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***Ecological & Environmental Consulting***

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May 11, 2009

Chuck Meibeyer
Attorney At Law
1236 Spring St.
St. Helena, CA 94574

**RE:** J. Cellars Investments Winery

Dear Mr. Meibeyer:

At you request I visited the Joseph Cellars winery project site near the turn off to Diamond Mountain Road, Calistoga, Napa Co., CA on May 4, 2009. The County of Napa had concerns that the project might impact Northern Spotted Owls (NSOs). I have conducted several evaluations for NSOs in and around the Napa Valley over the past few years.

**Project Description**

The project is for the construction of a winery on a parcel immediately south of the Diamond Mountain Road intersection with Highway 128/29 on the west side of the highway. The habitat to the west of the proposed winery would be typically termed Montane Hardwood-Conifer (Meyer and Laudenslayer 1988). The principal forest dominates are Douglas-fir (*Pseudotsuga menziesii*), coast live oak (*Quercus agrfolia*), black oak (*Quercus kelloggii*), tan oak (*Lithocarpus densiflorus*), California laurel (*Umbellularia californica*) and redwood (*Sequoia sempervirens*). Along Diamond Mountain Road the habitat is above a steep well- watered canyon that harbors a multilayered canopy. The habitat along the ridge above and to the west of the site is good NSO habitat.

**Northern Spotted Owls**

NS0s are listed as a Threatened Species under the federal Endangered Species Act of 1973 (50 CFR §17.11). They are also protected under the federal Migratory Bird Treaty Act (50 CFR §10.13). The State of California considers NSOs a Species of Special Concern and their eggs, young, and nests are protected under §3503.5 of California Fish and Game Code. Impacts to the owl and/or their habitat must be

mitigated under federal law through a formal consultation with the U.S. Fish and Wildlife Service (USFWS).

The USFWS is mainly concerned about the removal of trees and the potential impacts it may have on NSO habitat. The CFR Title 14 §919.9 states that a 500-foot no disturbance buffer is required around active NSO nests and a minimum of 500-acres of suitable habitat within 0.7 miles of the nesting area shall remain after the project. This requirement is primarily driven by conformance to timber harvest practices.

Typical NSO habitat in northern California include structurally and floristically diverse, dense, large tree conifer (> 30"DBH) or conifer/hardwood habitats dominated by dense multilayered canopies (>60% closure), typically with some associated decadence to provide natural nest cavities and liberal amounts of dead and downed woody material on the forest floor. These habitats are usually found in rather steep, well-watered canyons and are typically associated with mature forest habitats. These structural characteristics can and often do occur in second growth habitats in northern California and are not limited only to old growth forests. In Sonoma, Marin, Lake and Napa Counties, NSOs often occur in habitats that have more open canopies (< 60%), have a less dominating conifer component, and do not have the decadence or the large tree size found in more mature habitats.

**Survey Methodology**

The survey consisted of evaluating the habitat at the project site for structural characteristics known to be preferred by NSO and to review of the NSO data base (2009) that is maintained by the California Department of Fish and Game (CDFG). No formal protocol-level surveys were deemed necessary because all of the impacts resulting from the project will occur mainly underground and few trees will be removed.

**Results**

The NSO data base (2009) maintained by CDFG indicates there is only one NSO territory that occurs within 1.3 miles of the project site. This territory is NAP0007 which lies about one mile SW of the project site (*see* attached CDFG map) and is south of a high intervening ridge. This territory has been occupied fairly consistently since 1989 and was active in the spring of 2008. The territory is mainly located in the SW of section 7 of T8N, R6W, but has also been recorded in the SE of section 12 of T8N, R7W. A pair of NSOs has been recorded here several times since 1989. USFWS is concerned about NSOs within 1.3 miles of a given impact site according to the current protocol (*Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls, revised March 17, 1992-USFWS*). There are no other NSO territories within 1.3 miles of the project site and the habitat along the western edge of the Napa Valley has been well surveyed by CDFG.

As of the 2007 NSO breeding season, the USFWS has added an additional consideration to impacts to NSOs. Noise disturbance is now considered significant if it occurs within 0.25 miles of a known NSO nest or roost (*Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California- USFWS letter 8-14-2006-2887*). The NAP0007 territory is well beyond any reasonable concern for noise abatement that might be associated with the project. NSOs are a highly nocturnal species that hunt by ear (finding prey by locating prey rustling noises) as well as by sight. The only time noise would be a problem is if it is at night and is sufficiently loud (and in the right frequencies) to mask prey rustling noises or if it might flush young or adults from a nearby nest. Since there is no indication that construction will be at night, and there are no known nests near the project, it is highly unlikely that NSO hunting behavior will be impacted.

