Rare Plant and Supplemental Biological Survey

Proposed Winery Development Project
7631 Silverado Trail, Oakville, California

April 30, 2015

Prepared For:
Tench Vineyards Operations, LLC

Prepared By:
LACO Associates, Inc.
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Project No. 8191.01

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PROJECT AND SITE DESCRIPTION

Remmelt Reigersman, of Tench Winery, LLC, requested professional services from LACO Associates (LACO) to conduct a biological survey and provide a written report of findings for a proposed winery development project. This biological survey was conducted in conformance with the scope of services described in the agreement dated February 22, 2015, between Tench Vineyards Operations, LLC and LACO. The scope of services is responsive to the letter received from the Napa County Planning, Building and Environmental Services Division dated January 30, 2015 and follows the Guideline for Preparing Biological Resources Reconnaissance Surveys and the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities, California Department of Fish and Wildlife (2009).

The project involves the construction and operation of a winery with wine barrel storage caves at 7631 Silverado Trail (APN: 031-070-006) (Subject Property) in Napa County, California. The Subject Property is 60.86 acres and currently developed with a single family residence, paved and graveled roadways, fencing, and vineyards.

Tench Winery, LLC (Tench) is proposing to build a winery that includes a main production building and attached cut and cover caves. The total area of disturbance to accommodate the new winery, caves and roads will be approximately 2.7 acres (Project Site). The winery will be cut into the southeast side of a hillside, parallel to an existing driveway that provides access to an existing onsite residence. The winery will have an estimated annual production capacity of 18,000 cases or 42,840 gallons. The winery building will have a footprint of 6,779 square feet. The caves will be approximately 100 feet long, extending from both sides of the winery, parallel to the existing driveway. To improve vehicular access, the existing driveway will be widened. A parking area will be situated on the north side of the planned winery building, accessed via a new road extending from the existing driveway.

The Subject Property is located on Silverado Trail, 1 mile east of the community of Oakville, in Napa County, California. Located in the unincorporated area of Napa County, the project area lays approximately 3.0 air-miles north of Yountville. The Subject Property is located on the USGS 7.5' Yountville, California Quadrangle in Township 7 North, Range 5 West, in an un-sectioned portion of the Camyus Land Grant (Mount Diablo Base and Meridian) (See Figure 1).

Elevations in the vicinity range between approximately 200 and 240 feet above mean sea level. The Project Site contains moderate to steeply sloping ground. The Subject Property is located at the eastern edge of a broad alluvial floodplain. Local topography is dominated by prominent hill of Quaternary volcanic bedrock rising above the adjacent red, clay rich alluvial soils.

Existing habitats on the Subject Property include broadleaf forests (oak woodland), and open grassland areas populated with herbaceous ruderal species, primarily non-native annual and perennial forbs (See Figure 2). Soils appear to be weathered sandstone and shale, an association of Lodo, Maymem and Felton soils (California Soil Resource Lab, 2013) developed from the thinly bedded sedimentary rocks of the great valley sequence. Most of the lower Napa River watershed, including the Site, is intensely managed vineyards (Information Center for the Environment, 2003).

DESCRIPTION OF SURVEY METHODOLOGY

LACO reviewed topographic maps, aerial photography, proposed development plans and California Department of Fish and Wildlife's California Natural Diversity Data Base (CNDDB) (http://www.dfg.ca.gov/biogeodata/cnddb/ (Yountville Quad, DFW, 2015) prior to the field survey for the potential presence of sensitive species.

Species ranked 1B, 2, 3, and 4 (herein referred to as sensitive species) in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (http://www.rareplants.cnps.org/) were reviewed to determine potential presence in the vicinity of the project area (Yountville Quad plant species list). The CNPS inventory includes all species currently listed as rare or endangered by the federal and state governments.

To characterize existing biological conditions; identify potential impacts to sensitive habitats resulting from implementation of the project; and locate rare, threatened or endangered plant and wildlife species at the proposed winery site, LACO's Senior Environmental Scientist, Gary Lester, conducted a biological survey of the Project Site on December 8-9, 2014, and during the seasonally appropriate dates of April 10 and 17, 2015. During the December 2014 surveys 4 person hours was spent on December 8 and 4 person hourswere spent on December 9 conducting the field surveys. During the April 2015 surveys 6 person hours was spent on April 10, and 3 person hours was spent on April 17 conducting the field surveys. On April 10 an additional 3 person hours was spent conducting Pallid bat surveys.

Mr. Lester is qualified to conduct biological surveys, having earned an undergraduate degree in Botany and received training in recognition of the local flora and fauna and in rare plant identification and survey protocol. Additionally, Mr. Lester has conducted sensitive plant surveys, biological site investigations, and wildlife surveys for over 25 years. Mr. Lester also holds a Recovery Permit from the U.S. Fish and Wildlife Service for biological survey activities.

For the April 2015 surveys Mr. Lester was accompanied in the field by Stephen Umbertis, Assistant Planner. Mr. Umbertis holds an undergraduate degree in natural resources and is trained in habitat typing and plant identification. Mr. Umbertis worked directly under Mr. Lester's supervision while in the field.

The December 2014 biological survey focused on habitat typing and documenting plant and animal species on and near the Project Site. The results are presented in the Technical Memorandum Biological Survey, 7631 Silverado Trail, Oakville, CA (LACO, 2014) (Appendix 2). While the December survey was useful to gain a preliminary understanding of the plants and animals present, it was acknowledged that it was not conducted during the seasonally appropriate flowering season.

The seasonally appropriate plant survey presented in this Technical Memorandum was conducted in accordance with California Department of Fish and Wildlife (CDFW) guidelines which required that surveys be conducted at the time of year when special status plants are most identifiable, which is usually when they are flowering, and that all plants identifiable at the times of the survey were identified to the level that would allow determination of their status.

Mr. Lester inquired with the California Department of Fish and Wildlife (DFW) Yountville Office regarding seasonally appropriate dates to conduct the rare plant survey. DFW Yountville District II Botanist Mr. Gene Cooley indicated that two separate survey times would be required the first in mid-April and the second in

mid- June. This Technical Memorandum presents the results of the mid-April survey, to be followed by the mid-June survey once it is seasonally appropriate.

The survey was high in coverage (95 to 100%) and included the existing roadway from Silverado Trail and the proposed development site. Wide survey routes (to approximately 100' beyond proposed developed areas) were taken to address potential adjacent impacts (road cut and fill slopes, winery site cut and fill slopes, and major vegetation removal). A total of 9 person hours was spent on the botanical survey. An additional 3 person hours were spent conducting a Pallid bat survey.
Environmentally-sensitive habitat areas, including the oak woodland habitats in the vicinity of the proposed access road and proposed winery site were surveyed to determine potential impacts that may result from implementation of the project. Plants were identified to the taxonomic level (genus or species) necessary for rare plant identification. The plant scientific nomenclature followed the Jepson Manual (Baldwin, et. al., 2012).

POTENTIAL SENSITIVE PLANT SPECIES PRESENT

Based on the species identified in the CNPS and CNDDB records, the range of habitats present, and the geographical range of the various sensitive species, the sensitive plant species considered most likely to occur in the project vicinity are listed in Table 1. Only oak woodlands and annual grassland habitats were present, eliminating many sensitive species specific to other types of habitats, such as those originating from serpentine or volcanic soils.

Table 1. Sensitive Plant Species Potentially Present in the Project Area

Species	Common Name	CNPS List	Preferred Habitat
Amorpha californica var. *napensis*	Napa false indigo	1B.2	Broadleafed forest, chaparral, oak woodlands; flowers May to July
Arctostaphylos canescens ssp. *sonomensis*	Sonoma canescent manzanita	1B.2	Chaparral, coniferous forest; flowers March to May
Arctostaphylos stanfordiana ssp. *decumbens*	Rincon Ridge manzanita	1B.1	Chaparral, red rhyolite endemic; flowers February to April
Astragalus claranus	Clara Hunt's milk-vetch	1B.1	Oak woodland, chaparral, grasslands; flowers April-May.
Brodiaea leptandra	narrow-anthered brodiaea	1B.2	Broadleaved & coniferous forests, chaparral; flowers May to July
Ceanothus confusus	Rincon Ridge ceanothus	1B.1	Closed-cone forest, oak woodland, chaparral; flowers February to April
Ceanothus divergens	Calistoga ceanothus	1B.2	Chaparral, oak woodlands; flowers February to April
Ceanothus purpureus	Holly-leaved ceanothus	1B.2	Chaparral; flowers February to April

Species	Common Name	CNPS List	Preferred Habitat
Ceanothus sonomensis	Sonoma ceanothus	1B.2	Chaparral; flowers late March to April
Downingia pusilla	Dwarf downingia	2.2	Vernal pools; flowers March to May
Erigeron greenei	Greene's narrow-leaved daisy	1B.2	Chaparral; flowers May to September
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	Chaparral, oak woodland; flowers April to May
Lupinus sericatus	Cobb Mountain lupine	1B.2	Chaparral, oak woodland, coniferous forest; flowers late March to June
Streptanthus hesperidis	green jewel-flower	1B.2	Chaparral, oak woodland; flowers May to July
Trichostema ruygtii	Napa bluecurls	1B.2	Chaparral, pine woodland; flowers June to October

The following summaries are for the sensitive plant species shown in Table 1 above.

