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Use Permit Application Packet

P14-00261
Planning Commission Hearing Date – March 1, 2017

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JUL 28 2014

Napa County Planning, Building & Environmental Services

file № P14-00261

A Tradition of Stewardship
A Commitment to Service

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

Use Permit Application

To be completed by Planning staff...

Application Type: Use Permit

Date Submitted: 7/28/14 Resubmittal(s): _____ Date Complete: _____

Request: to construct a helipad

*Application Fee Deposit: $ 5000.00 Receipt No. 103415 Received by: SB/CM Date: 7-28-14

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

To be completed by applicant...

Project Name: PALMAZ ~~VINEYARDS~~ RESIDENCE PRIVATE HELIPORT

Assessor's Parcel №: 049-270-020 Existing Parcel Size: _____ ac.

Site Address/Location: ~~4350~~ 4031 HAGEN ROAD, NAPA, CA 94558
(No. / Street / City / State / Zip)

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

Property Owner: _____

Mailing Address: 4029 HAGEN ROAD, NAPA, CA 94558
(No. / Street / City / State / Zip)

Telephone №(707) 226-5587 E-Mail: Christian@palmazvineyards.com

Applicant (if other than property owner): _____

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

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

Representative (if applicable): SUDHIR K. CHAUDHARY - CHAUDHARY & ASSOCIATES, INC.

Mailing Address: 211 GATEWAY ROAD WEST, SUITE 204, NAPA, CA 94558
(No. / Street / City / State / Zip)

Telephone №(707) 255-2729 E-Mail: Sudhir@Chaudhary.com

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Napa County Planning, Building & Environmental Services

Revised application 12/3/14

Use Permit Information Sheet

Use

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

See Attached

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

District _____ Regional _____

State CAL TRANS Federal FAA

Improvements

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

Improvements, cont.

Total on-site parking spaces: N/A _____ existing _____ proposed

Loading areas: _____ existing _____ proposed

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

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

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

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

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

Total land area to be disturbed by project (include structures, roads, septic areas, landscaping, etc): _____ acres

Employment and Hours of Operation N/A

Days of operation: _____ existing _____ proposed

Hours of operation: _____ existing _____ proposed

Anticipated number of employee shifts: _____ existing _____ proposed

Anticipated shift hours: _____ existing _____ 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) _____

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.

Christian Palmaz	Amalia Palmaz	Amalia Palmaz	
Print Name of Property Owner		Print Name Signature of Applicant (if different)	
Signature of Property Owner	7-22-14 Date	Signature of Applicant	7/22/14 Date

Supplemental Application for Winery Uses

Operations N/A

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 * N/A

Please identify the winery's...

Existing production capacity: _____ gal/y Per permit №: _____ Permit date: _____

Current maximum actual production: _____ gal/y For what year? _____

Proposed production capacity: _____ gal/y

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

Visitation and Hours of Operation N/A

Please identify the winery's...

Maximum daily tours and tastings visitation:	_____ existing	_____ proposed
Average daily tours and tastings visitation[1]:	_____ existing	_____ proposed
Visitation hours (e.g. M-Sa, 10am-4pm):	_____ existing	_____ proposed
Non-harvest Production hours[2]:	_____ existing	_____ 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.)

N/A

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.)

N/A

Definitions

The below are paraphrased from County Code, please see referenced code sections for full text.

a. **Winery Development Area** – All aggregate paved or impervious or semi-permeable ground surface areas of the production facility which includes all storage areas (except caves), offices, laboratories, kitchens, tasting rooms and paved parking areas for the exclusive use of winery employees. *See Napa County Code §18.104.210*

b. **Winery Coverage** – The total square foot area of all winery building footprints, all aggregate paved or impervious ground surface areas of the production facility which includes all outside work, tank and storage areas (except caves); all paved areas including parking and loading areas, walkways, and access driveways to public or private roads or rights-of-way; and all above-ground wastewater and run-off treatment systems. *See Napa County Code §18.104.220*

c. **Production Facility** – (For the purpose to calculate the maximum allowable accessory use) The total square footage of all winery crushing, fermenting, bottling, bulk and bottle storage, shipping, receiving, laboratory, equipment storage and maintenance facilities, and employee-designated restrooms but does not include wastewater treatment or disposal areas which cannot be used for agricultural purposes. *See Napa County Code §18.104.200*

d. **Accessory Use** - The total square footage of area within winery structures used for accessory uses related to a winery that are not defined as "production facility" which would include offices, lobbies/waiting rooms, conference/meeting rooms, non-production access hallways, kitchens, tasting rooms (private and public areas), retail space areas, libraries, non-employee designated restrooms, art display areas, or any area within winery structures not directly related to wine production. *See Napa County Code §18.104.200*

Conservation Development and Planning

Winery Production Process

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The Napa County Code contains various references to winery production and refers to production capacity as "the wine bottled or received" at a winery and refers to "bottling and storage of bottled wine and shipping and receiving of bulk and bottled wine "(Code Section 18.16.030(G)(4)).[1]

This handout was developed by the County planning staff with the assistance of a number of local industry representatives to assist property owners and other interested parties in interpreting Napa County Code references to winery production. It does not create a new definition or regulation.

A winery's total annual production equals either (1) the sum of all wine created through fermentation in a given year, plus the net total of all fermented bulk wine received and shipped in the same year, including all bottled wine received on the premises during the same year; or (2) the amount of wine bottled on the premises in the same given year, *whichever is greater*.

Using the diagram on the right, this means the greater of A+(B-C), or D. If B-C is a negative number, total production is equal to either A or D, whichever is greater

This interpretation holds true for all physical winery facilities regardless of the number of business entities (e.g. Alternating Proprietors/Custom Crush) they accommodate or the date that their production capacity was established or recognized. However, wineries occupying multiple facilities are governed by the specific terms of their use permit or Certificate of Legal Non-conformity (CLN), which may vary.