**Assessment of Potential Impacts**

Impacts to NSOs resulting from this project are not considered significant primarily because much of the project will occur underground (cave) and only 47 trees will be removed during the balance of the project. The minimum required number of acres of trees will remain after project completion and the known NSO pair to the SW of the site is well beyond 0.25 miles and will not raise concerns about noise abatement. No other special status species were observed on the site during my visit.

I have attached a resume of my experience with NSOs for your files.

If you have questions, call or write at your convenience.

Sincerely yours,

Jon Winter
Principal Wildlife Biologist

**Literature Cited**

Mayer, K. E., and W. F. Laudenslayer (eds) (1988). *A guide to wildlife habitats of California*. Sacramento, CA, Calif. Dept. of Forestry and Fire Protection. 166 pp.

PACIFIC TREE CARE

Joseph A. Schneider Certified Arborist WE-0156
Jacob L. Schneider Certified Arborist WE-5478

April 14, 2009

Joe Bartholomew
J Cellars Investment
4455 St. Helena Hwy
Calistoga, CA 94515

RE: Phase I, Joseph Cellar Winery, preliminary arborist letter

Dear Joe,

Pursuant to your request I reviewed the conceptual site plans dated 3-27-09 with respect to the trees observed onsite. My observations and recommendations follow.

**OBSERVATIONS**

A total of 47 trees in excess of 10" DBH[i] are slated for removal to accommodate the building footprint. None are protected by state or county tree preservation ordinances.

25 - Black Oak (*Quercus kelloggii)*
8 - Douglas fir (*Pseudotsuga menziesii*)
7 - Big Leaf Maple (*Acer macrophyllum*)
7 - Pacific Madrone *(Arbutus menziesii*)

The forest slope is populated with a super-story of native/ indigenous trees: Fir, Maple and declining Madrones. The sub-story plants are inundated with Poison Oak. The Black Oak, Maple and Madrone are likely re-sprouts from

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a land clearing occurring 30 to 50 years ago. The Douglas firs located up the slope were likely passed by during the initial Napa Valley logging period 50 to 100 years ago, probably due to structural defects which make them unsuitable for quality structural-grade lumber.

Two firs above the proposed winery which are marked as "save" on the site plans should be considered for removal. The 24" DBH fir above cave portal 1 is a poorly structural specimen and will pose a physical threat to the buildings. The 15" DBH fir located 30-ft east of portal 2 is too close to the proposed edge of excavation to actually survive the construction activities.

The fir adjacent to the entry drive located at elevation 357' is close enough to the proposed driveway to warrant concern for root damage during construction.

RECOMMENDATIONS

1. Implement a minimum replacement ratio of 1:1 within your final landscape plan.
2. Prior to any tree removals, comply with Federal Migratory Bird Treaty Act (MBTA) by ensuring there are no active bird nests within the trees.
3. Move the proposed entry drive further away from the Douglas fir at elevation 357' to avoid root damage.
4. Remove the two firs at cave portal 1 and 2 prior to the commencement of construction activities.
5. Chip limbs and branches to create a biomass for natural soil building and for tree root zone protection during construction.
6. Recycle Douglas fir into lumber for use in non-structural building components such as trim, wine racks, tables, etc.
7. Provide a comprehensive set of final grading, utility and landscape plans to your consulting arborist so we may provide construction guidelines to

protect the remaining trees as construction progresses and to ensure the trees remain an asset within the final landscape.

These recommendations are preliminary and do not take the place of actual construction guidelines, but are intended to assist you in furthering the progress of your use permit approval.

Sincerely,

Jacob I. Schneider
Certified Arborist WE-548

JK:nk

Enclosures

[1] DBH- Diameter at Breast Height- diameter measured at 54" above median grade

**NORTHWEST BIOSURVEY**
Environmental & Planning Services
15865 Rainbow Drive, P.O. Box 191, Cobb CA 95426

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May 27, 2009

Mr. Chuck Meibeyer
Ms. Lynn Sletto
Meibeyer Law Group
1236 Spring Street
St. Helena, CA 94574

**RE: Survey Results for Species-Specific Survey for the Joseph Cellars Winery Property**

Dear Mr. Meibeyer, Ms. Sletto:

Following are the results of the species-specific botanical survey conducted on Assessor Parcel Number 020-180-058 on Highway 29, south of the city of Calistoga, California.

