Memorandum

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Napa County Planning
& Environmental Services

Date: February 27, 2018

To: Dan Zador, Napa County Planning, Building and Environmental Services

From: Kevin Derby, Senior Biologist, FirstCarbon Solutions

Subject: **DRAFT** Response to Comments; Supplemental Biological Resources Information

This technical memorandum is a supplement to the *Biological Resources Assessment for 4.75 acres of the McPherson Ranch, 2000 and 2004 Sage Canyon Road, Saint Helena, California* (FirstCarbon Solutions, July 10, 2017) and is submitted in support of Balanced Planning's response letter to both your letter dated October 13, 2017 and the Engineering Division Comments dated December 1, 2017 for the Promise Wine LLC Vineyard Conversion located on APNs 032-520-002 & 007 (Project). The purpose of this memorandum, as requested by the County, is to provide additional information regarding research, discussion and analysis of plants and plant communities identified as sensitive communities and habitats of limited distribution within Napa County. This memorandum will also discuss any proposed impacts to sensitive communities and the proposed in-kind conservation of habitat to mitigate proposed impacts.

Methods

To provide more detailed biological resources information requested by Napa County, FirstCarbon Solutions (FCS) biologists reviewed the applicable biological resources and regulatory sections of the Napa County Baseline Data Report (BDR), the Napa County General Plan (NCGP), and the Napa County Conservation Element (NCCE). FirstCarbon Solutions biologist Kevin Derby also discussed the additional information requested with Dan Zador on a December 29, 2017 phone call. FCS reviewed the existing Project site conditions again to be sure the project is in compliance with Napa County guidelines regarding avoidance, restoration, and/or replacement of sensitive biological resources, and to be sure analysis included all habitats and species considered rare or sensitive within the County.

Supplemental Biological Analysis Results

The BDR identifies the twenty-five sensitive biological communities in Napa County, including biotic communities of limited distribution in the County. Further, the BDR identifies other features of biological importance, including rock outcrops. After investigating further, it was determined that the disturbed oak woodland and native mixed chaparral that were mapped, and a rock outcrop area was observed within the disturbed oak woodland in Project Area A (Block A), are potentially sensitive native vegetation communities/land cover (Exhibit 3).

The disturbed oak woodland mapped within the project is dominated by two relatively common native

oak species: black oak (*Quercus keloggii*) and coast live oak (*Quercus agrifolia*). The disturbed oak woodland mapped within the Project is designated "disturbed" because understory is used as pasture and is mowed, and supports non-native Mediterranean grass species; whereas a non-disturbed oak woodland would have a well-developed understory of oak seedlings/saplings, associated native shrubs, and native herbaceous vegetation. Further, the species and species alliances in the onsite disturbed oak woodland are not the species alliances and composition that are identified as sensitive in the BDR (i.e. Oregon white oak; Tanbark oak alliance). While limited habitat value does exist for nesting birds and potentially bats, the lack of understory and proximity to existing ranch operations results in limited wildlife habitat value and limited to no opportunities for rare plant populations. There are no wetlands or riparian areas within the mapped disturbed oak woodland. However, impacts to 1.56 acres of the disturbed oak woodland would result in the loss of approximately 85 native oak trees (20 additional oaks will be removed in mixed chaparral and nonnative grassland habitats), 3 native pine trees, and 1 madrone, the majority of which will be removed in Block B (Attachment A).

The mixed chaparral is comprised of typical native chaparral scrub vegetation such as manzanita (*Archtostaphylus viscida* ssp. *viscida*), buckbrush (*Ceanothus cuneatus*), and toyon (*Heteromeles arbutifolia*) combined with small areas of a native California brome (*Bromus carinatus*), and a few oak woodland species such as foothill pine (*Pinus sabiniana*), madrone (*Arbutus menziesii*) and black oak (*Quercus kelloggii*). While this chaparral alliance does not represent one of the sensitive biological communities listed in the BDR, it does contain small areas of native grassland and more open areas that have the potential for native rare species. However, rare plant surveys in spring 2017 did not reveal any rare species, and the soils are not dominantly serpentine; consequently this is a more common native chaparral alliance. Impacts to native grasses and primarily native chaparral habitat mixed with oaks will occur as a result of the project. The applicant proposes conversion of 0.79 acres of mixed chaparral to vineyard, including the loss of one madrone tree and one grey pine.

