



July 14, 2020

County of Napa  
Planning, Building, and Environmental Services  
1195 Third Street, Suite 210  
Napa, California 94559

**RE: Response to Comments (Biology) – Teachworth Winery Agricultural Erosion Control Plan Application (ECPA) File No. P020-00063-ECPA; 4451 N. St. Helena HWY, Calistoga: APN 020-400-018**

To whom it may concern:

This letter provides a response to a request from Napa County for additional information/analysis regarding biological resources for the property located at 4451 N. St. Helena Highway (APN 020-400-018), Calistoga, Napa County, California. The request for additional information is outlined in a letter from the Planning, Building, and Environmental Services Department, *Application Review Determination – Teachworth Winery Erosion Control Plan (ECPA) File #P19-00063- ECPA*. The following addresses the County of Napa’s follow-up requests for additional information.

### **Response to County Request – Letter**

The following section directly addresses the comments from the County point-by-point (with text from the County in *italics*).

#### **1. Agricultural Erosion Control Plan Application Completeness Items**

a. *Oak Woodland and Cover Canopy Removal Retention:* *Please provide the number of trees, including species and diameter at breast height (dbh), that are proposed to be removed. Please update the biological resources report to discuss the relative ecological value of the trees to be removed versus the area retained.*

Introduction & Summary: It is WRA’s understanding that discussions between the County and PPI Engineering resulted in the County accepting a qualitative assessment of the oak trees within the subject property in lieu of a full arborist scope. Such an assessment was performed on June 4, 2020 within and adjacent to the proposed vineyard blocks; the details of such are as follows.

Methods: Two WRA botanists familiar with the site, traversed the entirety of all three proposed vineyard blocks and peripheral areas. In each block, oak trees (*Quercus kelloggii*, *Q. agrifolia*, *Notholithocarpus densiflorus*) were classified by their canopy, height, diameter at breast height (DBH), estimated age cohort, and structural complexity as a

proxy for wildlife habitat value. A full arborist scope (i.e., measuring and counting of each tree) was not conducted as part of this study.

**Results & Discussion:** All three blocks are composed of Douglas fir forest, with lesser elements of mixed chaparral/forest and developed portions. The dominant tree in all three blocks is Douglas fir forest (*Pseudotsuga menziesii*), representing approximately 50 to 75 percent of the total canopy cover. The lesser percentage of tree canopy cover in these areas are oak species as follows. The oak trees within the two eastern blocks are overwhelmingly tanoak (*Notholithocarpus densiflorus*), with a few California black oak (*Quercus kelloggii*) and interior live oak (*Quercus wislizenii*). Those in the northwestern block are entirely coast live oak (*Quercus agrifolia*). Table 1 summarizes the classifications by species.

Table 1. Oak and tanoak classification

Species	Age Class (nominal)	DBH (range)	Height (range)	Crown (range)	Structure & Value
Tanoka	sapling	<10 inches	1-10 feet	1-5 feet	most single stems; no holes or broken tops/branches
	immature	10-18 inches	10-40 feet	5-20 feet	most single stems; no holes or broken tops/branches
	mature	18+ inches	40+ feet	15-30 feet	most single stems; no holes or broken tops/branches; dense foliage
Interior live oak	sapling	<10 inches	5-10 feet	1-5 feet	all single stems; no holes or broken tops/branches
California black oak	immature	12-16 inches	30-40 feet	15-25 feet	all single stems; no holes or broken tops/branches
Coast live oak	immature	10-16 inches	15-30 feet	20-30 feet	many multi-stems; no holes or broken tops/branches

Overall, most of the trees do not provide structures sufficient for nesting birds (e.g., holes, broken branches, collected duff, dense foliage), and no structures for roosting bats (e.g., cracks, holes, peeling bark). Some of the larger tanoak canopies with dense foliage may provide nesting for birds. No active nests were detected; however, this study is not a protocol-level nesting bird survey so such negative results are suggestive not declarative. The areas adjacent to the proposed vineyard blocks contain the same suite of species with the same classification of size and structure. These remnant trees will provide continued benefits of oak trees within the property after project implementation.

## 2. Supplemental Environmental Information: . . .

### a. Biological Resource Information: . . .

i. The Napa County GIS extrapolated layer (streams from the Water Board) shows that the stream identified by the WRA survey as an ephemeral stream in the northeast quadrant of the Study Area extends approximately 200' south-southwest of where it is shown in the site plan. If so, potential changes to the site plan will be required to accommodate appropriate setbacks or a Use Permit will be required. Please clarify the extent of that drainage in the site plan and biological report.

*Additionally the extrapolated layer shows three drainages that cross the southern half of proposed vineyard Block C and appear to merge and flow in a north-northwestern direction to the paved road leading outside of the project boundary towards an existing vineyard block. While two of the drainages appear to originate from within Block C, the middle drainage appears to originate approximately 400' south-southwest of Block C. If so, potential changes to the site plan will be required to accommodate appropriate setbacks, or a Use Permit will be required. Please clarify the extent of that drainage in the site plan and biological report.*

It is WRA's understanding that PPI Engineering and the County resolved this issue during the site walk-through. To reiterate, stream data within the database referred here by the County was derived from a remote sensing approach and does not reflect actual features on-the-ground. As understood by the County, there are two ephemeral streams to the north of the proposed vineyard blocks; the vineyard block has been intentionally sited away from these streams.