Napa false indigo grows in widely localized oak woodlands and chaparral habitats from Napa County to Marin County. Suitable oak woodland habitat for this species occurs throughout the surveyed project area. A nearby population, located 4.5 miles west on Dry Creek Road, was observed in 2013. The lack of deep, rich soils on the project site possibly excludes this species.

Sonoma canescent manzanita has been reported from Hooker Canyon, approximately 4.5 miles southwest from the subject property. No Sonoma canescent manzanita was observed during the survey, likely due to the absence of volcanic or serpentine origin soils.

Rincon Ridge manzanita is known from extreme chaparral habitats evolved on localized red rhyolite soils. A reported population is described from the Oakville Grade, approximately 6 miles from Yountville. No Rincon Ridge manzanita was observed during the survey, likely due to the absence of the localized red rhyolite soils.

Clara Hunt's milk-vetch is known from historical collections near St. Helena and a remnant population on the west end of Lewelling Lane near St. Helena. The known occurrences are from grasslands originating from thin clay soils. No species of milk-vetch was observed during the survey, with Clara Hunt's milk-vetch unlikely on the project site due to the lack of clay soils.

The **narrow-anthered brodiaea** is widely distributed over much of the central California coast range. Closest occurrence is recorded from Stuart Canyon, approximately 3.5 miles southwest from the project area. The narrow-anthered brodiaea was not observed during the survey, possibly due to the limitation of fine, rocky soils.

The **Rincon Ridge ceanothus** is limited to chaparral habitats on extreme rocky, volcanic, or serpentine soils. The closest occurrence is recorded from Mount St. John, 7 miles northwest of Yountville. No Rincon Ridge ceanothus was observed during the survey, likely due to the lack of severe, rocky soils.

Calistoga ceanothus is known from chaparral habitats on extreme rocky, volcanic, or serpentine soils. At least five populations are scattered nearby (centered from St. Helena to western ridges). It was not observed during the survey, likely due to the lack of extreme, rocky soils.

The **holly-leaved ceanothus** is widely distributed east of Yountville in extreme chaparral habitats (Atlas Peak, Haystack Summit, and Soda Canyon). No holly-leaved ceanothus was observed during the survey due to the lack of extreme chaparral habitats.

The **Sonoma ceanothus** is widely distributed west of Yountville in extreme chaparral habitats (Mount Veeder, Mount St. John, and Mount Hood). No Sonoma ceanothus was observed during the survey, due to the lack of extreme chaparral habitats.

Habitat for the **Greene's narrow-leaved daisy** is chaparral originating on volcanic or serpentine soils. A historic collection is reported from St. Helena. No Greene's narrow-leaved daisy was observed during the survey, possibly due to the lack of extreme chaparral soil types.

Jepson's leptosiphon is known from chaparral and oak woodlands in the Central Coast Range. A nearby historical collection site is from 2.5 miles west on Dry Creek Road. No Jepson's leptosiphon was observed during the survey, likely due to the lack of any serpentine or volcanic soils.

Cobb Mountain lupine is known from oak or pine woodlands in gravelly soils, sometimes on serpentine. A known population occurs on Trinity Road (3 miles west of the project site). Cobb Mountain lupine was not observed during the survey, likely due to the lack of extreme gravelly slopes and soils.

Green jewel-flower is known from extreme rocky (serpentine) chaparral. A historic site is located near the outfall of Lake Hennessey, east of St. Helena. Green jewel-flower was not observed during the survey, likely due to the lack of extreme chaparral soils.

Napa bluecurls grows in widely localized foothill pine woodlands and chaparral habitats in eastern Napa County. The lack of typical habitat on the project site likely excludes this species.\

POTENTIAL SENSITIVE ANIMAL SPECIES PRESENT

According to CNDDB (2015) records, Yountville Quad species list, the range of habitats present, and the geographical range of the sensitive animal species, the species considered most likely to occur in the vicinity of the proposed project area are listed in Table 2. Lack of permanent water, suitable nesting or roosting tree types, and suitable foraging habitats on-site limits the likelihood of these species being present. None of the below species were observed on-site during the site surveys.

Table 2. Sensitive Animal Species Potentially Present in the Proposed Project Area

Species	Common Name	Fed/State List	Preferred Habitat
Antrozous pallidus	pallid bat	none	Tree roosts
Ardea alba	great egret	none	Tree rookeries
Ardea herodias	great blue heron	none	Tree rookeries

Species	Common Name	Fed/State List	Preferred Habitat
Cypeloides niger	black swift	none	Nests behind waterfalls
Elanus leucurus	white-tailed kite	none	Tree rookeries
Emys marmorata	western pond turtle	none	Open fresh water
Haliaeetus leucocephalus	bald eagle	none	Nests in mature coniferous tree top
Phalacrocorax auritus	double-crested cormorant	none	Tree rookeries
Rana boylii	foothill yellow-legged frog	none	Permanent forest streams

The following summaries are for the sensitive animal species shown in Table 2.

Pallid bat potentially uses stream channels for foraging and travel. Suitable roosting habitat for this species occurs throughout the wooded portions of the Coast Range. The permanent waterways of the Napa River would most likely be the nearest roost and foraging. A bat survey was conducted between 9PM and 10PM on April 4, 2015. Up to five silver haired bats were seen foraging over the subject property frost protection ponds. No Pallid Bats were detected.

The **great egret** and **great blue heron** are known from California marshes and waterways. Both species nest in tree rookeries. No significant wetlands or suitable nest trees are present in the project area.

The **black swift** is known from California waterfalls, cliff seeps, and other extreme aerial wetlands. No waterfalls are known to occur in the area.

The **white-tailed kite** is known from California grasslands, marshes, and other open forage habitats. Kites use tree cover for nesting and roosts. No kite nests or kite roosts are known to occur in the project area.

The **western pond turtle** occurs in permanent freshwater ways or ponds. Suitable habitat for this species occurs on the project site at the vineyard irrigation pond. The pond was examined during the April field visit and no pond turtles were observed.

The **bald eagle** is known from northern California water ways. Nests are recorded from mature canopy trees or snags. DFG lists the California populations of Bald Eagle as threatened. No suitable nesting trees are present on the project site.

The **double-crested cormorant** is known from California waterways, estuaries, and inland and coastal wetlands. Double-crested cormorants nest in tree rookeries. No suitable foraging or nesting habitats are known to occur in the project area.

The **foothill yellow-legged frog** habitat requirements are relatively undisturbed permanent forested streams. The California populations are not listed, but it is considered a species of concern. No foothill yellow-legged frogs were observed in the small Napa River tributary on-site.

SURVEY RESULTS

The dominant vegetation throughout the Project Site is oak woodland comprising primarily coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), California bay (*Umbellularia californica*), and California buckeye (*Aesculus californica*). Canopy coverage ranges from 75 to 100 percent. A sparse ground cover occurs in the oak woodland habitat including poison oak (*Toxicodendron diversilobum*), common manzanita (*Arctostaphylos manzanita*), toyon (*Heteromeles arbutifolia*), soap root (*Chlorogalum pomeridianum*), Pacific sanicle (*Sanicula crassicaulis*), snowberry (*Symphoricarpos albus* var. *laevigatus*), and distal phacelia (*Phacelia distans*). Ground cover coverage ranges from 0 to 25 percent.

Annual grassland vegetation occurs within the survey area, primarily along the southeast slopes. Annual grassland vegetation comprises non-native grasses of slender wild oats (*Avena barbata*), soft brome (*Bromus hordeaceus*), annual rye grass (*Festuca perennis*), annual dogtail (*Cynosurus echinatus*), silver-hair grass (*Aira caryophyllea*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), creeping bent grass (*Agrostis stolonifera*), and a variety of other native and non-native herbs and grasses. A list of all plant species encountered during the field survey is attached as Appendix 2.

Notable wildlife found associated with the oak woodland consists of common year-round resident birds [Acorn Woodpecker (*Melanerpes formicivorus*), Nuttall's Woodpecker (*Picoides nuttallii*), Anna's Hummingbird (*Calypte anna*),Northern Mockingbird (*Mimus polyglottos*), American Robin (*Turdus migratorius*), Hermit Thrush (*Catharus guttatus*), Hutton's Vireo (*Vireo huttoni*), Western Bluebird (*Sialia mexicana*), Ruby-crowned Kinglet (*Regulus calendula*), Western Scrub-Jay (*Aphelocoma coerulescens*), California Towhee (*Pipilo fuscus*)]. Mammal game trails were located crisscrossing the oak woodland on the project site, but these appeared to be used infrequently.

ASSESSMENT OF POTENTIAL IMPACTS

No sensitive plant or animal species were detected during the surveys. At this time there are no anticipated impacts to sensitive species.

Although numerous game trails were encountered during the surveys, no abundant or vital mammal population use was determined to be occurring.