Proposed Conservation of Biological Resources

General Plan Policy CON-17(e) requires no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, the County requires preservation of like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats. In addition, per General Plan Policy CON-18(c) the County requires preservation of habitat and connectivity of adequate size, quality, and configuration to support special-status species to reduce impacts on habitat conservation and connectivity. General Plan Policy CON-24 requires maintenance and improvement of oak woodland habitat through appropriate measures, including replacement of like habitat at a 2:1 ratio when retention of the existing vegetation is found to be infeasible.

Avoidance

The project proposes vineyard conversion in the area immediately adjacent to the existing developed portions of the property where there are already access roads. Wetlands, streams, and riparian areas were completely avoided in the initial planning process. Areas of steep slopes and dense woodland with mature understory were also avoided. Additionally, there are no proposed impacts to listed species or their habitats. The result is a proposal to convert areas to vineyard that have been exposed to direct and indirect impacts from existing ranch operations.

Upon further review of Napa County documents, and receipt of comments from Napa County, the applicant further reduced the Project footprint to avoid 17 oak trees, a rock outcrop in Block A, and a patch of native chaparral in Block C.

Construction crews will use high visibility fencing to delineate limits of disturbance, especially when adjacent to native habitat, to ensure avoidance of sensitive resources.

Restoration

No restoration is proposed as part of the Project, but temporary impacts and soil disturbance will be stabilized. Exposed soils in newly created vineyards will be stabilized so they do not impact native habitat and/or cause sediment input to adjacent waterways.

Replacement

To mitigate for the impacts to disturbed oak woodland and native chaparral habitats, the applicant proposes to conserve (deed restrict) existing higher quality (i.e. with dense, intact understory surrounded by other woodland habitat and away from the developed portion of the ranch) oak woodland and chaparral at a 2:1 ratio (see Exhibit 5). The resulting conservation areas will include 3.12 acres oak woodland and 1.58 acres of chaparral to be deed restricted in perpetuity in the undeveloped portion of the property that is adjacent to the best wildlife and rare plant habitat.

Summary

Although disturbed from years of ranching activities, the proposed area to be converted to vineyards will result in impacts to 1.56 of disturbed oak woodland (black oak and coast live oak dominated) and 0.79 acre of mixed chaparral. The conversion areas are adjacent to and/or within areas of historic and current ranching practices. The applicant recently reduced the proposed vineyard conversion footprint to avoid trees and a rock outcrop. These unavoidable impacts will be mitigated through conservation of in-kind habitat at a 2:1 ratio, consistent with General Plan Policy CON-24. The resulting conservation areas include 3.12 acres of oak woodland and 1.58 acres of mixed chaparral that are superior in habitat value compared to the Project area.

Attachments:

- Exhibit 3: Vegetation Communities (Revised February, 2018 based on new project boundaries)
- Exhibit 5: Preservation Areas
- Attachment A: Tree Removal Map