Quantities represented by items A through D on the diagram can be determined by reviewing a winery's annual submittals to the federal Bureau of Alcohol, Tobacco and Firearms (ATF). The County may periodically request a copy of these submittal (s) as a way to monitor compliance with previously adopted conditions/requirements. The County recognizes that annual variations can occur due to the grape harvest and the timing of finishing/bottling, and will generally review and average three to five consecutive years of data.

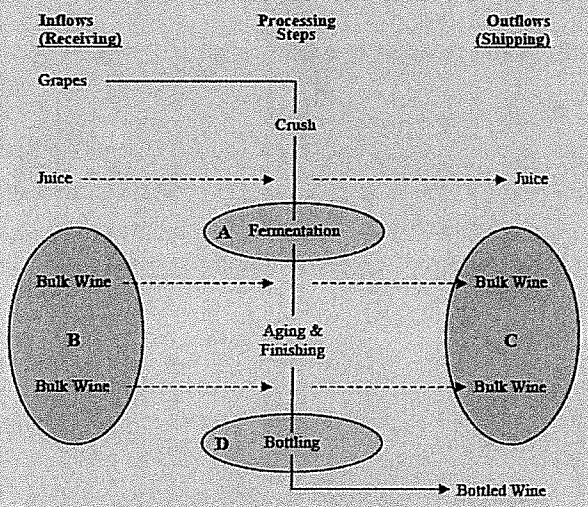

Figure 1. Winery Production Process

[1] The complexity of these statements can be attributed to the authors' desire to avoid "double counting" bulk wine that is both received and bottled at a winery, and the fact that multiple vintages are present within a winery at any given time.

July 2008

Winery Coverage and Accessory/Production Ratio N/A

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 _____ sq. ft. _____ acres

Proposed _____ sq. ft. _____ 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).

_____ sq. ft. _____ acres _____% 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 _____ sq. ft. Proposed _____ 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 _____ sq. ft. _____% of production facility

Proposed _____ sq. ft. _____% 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: _____ sq. ft. Proposed: _____ 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.

N/A

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 N/A

Please attach completed Phase I Analysis sheet.

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

Liquid Waste N/A

Please attach Septic Feasibility Report

	Domestic	Other
Type of waste:	~~sewage~~ None	_____
Disposal method (e.g., on-site septic system, on-site ponds, community system, district, etc.):	_____	_____
Name of disposal agency (if sewage district, city, community system):	_____	_____
Is annexation needed?	☐ Yes ☒ No	☐ Yes ☒ No
Current waste flows (peak flow):	_____ gal/d	_____ gal/d
Anticipated future waste flows (peak flow):	_____ gal/d	_____ gal/d
Future waste disposal design capacity:	_____ gal/d	_____ 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): Spoils will be used or stored on site. Estimated 12,000 c.y of spoils will be generated. Some of the rocks will be used on site.

Winery Traffic Information / Trip Generation Sheet

Traffic during a Typical Weekday N/A

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

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

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

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

Total = _____ **daily trips.**

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

Traffic during a Typical Saturday N/A

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

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

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

Total = _____ **daily trips.**

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

Traffic during a Crush Saturday N/A

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

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

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

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

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

Total = _____ **daily trips.**

Largest Marketing Event- Additional Traffic N/A

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

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

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

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[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).

Traffic Information Sheet Addendum

Information for Caltrans Review

N/A

Application should include:

Project Location

- Site Plan showing all driveway location(s)
- Show detail of Caltrans right-of-way
- Aerial photo at a readable scale

Trip Generation Estimate

- Please provide separate **Winery Traffic Information / Trip Generation Sheets** for existing and proposed operations.

Napa County Winery Traffic Generation Characteristics

N/A

Employees

Half-hour lunch:	All - 2 trips/day (1 during weekday PM peak)
Hour lunch:	Permanent Full-Time – 3.2 trips/day (1 during weekday PM peak)
	Permanent Part-Time – 2 trips/day (1 during weekday PM peak)
Seasonal:	2 trips/day (0 during weekday PM peak)—crush
	see full time above—bottling
Auto Occupancy:	1.05 employees/auto

Visitors

Auto occupancy:

Weekday = 2.6 visitors/auto
Weekend = 2.8 visitors/auto

Peaking Factors:

Peak Month:	1.65 x average month
Average Weekend:	0.22 x average month
Average Saturday:	0.53 x average weekend
Peak Saturday:	1.65 x average Saturday
Average Sunday:	0.8 x average Saturday
Peak Sunday:	2.0 x average Sunday

Peak Weekend Hour: Winery (3-4 PM) - 0.57 x total for weekend day involved

Average 5-Day Week (Monday-Friday) - 1.3 x average weekend

Average Weekday: 0.2 x average 5-day week

Peak Weekday Hour: Winery (3-4 PM) - 0.57 x total for weekday involved
Roadway PM Peak(4-5 PM?) - 0.38 x total for weekday involved

Service Vehicles

Grapes (36 days (6weeks)/season): 1.52 trips/1000 gals/season (4 ton loads assumed)
Materials/Supplies (250 days/yr): 1.47 trips/1000 gals/yr
Case Goods (250 days/yr): 0.8 trips/1000 gal/yr

Checklist of Voluntary
Greenhouse Gas Emission Reduction Measures

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An addendum to the Entitlement Application and a supplement for Initial Studies as required by CEQA