The final rare plant survey will be conducted in June 2015 to provide comprehensive surveying over the differing flowering seasons of rare plants in the area. Should rare plants be identified during the June survey, additional recommendations will be made.

Oak Woodlands

Oak woodlands preservation is addressed in the Napa County General Plan, specifically Policy CON-24, requiring the maintenance and improvement of oak woodland habitat. This policy is implemented by Action Item CON NR-7, which states that the county shall adopt a voluntary Oak Woodland Management Plan to identify and mitigate direct and indirect impacts to oak woodlands. Napa County adopted a Voluntary Oak Woodland Management Plan in 2010. The Voluntary Oak Woodland Management Plan contains measures to maintain oak diversity and replace or preserve impacted oak habitat at a 2:1 ratio.

The Project Site includes approximately 1.96 acres of oak woodland that will be disturbed by the proposed project. The number of oak trees to be removed was initially estimated during the December 2014 survey. For the April 2015 survey, individual trees over 6 inches diameter at breast height (dbh) were identified to genus, counted, and flagged. Table 3 summarizes the proposed oak tree removal.

Table 3. Oak Tree Removal

Common Name	Scientific name	Number of trees to be removed (>6" dbh)
Coast live oak	*Quercus agrifolia*	108
Blue oak	*Quercus douglasii*	36
California black oak	*Quercus kelloggii*	6
	Total	150

None of the identified oak species to be removed are considered sensitive or of special status.

To offset the impacts from the proposed oak tree removal, a combination of preservation of remaining habitat and replanting is proposed (see Figure 3). Approximately 2.01 acres of existing oak woodland that will not be disturbed as a result of the project will be preserved from future development. This area is slightly exceeds the area to be disturbed and represents a 1:1 preservation ratio.

Approximately 26,347 square feet on the western hillslope that is currently non-native grassland will be planted with 150 oak trees; the replanting schedule will match the oak species to be removed. The oaks will be gallon sized and planted at approximately 20 feet on center. The oaks will be watered by hand as necessary during the first 3 years to promote survival. Successful planting will be considered an 80% survival rate at 5 years. If less than 80% of the trees are surviving, replanting will be necessary. In addition to the grassland area, replanting may take place near the caves and in the areas devoted to landscaping. This will accomplish a 1:1 replanting ratio.

By combining preservation and replanting, a 2:1 habitat protection ratio will be achieved.

RECOMMENDATIONS

The following are recommended as conditions of approval of the proposed project:

- If construction is proposed during the bird breeding season (March 1 to August 15), pre-construction bird surveys are recommended. If nesting birds are detected, construction should not commence until after the breeding season. Alternatively, a buffer of adequate size should be provided to prevent disturbance of nesting birds if construction is pursued during breeding season. The appropriate buffer size should be determined in consultation with the California Department of Fish and Wildlife.

- Native and or drought tolerant plants are recommended for landscaped areas. Plants included on the invasive plant inventory as defined by the California Invasive Plant Council should not be used in landscaping.
- Oak woodland impacts should be offset by 1:1 preservation and 1:1 replanting as described in the Oak Woodland section of this Technical Memorandum.

REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken. 2012. The Jepson Manual: Vascular Plants of California. University of California Press. Berkeley CA.

California Department of Fish and Game. November 2009. Guidelines for Assessing the Effects of Proposed Development on Rare, Threatened, and Endangered Plants and Plant Communities. Sacramento, CA.

California Department of Fish and Wildlife, Natural Diversity Database. Accessed December 2014. Yountville Quad, (http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp)

California Native Plant Society. Accessed December 2014. Inventory of Rare and Endangered Plants of California.
Yountville Quad, http://www.rareplants.cnps.org/

California State Public Resource Code (September 24, 2004), Section 21083.4, Oak Woodlands Conservation Act, Senate Bill 1334.

California Soil Resource Lab. 2013. http://casoilresource.lawr.ucdavis.edu/soil-web/ssurgo.php

Gallina, Charlene, Napa County Supervising Planner, Personal Communication, October 30, 2014.

Information Center for the Environment, UC Davis. 2003. Napa County Vegetation Map (based on Sawyer, J. O. and Keeler-Wolf, T. 1995. The Manual of California Vegetation. CNPS, Sacramento, CA).

Napa County General Plan. 2009. Conservation Section, Policy CON-24 c) and Action Item CON NR-7: Voluntary Oak Woodland Management Plan.

Napa County Planning Division. 2007. Guidelines for Preparing Biological Resources Reconnaissance Surveys. Napa, CA, 3 pp.

FIGURES

LACO

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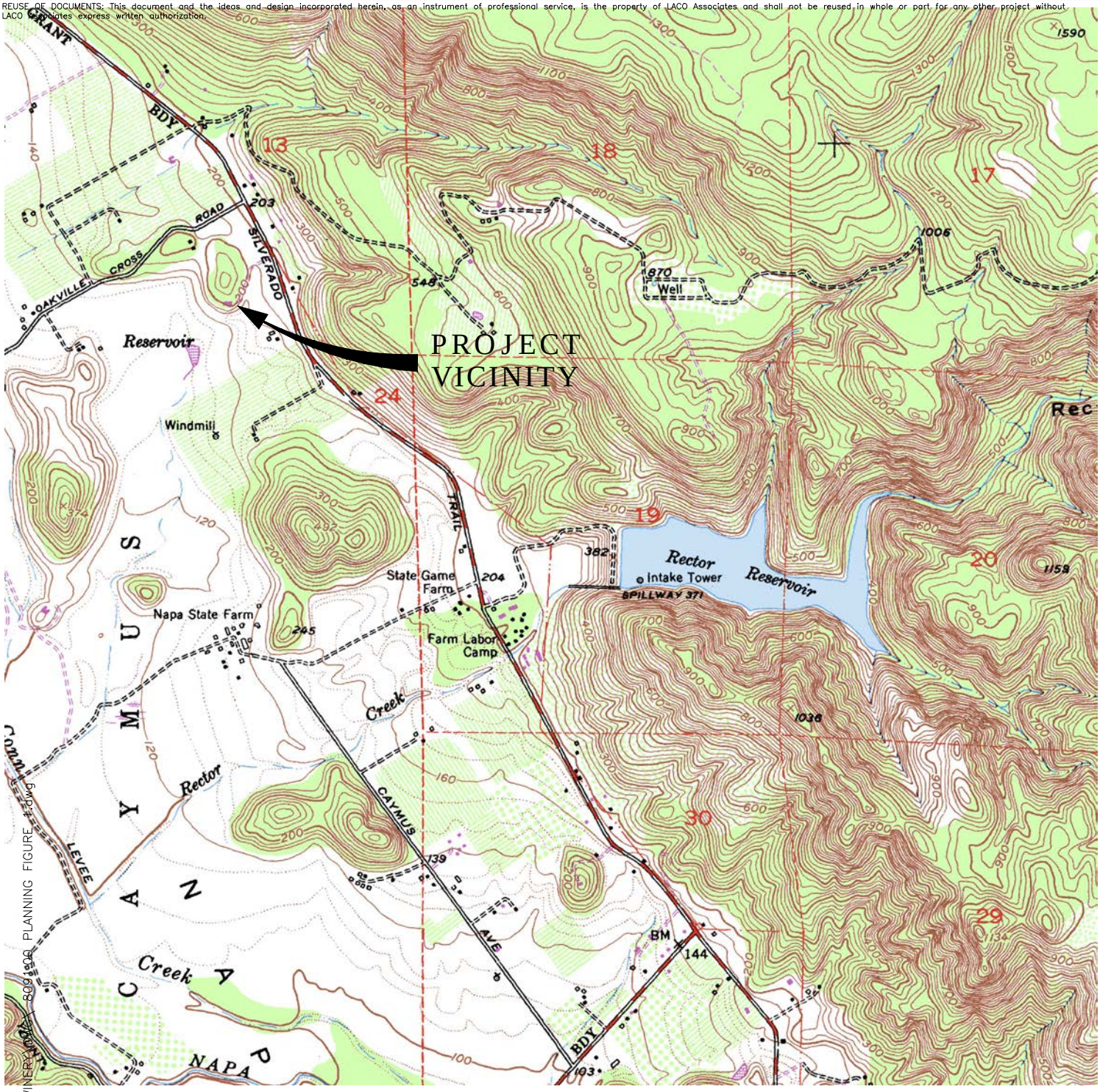
PROJECT	TENCH WINERY	BY JDB	FIGURE 1
CLIENT	TENCH VINEYARDS OPERATIONS, LLC	DATE 12/12/14	
LOCATION	7631 SILVERADO TRAIL, NAPA, CA	CHECK EAB	JOB NO. 8091.01
	VICINITY MAP	SCALE AS SHOWN	



NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. MAP SHOWN HEREON IS FROM USGS.

