attendance, food service details, etc. Differentiate between existing and proposed activities. (Attach additional sheets as necessary.)

3 events per month for a maximum of 25 persons are approved
Requesting increase to 4 events per month for a maximum of 25 persons

2 events per year for a maximum of 120 persons are approved
Requesting one additional large event per year for a maximum of 300 persons

Food Service

Please describe the nature of any proposed food service including type of food, frequency of service, whether prepared on site or not, kitchen equipment, eating facilities, etc. Please differentiate between existing and proposed food service. (Attach additional sheets as necessary.)

Tours and tasting may include food as allowed for in Section 18.08.620 of the Napa County Code. The new employee break room was designed and permitted to also serve as a commercial kitchen for on site cooking and a staging area for catering services. Tours and tasting may include the sale of wine as authorized under AB 2004.

Winery Coverage and Accessory/Production Ratio

Winery Development Area. Consistent with the definition at "a.," at page 11 and with the marked-up site plans included in your submittal, please indicate your proposed winery development area. If the facility already exists, please differentiate between existing and proposed.

Existing 51,794 sq. ft. 1.19 acres

Proposed SAME sq. ft. SAME acres

Winery Coverage. Consistent with the definition at "b.," at page 11 and with the marked-up site plans included in your submittal, please indicate your proposed winery coverage (maximum 25% of parcel or 15 acres, whichever is less).

65,326 sq. ft. 1.50 acres 8.40 % of parcel

Production Facility. Consistent with the definition at "c.," at page 11 and the marked-up floor plans included in your submittal, please indicate your proposed *production* square footage. If the facility already exists, please differentiate between existing and proposed.

Existing 14,572 sq. ft. Proposed 14,572 sq. ft.

Accessory Use. Consistent with the definition at "d.," at page 11 and the marked-up floor plans included in your submittal, please indicate your proposed *accessory* square footage. If the facility already exists, please differentiate between existing and proposed. (maximum = 40% of the production facility)

Existing 4,923 sq. ft. 25.3 % of production facility

Proposed 4,923 sq. ft. 25.3 % of production facility

Caves and Crushpads

If new or expanded caves are proposed please indicate which of the following best describes the public accessibility of the cave space:

☐ None – no visitors/tours/events (**Class I**) ☐ Guided Tours Only (**Class II**) ☐ Public Access (**Class III**)

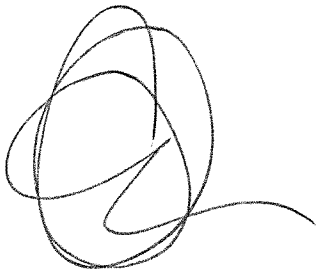
☐ Marketing Events and/or Temporary Events (**Class III**)

Please identify the winery's...

Cave area	Existing: _____ sq. ft.	Proposed: _____ sq. ft.
Covered crush pad area	Existing: 1,277 sq. ft.	Proposed: no change sq. ft.
Uncovered crush pad area	Existing: _____ sq. ft.	Proposed: _____ sq. ft.

Initial Statement of Grape Source

Pursuant to Napa County Zoning Ordinance Sections 12419(b) and (c),
I hereby certify that the current application for establishment or expansion of a winery pursuant to the Napa County Winery Definition Ordinance will employ sources of grapes in accordance with the requirements of Section 12419(b) and/or (c) of that Ordinance.



May 9th 2014

Owner's Signature **Date**

Letters of commitment from grape suppliers and supporting documents may be required prior to issuance of any building permits for the project. Recertification of compliance will be required on a periodic basis. Recertification after initiation of the requested wine production may require the submittal of additional information regarding individual grape sources. Proprietary information will not be disclosed to the public.

Water Supply/ Waste Disposal Information Sheet

Water Supply

Please attach completed Phase I Analysis sheet.

	Domestic	Emergency
Proposed source of water (e.g., spring, well, mutual water company, city, district, etc.):	well	well
Name of proposed water supplier (if water company, city, district):	n/a	n/a
Is annexation needed?	☐ Yes ☑ No	☐ Yes ☑ No
Current water use:	1,625 gallons per day (gal/d)	
Current water source:	well	well
Anticipated future water demand:	2,845 gal/d	n/a gal/d
Water availability (in gallons/minute):	120 gal/m	300 gal/m
Capacity of water storage system:	2,000 gal	30,000 gal
Type of emergency water storage facility if applicable (e.g., tank, reservoir, swimming pool, etc.):	tank	

Liquid Waste

Please attach Septic Feasibility Report

	Domestic	Other
Type of waste:	sewage	process waste
Disposal method (e.g., on-site septic system, on-site ponds, community system, district, etc.):	on-site septic	on-site septic
Name of disposal agency (if sewage district, city, community system):	n/a	n/a
Is annexation needed?	☐ Yes ☑ No	☐ Yes ☑ No
Current waste flows (peak flow):	425 gal/d	1,200 gal/d
Anticipated future waste flows (peak flow):	970 gal/d	1,875 gal/d
Future waste disposal design capacity:	1,000 gal/d	2,534 gal/d

Solid Waste and Recycling Storage and Disposal

Please include location and size of solid waste and recycling storage area on site plans in accordance with the guidelines available at www.countyofnapa.org/dem.

Hazardous and/or Toxic Materials

If your facility generates hazardous waste or stores hazardous materials above threshold planning quantities (55 gallons liquid, 500 pounds solid or 200 cubic feet of compressed gas) then a hazardous materials business plan and/or a hazardous waste generator permit will be required.