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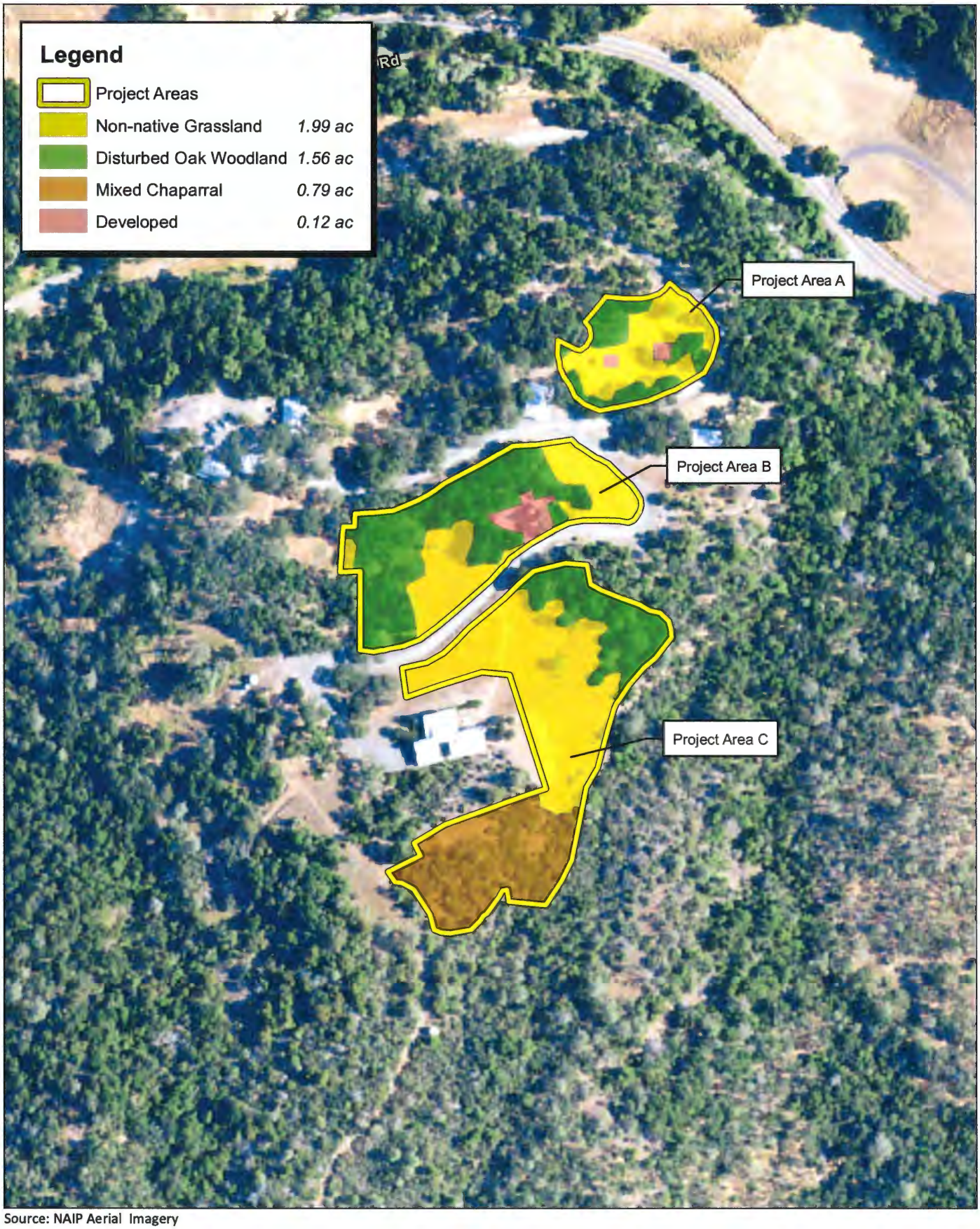
Exhibit 3:

Vegetation Communities (Revised February, 2018)



Source: NAIP Aerial Imagery

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Exhibit 3
Vegetation Communities

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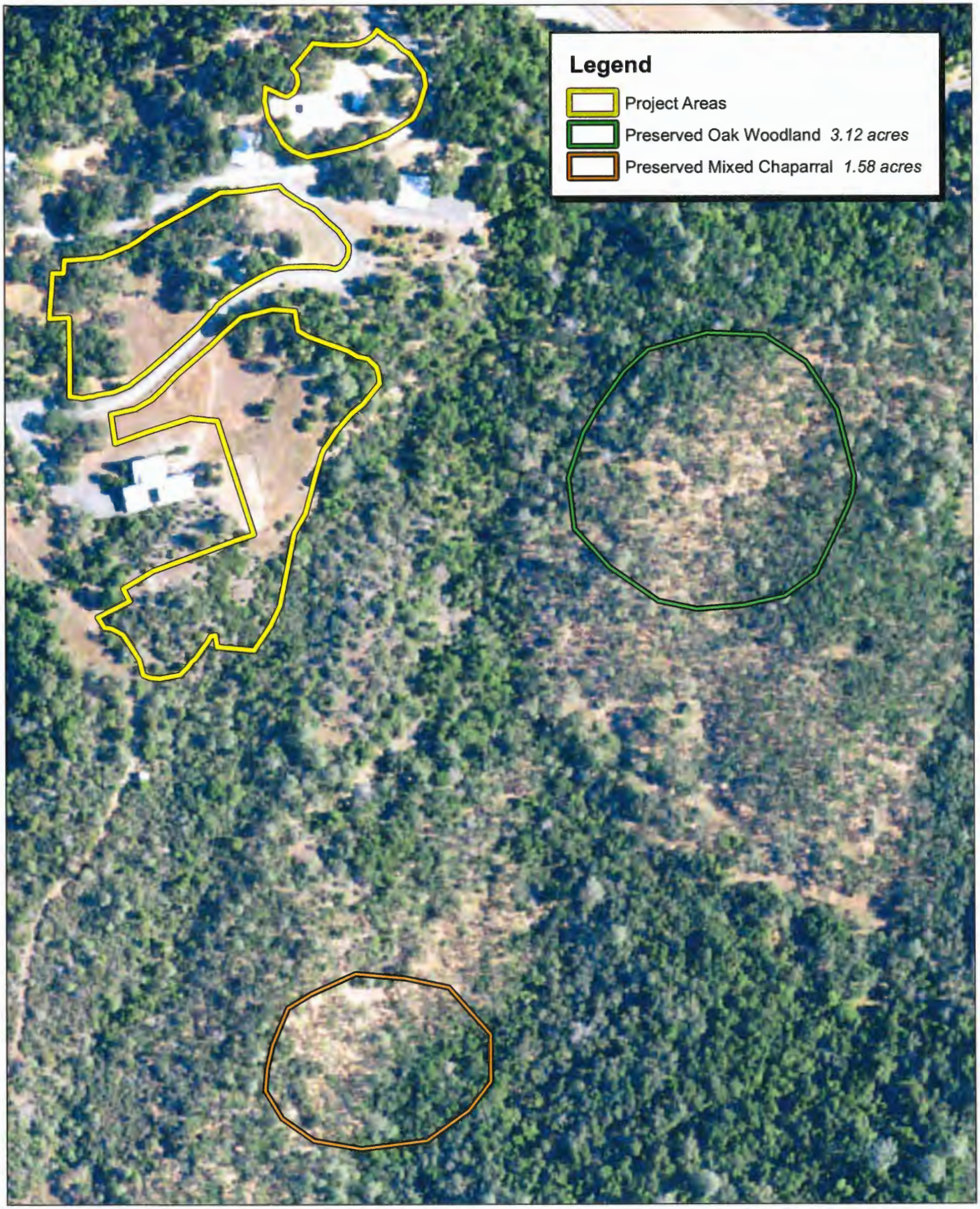
Exhibit 5:

Proposed Conservation Areas



Source: NAIP Aerial Imagery

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Exhibit 5
Preservation Areas

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Attachment A:

Tree Removal Map

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Cover Letter

RECEIVED
SEP 15 2017
Napa County Planning, Building & Environmental Services

July 10, 2017

Steve McPherson
2000-2004 Sage Canyon Road
Saint Helena, CA 94558

Subject: Biological Resources Assessment for 4.75 acres of the McPherson Ranch, 2000 and 2004 Sage Canyon Road, Saint Helena, California

Dear Mr. McPherson:

Please find enclosed a biological resources assessment letter for approximately 4.75 acres on your ranch at 2000 and 2004 Sage Canyon Road near Saint Helena, California. This letter documents the existing biological resources within your project area(s) and provides recommendations for compliance with various State of California, federal, and local laws and regulations.

Please do not hesitate to contact me with any questions, comments, or requests for additional information at kderby@fcs-intl.com or 916.626.7573.

Sincerely,

Kevin Derby, Senior Biologist
FirstCarbon Solutions
1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597

Enc: Attachment A: CNDDB Inventory Results
Attachment B: Site Photos

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Introduction

FirstCarbon Solutions (FCS) conducted a biological reconnaissance survey for an approximately 4.18-acre project area located within 4.75 acres of the Promise Ranch property in Napa County, California. The purpose of the assessment was to identify and characterize the biological communities present on and immediately adjacent to the project site, to record plant and animal species observed on the site, and to evaluate the site for its potential to support sensitive biological resources. Potential sensitive biological resources include special-status plant and animal species and any other resources considered sensitive by local, state, and/or federal resource agencies that could potentially be impacted by development of the site.

Project Setting

Location

The project site is generally located on the south side of Sage Canyon Road approximately 0.5 mile east of Lake Hennessey (2004 Sage Canon Road) (Exhibit 1). This location corresponds to Section 5, Township 7 North, and Range 4 West, of the Yountville, California USGS 7.5-minute topographic quadrangles (Latitude 38°29'24"N, Longitude 122°20'14"W).

General Physical Characteristics

The approximately 4.18 acres of the property proposed for viticulture consists of three project areas (0.86, 1.57, and 2.32 acres) on north-facing slopes, with elevations ranging from 430 to 580 feet above mean sea level from the northern boundary to the southern boundary (Exhibit 2). The property is a mix of pasture, disturbed oak woodland, corrals, and a small area of native chaparral.