0 24,000

SCALE: 1:24,000

Apr 29,2015–1:07pm T:\Cadfiles\8000\8091.00 TENCH WINERY\8091.00 PLANNING FIGURE 1.dwg

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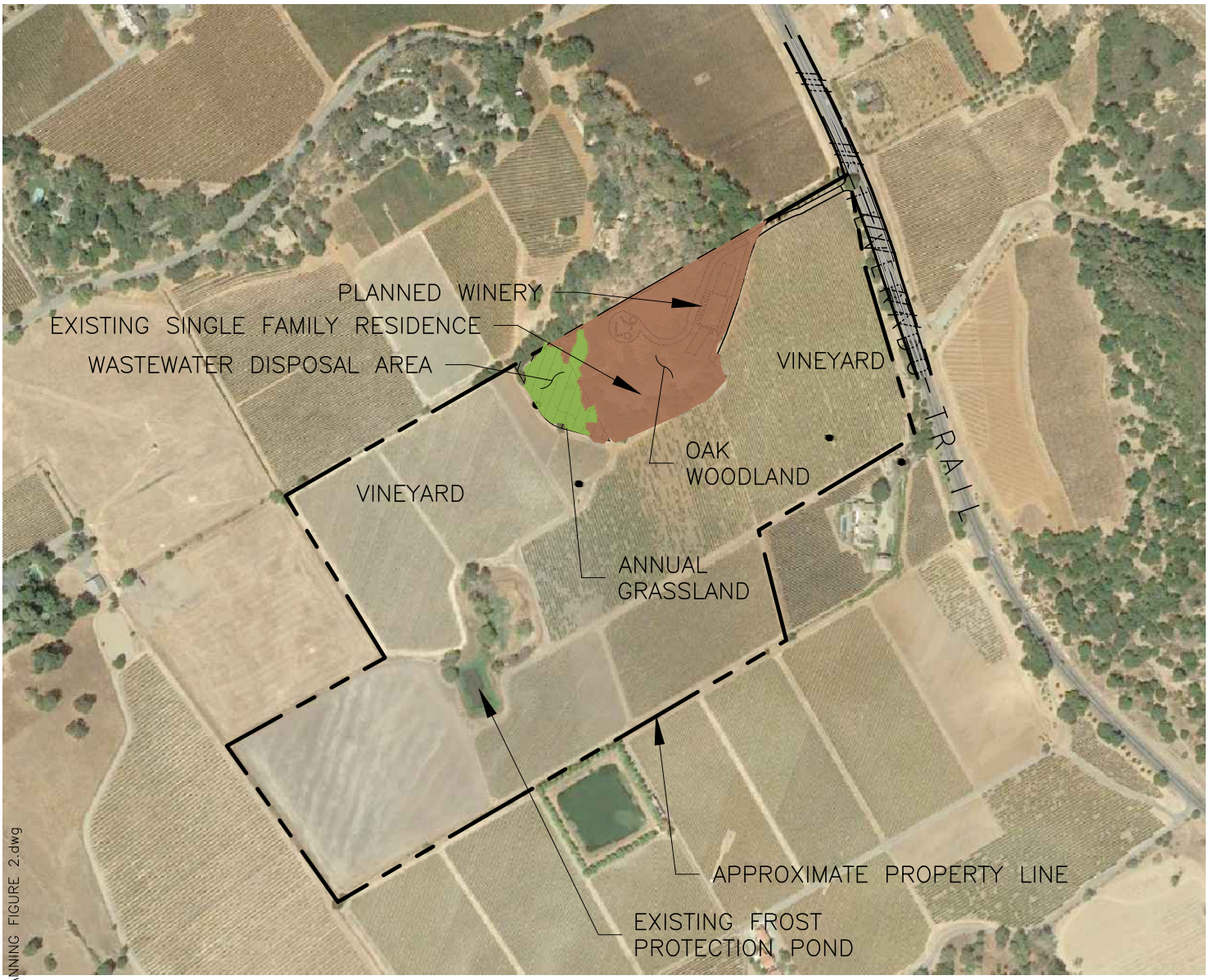
PROJECT	TENCH WINERY	BY JDB	FIGURE 2
CLIENT	TENCH VINEYARDS OPERATIONS, LLC	DATE 12/12/14	
LOCATION	7631 SILVERADO TRAIL, NAPA, CA	CHECK EAB	JOB NO. 8091.01
	GENERAL HABITAT TYPES	SCALE AS SHOWN	



LEGEND:

- WASTEWATER DISPOSAL
- OAK WOODLAND
- ANNUAL GRASSLAND

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGE SHOWN HEREON IS FROM GOOGLE.

0 125' 250'

SCALE: 1"=250'

Apr 29,2015-1:08pm T:\Cadfiles\8000\8091.00 TENCH WINERY\DWG\ 8091.00 PLANNING FIGURE 2.dwg

OAK REPLACEMENT SCHEDULE			
OAK AREA	LEGEND	SQUARE FEET	ACRES
REMOVAL		85,378	1.96
PRESERVATION		87,556	2.01
REPLANTING		26,347	0.60

PRELIMINARY - NOT FOR CONSTRUCTION

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ENGINEER OF RECORD: NATHAN TOEWS, P.E.
LICENSE NUMBER: 70251
EXPIRATION DATE: 09/30/16

Project:
Tench Winery
Project Address:
7631 Silverado Trail
Napa, CA 94558
APN: 031-070-006
Phone: 646.660.4200

Client:
Tench Winery, LLC
Client Address:
7631 Silverado Trail
Napa, CA 94558
APN: 031-070-006
Phone: 646.660.4200

Sheet Title:
Preliminary Design

OAK REPLACEMENT & PRESENTATION PLAN

Project History:

01	11-14-2014	Schem. Design Client Review
02	12-12-2014	Review Submittal
03	12-19-2014	Final Submittal for Use Permit
04	04-03-2015	Revised Submittal for Use Permit

REVISED

SCALE: 1" = 60' - 0"
0' 60' 120' 240'

Project Number:
8091.00
Designed & Drawn By:
SMS, NKT, KDB
Date:
03 APRIL 2015
Sheet Number:
Figure 3

APPENDIX 1

Technical Memorandum Biological Survey, 7631 Silverado Trail, Oakville, CA 94562, LACO Associates, December 2014

TECHNICAL MEMORANDUM

Biological Survey, 7631 Silverado Trail, Oakville, California 94562
Assessor's Parcel Number (APN) 031-070-006-000
Tench Vineyards Operations, LLC

Date:	December 9, 2014
Project No.:	8091.01
Prepared For:	Remmelt Reigersman, Tench Vineyards Operations
Prepared By:	Gary Lester, Sr. Environmental Scientist
Reviewed By:	Beth Burks, AICP, Senior Planner
Appendix 1	Figure 1: Vicinity Map
	Figure 2: General Habitat Types
Appendix 2	List of Plant Species Encountered

INTRODUCTION

Remmelt Reigersman, of Tench Vineyards Operations LLC (client), has requested professional services from LACO Associates (LACO) to conduct a biological survey and provide a written report of findings for the client's proposed development project. The project is a proposed winery site construction and the construction wine barrel storage caves at 7631 Silverado Trail in Napa County, California.

To characterize existing biological conditions; identify potential impacts to sensitive habitats resulting from implementation of the project; and locate rare, threatened, or endangered plant and wildlife species at the proposed winery site, LACO's Senior Environmental Scientist, Gary Lester, conducted a biological survey of the project site on December 8-9, 2014. Mr. Lester is qualified to conduct biological surveys, having earned an undergraduate degree in Botany and received training in recognition of the local flora and fauna and in rare plant identification and survey protocol. Additionally, Mr. Lester has conducted sensitive plant surveys, biological site investigations, and wildlife surveys for over 25 years.

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EXISTING DATA REVIEW

LACO reviewed topographic maps, aerial photography, proposed development plans and California Department of Fish and Wildlife's California Natural Diversity Data Base (CNDDB) (http://www.dfg.ca.gov/biogeodata/cnddb/ (Yountville Quad, DFW, 2014) prior to the field survey for the potential presence of sensitive species. Species ranked 1B, 2, 3, and 4 (herein referred to as sensitive species) in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (http://www.rareplants.cnps.org/) were reviewed to determine potential presence in the vicinity of the project area (Yountville Quad plant species list). The CNPS inventory includes all species currently listed as rare or endangered by the federal and state governments.

FIELD SURVEY

LACO's Senior Environmental Scientist, Gary Lester, conducted a pedestrian field survey of the proposed project site (APN 031-070-006-000; see Appendix 1, Figure 1: Vicinity Map) on December 8-9, 2014, following protocol developed by the California DFW (DFG, 2009). The survey was high in coverage (95 to 100%), and was limited to the roadway from Silverado Trail, and the proposed development site. Wide survey routes (to approximately 100' beyond proposed developed areas) were taken to address potential adjacent impacts (road cut and fill slopes, winery site cut and fill slopes, and major vegetation removal). Each field survey took approximately 3 hours.

Environmentally-sensitive habitat areas, including the oak woodland habitats in the vicinity of the proposed access road and proposed winery site were surveyed to determine potential impacts that may result from implementation of the project. Plants were identified to the taxonomic level (genus or species) necessary for rare plant identification. The plant scientific nomenclature followed the Jepson Manual (Baldwin, et. al., 2012).