Grading Spoils Disposal

Where will grading spoils be disposed of?
(e.g. on-site, landfill, etc. If off-site, please indicate where off-site): _____

Winery Traffic Information / Trip Generation Sheet

Project Name: Larkmead Winery

Project Scenario: Existing Conditions

Traffic during a Typical Weekday

Number of FT employees: 6 x 3.05 one-way trips per employee = 18 daily trips.

Number of PT employees: 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of weekday visitors: 28 / 2.6 visitors per vehicle x 2 one-way trips = 22 daily trips.

Gallons of production: 75000 / 1,000 x .009 truck trips daily[3] x 2 one-way trips = 1 daily trips.

Total = 49 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (sum of visitor and truck trips x .38) = 17 **PM peak trips.**

Traffic during a Typical Saturday

Number of FT employees (on Saturdays): 6 x 3.05 one-way trips per employee = 18 daily trips.

Number of PT employees (on Saturdays): 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of Saturday visitors: 28 / 2. 8 visitors per vehicle x 2 one-way trips = 20 daily trips.

Total = 46 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (visitor trips x .57) = 19 **PM peak trips.**

Traffic during a Crush Saturday

Number of FT employees (during crush): 6 x 3.05 one-way trips per employee = 18 daily trips.

Number of PT employees (during crush): 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of Saturday visitors: 60 / 2. 8 visitors per vehicle x 2 one-way trips = 43 daily trips.

Gallons of production: 75000 / 1,000 x .009 truck trips daily x 2 one-way trips = 1 daily trips.

Avg. annual tons of grape on-haul: 0 / 144 truck trips daily [4] x 2 one-way trips = 0 daily trips.

Total = 70 **daily trips.**

Largest Marketing Event- Additional Traffic

Number of event staff (largest event): 10 x 2 one-way trips per staff person = 20 trips.

Number of visitors (largest event): 120 / 2.8 visitors per vehicle x 2 one-way trips = 86 trips.

Number of special event truck trips (largest event): 4 x 2 one-way trips = 8 trips.

[3] Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

[4] Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

Winery Traffic Information / Trip Generation Sheet

Project Name: Larkmead Winery

Project Scenario: Proposed Conditions

Traffic during a Typical Weekday

Number of FT employees: 8 x 3.05 one-way trips per employee = 24 daily trips.

Number of PT employees: 3 x 1.90 one-way trips per employee = 6 daily trips.

Average number of weekday visitors: 69 / 2.6 visitors per vehicle x 2 one-way trips = 53 daily trips.

Gallons of production: 75000 / 1,000 x .009 truck trips daily[3] x 2 one-way trips = 1 daily trips.

Total = 85 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (sum of visitor and truck trips x .38) = 30 **PM peak trips.**

Traffic during a Typical Saturday

Number of FT employees (on Saturdays): 2 x 3.05 one-way trips per employee = 6 daily trips.

Number of PT employees (on Saturdays): 4 x 1.90 one-way trips per employee = 8 daily trips.

Average number of Saturday visitors: 104 / 2. 8 visitors per vehicle x 2 one-way trips = 74 daily trips.

Total = 88 **daily trips.**

(№ of FT employees) + (№ of PT employees/2) + (visitor trips x .57) = 46 **PM peak trips.**

Traffic during a Crush Saturday

Number of FT employees (during crush): 20 x 3.05 one-way trips per employee = 61 daily trips.

Number of PT employees (during crush): 10 x 1.90 one-way trips per employee = 19 daily trips.

Average number of Saturday visitors: 60 / 2. 8 visitors per vehicle x 2 one-way trips = 43 daily trips.

Gallons of production: 75000 / 1,000 x .009 truck trips daily x 2 one-way trips = 1 daily trips.

Avg. annual tons of grape on-haul: 1000 / 144 truck trips daily [4] x 2 one-way trips = 14 daily trips.

Total = 138 **daily trips.**

Largest Marketing Event- Additional Traffic

Number of event staff (largest event): 30 x 2 one-way trips per staff person = 60 trips.

Number of visitors (largest event): 300 ~~500~~ / 2.8 visitors per vehicle x 2 one-way trips = 107 ~~357~~ trips.

Number of special event truck trips (largest event): 10 x 2 one-way trips = 20 trips.

[3] Assumes 1.47 materials & supplies trips + 0.8 case goods trips per 1,000 gallons of production / 250 days per year (see *Traffic Information Sheet Addendum* for reference).

[4] Assumes 4 tons per trip / 36 crush days per year (see *Traffic Information Sheet Addendum* for reference).

Planning, Building & Environmental Services - Hillary Gitelman, Director
1195 Third Street, Napa, CA 94559 - (707) 253-4417 - www.countyofnapa.org

A Tradition of Stewardship
A Commitment to Service

Project name & APN: larkmead Vineyards, 020-240-001
Project number if known:
Contact person: Beth Painter
Contact email & phone number: beth@bpnapa.com 287-9089
Today's date: May 12, 2014

Voluntary Best Management Practices Checklist for Development Projects

Napa County General Plan Policy CON-65 (e) and Policy CON-67 (d) requires the consideration of Greenhouse Gas (GHG) emissions in the review of discretionary projects and to promote and encourage "green building" design. The below Best Management Practices (BMPs) reduce GHG emissions through energy and water conservation, waste reduction, efficient transportation, and land conservation. The voluntary checklist included here should be consulted early in the project and be considered for inclusion in new development. It is not intended, and likely not possible for all projects to adhere to all of the BMPs. Rather, these BMPs provide a portfolio of options from which a project could choose, taking into consideration cost, co-benefits, schedule, and project specific requirements. Please check the box for all BMPs that your project proposes to include and include a separate narrative if your project has special circumstances.