PROJECT NAME	Palmaz Family Private Hanger
PROJECT ADDRESS	4031 Hagen Road
APPLICANT	Christian Palmaz
CONTACT INFO	christian@palmazvineyards.com 707-287-7391
	email phone

		yes	no	I don't know
1	Have you designed to U.S.G.B.C.™ LEED™ or Build It Green™ standards? If yes, please include a copy of their required spreadsheets.		✓	
2	Do you have an integrated design team? if yes, please list:		✓	
3	SITE DESIGN			
3.1	Does your design encourage community gathering and is it pedestrian friendly?		✓	
3.2	Are you building on existing disturbed areas?	✓		
3.3	Landscape Design (if new)			
3.31	native plants?	✓		
3.32	drought tolerant plants?	✓		
3.33	Pierce Disease resistant planting?	✓		
3.34	Fire resistant planting?	✓		
3.35	Are you restoring open space and/or habitat?		✓	
3.36	Are you harvesting rain water on site?		✓	
3.37	planting large trees to act as carbon sinks?		✓	
3.38	using permeable paving materials for drive access and walking surfaces?		✓	
3.4	Does your parking lot include bicycle parking?		n/a	
3.5	Do you have on-site waste water disposal?	✓		
3.6	Do have post-construction stormwater on site detention/filration methods designed?	✓		
3.7	Have you designed in harmony with existing natural features, such as preserving existing trees or rock outcroppings?	✓		
3.8	Does the project minimize the amount of site disturbance, such as minimizing grading and/or using the existing topography in the overall site design (such as cave design)?	✓		
3.9	Is the structure designed to take advantage of natural cooling and passive solar aspects?	✓		
4	ENERGY PRODUCTION & EFFICIENCY			
4.1	Does your facility use energy produced on site? If yes, please explain the size, location, and percentage of off-set:		✓	
4.2	Does the design include thermal mass within the walls and/or floors?	✓		
4.3	Do you intend to commission the performance of the building after it is built to ensure it performs as designed?		✓	
4.4	Will your plans for construction include:			
4.41	High density insulation above Title 24 standards?	✓		
4.42	Zones for heating and cooling to provide for maximum efficiency?		n/a	
4.43	Energy Star™ or ultra energy efficient appliances?		n/a	
4.44	A "cool" (lightly colored or reflective) or a permeable/living roof?		n/a	
4.45	Timers/time-outs installed on lights (such as the bathrooms)?		n/a	
	If yes, please explain:			
5	WATER CONSERVATION			
5.1	Does your landscape include high-efficiency irrigation?		n/a	
5.2	Does your landscape use zero potable water irrigation?	✓		
5.3	Is your project in the vicinity to connect to the Napa Sanitation reclaimed water?		✓	
5.4	Will your facility use recycled water?	✓		
5.41	If no, will you prepare for it by pre-installing dual pipes and/or purple lines?		n/a	
5.5	Will your plans for construction include:			
5.51	a meter to track your water usage?		✓	
5.52	ultra water efficient fixtures and appliances?	✓		
5.53	a continuous hot water distribution method, such as an on-demand pump?	✓		
5.54	a timer to insure that the systems are run only at night/early morning?		✓	

	yes	no	I don't know
6 MATERIAL RECYCLING			
6.1 Are you using reclaimed materials?	✓		
If yes, what and where: stone veneer wainscot and trim			
6.2 Are you using recycled construction materials-			
6.21 finish materials?	✓		
6.22 aggregate/concrete road surfaces?		✓	
6.23 fly ash/slag in foundation?		✓	
6.3 Will your contractor be required to recycle and reuse construction materials as part of your contract?	✓		
6.4 Does your facility provide access to recycle-			
6.41 Kitchen recycling center?		n/a	
6.42 Recycling options at all trash cans?	✓		
6.43 Do you compost green waste?		n/a	
6.44 Provide recycling options at special events?		n/a	
7 NATURAL RESOURCES			
7.1 Will you be using certified wood that is sustainably harvested in construction?	✓		
7.2 Will you be using regional (within 500 miles) building materials?	✓		
7.3 Will you be using rapidly renewable materials, such as bamboo?		✓	
7.4 Will you apply optimal value engineering (studs & rafters at 24" on center framing)?	✓		
7.5 Have you considered the life-cycle of the materials you chose?	✓		
8 INDOOR AIR QUALITY			
8.1 Will you be using low or no emitting finish and construction materials indoors-			
8.11 Paint?	✓		
8.12 Adhesives and Sealants?	✓		
8.13 Flooring?	✓		
8.14 Framing systems?	✓		
8.15 Insulation?	✓		
8.2 Does the design allow for maximum ventilation?	✓		
8.3 Do you plan for a wood burning fireplace (US EPA Phase II certified)?		✓	
8.4 Does your design include dayling, such as skylights?	✓		
9 TRANSPORTATION DEMAND MANAGMENTMENT			
9.1 After your project is complete, will you offer your employees incentives to carpool, bike, or use transit?		n/a	
9.2 After your project is complete, will you allow your employees to telecommute or have alternative work schedules?		n/a	
9.3 Does your project include design features that encourage alternatives modes of transportation, such as			
preferred parking for carpooling, ridesharing, electric vehicles?	✓		
secured bicycle parking, safe bicycle access?		n/a	
loading zones for buses/large taxi services?		n/a	

9.4 How close is your facility to public transportation?

10 Are there any superior environmental/sustainable features of your project that should be noted?

see attached supplement

11 What other studies or reports have you done as part of preparing this application?

1 Sound studies to reduce and direct noise
2 See attached supplemental explanation
3
4

12 If your project involves an addition or modification to an existing building, are you planning to improve energy conservation of existing space (such as insulation, new windows, HVAC, etc.)? n/a
If yes, please describe:

13 Once your facility is in operation, will you:

13.1 calculate your greenhouse gas emissions?		✓	
13.2 implement a GHG reduction plan?		n/a	
13.3 have a written plan to reduce your vehicle miles traveled of your operations and employee's commute?		n/a	

14 Does your project provide for education of green/sustainable practices? n/a
If yes, please describe:

15 Any comments, suggestions, or questions in regards to the County's efforts to reduce greenhouse gases?

See attached supplemental explanation. Items are marked n/a are not applicable to this private project.