ENVIRONMENTAL SETTING

The subject property is an approximately 60 acre parcel located on Silverado Trail, 1 mile east of the community of Oakville, in Napa County, California. Located in the unincorporated area of Napa County, the project area lays approximately 3.0 air-miles north of Yountville. The proposed development covers approximately 2.41 acres. Elevations in the project area range between approximately 200 and 240 feet above mean sea level. The project area features sloping ground (13%-70%), with a single residence, paved and graveled roadways, fencing, and vineyards.

Natural habitats include broadleaf forests (oak woodland), and herbaceous ruderal (non-native annual and perennial forbs). Soils appear to be weathered sandstone and shale, an association of Lodo, Maymem and Felton soils (California Soil Resource Lab, 2013), developed from the thinly bedded sedimentary rocks of the great valley sequence. Most of the lower Napa River watershed, including the project area, is intensely managed vineyards (ICE, 2003).

SENSITIVE SPECIES ANALYSIS

Sensitive Plant Species Historically Reported Nearby

Based on the species identified in the CNPS and CNDDB records, the range of habitats present, and the geographical range of the various sensitive species, the sensitive plant species considered most likely to

occur in the project vicinity are listed in Table 1. Only oak woodlands, annual grassland habitats were present, eliminating many sensitive species specific to other types of habitats, such as those originating from serpentine or volcanic soils.

TABLE 1: Sensitive Plant Species Potentially Present in the Project Area

Species	Common Name	CNPS List	Preferred Habitat
Amorpha californica var. *napensis*	Napa false indigo	1B.2	Broadleafed forest, chaparral, oak woodlands; flowers May to July
Arctostaphylos canescens ssp. *sonomensis*	Sonoma canescent manzanita	1B.2	Chaparral, coniferous forest; flowers March to May
Arctostaphylos stanfordiana ssp. *decumbens*	Rincon Ridge manzanita	1B.1	Chaparral, red rhyolite endemic; flowers February to April
Astragalus claranus	Clara Hunt's milk-vetch	1B.1	Oak woodland, chaparral, grasslands; flowers April-May.
Brodiaea leptandra	narrow-anthered brodiaea	1B.2	Broadleaved & coniferous forests, chaparral; flowers May to July
Ceanothus confusus	Rincon Ridge ceanothus	1B.1	Closed-cone forest, oak woodland, chaparral; flowers February to April
Ceanothus divergens	Calistoga ceanothus	1B.2	Chaparral, oak woodlands; flowers February to April
Ceanothus purpureus	Holly-leaved ceanothus	1B.2	Chaparral; flowers February to April
Ceanothus sonomensis	Sonoma ceanothus	1B.2	Chaparral; flowers late March to April
Downingia pusilla	Dwarf downingia	2.2	Vernal pools; flowers March to May
Erigeron greenei	Greene's narrow-leaved daisy	1B.2	Chaparral; flowers May to September
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	Chaparral, oak woodland; flowers April to May
Lupinus sericatus	Cobb Mountain lupine	1B.2	Chaparral, oak woodland, coniferous forest; flowers late March to June
Streptanthus hesperidis	green jewel-flower	1B.2	Chaparral, oak woodland; flowers May to July
Trichostema ruygtii	Napa bluecurls	1B.2	Chaparral, pine woodland; flowers June to October

The following summaries are for the sensitive plant species shown in Table 1.

Napa false indigo grows in widely localized oak woodlands and chaparral habitats from Napa County to Marin County. Suitable oak woodland habitat for this species occurs throughout the surveyed project area. A nearby population, located 4.5 miles west on Dry Creek Road, was observed in 2013. The lack of deep, rich soils on the project site possibly excludes this species.

Sonoma canescent manzanita has been reported from Hooker Canyon, approximately 4.5 miles southwest from the subject property. No Sonoma canescent manzanita was observed during the survey, likely due to the absence of volcanic or serpentine origin soils.

Rincon Ridge manzanita is known from extreme chaparral habitats evolved on localized red rhyolite soils. A reported population is described from the Oakville Grade, approximately 6 miles from Yountville. No Rincon Ridge manzanita was observed during the survey, likely due to the absence of the localized red rhyolite soils.

Clara Hunt's milk-vetch is known from historical collections near St. Helena and a remnant population on the west end of Lewelling Lane near St. Helena. The known occurrences occur in grasslands originating from thin clay soils. No species of milk-vetch was observed during the survey, with Clara Hunt's milk-vetch unlikely on the project site due to the lack of clay soils.

The **narrow-anthered brodiaea** is widely distributed over much of the central California coast range. Closest occurrence is recorded from Stuart Canyon, approximately 3.5 miles southwest from the project area. The narrow-anthered brodiaea was not observed during the survey, possibly due to the limitation of fine, rocky soils.

The **Rincon Ridge ceanothus** is limited to chaparral habitats on extreme rocky, volcanic, or serpentine soils. The closest occurrence is recorded from Mount St. John, 7 miles northwest of Yountville. No Rincon Ridge ceanothus was observed during the survey, likely due to the lack of severe, rocky soils.

Calistoga ceanothus is known from chaparral habitats on extreme rocky, volcanic, or serpentine soils. At least five populations are scattered nearby (centered from St. Helena to western ridges). It was not observed during the survey, likely due to the lack of extreme, rocky soils.

The **holly-leaved ceanothus** is widely distributed east of Yountville in extreme chaparral habitats (Atlas Peak, Haystack Summit, and Soda Canyon). No holly-leaved ceanothus was observed during the survey, due to the lack of extreme chaparral habitats.

The **Sonoma ceanothus** is widely distributed west of Yountville in extreme chaparral habitats (Mount Veeder, Mount St. John, and Mount Hood). No Sonoma ceanothus was observed during the survey, due to the lack of extreme chaparral habitats.

Habitat for the **Greene's narrow-leaved daisy** is chaparral originating on volcanic or serpentine soils. A historic collection is reported from St. Helena. No Greene's narrow-leaved daisy was observed during the survey, possibly due to the lack of extreme chaparral soil types.

Jepson's leptosiphon is known from chaparral and oak woodlands in the Central Coast Range. A nearby historical collection site is from 2.5 miles west on Dry Creek Road. No Jepson's leptosiphon was observed during the survey, likely due to the lack of any serpentine or volcanic soils.

Cobb Mountain lupine is known from oak or pine woodlands in gravelly soils, sometimes on serpentine. A known population occurs on Trinity Road (3 miles west of the project site). Cobb Mountain lupine was not observed during the survey, likely due to the lack of extreme gravelly slopes and soils.

Green jewel-flower is known from extreme rocky (serpentine) chaparral. A historic site is located near the outfall of Lake Hennessey, east of St. Helena. Green jewel-flower was not observed during the survey, likely due to the lack of extreme chaparral soils.

Napa blyecurls grows in widely localized foothill pine woodlands and chaparral habitats in eastern Napa County. The lack of typical habitat on the project site likely excludes this species.

Potential Sensitive Animal Species Present

According to CNDDB (2013) records, Yountville Quad species list, the range of habitats present, and the geographical range of the sensitive animal species, the species considered most likely to occur in the vicinity of the proposed project area are listed in Table 2. Lack of permanent water, suitable nesting or roosting tree types and suitable foraging habitats on-site excludes the likelihood of these species being present. None of the below species were observed on-site during the site surveys.

TABLE 2: Sensitive Animal Species Potentially Present in the Proposed Project Area

Species	Common Name	Fed/State List	Preferred Habitat
Antrozous pallidus	pallid bat	none	Tree roosts
Ardea alba	great egret	none	Tree rookeries
Ardea herodias	great blue heron	none	Tree rookeries
Cypeloides niger	black swift	none	Nests behind waterfalls
Elanus leucurus	white-tailed kite	none	Tree rookeries
Emys marmorata	western pond turtle	none	Open fresh water
Haliaeetus leucocephalus	bald eagle	none	Nests in mature coniferous tree top
Phalacrocorax auritus	double-crested cormorant	none	Tree rookeries
Rana boylii	foothill yellow-legged frog	none	Permanent forest streams

The following summaries are for the sensitive animal species shown in Table 2.

Pallid bat potentially uses the Dry Creek channels for foraging and travel. Suitable roosting habitat for this species occurs throughout the wooded portions of the Coast Range. The permanent waterways of Dry Creek would most likely be the nearest roost and foraging.

The **great egret** and **great blue heron** are known from California marshes and waterways. Both species nest in tree rookeries. No significant wetlands or suitable nest trees are present in the project area.

The **black swift** is known from California waterfalls, cliff seeps, and other extreme aerial wetlands. No waterfalls are known to occur in the area.

The **white-tailed kite** is known from California grasslands, marshes, and other open forage habitats. Kites use tree cover for nesting and roosts. No kite nests or kite roosts are known to occur in the project area.

The **western pond turtle** occurs in permanent freshwater ways or ponds. No suitable habitat for this species occurs on the project site.