Practices with Measurable GHG Reduction Potential

The following measures reduce GHG emissions and if needed can be calculated. They are placed in descending order based on the amount of emission reduction potential.

Already Doing	Plan To Do	ID #	BMP Name
☑	☐	BMP-1	**Generation of on-site renewable energy**

If a project team designs with alternative energy in mind at the conceptual stage it can be integrated into the design. For instance, the roof can be oriented, sized, and engineered to accommodate photovoltaic (PV) panels. If you intend to do this BMP, please indicate the location of the proposed PV panels on the building elevations or the location of the ground mounted PV array on the site plan. Please indicate the total annual energy demand and the total annual kilowatt hours produced or purchased and the potential percentage reduction of electrical consumption. Please contact staff or refer to the handout to calcuate how much electrical energy your project may need.

Solar facilities installed on original winery building and newer barrel building
300 total solar panels
120 @ 165 W
180 @ 265 W

☑	☐	BMP-2	**Preservation of developable open space in a conservation easement**

Please indicate the amount and location of developable land (i.e.: under 30% slope and not in creek setbacks or environmentally sensitive areas for vineyards) conserved in a permanent easement to prohibit future development.

Fish Friendly Farming
Selby Creek Restoration Project

Already Doing	Plan To Do		
☐	☑	BMP-3	**Habitat restoration or new vegetation (e.g. planting of additional trees over 1/2 acre)**

Napa County is famous for its land stewardship and preservation. Restoring areas within the creek setback reduces erosion potential while planting areas that are currently hardscape (such as doing a bio-retention swale rather than underground storm drains) reduces storm water and helps the groundwater recharge. Planting trees can also increase the annual uptake of CO2e and add the County's carbon stock.

Although less than 1/2 acre, landscaping around the property with additional trees near drainage is planned for the future

☐ ☑ **BMP-4 Alternative fuel and electrical vehicles in fleet**

The magnitude of GHG reductions achieved through implementation of this measure varies depending on the analysis year, equipment, and fuel type replaced.

Number of total vehicles
Typical annual fuel consumption or VMT
Number of alternative fuel vehicles costing option to install electric charging station
Type of fuel/vehicle(s)
Potential annual fuel or VMT savings

☐ ☐ **BMP-5 Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 2**

The California Building Code update effective January 1, 2011 has new mandatory green building measures for all new construction and has been labeled CALGREEN. CALGREEN provides two voluntary higher levels labeled CALGREEN Tier I and CALGREEN Tier II. Each tier adds a further set of green building measures that go above and beyond the mandatory measures of the Code. In both tiers, buildings will use less energy than the current Title 24 California Energy Code. Tier I buildings achieve at least a 15% improvement and Tier 2 buildings are to achieve a 30% improvement. Both tiers require additional non-energy prerequisites, as well as a certain number of elective measures in each green building category (energy efficiency, water efficiency, resource conservation, indoor air quality and community).

☐ ☑ **BMP-6 Vehicle Miles Traveled (VMT) reduction plan**

Selecting this BMP states that the business operations intend to implement a VMT reduction plan reducing annual VMTs by at least 15%.

Tick box(es) for what your Transportation Demand Management Plan will/does include:

- ☐ employee incentives
- ☐ employee carpool or vanpool
- ☑ priority parking for efficient transporation (hybrid vehicles, carpools, etc.)
- ☑ bike riding incentives
- ☐ bus transportation for large marketing events
- ☐ Other:

Estimated annual VMT

Potential annual VMT saved
% Change

Already Doing	Plan To Do		
☐	☐	**BMP-7**	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 1** *See description below under BMP-5.*
☐	☐	**BMP-8**	**Solar hot water heating** *Solar water heating systems include storage tanks and solar collectors. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which don't. Both of them would still require additional heating to bring them to the temperature necessary for domestic purposes. They are commonly used to heat swimming pools.*
☑	☐	**BMP-9**	**Energy conserving lighting** *Lighting is approximately 25% of typical electrical consumption. This BMP recommends installing or replacing existing light bulbs with energy-efficient compact fluorescent (CF) bulbs or Light Emitting Diode (LED) for your most-used lights. Although they cost more initially, they save money in the long run by using only 1/4 the energy of an ordinary incandescent bulb and lasting 8-12 times longer. Typical payback from the initial purchase is about 18 months.*
☐	☐	**BMP-10**	**Energy Star Roof/Living Roof/Cool Roof** *Most roofs are dark-colored. In the heat of the full sun, the surface of a black roof can reach temperatures of 158 to 194 °F. Cool roofs, on the other hand, offer both immediate and long-term benefits including reduced building heat-gain and savings of up to 15% the annual air-conditioning energy use of a single-story building. A cool roof and a green roof are different in that the green roof provides living material to act as a both heat sink and thermal mass on the roof which provides both winter warming and summer cooling. A green (living) roof also reduces storm water runoff.*
☑	☐	**BMP-11**	**Bicycle Incentives** *Napa County Zoning Ordinance requires 1 bicycle rack per 20 parking spaces (§18.110.040). Incentives that go beyond this requirement can include on-site lockers for employees, showers, and for visitor's items such as directional signs and information on biking in Napa. Be creative!* Lockers and showers for employees, bike rack for employees and visitors
☐	☐	**BMP-12**	**Bicycle route improvements** *Refer to the Napa County Bicycle Plan (NCPTA, December 2011) and note on the site plan the nearest bike routes. Please note proximity, access, and connection to existing and proposed bike lanes (Class I: Completely separated right-of-way; Class II: Striped bike lane; Class III: Signed Bike Routes). Indicate bike accessibility to project and any proposed improvements as part of the project on the site plan or describe below.*

Already Doing	Plan To Do		
☐	☐	**BMP-13**	**Connection to recycled water**

Recycled water has been further treated and disinfected to provide a non-potable (non-drinking water) water supply. Using recycled water for irrigation in place of potable or groundwater helps conserve water resources.