INTRODUCTION

On May 16, 2009, Northwest Biosurvey staff conducted a species-specific, in-season survey for narrow-anthered brodiaea (*Brodiaea californica var. leptandra*) and Jepson's leptisiphon (*Leptosiphon jepsonii*) within the property boundaries. Both of these plants have sensitive regulatory status (CNPS list 1B.2). An in-season survey was required for these species by staff of the Napa County Conservation, Development and Planning Department; the survey was conducted at the client's request. This survey does not constitute a full, floristic-level survey as recognized by the California Department of Fish and Game. The survey area is shown in **Figure 1.**

Northwest Biosurvey additionally conducted an on-site habitat assessment for four additional sensitive plant species: Baker's navarretia (*Navarretia leucocephala ssp. bakeri*) and pappose tarplant (*Centromadia parryi ssp. parryi*), both of which have been identified near the subject property, and two species known to occur in the region: Napa blue grass (*Poa napensis*) and Calistoga popcorn flower (*Plagiobothrys strictus*).

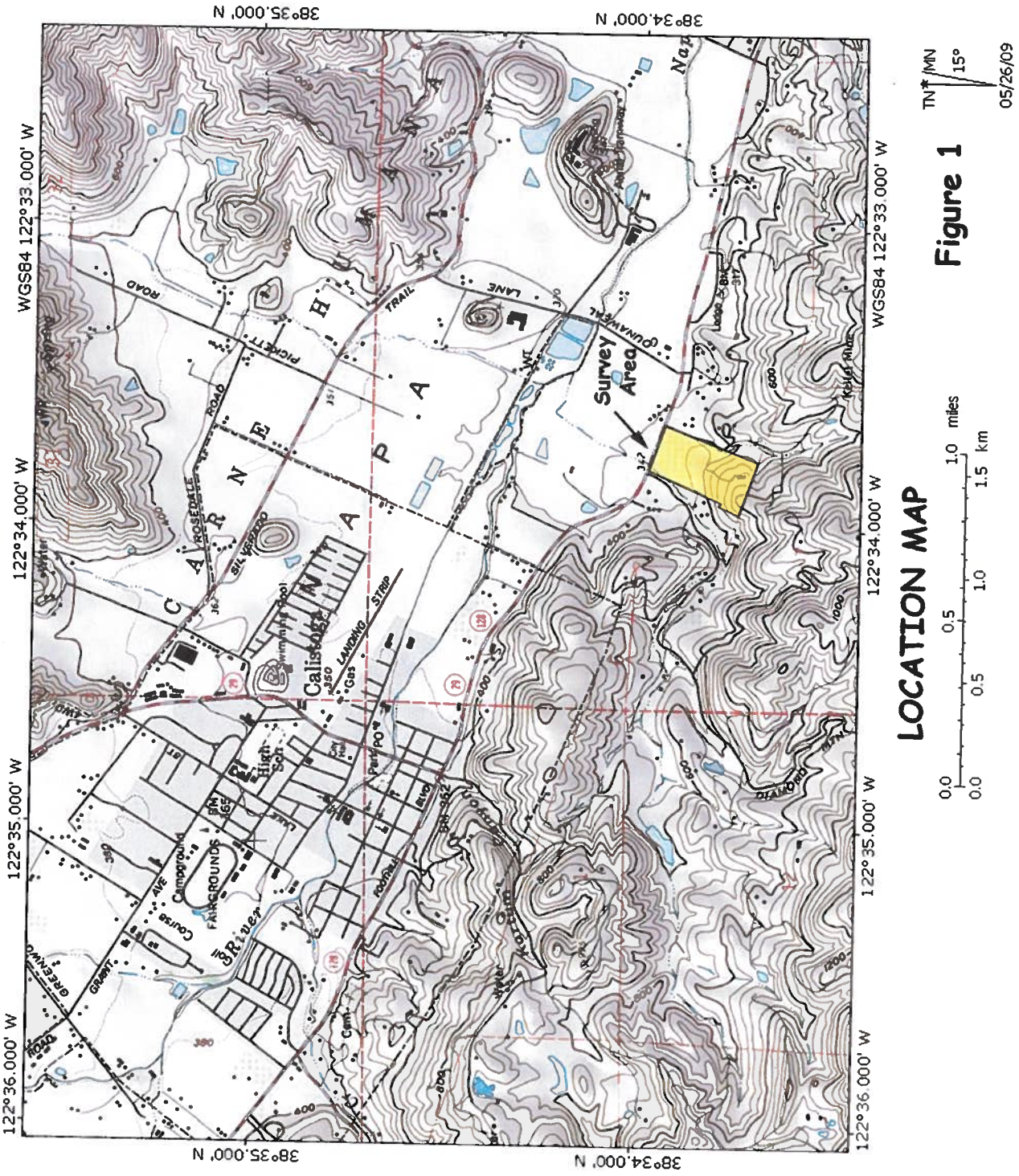
38°35.000' N
38°34.000' N
WGS84 122°33.000' W
122°34.000' W
122°35.000' W
122°36.000' W
Survey Area
Calistoga
LOCATION MAP
0.0 0.5 1.0 miles
0.0 0.5 1.0 1.5 km
TN 15° MN
05/26/09