The **bald eagle** is known from northern California water ways. Nests are recorded from mature canopy trees or snags. DFG lists the California populations of Bald Eagle as threatened. No suitable nesting trees are present on the project site.

The **double-crested cormorant** is known from California waterways, estuaries, and inland and coastal wetlands. Double-crested cormorants nest in tree rookeries. No suitable foraging or nesting habitats are known to occur in the project area.

The **foothill yellow-legged frog** habitat requirements are relatively undisturbed permanent forested streams. Suitable habitat occurs on Dry Creek. The California populations are not listed, but it is considered a species of concern. No foothill yellow-legged frogs were observed in the small Napa River tributary on-site.

SURVEY RESULTS

The dominant vegetation throughout the surveyed project area is oak woodland (see Appendix A, Figure 2, General Habitat Types) comprising primarily coast live oak (*Quercus agrifolia*), California black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*) and California bay (*Umbellularia californica*), and California buckeye (*Aesculus californica*). Canopy coverage ranges from 75 to 100 percent. A sparse ground cover occurs in the oak woodland habitat including poison oak (*Toxicodendron diversilobum*), common manzanita (*Arctostaphylos manzanita*), toyon (*Heteromeles arbutifolia*), soap root (*Chlorogalum pomeridianum*), Pacific sanicle (*Sanicula crassicaulis*), snowberry (*Symphoricarpos albus* var. *laevigatus*), and distal phacelia (*Phacelia distans*). Ground cover coverage ranges from 0 to 25 percent.

Annual grassland vegetation occurs within the survey area, primarily along the southeast slopes (proposed leachfield, Figure 2). Annual grassland vegetation comprises non-native grasses of slender wild oats (*Avena barbata*), soft brome (*Bromus hordeaceus*), annual rye grass (*Festuca perennis*), annual dogtail (*Cynosurus echinatus*), silver-hair grass (*Aira caryophyllea*), Mediterranean barley (*Hordeum marinum ssp. gussoneanum*), creeping bent grass (*Agrostis stolonifera*), and a variety of other native and non-native herbs and grasses. A list of all plant species encountered during the field survey is attached as Appendix 2.

Notable wildlife found associated with the oak woodland consists of common year-round resident birds [Acorn Woodpecker (*Melanerpes formicivorus*), Nuttall's Woodpecker (*Picoides nuttallii*), Anna's Hummingbird (*Calypte anna*),Northern Mockingbird (*Mimus polyglottos*), American Robin (*Turdus migratorius*), Hermit Thrush (*Catharus guttatus*), Hutton's Vireo (*Vireo huttoni*), Western Bluebird (*Sialia mexicana*), Ruby-crowned Kinglet (*Regulus calendula*), Western Scrub-Jay (*Aphelocoma coerulescens*), California Towhee (*Pipilo fuscus*)]. Mammal game trails were located crisscrossing the oak woodland on the project site, but no use was considered more than infrequent.

RECOMMENDATIONS

No sensitive species were detected during the two site visits. It is acknowledged, that the biological surveys took place in a non- flowering plant season and a non-breeding bird season. However, considering the history of disturbance at the site, it is highly unlikely that sensitive plant species would be present. If construction is proposed during the bird breeding season (March 1 to April 15) pre-construction bird surveys are recommended. If nesting birds are detected, construction should not commence until after the breeding season. Alternatively, a buffer of adequate size should be provided to prevent disturbance of

nesting birds if construction is pursued during breeding season. The appropriate buffer size should be determined in consultation with the California Department of Fish and Wildlife.

Although numerous game trails were encountered during the surveys, no abundant or vital mammal population use was determined to be occurring.

Oak woodlands preservation is addressed in the Napa County General Plan, specifically, Policy CON-24, requiring the maintenance and improvement of oak woodland habitat. This policy is implemented by Action Item CON NR-7, which states that the county shall adopt a voluntary Oak Woodland Management Plan to identify and mitigate direct and indirect impacts to oak woodlands. Napa County adopted a voluntary Oak Woodland Management Plan in 2010. Measures to maintain oak diversity and replace impacted oak habitat at a 2:1 ratio are relevant to the proposed project. Large oak trees (>6inches at diameter breast height (dbh) should be replaced with the same species at a 2:1 ratio. Oak trees to be removed that are greater than 6 inches at diameter breast height (dbh) are summarized in Table 1.

Table 1. Oak Tree Removal

Common Name	Scientific name	Number of trees to be removed (>6" dbh)
Coast live oak	*Quercus agrifolia*	16
California Black Oak	*Quercus kelloggii*	8
Blue Oak	*Quercus douglasii*	6

No additional mitigation beyond Napa County's typical replanting ratio is recommended.

REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken. 2012. The Jepson Manual: Vascular Plants of California. University of California Press. Berkeley CA.

California Department of Fish and Game. November 2009. Guidelines for Assessing the Effects of Proposed Development on Rare, Threatened, and Endangered Plants and Plant Communities. Sacramento, CA.

California Department of Fish and Wildlife, Natural Diversity Database. Accessed December 2014. Yountville Quad, (http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp)

California Native Plant Society. Accessed December 2014. Inventory of Rare and Endangered Plants of California.
Yountville Quad, http://www.rareplants.cnps.org/

California State Public Resource Code (September 24, 2004), Section 21083.4, Oak Woodlands Conservation Act, Senate Bill 1334.

California Soil Resource Lab. 2013. http://casoilresource.lawr.ucdavis.edu/soil-web/ssurgo.php

Gallina, Charlene, Napa County Supervising Planner, Personal Communication, October 30, 2014.

Information Center for the Environment, UC Davis. 2003. Napa County Vegetation Map (based on Sawyer, J. O. and Keeler-Wolf, T. 1995. The Manual of California Vegetation. CNPS, Sacramento, CA).

Napa County General Plan. 2009. Conservation Section, Policy CON-24 c) and Action Item CON NR-7: Voluntary Oak Woodland Management Plan.

Napa County Planning Division. 2007. Guidelines for Preparing Biological Resources Reconnaissance Surveys. Napa, CA, 3 pp.

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APPENDIX 2

Figure 1: Project Area Map

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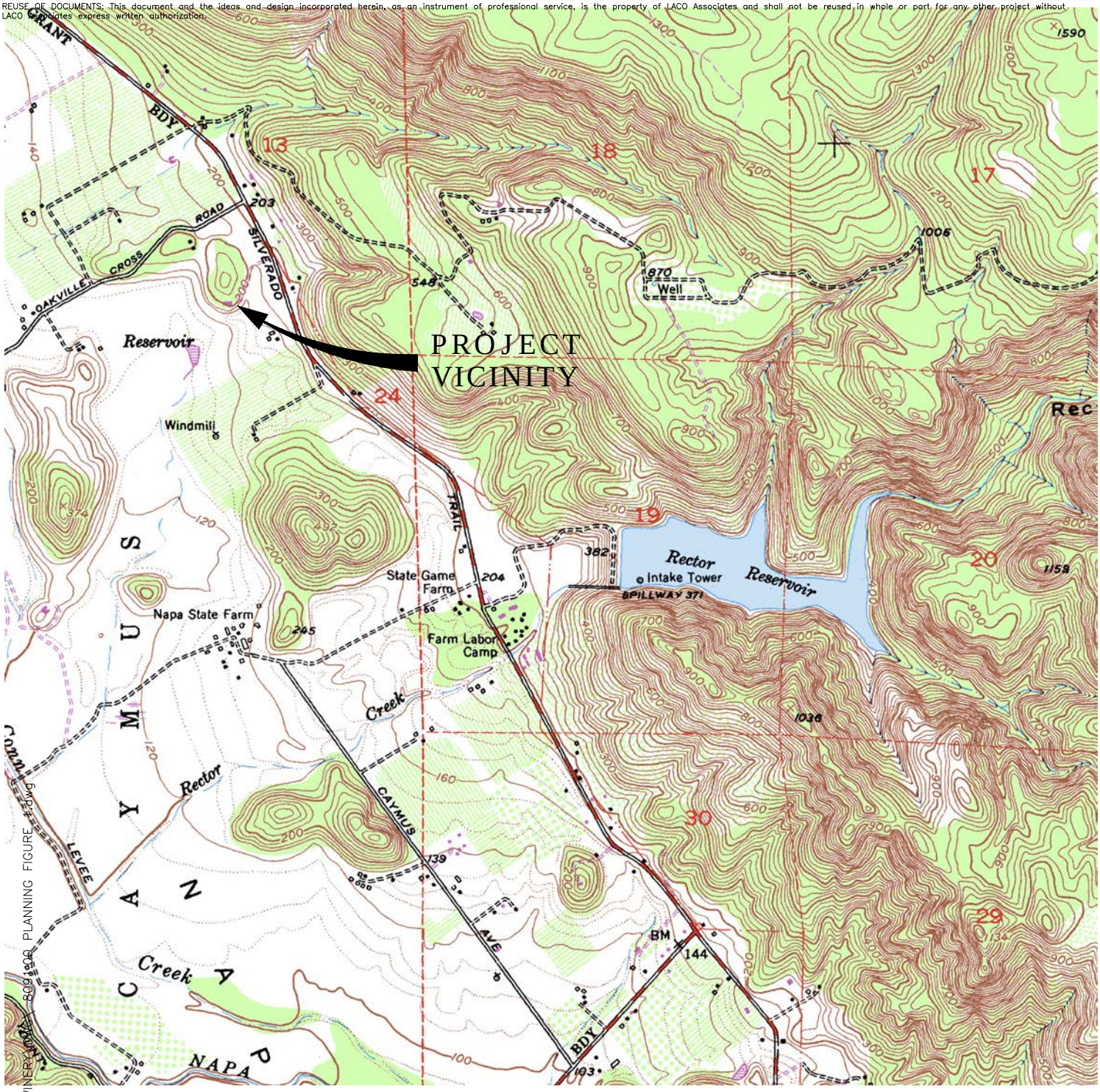
PROJECT	TENCH WINERY	BY JDB	FIGURE 1
CLIENT	TENCH VINEYARDS OPERATIONS, LLC	DATE 12/12/14	
LOCATION	7631 SILVERADO TRAIL, NAPA, CA	CHECK EAB	JOB NO. 8091.01
	VICINITY MAP	SCALE AS SHOWN	



NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. MAP SHOWN HEREON IS FROM USGS.