Form filed out by:

Please feel free to include additional sheets of paper as necessary.

Green Measures Supplement to Checklist

Palmaz Private Helicopter Hanger and Helipad

Description:

This project is for private utility purposes. The building will not be used on a regular basis and will not be occupied by the owner.

At the direction of the owner, the design team is working to select materials and products that are environmentally friendly. This includes the desire to utilize materials and products which are local in origin.

Site Preparation:

During the site preparation foundation spoils will be used onsite for fill where possible. The site is known to have large rocks beneath the surface. These rocks will be cut and repurposed as the wainscot base and trim the openings around the building.

Site Design:

Because of the special purpose of the building, the location has been selected for its landing and takeoff characteristics. The helipad is located on an existing terrace at an elevation of +322'. This elevation is slightly above the existing residence. There is no view of the helipad surface from any surrounding properties. The helipad surface is only visible from the air.

The hanger building is also screened from some views by existing redwood trees, and is bermed into the hillside to further conceal its view.

Landscape:

The area is surrounded by existing vineyard plantings. The helipad its self is located on an existing terrace to be cleared of existing vineyard.

Any new plantings will selected for their appropriateness to the site with respect to environmental conditions such as microclimate, water use, and solar exposure.

Any new plants will be sourced from local growers which will reduce energy consumed in the transportation of the plants to the site.

Any new plants will be considered for their fire resistant characteristics, and suitableness to the site conditions.

Any new plants used will be drought tolerant.

Energy Production and Efficiency:

The building is a utility building and will be used infrequently. The building is embedded into the hill side on the North East corner. This type of construction will result in a natural cooling effect drawn from the subterranean hillside.

Water Conservation:

The project will result in a decrease in irrigation water because of the vineyard removal.

Natural Resources:

Rocks and boulders will be harvested from operations such as the preparing the foundation and excavations. The rocks and boulders shall be incorporated into the landscape design as stone facing, seating, and sculptural elements.

Indoor Air Quality:

The building will be designed utilizing low VOC standards for all building components.

Windows will be operable to allow natural ventilation of the building without utilizing air conditioning equipment.

Transportation and Demand Management:

Although this project is private the owner uses electric vehicles on their property and the site will accessed primarily by EV's.

Facilities Maintenance:

Because the site is adjacent to existing vineyards, the site will be maintained using the same Best Management Practices (BMP) as the vineyards.

The owner will integrate the area into the existing BMP maintenance program as part of the adjacent vineyard and property maintenance operations.

- END -

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Department of Public Works

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

Main: (707) 253-4351
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Donald G. Ridenhour, P.E.
Director

WATER AVAILABILITY ANALYSIS - PHASE ONE STUDY N/A

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)

Step #3: N/A

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	_____ af/yr	Residential	_____ af/yr
Farm Labor Dwelling	_____ af/yr	Farm Labor Dwelling	_____ af/yr
Winery	_____ af/yr	Winery	_____ af/yr
Commercial	_____ af/yr	Commercial	_____ f/yr
Vineyard*	_____ af/yr	Vineyard*	_____ af/yr
Other Agriculture	_____ af/yr	Other Agriculture	_____ af/yr
Landscaping	_____ af/yr	Landscaping	_____ af/yr
Other Usage (List Separately):		Other Usage (List Separately):	
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
_____	_____ af/yr	_____	_____ af/yr
TOTAL:	_____ af/yr	**TOTAL:**	_____ af/yr **TOTAL:**
	_____ gallons**	**TOTAL:**	_____ gallons**

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

Step #4:

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

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

Signature: _____ **Date:** _____ **Phone:** _____

Attachment A: Estimated Water Use Guidelines

Typical Water Use Guidelines:

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

Non-Residential Guidelines:

Agricultural:

Vineyards	
Irrigation only	0.2 to 0.5 acre-feet per acre per year
Heat Protection	0.25 acre feet per acre per year
Frost Protection	0.25 acre feet per acre per year
Farm Labor Dwelling	0.06 to 0.10 acre-feet per person per year
Irrigated Pasture	4.0 acre-feet per acre per year
Orchards	4.0 acre-feet per acre per year
Livestock (sheep or cows)	0.01 acre-feet per acre per year

Winery:

Process Water	2.15 acre-feet per 100,000 gal. of wine
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

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N/A

Environmental Management

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Steven Lederer
Director

Memorandum

DATE: January 5, 2005

TO: All interested parties

FROM: Department of Environmental Management

SUBJECT: Use Permits and Regulated Water Systems

The purpose of this memo is to provide information regarding the current requirements for regulated water system permitting. The Department of Environmental Management has a contract with the State to administer the small water system program. County Code Chapter 13.08 addresses the requirements for local public water systems and includes the definition of a "public water system". This definition states that a public water system is one that is required to be permitted or approved by the Department of Health Services (DHS) Office of Drinking Water or the environmental management director pursuant to the California Safe Drinking Water Act and related laws (which contain selected portions of the Health and Safety Code, Water Code, Business and Professions Code and the California Code of Regulations, Titles 17 and 22). The State regulates the large public water systems and as stated above, this department regulates the small water systems.

The most common new small water system is that serving a winery. During the use permit process, this department reviews the numbers of anticipated visitors and employees and makes a determination if the proposed winery will meet the threshold for a regulated water system. In general, we are looking for either (1) a combined number of peak users (visitors and employees) greater than 25 on a daily basis or (2) the total number of employees equal to or greater than 25. If either of these thresholds is met, the water system will be regulated. If you have questions on whether your proposed project will be regulated as a small water system, you may contact this department as discuss this with the district inspector. If you do not meet these thresholds, but will have a regulated kitchen used for food service for marketing events, you will be regulated as a different type of water system. You will need to submit bacteriological quality sample results from your source(s) with your use permit application, but not the full feasibility report as discussed below.