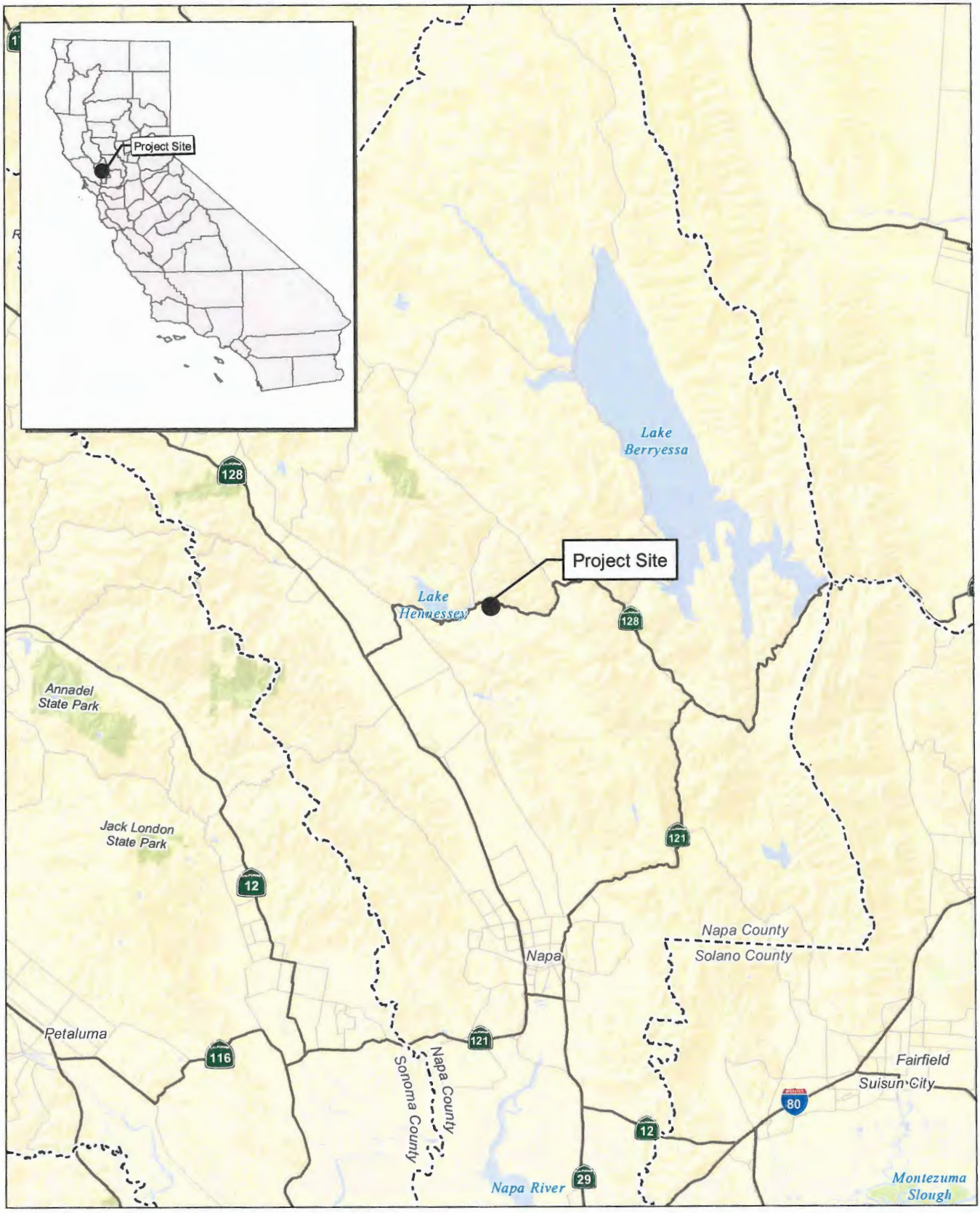
Methods

California Natural Diversity Database

Prior to the field survey, the California Department of Fish and Wildlife's (CDFW 2017) California Natural Diversity Database (CNDDB) was queried for any reported occurrences of special-status species in the Yountville, California quadrangle. A review of soils reports, aerial photos, and online resources also contributed to development of the list of special-status species with the potential to occur on-site. The CNDDB search revealed occurrences for 13 special-status plant species and nine special-status wildlife species in the Yountville quadrangle. Many of these species have specialized habitats that do not occur on the project site and thus were eliminated from further discussion, as described in the results section below. A results summary of the CNDDB records search is included in Attachment A.

Field Surveys

A reconnaissance-level field survey was conducted by FCS biologist Kevin Derby on March 6, 2017. The field survey was conducted upon all areas of the project site. On-site habitat types, species observations, and other field data were recorded during the visits. A special-status plant survey was subsequently conducted on May 4, 2017 by senior biologist Brian Mayerle. The mixed chaparral portion of the project area was investigated for presence or absence of special-status plants. Results of the surveys are presented below and on Exhibit 3.



Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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Exhibit 1
Regional Location Map

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Source: USGS Yountville (1968) 7.5' Quadrangle / T7N R4W Secs 5&6

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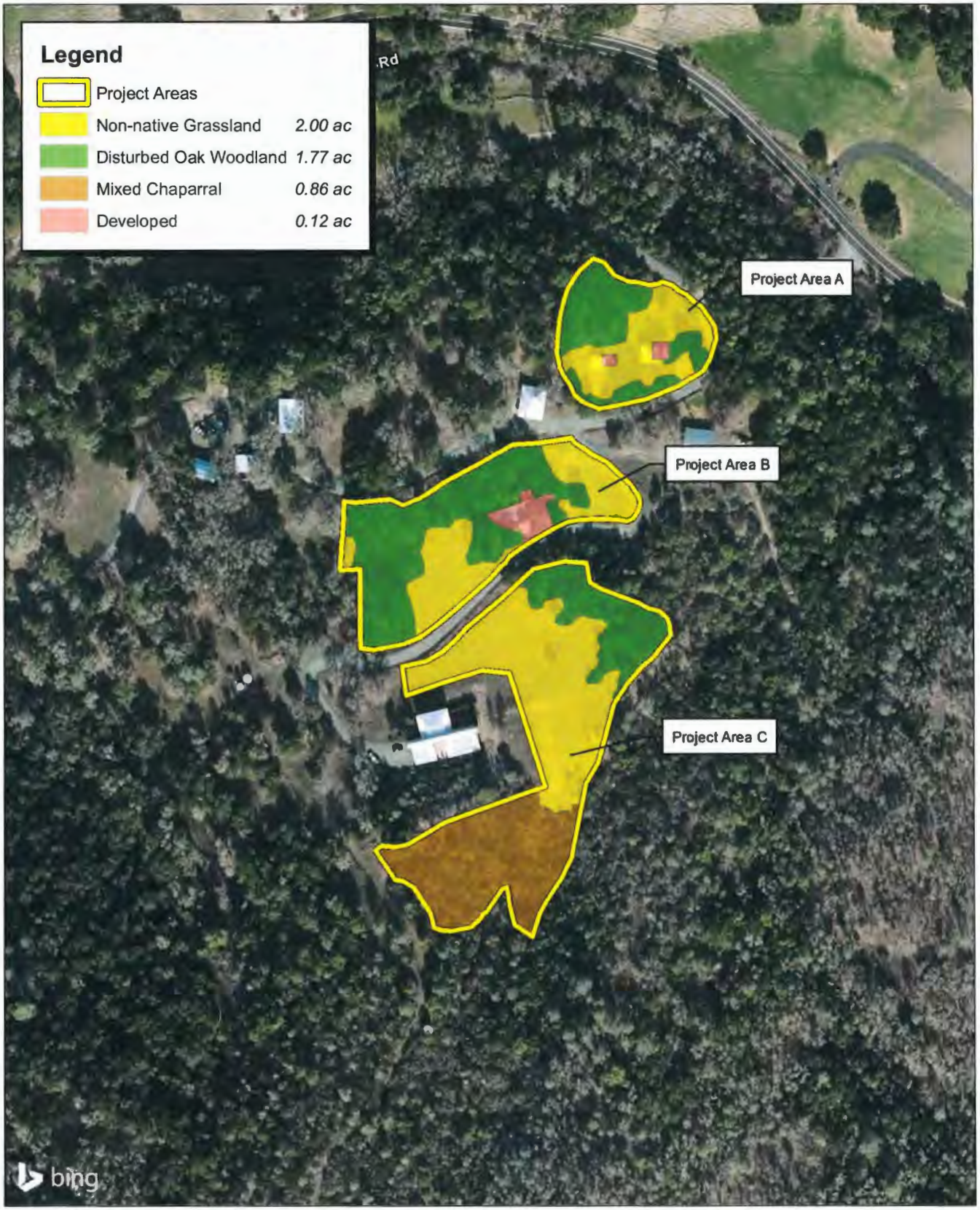
Exhibit 2
Local Vicinity Map
Aerial Base



Source: ESRI Imagery

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Exhibit 3
Vegetation Communities

Findings/Results

Vegetation

The 4.18 acres consist of three project areas. The northernmost project area is approximately 0.86 acre and is a pasture/corral area dominated by non-native grasses and surrounded by oak trees (Project Area A). The middle piece is approximately 1.57 acres and is primarily disturbed oak woodland and non-native grasses (Project Area B). The southernmost piece is approximately 2.32 acres and is a mixture of active goat pasture, a residential yard (dog run), and mixed chaparral (Project Area C). Four vegetation communities/land covers are represented on the project site: non-native grassland, disturbed oak woodland, mixed chaparral, and disturbed/developed.