0 24,000

SCALE: 1:24,000

Apr 29,2015–1:07pm T:\Cadfiles\8000\8091.00 TENCH WINERY\8091.00 PLANNING FIGURE 1.dwg

APPENDIX 2

Figure 2: Project Habitat Map

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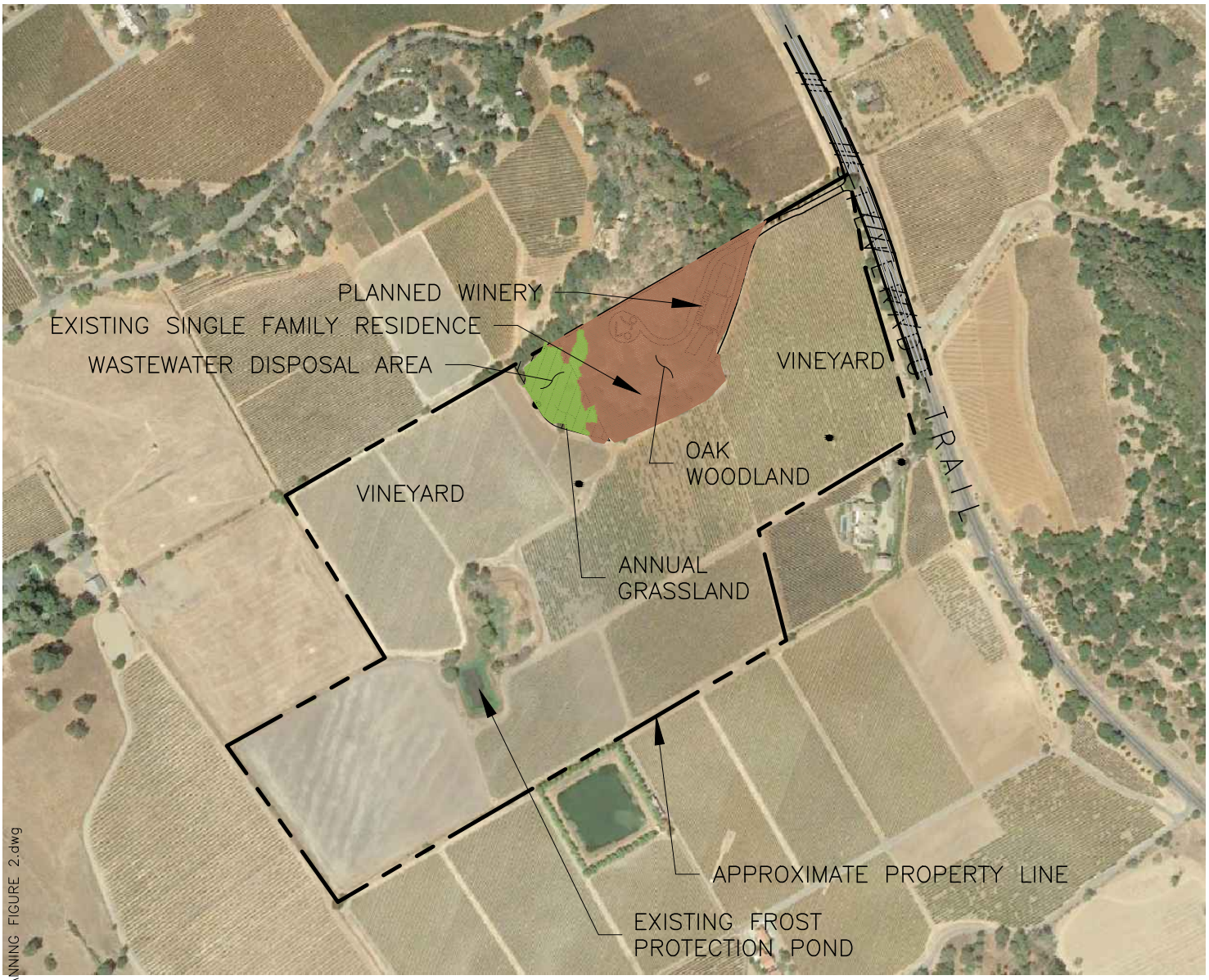
PROJECT	TENCH WINERY	BY JDB	FIGURE 2
CLIENT	TENCH VINEYARDS OPERATIONS, LLC	DATE 12/12/14	
LOCATION	7631 SILVERADO TRAIL, NAPA, CA	CHECK EAB	JOB NO. 8091.01
	GENERAL HABITAT TYPES	SCALE AS SHOWN	



LEGEND:

- WASTEWATER DISPOSAL
- OAK WOODLAND
- ANNUAL GRASSLAND

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. IMAGE SHOWN HEREON IS FROM GOOGLE.

0 125' 250'

SCALE: 1"=250'

Apr 29,2015-1:08pm T:\Cadfiles\8000\8091.00 TENCH WINERY\DWG\ 8091.00 PLANNING FIGURE 2.dwg

APPENDIX 2

List of Plant Species Encountered

Appendix 2. List of Plant Species Encountered

Species	Common Name	Fed/State List	Native / Non-Native
Achillea millefolia	yarrow	none	Native
Aesculus californica	California buckeye	none	Native
Aira caryophyllea	silver hair grass	none	Non-Native
Agrostis stolonifera	creeping bent grass	none	Non-Native
Anthriscus caucalis	bur-chervil	none	Non-Native
Arctostaphylos manzanita ssp. manzanita	common manzanita	none	Native
Avena barbata	slender oat grass	none	Non-Native
Baccharus pilularis	coyote brush	none	Non-Native
Brassica niger	black mustard	none	Non-Native
Brassica rapa	field mustard	none	Non-Native
Briza minor	small quaking grass	none	Non-Native
Bromus carinatus	California brome	none	Native
Bromus diandrus	ripgut grass	none	Non-Native
Bromus hordeaceus	soft chess	none	Non-Native
Bromus madritensis	foxtail chess	none	Non-Native
Carduus pycnocephalus	Italian thistle	none	Native
Carex barbarae	valley sedge	none	Native
Carex leptopoda	short-scale sedge	none	Native
Ceanothus cuneatus	wedge-leaf ceanothus	none	Native
Centaurea solstitalis	yellow star-thistle	none	Non-Native
Centaurium muehlenbergii	Monterey centaury	none	Native
Cerastium glomeratum	common chickweed	none	Non-Native
Chlorogalum pomeridianum	soap plant	none	Native
Cichorium intybus	chicory	none	Non-Native
Claytonia perfoliata	miner's lettuce	none	Non-Native
Collomia heterophylla	varied-leaved collomia	none	Native
Croton setigerus	turkey-mullein	none	Non-Native
Cryptantha intermedia	common cryptantha	none	Native
Cupressus sempervirens	Italian cypress	none	Non-Native
Cynoglossum grande	western hounds tongue	none	Native
Cynosurus enchinatus	annual dogtail	none	Non-Native
Cyperus eragrostis	tall flat sedge	none	Native
Daucus carota	Queen Anne's lace	none	Non-Native
Dichelostemma capitatum	blue dicks	none	Native
Elymus glaucus	wild blue rye	none	Native
Erigeron canadensis	horseweed	none	Native
Festuca perennis	perennial ryegrass	none	Non-Native
Festuca rubra	red fescue	none	Native
Galium aparine	goose grass	none	Native
Galium californicum ssp.	California bedstraw	none	Native