If your project will be regulated as a small water system, a water system feasibility report will be required as a completeness item at the time of a Use Permit application. This report will ensure that the proposed project can satisfy the technical, managerial and financial requirements of this department and DHS and must include the information listed on the attached worksheet. There is a good chance that existing wells will not meet the construction requirements for a regulated water system. As such, a new supply will have to be developed. If this is the case, the information provided in the feasibility report must reflect this fact. Prior to issuance of a building permit the new water supply must be developed and full plans for the water system must be submitted to and approved by this department.

New Community and Non-Community Water Systems

Technical, Managerial and Financial Capacity Worksheet
(Use Permit Applications and Water System Feasibility Reports)

1. **Water system name**

2. **Name of person who prepared the report** N/A

3. **Technical Capacity:**

   - System description-from source to point of use-what is expected (including treatment, etc).

   - One year projection for water demand and an analysis of the water system to meet the projected demand (project expansion and improvements for a ten year period).

   - Source adequacy:
     - Groundwater: Does the well have a 50-foot seal with a 3-inch annular space? Is a well log available?
     - Surface water treatment: Can the water system comply with the Surface Water Treatment Rule?

   - Water supply capacity. Can the water system (including all sources and storage facilities) supply a minimum of three gallons per minute for at least 24 hours for each service connection served?

   - Provide a characterization of the water quality (or expected water quality if a new source is required), including a comparison with established or proposed drinking water standards and the feasibility of meeting these standards.

   - An evaluation of the feasibility of consolidation with other (existing) water systems.

4. **Managerial:**

   - Description of the organization's ability to manage a water system (personnel to be hired and/or job descriptions for water system maintenance responsibilities). For systems that use land that is not owned by the water system, the terms for a long-term agreement for use of the land/facilities must be disclosed.

   - Document the system's water rights.

5. **Financial:**
   - Budget projection and description of system's financial capacity (your ability to financially support the operation of a water system).

Please address and questions on this worksheet or the information required to the water specialist in the Department of Environmental Management.

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

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Project name & APN: _____
Project number if known: _____
Contact person: _____
Contact email & phone number: _____
Today's date: _____

Voluntary Best Management Practices Checklist for Development Projects

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

Practices with Measurable GHG Reduction Potential

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

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

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

_____
_____
_____
_____

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

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

_____
_____

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

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

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

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

Number of total vehicles _____
Typical annual fuel consumption or VMT _____
Number of alternative fuel vehicles _____
Type of fuel/vehicle(s) _____
Potential annual fuel or VMT savings _____

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

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

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

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

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

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

Estimated annual VMT _____

Potential annual VMT saved _____
% Change _____

Already Doing	Plan To Do		
☐	☑	**BMP-7**	**Exceed Title 24 energy efficiency standards: Build to CALGREEN Tier 1**

See description below under BMP-5.

☐	☑	**BMP-8**	**Solar hot water heating**

Solar water heating systems include storage tanks and solar collectors. There are two types of solar water heating systems: active, which have circulating pumps and controls, and passive, which don't. Both of them would still require additional heating to bring them to the temperature necessary for domestic purposes. They are commonly used to heat swimming pools.

☑	☐	**BMP-9**	**Energy conserving lighting**

Lighting is approximately 25% of typical electrical consumption. This BMP recommends installing or replacing existing light bulbs with energy-efficient compact fluorescent (CF) bulbs or Light Emitting Diode (LED) for your most-used lights. Although they cost more initially, they save money in the long run by using only 1/4 the energy of an ordinary incandescent bulb and lasting 8-12 times longer. Typical payback from the initial purchase is about 18 months.

☐	☑	**BMP-10**	**Energy Star Roof/Living Roof/Cool Roof**

Most roofs are dark-colored. In the heat of the full sun, the surface of a black roof can reach temperatures of 158 to 194 °F. Cool roofs, on the other hand, offer both immediate and long-term benefits including reduced building heat-gain and savings of up to 15% the annual air-conditioning energy use of a single-story building. A cool roof and a green roof are different in that the green roof provides living material to act as a both heat sink and thermal mass on the roof which provides both winter warming and summer cooling. A green (living) roof also reduces storm water runoff.

☐	☑	**BMP-11**	**Bicycle Incentives**

Napa County Zoning Ordinance requires 1 bicycle rack per 20 parking spaces (§18.110.040). Incentives that go beyond this requirement can include on-site lockers for employees, showers, and for visitor's items such as directional signs and information on biking in Napa. Be creative!

☐	☐	**BMP-12**	**Bicycle route improvements**

Refer to the Napa County Bicycle Plan (NCPTA, December 2011) and note on the site plan the nearest bike routes. Please note proximity, access, and connection to existing and proposed bike lanes (Class I: Completely separated right-of-way; Class II: Striped bike lane; Class III: Signed Bike Routes). Indicate bike accessibility to project and any proposed improvements as part of the project on the site plan or describe below.

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Already Doing	Plan To Do	
☑	☐	**BMP-23**

Site Design that is oriented and designed to optimize conditions for natural heating, cooling, and day lighting of interior spaces, and to maximize winter sun exposure; such as a cave.

The amount of energy a cave saves is dependent on the type of soil, the microclimate, and the user's request for temperature control. Inherently a cave or a building burned into the ground saves energy because the ground is a consistent temperature and it reduces the amount of heating and cooling required. On the same concept, a building that is oriented to have southern exposure for winter warmth and shading for summer cooling with an east-west cross breeze will naturally heat, cool, and ventilate the structure without using energy. Please check this box if your design includes a cave or exceptional site design that takes into consideration the natural topography and sitting. Be prepared to explain your approach and estimated energy savings.