Two acres of non-native grassland appear to be actively used as pasture; they exhibit evidence of historic disking and mowing, but not within the past year (Exhibit 3). This land cover dominates the pasture east of the main residence in Project Area C and the open areas of the other two project areas. The non-native grassland is dominated by grasses that were not identifiable during the site visit, but appeared to be wild oat (*Avena fatua*) and soft brome (*Bromus hordeaceous*). No water features or drainages were observed in this non-native grassland habitat.

The 1.77 acres of disturbed oak woodland are located primarily in Project Area B, but the northernmost corral area is surrounded by oak trees as well. The woodland is dominated by two native oak species: black oak and coast live oak. The understory is used as pasture and mowed, and appears to support non-native Mediterranean grass species. The plant species identified on-site are listed in Table 1.

The mixed chaparral is on the hill south of the main residence and covers approximately 0.86 acre. The mixed chaparral comprises typical native chaparral scrub vegetation such as manzanita (*Archtostaphylus viscida* ssp. *viscida*), buckbrush (*Ceanothus cuneatus*), and toyon (*Heteromeles arbutifolia*) combined with native bunch grass (*Bromus carinatus*), and a few oak woodland species such as foothill pine (*Pinus sabiniana*), madrone (*Arbutus menziesii*) and black oak (*Quercus kelloggii*).

The developed land cover includes existing ranch buildings, a pool and deck area, and existing roads (0.12 acre).

Table 1: Flora Observed

Common Name	*Scientific Name*
Wild oat*	*Avena fatua*
Manzanita	*Archtostaphylus viscida*
Black mustard*	*Brassica nigra*
California brodiaea	*Brodeia californica*
Brodiea	*Brodeia umbellatum*

Common Name	*Scientific Name*
California brome	*Bromus carinatus*
Soft brome*	*Bromus hordeaceous*
Cat's ear	*Calachortus* sp.
Buckbrush	*Ceanothus cuneatus*
Soap plant	*Chloragalum* sp.
Long beak storksbill*	*Erodium botrys*
Toyon	*Heteromeles arbutifolia*
Foothill pine	*Pinus sabiniana*
Coast live oak	*Quercus agrifolia*
Black oak	*Quercus kelloggii*
Dandelion*	*Taraxacum officinale*
Clover species (no flowers)	*Trifolium* sp.
Common vetch*	*Vicia sativa*
* non-native species	

Common Wildlife

The animal species observed or likely to occur on the project site are common species that are adapted to life in proximity to human activity and agricultural operations. Bird species that were observed on-site were those that typically occur in suburban settings with disturbed and managed vegetation. The bird species that were observed during the biological survey are listed in Table 2. Regardless of sensitivity rating, however, all nesting native bird species are protected from harm under the California Fish and Game Code and the federal Migratory Bird Treaty Act. Although no nests were observed on the site visit, there is the potential for nesting raptors and other native birds in the on-site oak trees and larger native shrubs in the mixed chaparral.

No mammals were observed on the project site, and only a few rodent burrows were observed. However, common wildlife species adapted to human interaction and suburban life are expected to utilize the site. Examples of potential common wildlife that may use the property include black-tailed deer (*Odocoileus hemionus columbianus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Dipdelphis virginiana*), and coyote (*Canis latrans*). Like the bird species, these mammals are adapted to life in an urban and suburban setting and are therefore relatively tolerant of human interaction and activity.

During the March 6, 2017 survey, a total of nine animal species were observed within the boundaries of the project site (Table 2).

Table 2: Fauna Observed on the Project Site

Common Name	*Scientific Name*
California scrub jay	*Aphelocoma californica*
California quail	*Callipepla californica*
Lark sparrow	*Chondestes grammacus*
American crow	*Corvus brachyrhynchos*
Acorn woodpecker	*Melanerpes formicivorus*
Northern mockingbird	*Mimus polyglottos*
House sparrow	*Passer domesticus*
Western gray squirrel	*Sciurus griseus*
Mourning dove	*Zenaida macroura*

Special-status Flora

Thirteen special-status plant species are known to occur in the Yountville quadrangle. Although there are occurrences of these species within five miles of the project site, all but three of these native species require serpentine soils, seeps, or vernal pools, which do not occur in the project area.