Species	Common Name	Fed/State List	Native / Non-Native
californicum			
Geranium dissectum	cut-leaf geranium	none	Non-Native
Heteromeles arbutifolia	toyon	none	Native
Hypochaeris glabra	annual cat's ear	none	Non-Native
Hypochaeris radicata	perennial cat's ear	none	Non-Native
Lathyrus vestitus	woodland pea	none	Native
Lupinus bicolor	annual lupine	none	Native
Madia elegans	common tarweed	none	Native
Medicago arabica	spotted burclover	none	Non-Native
Nemophilia heterophylla	small baby blue-eyes	none	Native
Olea europaea	olive	none	Non-Native
Phacelia distans	distal phacelia	none	Native
Plagiobothyrs nothofulvus	popcorn flower	none	Native
Plantago erecta	foothill plantain	none	Native
Plantago lanceolata	English plantain	none	Non-Native
Plantago major	common plantain	none	Non-Native
Poa annua	annual bluegrass	none	Non-Native
Polypodium californicum	California polypody	none	Native
Polypogon monspelianus	rabbit's foot grass	none	Non-Native
Prunella vulgaris	self-heal	none	Non-Native
Pteridium aquilinum	bracken fern	none	Native
Quercus agrifolia	coast live oak	none	Native
Quercus douglasii	blue oak	none	Native
Quercus kelloggii	California black oak	none	Native
Ranunculus occidentalis	western buttercup	none	Native
Raphanus sativus	wild radish	none	Non-Native
Rosmarinus officinalis	rosemary	none	Non-Native
Rubus armenicus	Himalaya blackberry	none	Non-Native
Rubus ursinus	California blackberry	none	Native
Sanicula crassicaulis	Pacific sanicle	none	Native
Stachys bullata	California hedge-nettle	none	Native

LACO

June 19, 2015

8091.01

Tench Vineyards Operations, LLC
7631 Silverado Trail
Oakville, California 94558-9745

Attention: Remmelt Reigersman

Subject: Proposed Tench Vineyards Winery Site
Portion of APN 031-070-006
Late Season Biological Survey Results

Dear Mr. Reigersman:

In consultation with the Region II California Department of Fish and Wildlife biologist Gene Cooley, a late season biological survey was conducted for the building permit/conditional use permit approval of a proposed winery and associated facilities at 7631 Silverado Trail, Napa California (APN 031-070-006).

On June 10-13, 2015, I made 4 site visits totaling 10 person hours to the proposed project area and conducted a sensitive plant survey, a breeding bird survey, and a bat survey. This is a follow-up of an early spring survey conducted in April, 2015 (LACO Associates, Rare Plant and Supplemental Biological Survey, April, 2015). The project area habitat consists of oak woodland, open grassland, and adjacent vineyards. The project area is dominated by native oak woodland with a groundcover of predominately non-native grasses and forbs. No wetland features or hydrophytic plant species were located within the project area or within 100-feet of the proposed project area (as defined by LACO Associates, 2015).

Plant species were recorded that were not evident during the early spring biological survey including scarlet pimpernel (*Anagallis arvensis*), pipevine (*Aristolochia californica*), naked buckwheat (*Eriogonum nudum*), black walnut (*Juglans nigra*), bush monkeyflower (*Mimulus aurantiacus*), foothill pine (*Pinus sabinana*), Douglas-fir (*Pseudotsuga menziesii*), interior live oak (*Quercus wislizeni*), California goldenrod (*Solidago californica*), and purple needle grass (*Stipa pulchra*). Tree species noted above but overlooked during the previous survey are single individuals and likely escapes from horticultural plantings. A complete plant species list is provided in Appendix A. None of the species identified on site are currently of special status. There was no evidence of high groundwater or soil surface characterization of seasonal wetland presence in or within 100' of the proposed project area. No evidence of nesting raptors or any other sensitive bird species was detected during the biological surveys. A nocturnal survey was conducted on the evening of June 10, 2015, and no bat presence was detected at the adjacent vineyard ponds or within the project site oak woodlands.

No biological significance was determined to be present at the project area, nor would any biological mitigation be warranted for the proposed project unless site clearing would be proposed during the bird nesting season (March 15- August 1). If vegetation clearing is intended during the nesting season, then a qualified biologist should provide clearance to avoid unintentional harm to adult birds, nests, eggs, or nestlings.

Please contact me at (707) 443-5054 if you have any questions.

Sincerely,
LACO Associates

Gary S. Lester, Senior Botanist

Enclosure (1)

GSL:jrb

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APPENDIX A

List of Plant Species Encountered

Appendix A – List of Plant Species Encountered

Species	Common Name	Fed/State List	Native / Non-Native
Achillea millefolia	yarrow	none	Native
Aesculus californica	California buckeye	none	Native
Aira caryophyllea	silver hair grass	none	Non-Native
Anagallis arvensis	scarlet pimpernel	none	Non-Native
Anthriscus caucalis	bur-chervil	none	Non-Native
Arctostaphylos manzanita	common manzanita	none	Native
Aristolochia californica	pipevine	none	Native
Avena barbata	slender oat grass	none	Non-Native
Baccharus pilularis	coyote brush	none	Native
Brassica niger	black mustard	none	Non-Native
Brassica rapa	field mustard	none	Non-Native
Briza minor	small quaking grass	none	Non-Native
Bromus catharticus	rescue grass	none	Non-Native
Bromus diandrus	ripgut grass	none	Non-Native
Bromus hordeaceus	soft chess	none	Non-Native
Bromus madritensis	foxtail chess	none	Non-Native
Carduus pycnocephalus	Italian thistle	none	Native
Centaurea solstitalis	yellow star-thistle	none	Non-Native
Centaurium muehlenbergii	Monterey centaury	none	Native
Cerastium glomeratum	common chickweed	none	Non-Native
Chlorogalum pomeridianum	soap plant	none	Native
Cichorium intybus	chicory	none	Non-Native
Claytonia perfoliata	miner's lettuce	none	Non-Native
Collomia heterophylla	varied-leaved collomia	none	Native
Croton setigerus	turkey-mullein	none	Non-Native
Cryptantha intermedia	common cryptantha	none	Native
Cupressus sempervirens	Italian cypress	none	Non-Native
Cynoglossum grande	western hounds tongue	none	Native
Cynosurus enchinatus	annual dogtail	none	Non-Native
Cyperus eragrostis	tall flat sedge	none	Native
Daucus carota	Queen Anne's lace	none	Non-Native
Dichelostemma capitatum	blue dicks	none	Native
Elymus glaucus	wild blue rye	none	Native
Erigeron canadensis	horseweed	none	Native
Eriogonum nudum	naked buckwheat	none	Native
Euphorbia crenulata	Chinese caps	none	Native
Festuca perennis	perennial ryegrass	none	Non-Native
Festuca rubra	red fescue	none	Native
Galium aparine	goose grass	none	Native
Galium californicum ssp. *californicum*	California bedstraw	none	Native
Geranium dissectum	cut-leaf geranium	none	Non-Native
Heteromeles arbutifolia	toyon	none	Native
Hypochaeris glabra	annual cat's ear	none	Non-Native
Hypochaeris radicata	perennial cat's ear	none	Non-Native

Species	Common Name	Fed/State List	Native / Non-Native
Juglans nigra	black walnut	none	Non-Native
Lathyrus vestitus	woodland pea	none	Native
Lupinus bicolor	annual lupine	none	Native
Madia elegans	common tarweed	none	Native
Medicago arabica	spotted burclover	none	Non-Native
Mimulus aurantiacus	bush monkey flower	none	Native
Nemophilia heterophylla	small baby blue-eyes	none	Native
Olea europaea	olive	none	Non-Native
Phacelia distans	distal phacelia	none	Native
Pinus sabiniana	foothill pine	none	Native
Plagiobothyrs nothofulvus	popcorn flower	none	Native
Plantago erecta	foothill plantain	none	Native
Plantago lanceolata	English plantain	none	Non-Native
Plantago major	common plantain	none	Non-Native
Poa annua	annual bluegrass	none	Non-Native
Polypodium californicum	California polypody	none	Native
Prunella vulgaris	self-heal	none	Non-Native
Pseudotsuga menziesii	Douglas-fir	none	Native
Pteridium aquilinum	bracken fern	none	Native
Quercus agrifolia	coast live oak	none	Native
Quercus douglasii	blue oak	none	Native
Quercus kelloggii	California black oak	none	Native
Quercus wislizeni	Interior live oak	none	Native
Ranunculus occidentalis	western buttercup	none	Native
Raphanus sativus	wild radish	none	Non-Native
Rosmarinus officinalis	rosemary	none	Non-Native
Rubus armenicus	Himalaya blackberry	none	Non-Native
Rubus ursinus	California blackberry	none	Native
Sanicula crassicaulis	Pacific sanicle	none	Native
Solidago californica	California goldenrod	none	Native
Sonchus oleraceus	sow thistle	none	Non-Native
Stachys bullata	California hedge-nettle	none	Native
Stipa pulchra	purple needle grass	none	Native
Symphorocarpos albus var. *laevigatus*	snowberry	none	Native
Toxicodendron diversilobum	poison oak	none	Native
Triteleia laxa	Ithuriel's spear	none	Native
Umbellularia californica	California bay	none	Native
Vicia hirsuta	annual vetch	none	Non-Native
Viburnum tinus	laurustinus	none	Non-Native
Vulpia bromoides	smooth brome	none	Native
Yabea microcarpa	Sock-destroyer	none	Native