☐ ☑ **BMP-24 Limit the amount of grading and tree removal**

Limiting the amount of earth disturbance reduces the amount of CO2 released from the soil and mechanical equipment. This BMP is for a project design that either proposes a project within an already disturbed area proposing development that follows the natural contours of the land, and that doesn't require substantial grading or tree removal.

☐ ☐ **BMP-25 Will this project be designed and built so that it could qualify for LEED?**

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

Practices with Un-Measured GHG Reduction Potential

☐ ☐ **BMP-26 Are you, or do you intend to become a Certified Green Business or certified as a"Napa Green Winery"?**

As part of the Bay Area Green Business Program, the Napa County Green Business Program is a free, voluntary program that allows businesses to demonstrate the care for the environment by going above and beyond business as usual and implementing environmentally friendly business practices. For more information check out the Napa County Green Business and Winery Program at www.countyofnapa.org.

☐ ☐ **BMP-27 Are you, or do you intend to become a Certified "Napa Green Land"?**

Napa Green Land, fish friendly farming, is a voluntary, comprehensive, "best practices" program for vineyards. Napa Valley vintners and growers develop farm-specific plans tailored to protect and enhance the ecological quality of the region, or create production facility programs that reduce energy and water use, waste and pollution. By selecting this measure either you are certified or you are in the process of certification.

Already Doing	Plan To Do	
☐	☐	**BMP-28 Use of recycled materials** *There are a lot of materials in the market that are made from recycled content. By ticking this box, you are committing to use post-consumer products in your construction and your ongoing operations.*
☑	☐	**BMP-29 Local food production** *There are many intrinsic benefits of locally grown food, for instance reducing the transportation emissions, employing full time farm workers, and improving local access to fresh fruits and vegetables.*
☑	☐	**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

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M E M O R A N D U M

DATE: April 1, 2016

TO: Christian Palmaz

FROM: Eric Lichtwardt

SUBJECT: Potential Noise Effects to Wildlife from the Proposed Helipad Project at the Palmaz Family Property, Napa County California

This memo provides a preliminary evaluation of potential noise effects to animals from helicopter traffic to and from a proposed private helipad at the Palmaz family property, Napa County, California. Specifically, the Napa County Planning Division, in a letter dated January 21, 2015, requested an addendum to the Use Permit (No. P14-00261) application for the proposed project addressing potential noise impacts to wildlife and/or domestic animals.

PROJECT DESCRIPTION AND BACKGROUND

The proposed project involves the operation of a helipad to accommodate a Bell 429 Global Ranger (Bell 429) helicopter. Aircraft activity at the proposed helipad is expected to average eight operations (four arrivals and four departures) per week.

Mead & Hunt, Inc. analyzed overflight and noise impacts for the proposed helipad in a recent report (Mead & Hunt 2016). Mead & Hunt's study used three noise metrics to measure noise effects to humans, one of these, Sound Exposure Level (SEL) measured in decibels (dB), takes into account the loudness and duration of a given noise event and measures the total noise exposure of that event. SEL has also been used to assess noise effects on birds including federally listed species (USFWS 2006).

Mead & Hunt generated noise contours (dB SEL) of takeoff and landing scenarios for the Bell 429. According to Mead & Hunt's study, the Bell 429 is one of the quietest helicopters in the industry; the highest noise level generated during landings/takeoffs is 85 dB SEL. Depending on wind and other environmental conditions, this noise level can extend approximately 1,500 to 1,750 feet from the helipad. This noise level (85 dB SEL) is comparable to noise sources such as a large RV and truck. The following evaluation on potential noise effects to wildlife is based on the noise analysis from Mead & Hunt (2016), relevant literature, and LSA's observations of wildlife at airports.

LOCATION AND EXISTING CONDITIONS

The proposed helipad is located within Palmaz family property on a south facing ridgeline of Mount George at an elevation of approximately 1,400 feet above mean sea level. The proposed location is within a cleared area currently used for winery staging and materials storage; this area is subject to periodic moderate to high noise levels associated with winery equipment operation and harvesting activities. The proposed helipad location is accessed via Wild Horse Valley Road, a private unpaved

road. The Palmaz family property is located about 3.8 miles east-northeast of downtown Napa, in unincorporated Napa County. The proposed helipad is about 1.5 miles northeast from the intersection of Hagen and Olive Tree Lane, and a mile northeast of the Palmaz residence.

The vegetation surrounding the proposed helipad is composed of chaparral with scattered low oaks. There are no wetlands or stream courses near the proposed helipad. In regards to the effects of noise, the proposed helipad is a location that can be characterized as a "soft site," defined by the USFWS (2006) *as those where ground surface vegetation, shrubs, grass, or even soft soil dampen or absorb sound waves across the site*. Sound attenuates more rapidly across soft sites.

Wildlife associated with chaparral in Napa County includes a diversity of reptiles, birds, and mammals that favor dry shrub dominated habitats, typical species include western fence lizard (*Sceloporus occidentalis*), California quail (*Callipepla californica*), western scrub-jay, (*Aphelocoma californica*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), California thrasher (*Toxostoma redivivum*), and spotted towhee (*Pipilo maculatus*). Several species of raptors occur in southeast Napa County including the golden eagle (*Aquila chrysaetos*) which is known to nest in the local mountains (Berner et al. 2003). Various species of small mammals occur in chaparral habitat as well, but are generally more difficult to observe than diurnal reptiles and birds. Mammal species likely to occur include common gray fox (*Urocyon cinereoargenteus*), dusky-footed woodrat (*Neotoma fuscipes*), and Botta's pocket gopher (*Thomomys bottae*). Various species of bats forage over the chaparral, but suitable habitat for bat maternity or winter roosts (e.g., old buildings, large hollow trees, caves, abandoned mines) are not present on the or near the proposed helipad site.