☐ ☐ **BMP-14 Install Water Efficient fixtures**

WaterSense, a partnership program by the U.S. Environmental Protection Agency administers the review of products and services that have earned the WaterSense label. Products have been certified to be at least 20 percent more efficient without sacrificing performance. By checking this box you intend to install water efficient fixtures or fixtures that conserve water by 20%.

☑ ☐ **BMP-15 Low-impact development (LID)**

LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Please indicate on the site or landscape plan how your project is designed in this way.

project installed rain garden/bioswale

☑ ☐ **BMP-16 Water efficient landscape**

If your project is a residential development proposing in excess of 5,000 sq. ft. or a commercial development proposing in excess of 2,500 sq. ft. The project will be required to comply with the Water Efficient Landscape Ordinance (WELO).

Please check the box if you will be complying with WELO or If your project is smaller than the minimum requirement and you are still proposing drought tolerant, zeroscape, native plantings, zoned irrigation or other water efficient landscape.

☑ ☐ **BMP-17 Recycle 75% of all waste**

Did you know that the County of Napa will provide recycling collectors for the interior of your business at no additional charge? With single stream recycling it is really easy and convenient to meet this goal. To qualify for this BMP, your business will have to be aggressive, proactive and purchase with this goal in mind.

Already Doing	Plan To Do		
☑	☐	**BMP-18**	**Compost 75% food and garden material**

The Napa County food composting program is for any business large or small that generates food scraps and compostable, including restaurants, hotels, wineries, assisted living facilities, grocery stores, schools, manufacturers, cafeterias, coffee shops, etc. All food scraps (including meat & dairy) as well as soiled paper and other compostable - see http://www.naparecycling.com/foodcomposting for more details.

☑ ☐ **BMP-19 Implement a sustainable purchasing and shipping programs**

Environmentally Preferable Purchasing (EPP) or Sustainable Purchasing refers to the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. By selecting this BMP, you agree to have an EPP on file for your employees to abide by.

☐ ☐ **BMP-20 Planting of shade trees within 40 feet of the south side of the building elevation**

Well-placed trees can help keep your building cool in summer. If you choose a deciduous tree after the leaves drop in autumn, sunlight will warm your building through south and west-facing windows during the colder months. Well-designed landscaping can reduce cooling costs by 20%. Trees deliver more than energy and cost savings; they are important carbon sinks. Select varieties that require minimal care and water, and can withstand local weather extremes. Fruit or nut trees that produce in your area are great choices, providing you with local food as well as shade. Please use the site or landscape plan to indicate where trees are proposed and which species you are using.

☐ ☑ **BMP-21 Electrical Vehicle Charging Station(s)**

As plug-in hybrid electric vehicles (EV) and battery electric vehicle ownership is expanding, there is a growing need for widely distributed accessible charging stations. Please indicate on the site plan where the station will be.

Costing out option to install charging station

☑ ☐ **BMP-22 Public Transit Accessibility**

Refer to http://www.ridethevine.com/vine and indicate on the site plan the closest bus stop/route. Please indicate if the site is accessed by transit or by a local shuttle. Provide an explanation of any incentives for visitors and employees to use public transit. Incentives can include bus passes, informational hand outs, construction of a bus shelter, transportation from bus stop, etc.

VINE stop available at Larkmead Lane at Highway 29

Already Doing	Plan To Do		
☑	☐	**BMP-23**	**Site Design that is oriented and designed to optimize conditions for natural heating, cooling, and day lighting of interior spaces, and to maximize winter sun exposure; such as a cave.** *The amount of energy a cave saves is dependent on the type of soil, the microclimate, and the user's request for temperature control. Inherently a cave or a building burned into the ground saves energy because the ground is a consistent temperature and it reduces the amount of heating and cooling required. On the same concept, a building that is oriented to have southern exposure for winter warmth and shading for summer cooling with an east-west cross breeze will naturally heat, cool, and ventilate the structure without using energy. Please check this box if your design includes a cave or exceptional site design that takes into consideration the natural topography and sitting. Be prepared to explain your approach and estimated energy savings.* skylights installed in industrial and commercial spaces
☑	☐	**BMP-24**	**Limit the amount of grading and tree removal** *Limiting the amount of earth disturbance reduces the amount of CO2 released from the soil and mechanical equipment. This BMP is for a project design that either proposes a project within an already disturbed area proposing development that follows the natural contours of the land, and that doesn't require substantial grading or tree removal.*
☐	☐	**BMP-25**	**Will this project be designed and built so that it could qualify for LEED?**

BMP-25 (a)	☐	**LEED™ Silver** (check box BMP-25 and this one)
BMP-25 (b)	☐	**LEED™ Gold** (check box BMP-25, BMP-25 (a), and this box)
BMP-25 (c)	☐	**LEED™ Platinum** (check all 4 boxes)