Figure 1

PLANT COMMUNITIES

The property contains five natural plants habitats. The property also contains areas developed with structures and roads (ruderal), and agriculture. These communities are discussed as follows and are mapped on **Figure 2**:

- Douglas fir forest: This community is heavily dominated by Douglas fir (*Pseudotsuga menziesii var. menziesii*) forest. It contains a sub-canopy of tan oak (*Lithocarpus densiflorus var. densiflorus*), Pacific madrone (*Arbutus menziesii*), and California black oak (*Quercus kelloggii*). Scattered coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), and coast redwood (*Sequoia sempervirens*) also occur but do not contribute significantly to the canopy. The shrub layer is dominated by Scotch broom (*Cytisus scoparius*), an introduced species, but includes poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and oceanspray (*Holodiscus discolor*), mixed with saplings of the upper- and sub-canopy trees. The groundcover is primarily duff but with an herbaceous layer in places that includes bracken fern (*Pteridium aquilinum var. pubescens*), woodland madia (*Madia madioides*), creeping snowberry (*Symphoricarpos mollis*), licorice fern (*Polypodium glycyrrhiza*), coastal wood fern (*Dryopteris arguta*), and moose horn and delta-leaved forest violets (*Viola lobata ssp. lobata; V. lobata ssp. integrifolia*).

- Coast redwood forest: This community occurs as a small area within and adjacent to the Douglas fir forest and consists mainly of coast redwood, averaging 30" dbh (diameter at breast height). It occupies the shaded northwest slope of the property. It contains a sub-canopy of tan oak and big-leaf maple (*Acer macrophyllum*). Due to the dense canopy of redwoods, there is no shrub layer. Groundcover is primarily duff. Old tree stumps to 96" in diameter are scattered throughout the community. This appears to be a second-growth forest.

- Oregon white oak woodland: Oregon white oak (*Quercus garryanna var. garryanna*) forms an almost-homogenous canopy in this area located near the center of the property. It consists of a dense growth of small trees 6-8" dbh. The shrub layer is mainly toyon, poison oak, and common manzanita (*Arctostaphylos manzanita ssp. manzanita*); the shrub layer has mostly been cleared. There are scattered California buckeye (*Aesculus californica*) in the lower canopy along with seedling Douglas firs. Groundcover is leaf litter along with small quaking grass (*Briza minor*), silver European hairgrass (*Aira caryophyllea*), red brome (*Bromus madritensis ssp. rubens*), red fescue (*Festuca rubra*), and includes forbs such as harvest brodiaea (*Brodiaea elegans ssp. elegans*), wavy-leaf soap plant (*Chlorogalum pomeridianum*), blue-eyed grass (*Sisyrinchium bellum*), and Diogenes lantern (*Calochortus amabilis*).

This community occurs within part of the area mapped by Napa County as "California Bay-Madrone-Coast Live Oak", a county Sensitive Biotic Oak Woodland. The designation does not appear to be consistent with the surveyed plant community.

- Mixed oak woodland: The upper canopy of this community is dominated by California black oak with scattered Douglas fir. The lower canopy consists of moderately dense California buckeye and big-leaf maple, with some mature coast live oak and California valley oak (*Quercus lobata*). The shrub layer is comprised of common manzanita, poison oak, young coast live oak, toyon, and California blackberry (*Rubus ursinus*). Groundcover consists of leaf litter and woodland and grassland forbs such as spring vetch (*Vicia sativa ssp. sativa*), woodland madia, Pacific snakeroot (*Sanicula crassicaulis*), mugwort (*Artemesia douglasiana*), Douglas' microseris (*Microseris douglasii ssp. douglasii*), and English plaintain (*Plantago lanceolata*), with coastal wood fern in more open areas.