*ii. The biological report identified the need for a second year of surveys for the northern spotted owl and a supplemental memorandum. Please provide the survey memorandum.*

Introduction & Summary: This section summarizes the results of a second season of presence/absence surveys for the federal and state listed northern spotted owl (NSO; *Strix occidentalis caurina*) within the Study Area (inclusive of the Project Area). Tree removal within the Project Area has some potential to directly impact NSO nesting, and project generated acoustic and visual disturbances may alter behavior (including resulting in nest abandonment) if nesting is occurring nearby.

Six night surveys for NSO were performed at the Project Area from mid-March to late June 2020 as per USFWS protocol, The "Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls" (USFWS 2012). NSO was not observed during these surveys. As such, there is no indication that NSO is present or nesting in or within 0.25 mile of the Project Area, and construction activities related to the project should be allowed to proceed.

Natural History & Local Occurrence: NSO is the resident spotted owl subspecies found in cool temperate forests in the coastal portion of California, from Marin County northward. NSO natural history is summarized by the USFWS (2011) and Gutiérrez et al. (1995). Suitable habitat consists of mature coniferous or mixed (coniferous-hardwood) forests; younger (second-growth) forest with patches of large/mature trees may also be used, particularly in the southern portion of the range (e.g., Napa County). High-quality breeding habitat features a tall, multi-tiered, multi-species canopy dominated by big trees, trees with cavities and/or broken tops, and woody debris and space under the canopy. NSO breeding pairs are usually monogamous and also demonstrate site fidelity, maintaining nesting territories and home ranges across years. The general breeding season occurs from February through August, and nesting occurs on platform-like substrates in the forest canopy. Substrates used as nest sites include sizable tree cavities, broken tree tops, epicormic branching (multiple branches forming from a single node), large horizontal branches, and old nests built by other birds or squirrels. NSOs forage for nocturnal mammals; dusky-footed woodrats (*Neotoma fuscipes*) are the primary prey in California.

According to the CDFW's Spotted Owl Viewer database, the nearest documented NSO nesting territory is located approximately 1.3 miles west of the Project Area on Diamond Mountain and the nearest activity center located approximately 0.8 mile west (CDFW

2020). There are also some additional locations within 0.5 mile of the Project Area where negative results were obtained (during single-visit surveys).

Methods: The survey methods for the Project Area followed the “Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls” (USFWS 2012). Five primary survey stations were established adjacent to the Project Area (Stations 1a/1b, 2a/2b, and 3 (Figure 1)) with the intention of covering all suitable NSO breeding habitat within 0.25 mile of the Project Area. A total of six surveys were performed from mid-March through late June 2020; surveys were separated from each other by at least seven days (see Table 2). All surveys occurred at night during weather conditions optimal for detecting NSO (e.g., low/no wind, no rainfall).

During each survey the surveyors spent a minimum of ten minutes at each station, alternating between periods of passive listening and active NSO calling approximately every one to three minutes. For active calling, both recorded NSO vocalizations and enhanced vocal imitations of these calls (by surveyors) were deployed. Recorded vocalizations were broadcast using a FOXPRO Inferno digital game calling device (FOXPRO, Inc.; Lewistown, Pennsylvania). Vocal imitations used “The Hooter Owl Call” calling devices (Hunters Specialties; Grand Prairie, TX)<sup>1</sup>. Spotted owl vocalizations used were the standard four-note call, the agitated (eight-plus-note) call, the contact call (“contact whistle”), and other barking/squawking calls. The game caller most frequently broadcast portions of a digital file created by the USFWS specifically for NSO presence/absence surveys (“NSOCallsAudio\_USFWS”)<sup>2</sup>, which included all of the aforementioned vocalizations; other audio files with variations of the four-note call and whistle were used as well.

All surveys were conducted by WRA biologists Aaron Arthur and Jason Yakich. Aaron Arthur meets the qualifications for NSO survey “crew leader” as defined by the USFWS (2012), and Jason Yakich is an ornithologist with many years of experience conducting surveys for special-status bird species in northern California. The credentials of both biologists were approved by the USFWS prior to initiation of NSO surveys at a site in Marin County site in 2014.

Results & Discussion: Survey data are provided in Table 2 below. No NSOs (or candidates for such) were detected during any of the surveys. Great horned owls (*Bubo virginianus*) were heard during the March 14 and April 2 surveys. Likewise, a screech owl (*Megascops kennicottii*), was detected during the May 4 survey. No other owl species were noted. Based on the negative survey results for two consecutive years (2019, 2020), there is no indication that NSO is currently nesting or otherwise present in the vicinity of the Project Area. It is WRA’s opinion that construction work should be allowed to proceed within the Project Area for the duration of the 2020 NSO nesting season, pending review and approval by relevant regulatory entities.