Practices with Un-Measured GHG Reduction Potential

☑	☐	**BMP-26**	**Are you, or do you intend to become a Certified Green Business or certified as a"Napa Green Winery"?** *As part of the Bay Area Green Business Program, the Napa County Green Business Program is a free, voluntary program that allows businesses to demonstrate the care for the environment by going above and beyond business as usual and implementing environmentally friendly business practices. For more information check out the Napa County Green Business and Winery Program at www.countyofnapa.org.*
☑	☐	**BMP-27**	**Are you, or do you intend to become a Certified "Napa Green Land"?** *Napa Green Land, fish friendly farming, is a voluntary, comprehensive, "best practices" program for vineyards. Napa Valley vintners and growers develop farm-specific plans tailored to protect and enhance the ecological quality of the region, or create production facility programs that reduce energy and water use, waste and pollution. By selecting this measure either you are certified or you are in the process of certification.*

Already Doing	Plan To Do		
☑	☐	BMP-28	**Use of recycled materials** *There are a lot of materials in the market that are made from recycled content. By ticking this box, you are committing to use post-consumer products in your construction and your ongoing operations.*
☐	☐	BMP-29	**Local food production** *There are many intrinsic benefits of locally grown food, for instance reducing the transportation emissions, employing full time farm workers, and improving local access to fresh fruits and vegetables.*
☑	☐	BMP-30	**Education to staff and visitors on sustainable practices** *This BMP can be performed in many ways. One way is to simply put up signs reminding employees to do simple things such as keeping the thermostat at a consistent temperature or turning the lights off after you leave a room. If the project proposes alternative energy or sustainable winegrowing, this BMP could include explaining those business practices to staff and visitors.*
☑	☐	BMP-31	**Use 70-80% cover crop** *Cover crops reduce erosion and the amount of tilling which is required, which releases carbon into the environment.*
☐	☐	BMP-32	**Retain biomass removed via pruning and thinning by chipping the material and reusing it rather than burning on-site** *By selecting this BMP, you agree not to burn the material pruned on site.*
☐	☐	BMP-33	**Are you participating in any of the above BMPS at a 'Parent' or outside location?**
☐	☐	BMP-34	**Are you doing anything that deserves acknowledgement that isn't listed above?**

Comments and Suggestions on this form?

Sources:

1. Napa County Bicycle Plan, NCTPA, December 2011

2. California Air Pollution Control Officers Associate (CAPCOA). January 2008. CEQA and Climate Change

3. Napa County General Plan, June 2008.

4. California Office of the Attorney General. 2010. Addressing Climate Change at at the Project Level available at http: //ag.ca.gove/global warming/pdf/GW_mitigation_measures.pdf

5. U.S. Green Building Council (2009). LEED 2009 for New Construction and Major Renovations Rating System. Washington, DC: United States Green Building Council, Inc.

6. California Energy Commission (2008). Title 24, Part 6, of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Sacramento, CA: California Energy Commission.

7. U.S. Department of Energy (2010). Cool roof fact sheet.

8. http://www1.eere.energy.gov/buildings/ssl/ledlightingfacts.html

9. Compact Fluorescent Light Bulbs". Energy Star. Retrieved 2013-05-01.

10. http://energy.gov/energysaver/articles/solar-water-heaters. Retrieved 2013-05-02.

11. http://energy.gov/energysaver/articles/solar-water-heater. Retrieved 2013-05-09

12. http://www.bchydro.com/powersmart/residential/guides_tips/green-your-home/cooling_guide/shade_trees.html

13.http://www.napagreen.org/about. Retrieved 2013-05-09

14. http://www.countyofnapa.org/pages/departmentcontent.aspx?id=4294971612

15. http://www.napasan.com/Pages/ContentMenu.aspx?id=109

16. http://water.epa.gov/polwaste/green/index.cfm

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

May 9, 2014

David Morrison, Deputy Director
Napa County Conservation, Development,
& Planning Department
1195 3rd Street, Room 210
Napa, Ca 94559

Project: Larkmead Vineyards
1100 Larkmead Lane
Calistoga, Ca
APN: 020-240-001
Use Permit Modification
Phase 1 Water Availability Analysis

Dear David,

As required by the Napa County Department of Public Works, this letter provides the Phase 1 Water Availability Analysis as a supplement to the Larkmead Vineyards Use Permit modification request. The following information is provided to meet this requirement. Larkmead Vineyards is proposing is proposing to increase annual wine production capacity to 75,000 gallons, increase the number of parking spaces and associated septic system improvements.

SITE PLAN

A Use Permit Site Plan has been provided and is attached. This site plan provides the existing and proposed site conditions. The site consists of an existing production and hospitality buildings, barrel hall, parking and landscape areas, and existing infrastructure. Also provided on the site plan is a portion of the USGS quad map indicating location of the project parcel.

PROJECT DESCRIPTION

Larkmead Vineyards, located at 1100 Larkmead Lane in Calistoga, Napa County, California (APN 020-240-001) is applying for a use permit is proposing to increase annual wine production capacity to 75,000 gallons and increase onsite visitation. With the project it is not proposed to increase the number of employees.

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

ALLOWABLE WATER ALLOTMENT

Parcel acreage	=	17.85 acres
Parcel Location Factor	=	1.0 ac-ft/ac-yr (Mountain Area)
Allowable Water Allotment	=	17.85 ac-ft/yr

Based on Step #2 of the Water Availability Study, the allowable water allotment for the site is 17.85 ac-ft/yr which represents no increase from the existing property.

WATER CONSUMPTION

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

Existing Vineyard Use

13.2 acres x 0.5 ac-ft/ac-yr (irrigation)	=	6.6 ac-ft/yr
Total Existing Vineyard Use	=	**6.6 ac-ft/yr**

Proposed Vineyard Use

13.1 acres x 0.5 ac-ft/ac-yr (irrigation)	=	6.55 ac-ft/yr
Total Proposed Vineyard Use	=	**6.55 ac-ft/yr**

The total amount of proposed vineyard water use is estimated to be 6.55 ac-ft/yr using the Napa County Public Works values. Frost and heat protection do not occur onsite.