  A portion of this community runs along a stream channel at the west side of the property. The larger area occurs within part of the area designated by Napa County as a Sensitive Biotic Oak Woodland: "California Bay-Madrone-Coast Live Oak". A survey of the property shows that bay and madrone are mostly absent from this area, although there are some small coast live oak trees.

- California annual grassland: A small band of annual grassland runs along the northern edge of the vineyard adjacent to the highway, and along the driveway adjacent to the vineyard and orchard. It can be assumed that much of the vineyard and orchard originally contained this grassland habitat. Species occurring in this grassland include introduced annual grass and forb species such as slender wild oat (*Avena barbata*), English plantain, red-stem storksbill (*Erodium cicutarium*), rose clover (*Trifolium hirtum*), soft chess (*Bromus hordeaceus*), common dandelion (*Taraxacum officinale*), black mustard (*Brassica nigra*), and silver European hairgrass. The few native species include California poppy (*Eschscholzia californica*), sky lupine (*Lupinus nanus*), and miniature lupine (*Lupinus bicolor*).

- Walnut orchard; Vineyard; Ruderal: A vineyard occupies most of the lower half of the parcel near the highway. A remnant walnut orchard is retained in a small area adjacent to the vineyard and the driveway. Ruderal improvements include a building, parking lot, and driveway.

## SURVEY RESULTS

The two species included in the survey bloom May through July, and March through May, respectively, so it was possible to conduct an in-season botanical survey for these plants. All of the habitats noted on the property were included in the survey, and neither the narrow-anthered brodiaea nor the Jepson's leptisiphon were found.

The following table lists the plants included in the survey as well as the plants included in the habitat assessment, a short description of their habitat requirements, and whether or not the required habitats are present on the property.

| Plant Species | Common Name | Habitat Requirements | Blooming Season | Habitat Present |
|---|---|---|---|---|
| ***Brodiaea californica var. leptandra*** | **narrow-anthered California brodiaea** | **Broadleaved upland forest, chaparral, lower montane coniferous forest** | **May-July** | **yes** |
| ***Leptisiphon jepsonii*** | **Jepson's leptisiphon** | **Chaparral, cismontane woodland; usually volcanic** | **April-May** | **yes** |
| *Centromadia parryi var. parryi* | pappose tarplant | Coastal prairie, meadows & seeps, marshes & swamps (coastal salt), valley & foothill grassland (vernally mesic); often alkaline | May-Nov. | no |
| *Navarretia leucocephala ssp. bakeri* | Baker's navarretia | Cismontane woodland, lower montane coniferous forest, meadows & seeps, valley & foothill grassland, vernal pools; mesic | May-July | no |
| *Plagiobothrys strictus* | Calistoga popcorn-flower | Meadows & seeps, valley & foothill grassland, vernal pools; alkaline areas near thermal springs | March-June | no |
| *Poa napensis* | Napa blue grass | Meadows & seeps, valley & foothill grassland; alkaline, near hot springs | May-Aug | no |

- ***Brodiaea californica var. leptandra:*** This species was included in the species-specific survey; it is found in cismontane woodland, lower montane coniferous forest, and grassland, all of which occur within the survey area. The survey was conducted within the blooming season, which is between May and July. The survey results were negative.

- ***Leptisiphon jepsonii:*** This species was included in the botanical survey. Its habitat requirements include cismontane woodland, which is present on the property, and it is usually found on volcanic soils. The blooming season is April and May, during which time the survey was conducted. The survey results were negative.

- ***Centromadia parryi var. parryi:*** Pappose tarplant requires mesic, often alkaline, habitats such as seeps and swamps such as those found in the valley areas. These habitat types do not occur within the property.

- ***Navarretia leucocephala ssp. bakeri:*** Bakers navarretia occurs in mesic (wet) habitats, and often is found in vernal pools. There is no appropriate habitat on this site.

- ***Plagiobothrys strictus:*** Calistoga popcorn-flower requires geothermally altered soils, such as those found in the city of Calistoga near some of the hot springs. Northwest Biosurvey

verified the presence of this species at the former Calistoga airport several years ago. This property does not have appropriate habitat for this species.

- ***Poa napensis:*** Napa bluegrass is found in the same habitat as Calistoga popcorn-flower. We verified its presence near geothermally altered soils at the former airport. This property does not contain such soils.

RESULTS

The two species included in the survey – narrow-anthered California brodiaea and Jepson's leptosiphon – were not found. The property does not have appropriate habitat for the other four species.

Sincerely,

Steve Zalusky
Principal Biologist
**Northwest Biosurvey**