METHODS

Prior to conducting the field survey, the LSA biologist conducted a search of the California Natural Diversity Database (CDFW 2016) for occurrence records of special-status animals (particularly raptors) in the area around the proposed helipad. LSA biologist Eric Lichtwardt surveyed the project site on March 15, 2016. During the field survey, he walked the site of the proposed helipad and surveyed the surrounding the area and habitats with binoculars (10 x 42 power).

POTENTIAL NOISE IMPACTS TO WILDLIFE

Hearing range in humans is about 20 Hz to 20 kHz and the hearing range of many other terrestrial wildlife species is roughly within this range. However, some bird species such as owls and eagles do not appear to be as sensitive to lower frequencies (e.g., helicopter noise) that may be annoying to humans (Delaney 1999, Grubb et al. 2010). Relevant data on the sensitivity of most species to helicopter noise is not generally available, but based on LSA's observations of native frogs, birds, and mammals including domestic cats and dogs in airport environments we can assess the potential impacts to these animals from noise generated by the Bell 429.

LSA has conducted numerous wildlife surveys and field studies on airports in northern California including the San Francisco International Airport (SFO), Charles M. Schulz-Sonoma County Airport (STS), Livermore Municipal Airport (LVK), Stockton Municipal Airport (SCK), Merced Regional Airport (MCE), Salinas Airport (SNS), Watsonville Municipal Airport (WVI), Hayward Executive Airport (HWD) and others. We have also conducted wildlife surveys involving multiple site visits to habitats adjacent to the Napa Airport (APC) and Travis Air Force Base (SUU).

Most of these field studies have involved wildlife hazard assessments (WHA) which include 24 (two per month) avian surveys over a 12-month period, two small mammal trapping surveys (three trap nights per survey), and nighttime spotlight surveys for larger mammals and owls. These field studies have documented that a wide variety of native wildlife species occur in airport environments and carry out their normal activities including resting, foraging, and breeding in these relatively noisy areas. Many native and domesticated species are able to acclimate to aircraft noise and human activities at these airports. Species that we have documented on or near airports going about routine foraging and breeding activities are shown in the table below.

Common Name	Scientific Name	Airport Code	Activities Observed
California red-legged frog	*Rana draytonii*	SFO	Foraging, breeding
Canada goose	*Branta canadensis*	HWD, SFO, SNS, STS, SUU	Foraging, loafing, nesting
Great egret	*Ardea alba*	SFO, STS, SUU	Foraging, loafing
Northern harrier	*Circus cyaneus*	APE, SUU	Foraging, possible nesting
Swainson's hawk	*Buteo swainsoni*	SCK	Foraging, loafing
Red-tailed hawk	*Buteo jamaicensis*	HWD, LVK, MCE SFO, SNS, SUU	Foraging, perching, nesting
Black rail	*Laterallus jamaicensis*	APE, SUU	Calling
Killdeer	*Charadrius vociferus*	HWD, LVK, MCE SFO, SNS	Foraging, loafing, nesting
Mourning dove	*Zenaida macroura*	HWD, LVK, MCE, SNS, WVI, LVK	Foraging, loafing, probable nesting
Burrowing owl	*Athene cunicularia*	MCE, SCK, SNS, STS	Foraging, loafing, nesting
Short-eared owl	*Asio flammeus*	APC	Foraging
House finch	*Haemorhous mexicanus*	HWD, LVK, MCE SFO, SNS	Foraging, loafing, nesting
California ground squirrel	*Otospermophilus beecheyi*	HWD, LVK, MCE, SNS,	Foraging, breeding
Deer mouse	*Peromyscus maniculatus*	MCE, SNS	Foraging, breeding
Red fox	*Vulpes vulpes*	MCE	Foraging
Gray fox	*Urocyon cinereoargenteus*	MCE	Foraging
Coyote	*Canus latrans*	STS, MCE	Foraging, breeding
Mule deer	*Odocoileus hemionus*	STS	Foraging, breeding
Goat (domestic)	*Capra aegagrus hircus*	SFO	Foraging, loafing
Cattle (domestic)	*Bos taurus*	STS, MCE, SUU	Foraging, loafing

In addition to those species shown above, LSA has frequently observed domestic cats and dogs on some airports; these animals generally access the airport from residential areas adjacent to airport property indicating that they are voluntarily entering areas affected by aircraft noise.

As noted previously, helicopter flights are expected to average eight operations (four arrivals and four departures) per week, much lower than the number of aircraft operations at the commercial and general aviation airports noted above. In addition, most commercial and larger private aircraft landing

and taking off from these airports generate much louder sound levels than those generated by the Bell 429.

The maximum noise level generated by the Bell 429 during landings/takeoffs is 85 dB SEL. Depending on wind and other environmental conditions this noise level can extend approximately 1,500 to 1,750 feet from the helipad. Delaney et al. (1999) observed that Mexican spotted owls did not flush (fly from their perch) when noise levels from helicopters were less than 92 dB SEL, suggesting that the noise levels from the Bell 429 would not be a significant disturbance to raptors or other wildlife in the area around the proposed helipad. Additionally, much of the sound energy generated by helicopters is the below the auditory thresholds of golden eagle's (Grubb et al. 2010). The Bell 429 has the capability for a steep decent and assent to and from the helipad allowing the helicopter to spend more overflight time at cursing altitude, 1,000-1,500 feet above ground level, (Mead & Hunt 2016) where noise and visual affects to wildlife will be minimal. This altitude is typical of law enforcement, aeromedical, and state agency helicopters (Mead & Hunt 2016).