Existing and Proposed Winery Process Use

75,000 gallons wine/yr x 2.15 ac-ft/100,000 gallons wine =1.6125 ac-ft/yr

Existing and Proposed Winery Domestic and Landscape Use

75,000 gallons wine/yr x 0.5 ac-ft/100,000 gallons wine =0.375 ac-ft/yr

Total Winery Use

Process Use	=	1.6125 ac-ft/yr
Domestic and Landscape Use	=	0.375 ac-ft/yr
Total Winery Use	=	**1.9875 ac-ft/yr**

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

The total winery water use is estimated to be 1.9875 ac-ft/yr using the Napa County Public Works assumed values.

Total Water Use

The total estimated water consumption from the project is estimated to be 8.5375 ac-ft/yr which is equivalent to 2,781,957 gallons per year.

EXISTING WATER SYSTEM

The existing potable water system consists of the potable onsite well, water storage tanks, pressure tanks, and water treatment. There are other onsite wells which are used for vineyard irrigation only.

SUMMARY AND CONCLUSIONS

As presented above, the overall proposed water use for the Larkmead Vineyards winery is expected to be 8.5375 ac-ft/yr. This amount is below the parcel's allowable water allotment of 17.85 ac-ft/yr. Therefore, the Phase 1 study should be sufficient to satisfy the requirements of the Public Works Department.

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

Sincerely,

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

cc: Dan Petroski (Larkmead Vineyards)
Beth Painter (Balanced Planning)

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

Donald G. Ridenhour, P.E.
Director

WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY

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

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

Step #1:

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

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

Determine the allowable water allotment for your parcels:

Parcel Location Factors

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

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

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

Assessor's Parcel Number(s)	Parcel Size (A)	Parcel Location Factor (B)	Allowable Water Allotment (A) X (B)
020-240-001	17.85	1.0	17.85

Step #3:

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

EXISTING USE:		PROPOSED USE:	
Residential	0 af/yr	Residential	0 af/yr
Farm Labor Dwelling	0 af/yr	Farm Labor Dwelling	0 af/yr
Winery	0.954 af/yr	Winery	1.9875 af/yr
Commercial	0 af/yr	Commercial	0 f/yr
Vineyard*	6.6 af/yr	Vineyard*	6.55 af/yr
Other Agriculture	0 af/yr	Other Agriculture	0 af/yr
Landscaping	0 af/yr	Landscaping	0 af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
TOTAL:	7.554 af/yr	**TOTAL:**	8.5375 af/yr **TOTAL:**
	2,461,482 gallons**	**TOTAL:**	2,781,957 gallons**

Is the proposed use less than the existing usage? [ ] **Yes** [X] **No** [ ] **Equal**

Step #4:

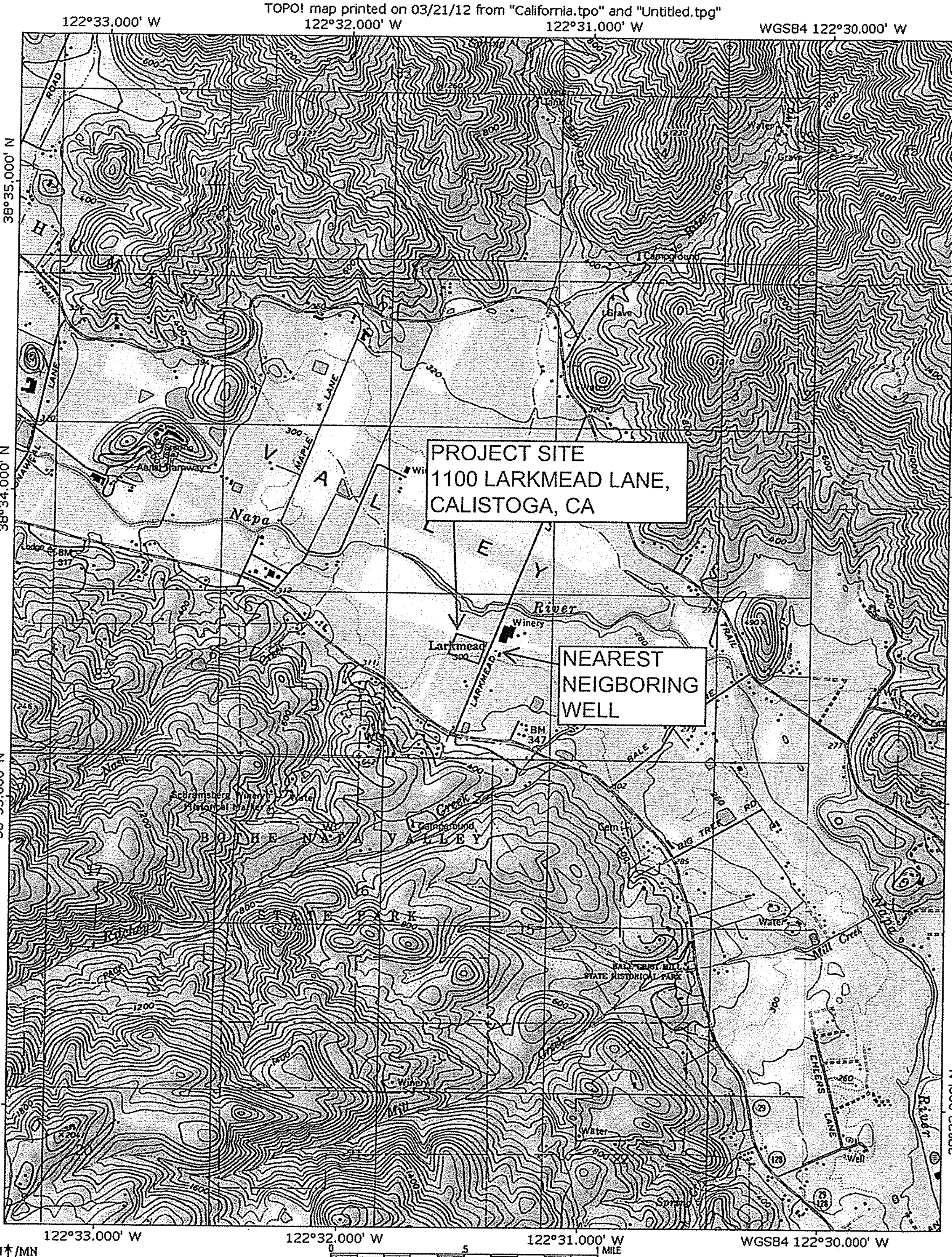
Provide any other information that may be significant to this analysis. For example, any calculations supporting your estimates, well test information including draw down over time, historical water data, visual observations of water levels, well drilling information, changes in neighboring land uses,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