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<sup>1</sup> The device is designed to imitate vocalizations of barred owls (*S. varia*), which are closely related to spotted owls and share a similar vocal repertoire, and thus equally effective for imitating spotted owls.

<sup>2</sup> Available at: <https://www.fws.gov/arcata/es/birds/nso/audio/NSOCallsAudio.mp3>.

Table 2. NSO 2020 Survey Data

Survey Date	Survey Time	Weather (sky, wind, moisture, temperature)	NSO Detected?
March 14	21:20 – 22:20	clear; 0-3 mph; dry; 50-55 degrees F	no
April 2	23:30 – 24:15	clear; 0-1 mph; dry; 50-55 degrees F	no
May 4	21:32 – 22:17	clear; 0-3 mph; dry; 60-55 degrees F	no
June 4	21:25 – 22:19	clear; 0-1 mph; dry; 65-70 degrees F	no
June 11	22:30 – 22:55	clear; 0-1 mph; dry; 65-70 degrees F	no
June 23	21:00 – 22:07	clear; 0-1 mph; dry; 70-75 degrees F	no

iii. Please include a discussion of any special-status mosses, bryophytes, and lichens that are known to occur in the area as identified in the California Natural Diversity Database (CNDDDB) including a listing of special-status mosses, bryophytes, and lichens that may occur within the project Area.

Searches of the California Natural Diversity Database (CNDDDB; CDFW 2020), California Native Plant Society Electronic Inventory (CNPS 2020), Calflora Electronic Inventory (Calflora 2020), and the Napa County Baseline Data Report (NCBDR; Napa County 2005) result in no documented occurrences of special-status bryophytes or lichens in Napa County. Furthermore, botanical survey guidelines state that it is appropriate to conduct botanical field surveys when special-status plants have been historically identified in a project area and/or the project area contains similar physical and biological properties to know occurrences of special-status in the general vicinity (CDFW 2020).

iv. Napa County General Plan Conservation Goal CON-3 and Policy CON-13 and CON-17 obligate the County to, among other things, protect the continued presence of special-status species and their habitats, and provide protection for habitat supporting special-status through buffering or other means. The site plan should be revised the project limits to avoid impacts to the 2-3 Sonoma ceanothus shrubs on the eastern project boundary. Please provide recommendations to provide adequate buffer protection for these shrubs.

Generally, chaparral habitats contain numerous disturbance-adapted shrubs and herbs that rely on fire or other natural perturbations at differing frequency intervals. Sonoma ceanothus (*Ceanothus sonomensis*) and relatives (e.g., *C. divergens*, *C. purpureus*) are frequently limited in their distribution due to competition with other, taller shrubs and being overtopped by trees. California bay (*Umbellularia californica*), knobcone pine (*Pinus attenuata*), Douglas fir (*Pseudotsuga menziesii*), and other trees frequently “invade” chaparral habitats, eventually shading out chaparral shrubs, including ceanothus species, resulting in mortality to the shrubs and land cover type conversion. Simulating natural perturbations (i.e., tree removal in lieu of fire) can provide higher solar radiation necessary for healthy photosynthesis and seed germination of ceanothus. Consequently, the removal of trees for the proposed vineyard blocks will actually provide net benefit to the remaining ceanothus shrubs by providing an increase in solar radiation. It is feasible that such a provision of solar radiation will allow for seed germination and an increase in the on-site ceanothus population. Herbicide use near the remnant ceanothus shrubs on the proposed vineyard block edge should be limited to those chemical compounds that do not affect woody, broadleaf species. As noted in the original BRRS report (WRA 2020), it is

recommended that a habitat management area (HMA) and habitat mitigation and management plan (HMMP) shall be developed to compensate for the loss of ceanothus.

Please contact us if you have questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Aaron Arthur', with a stylized flourish at the end.

Aaron Arthur, MS  
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Certified California Consulting Botanist #0016  
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**Enclosures:**            Attachment A – Figure 1

## **CITATIONS**

Calflora website (Calflora). 2020. Website: Information on wild California plants for conservation, education, and appreciation. Available at: <http://www.calflora.org/>. Accessed: July 2020.

California Department of Fish and Wildlife (CDFW). 2020. California Natural Diversity Database (CNDDB), Wildlife and Habitat Data Analysis Branch. Sacramento, CA. Accessed: July 2020.

California Native Plant Society (CNPS). 2020. Online Inventory of Rare, Threatened, and Endangered Plants of California. Available at: <http://www.rareplants.cnps.org/>. Accessed: July 2020.

Napa County. 2005. Napa County Baseline Data Report. Available at: <http://www.co.napa.us/gov/>

U.S. Fish and Wildlife Service (USFWS). 2012. Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls. Endorsed: February 2, 2011 and Revised: January 9, 2012.





Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: aarthur, 7/6/2020

**Figure A-1. NSO Survey Stations**

Teachworth Winery  
Napa County, California