SPECIAL-STATUS WILDLIFE AND NESTING RAPTORS IN THE PROJECT AREA

During the field survey, no raptor nests were observed in the area approximately 500 feet around the proposed helipad. The only raptor species observed during the field survey were turkey vultures (*Cathartes aura*) souring over the area; this species is a common resident in the Napa County and could nest locally. As previously noted, a number of other raptor species are also known from the area including the golden eagle, which nests in the local mountains. The northern spotted owl (*Strix caurina*), a federally listed threatened species, is also known from Napa County, but they inhabit dense closed canopy coniferous forests. This habitat is not present in the area around Mount George; there are no records of spotted owls in the area near the proposed helipad (CDFW 2016, Berner 2003). Additionally, the chaparral near the proposed helipad is generally too low to provide nesting habitat for most species of raptors. Golden eagles nest in the mountains around the Palmaz family property, but no potential nest sites were visible from the proposed helipad location. A great blue heron (*Ardea herodias*) rookery is located in a grove of tall blue gum (*Eucalyptus globulus*) approximately 1.4 miles west of the proposed helipad on the Napa Valley floor. However, helicopter flights to and from the proposed helipad would not likely have adverse effects on this rookery because the helicopter would be flying at altitudes greater than 1000 feet in this area.

Grubb et al. (2010) conducted a two year study of helicopter effects on nesting golden eagles in Utah; they monitored the effects of four helicopter models (including the AH-64 Apache, a military helicopter that is much louder that the Bell 429) on approximately 30 individual eagles in 22 nesting territories. The study tested the effects helicopters on nesting eagles with flybys of active nests at 100, 200, 400, and 800-meter horizontal distances; they also conducted nest flyover and popout flights (i.e., flights that approached perpendicular to the nest cliff that suddenly "popped out" over the cliff edge). Grubb et al. (2010) concluded that helicopter flights within eagle territories had no discernible effects on nesting success on golden eagles in their study area. This study suggests that the proposed helipad is unlikely to have negative effects on nesting golden eagles in Napa County. In another study, Delaney et al. (1999) documented that Mexican spotted owls become habituated to repeated helicopter overflights and it is reasonable to expect that other raptors (which have similar hearing sensitivity) in the proposed helipad area would also become habituated to such activity.

SUMMARY AND CONCLUSIONS

The Bell 429 is a relatively quiet aircraft and the noise generated by takeoffs and landings are comparable to noise sources such as large RVs, tractors, and trucks. Many species of native terrestrial wildlife as well as domestic dogs and cats occur and carry out their normal activities within airport environments with noise levels much higher than the noise levels expected to be generated by the Bell 429. Based on these observations, LSA concludes that the limited operation of the Bell 429 at the Palmaz family property would have a less than significant impact on the wildlife, including raptors, great blue heron rookeries, and domestic animals in the Napa Valley and surrounding mountains.

If you have any questions please give me a call at (510) 236-6810 or e-mail: eric.lichtwardt@lsa-assoc.com.

REFERENCES

Berner, M., B. Grummer, R. Leong, and M. Rippey. 2003. Breeding Birds of Napa County: An Illustrated Atlas of Nesting Birds. A. Smith, Ed. Napa-Solano Audubon Society, Vallejo, California

California Department of Fish and Wildlife (CDFW). 2016. *California Natural Diversity Database (CNDDB), Commercial Version January 26, 2016*. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, California.

Delaney D.K., T.G. Grubb, P. Beier, L.L. Pater, and M.H Reiser. 1999. Effects of Helicopter Noise on Mexican Spotted Owls. J. Wildl. Mange. 63 (1): 60-76.

Grubb, T.G., D.K. Delaney, W.W. Bowerman, and M.R. Wierda. 2010. Golden Eagle Indifference to Heli-Skiing and Military Helicopters in Northern Utah. Journal of Wildlife Management 74(6): 1275-1285.

Mead & Hunt. 2016. Palmaz Private Helipad Napa County, California, Private Helipad Overflight and Noise Report. Mead & Hunt, Inc. Sacramento, California.

United States Fish and Wildlife Service (USFWS). 2006. Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California. Arcata Fish and Wildlife Office, Arcata, California.

From:	Christian Gastón Palmaz
To:	Morrison, David
Cc:	Ayers, Dana; Anderson, Laura; Alfredo Pedroza; tkscottco@aol.com; Pehl, Martin; Brian Russell; Arthur Negrette
Subject:	Napa Valley Helicopter Noise Website
Date:	Wednesday, December 21, 2016 2:32:45 PM
Attachments:	signature.png Noise Hotline Flow-Chart.pdf

Hello David,

After working with some local community members we have decided to take an even more proactive approach to help ensure helicopter operation noise is held not only in compliance with local regulations, but also consistently optimized via feedback from the community.

The number of helicopter operators between private and parapublic in Napa Valley may be few, but all are conscience of the community's sensitivity to noise and are willing to make efforts in optimizing their “fly-quiet” operations. We have created a website/hotline to act as a receptacle for the community to voice their noise concerns. With the specific information gathered by the website or phone based hotline, the operator of concern will be able to become aware of the sensitive noise receptor, conduct an internal investigation, and apply any possible optimizations. The fly-quiet community consists of helicopter operators in the area who frequent the skies over Napa County and have chosen to receive notices from the site. So far we have had a 100% adoption rate with many more joining all over the Bay Area. If the operator is not a part of the fly-quiet community, based on the received description, we most likely will be able to reach out to the operator and educate them of the sensitive noise receptor.

Specific to our operations, we will be able to use the gathered information to not only ensure compliance but also receive feedback from concerned noise receptors that can help us further optimize our operations beyond the scope of the use permit. Attached is a flow-chart showing how the website/hotline would be applied specifically to our operations.

While the intention of this website is to promote fly-quiet operations in the Napa Valley, it has a beneficial side-effect of doing so without consuming Planning staff’s limited time and resources. We hope this represents a big step towards a more connected community and a more aware aviation operator.

Website: www.napavalleyhelicopternoise.com
Phone Hotline: 707-666-3801

Thank you and happy holiday!
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Napa Valley Helicopter Noise Hotline/Website Flow Chart