See attached report by Always Engineering, Inc.

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:** 5/8/14 **Phone:** 707-318-7099

TOPO! map printed on 03/21/12 from "California.tpo" and "Untitled.tpg"



TN/MN 15°

0 .5 1 MILE
0 1000 FEET 0 500 1000 METERS

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

NAPA COUNTY CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS
APPENDIX A – PROJECT APPLICABILITY CHECKLIST

Construction Site Runoff Control Applicability Checklist	County of Napa Department of Public Works 1195 Third Street, Suite 201 Napa, CA 94559 (707) 253-4351 www.co.napa.ca.us/publicworks

Project Address:	Assessor Parcel Number(s):	Project Number: *(for County use Only)*
1100 Larkmead Lane Calistoga, CA 94515	020-240-001	

INSTRUCTIONS

Structural projects that require a building and/or grading permit must complete the following checklist to determine if the project is subject to Napa County's Construction Site Runoff Control Requirements. This form must be completed and submitted with your permit application(s). Definitions are provided in the Napa County Construction Site Runoff Control Requirements policy. **Note:** If multiple building or grading permits are required for a common plan of development, the total project shall be considered for the purpose of filling out this checklist.

DETERMINING PROJECT APPLICABILITY TO THE CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

- ✓ If the answer to question 1 of Part A is "Yes" your project is subject to Napa County's Construction Site Runoff Control requirements and must prepare a Stormwater Pollution Prevention Plan (SWPPP). The applicant must also comply with the SWRCB's NPDES General Permit for Stormwater Associated with Construction Activity and must provide a copy of the Notice of Intent (NOI) and Waste Discharge Identification (WDID).
- ✓ If the answer to question 1 of Part A is "No", but the answer to any of the remaining questions is "Yes" your project is subject to Napa County's Construction Site Runoff Control requirements and must prepare a Stormwater Quality Management Plan (SQMP).
- ✓ If every question to Part A is answered "No" your project is exempt from Napa County's Construction Site Runoff Control Requirements, but must comply will all construction site runoff control standard conditions attached to any building or grading permit (see Appendix D of the Napa County Construction Site Runoff Control Requirements).
- ✓ If any of the answers to the questions in Part A is "Yes", complete the construction site prioritization in Part B below.

OVER

NAPA COUNTY CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS
APPENDIX A – PROJECT APPLICABILITY CHECKLIST

Part A: Determine Construction Phase Stormwater Requirements

Would the project meet any of these criteria during construction?

1. Propose any soil disturbance of one acre or more? ..... Yes (No)
2. Does the project propose any soil disturbance greater than 10,000 square feet?..... (Yes) No
3. Does the project propose grading, earth moving, or soil disturbance on slopes 15% or greater?..... Yes (No)
4. Does the project propose earthmoving of 50 cubic yards or more?..... (Yes) No
5. Does the project propose soil disturbance within 50 feet of a stream, ditch, swale, curb and gutter, catch basin or storm drain that concentrates and transports stormwater runoff to a "receiving water" (i.e., Waters of the State defined as all waters, including but not limited to, natural streams, creeks, rivers, reservoirs, lakes, ponds, water in vernal pools, lagoons, estuaries, bays, the Pacific Ocean, and ground water)? Yes (No)

Part B: Determine Construction Site Priority

Projects that are subject to the Construction Site Runoff Control Requirements must be designated with a priority of high, medium, or low. This prioritization must be completed with this form, noted on the plans, and included in the SWPPP or SQMP. Indicate the project's priority in one of the checked boxes using the criteria below. The County reserves the right to adjust the priority of projects both before and during construction.

Note: The construction priority does NOT change construction Best Management Practice (BMP) requirements that apply to projects. The construction priority does affect the frequency of inspections that will be conducted by County staff and associated fees.

Select the highest priority category applicable to the project.

☐ High Priority
- a) Projects with soil disturbance of one acre or greater.
- b) Projects on slopes of 30% or greater.
- c) Projects proposing new storm drains.

(☐) Medium Priority
- a) Projects on slopes from 5% to 29%.
- b) Projects with soil disturbance between 10,000 sq. ft and one acre.
- c) Projects with earthmoving of 50 cubic yards or more.

☐ Low Priority
- a) Projects with soil disturbance within 50 feet stream, ditch, swale, curb and gutter, catch basin or storm drain that concentrates and transports stormwater runoff to a "receiving water".

Name of Owner or Agent (Please Print):	Title:
BEN MONROE	CIVIL ENGINEER
Signature of Owner or Agent:	Date:
[signature]	5/8/14

NAPA COUNTY POST-CONSTRUCTION RUNOFF MANAGEMENT REQUIREMENTS
APPENDIX A – APPLICABILITY CHECKLIST

Post-Construction Runoff Management Applicability Checklist	County of Napa Department of Public Works 1195 Third Street Napa, CA 94559 (707) 253-4351 for information

Project Address:	Assessor Parcel Number(s):	Project Number: *(for County use Only)*
1100 Larkmead Lane Calistoga CA 94515	020-150-017	

Instructions:

Structural projects requiring a use permit, building permit, and/or grading permit must complete the following checklist to determine if the project is subject to the Post-Construction Runoff Management Requirements. In addition, the impervious surface worksheet on the reverse page must also be completed to calculate the amount of new and reconstructed impervious surfaces proposed by your project. This form must be completed, signed, and submitted with your permit application(s). Definitions are provided in the Post-Construction Runoff Management Requirements policy. **Note:** If multiple building or grading permits are required for a common plan of development, the total project shall be considered for the purpose of filling out this checklist.

POST-CONSTRUCTION STORMWATER BMP REQUIREMENTS (Parts A and B)

- ✓ If any answer to Part A are answered "yes" your project is a "Priority Project" and is subject to the Site Design, Source Control, and Treatment Control design standards described in the Napa County Post-Construction Runoff Management Requirements.
- ✓ If all answers to Part A are "No" and any answers to Part B are "Yes" your project is a "Standard Project" and is subject to the Site Design and Source Control design standards described in the Napa County Post-Construction Runoff Management Requirements.
- ✓ If every question to Part A and B are answered "No", your project is exempt from post-construction runoff management requirements.

Part A: Priority Project Categories

Does the project meet the definition of one or more of the priority project categories?

1.	Residential with 10 or more units	Yes (No)
2.	Commercial development greater than 100,000 square feet	Yes (No)
3.	Automotive repair shop	Yes (No)
4.	Retail Gasoline Outlet	Yes (No)
5.	Restaurant	Yes (No)
6.	Parking lots with greater than 25 spaces or greater than 5,000 square feet	Yes (No)

*Refer to the definitions section for expanded definitions of the priority project categories.

Part B: Standard Project Categories

Does the project propose:

1.	A facility that requires a NPDES Permit for Stormwater Discharges Associated with **Industrial** Activities?	Yes (No)
2.	New or redeveloped impervious surfaces 10,000 square feet or greater, excluding roads?	Yes (No)
3.	Hillside residential greater than 30% slope	Yes (No)
4.	Roadway and driveway construction or reconstruction which requires a Grading Permit	Yes (No)
5.	Installation of new storm drains or alteration to existing storm drains?	Yes (No)
6.	Liquid or solid material loading and/or unloading areas?	Yes (No)
7.	Vehicle and/or equipment fueling, washing, or maintenance areas, excluding residential uses?	Yes (No)
8.	Commercial or industrial waste handling or storage, excluding typical office or household waste?	Yes (No)

Note: To find out if your project is required to obtain an individual General NPDES Permit for Stormwater discharges Associated with Industrial Activities, visit the State Water Resources Control Board website at, www.swrcb.ca.gov/stormwtr/industrial.html

NAPA COUNTY POST-CONSTRUCTION RUNOFF MANAGEMENT REQUIREMENTS
APPENDIX A – APPLICABILITY CHECKLIST

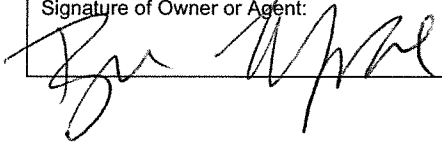
Impervious Surface Worksheet

Project phasing to decrease impervious surface area shall not exempt the project from Post-Construction Runoff Management requirements. A new development or redevelopment project must comply with the requirements if it is part of a larger common plan of development that would result in the creation, addition and/or reconstruction of one acre or more of impervious surface. (For example, if 50% of a subdivision is constructed and results in 0.9 acre of impervious surface, and the remaining 50% of the subdivision is to be developed at a future date, the property owner must comply with the Post-Construction Runoff Management requirements.

Type of Impervious Surface	Impervious Surface (Sq Ft)			Total New and Reconstructed Impervious Surfaces (Sq Ft)
	Pre-Project (if applicable)	**New** (Does not replace any existing impervious area)	**Reconstructed** (Replaces existing impervious area)	
Buildings, Garages, Carports, other Structures with roofs	20,834	0	0	0
Patio, Impervious Decking, Pavers and Impervious Liners	0	0	0	0
Sidewalks and paths	10,822	0	0	0
Parking Lots	5,206	3,605	0	3,605
Roadways and Driveways,	22,359	0	0	0
Off-site Impervious Improvements	0	0	0	0
Total Area of Impervious Surface (Excluding Roadways and Driveways)	59,221	3,605	0	3,605

Incorrect information on proposed activities or uses of a project may delay your project application(s) or permit(s).

I declare under penalty of perjury, that to the best of my knowledge, the information presented herein is accurate and complete.

Name of Owner or Agent (Please Print):	Title:
Ben Monroe	PE
Signature of Owner or Agent:	Date:
	5/8/14