The project site has a low potential to support occurrences of any special-status plant species because of its disturbed nature, history of active agricultural use, and a lack of specialized soils and habitats that these species require. No wetlands or vernal pools were observed or mapped within the 4.18 acres. However, the mixed chaparral habitat has a good mix of native species and presented the highest probability of supporting the three special-status plant species known to occur in chaparral habitat: holly-leaved ceanothus (*Ceanothus purpureus*), Jepson's leptosiphon (*Leptosiphon jepsonii*), and Sonoma beardtongue (*Penstemon newberryi* var. *sonomensis*). A special-status plant survey was conducted by Senior Biologist Brian Mayerle on May 4, 2017. No special-status plant species or their habitats were found during the biological reconnaissance survey that was conducted during the blooming season.

Special-status Fauna

The results of the CNDDB search and other literature review resulted in the identification of nine special-status animal species known to occur in the project area. None of these nine species are federally listed endangered or threatened species. Special-status animal species that occur in the Napa County area, but that are dependent on specialized emergent wetland habitat types, marshes, dense mature riparian trees, and slow-moving creeks that do not occur on or near the project site were eliminated from further investigation. These included great blue heron (*Ardea herodias*), great egret (*Ardea alba*), double-breasted cormorant (*Phalacrocorax* auritus), foothill yellow-legged frog (*Rana boylii)*, and western pond turtle (*Emys marmorata*). The closest suitable habitats for some of these species in relation to the

project area occur 1 to 2 miles to the northwest at Lake Hennessey, a few miles to the east at Lake Berryessa, and a few miles to the west in the Napa Valley. These species would not be expected to occur on the project site or adjacent properties.

Of the four remaining special-status animal species, two are raptors (bald eagle and white-tailed kite). While there is low potential for them to nest in the larger oaks and eucalyptus on the project site, the property is too densely forested or developed to provide foraging habitat. White-tailed kites are more likely to be found nesting near savanna, open grasslands, marshes, partially cleared lands, and cultivated fields, which are not found in abundance on this property. More suitable nesting habitat for the bald eagle exists adjacent to nearby lakes, closer to foraging habitat for fish. Given its isolation from other habitat areas, relatively small size, and proximity to an active residence, there is a low potential for these species to regularly utilize and/or nest on the project site. The other two special-status species on the list are the obscure bumble bee (*Bombus caliginosus*) and the pallid bat (*Antrozous pallidus*). The obscure bumble bee inhabits open grassy coastal prairies and coast range meadows and is therefore unlikely to occur on-site. The pallid bat is usually found in rocky, mountainous areas and near water. It roosts in places such as attics, rock cracks, buildings, and caves. Pallid bats have a low potential to occur in the corral area buildings and in cracks of larger trees.

Because both common and special-status native raptors and other avian bird species are protected by state (California Fish and Game Code) and federal (Migratory Bird Treaty Act) laws, all of the trees on and surrounding the site were surveyed for raptor nests and other native bird nests during the field visit. No raptor nests or remnants of raptor nests were observed in any of the trees on the project site, and no other avian nests were observed—although a comprehensive nesting survey was not conducted. There is potential nesting habitat for native birds in the native oak and pine trees in all three project areas. Surveys for raptor and other avian species nests on adjacent properties were not conducted.

Wildlife Movement Corridors

The project site is not part of a regional wildlife corridor, but it is separated from the lower Napa River and the tidal sloughs associated with it only by gravel roads and the Napa River and Bay Trail (a bicycle and pedestrian trail system). The Napa River and its associated tidal sloughs are significant wildlife movement corridors and resources. Southeast of the site is dense residential and commercial development in the City of American Canyon. On a smaller scale, the nearest wildlife corridor starts across the street at the mouth of American Canyon Creek where it meets the Napa River's tidal slough. While this site does offer migrating avian species potential nesting, foraging, and stopover habitat, migrating terrestrial species are unlikely to regularly utilize this site, primarily due to better habitat with less human activity in proximity.

Wetlands

No wetlands or other hydrological features that meet criteria as waters of the U.S. were observed in the three study areas, as they are relatively steep and well-drained. It appears the jurisdictional features on this ranch are in the canyon bottoms to the north, east, and—possibly—west of the three study areas.

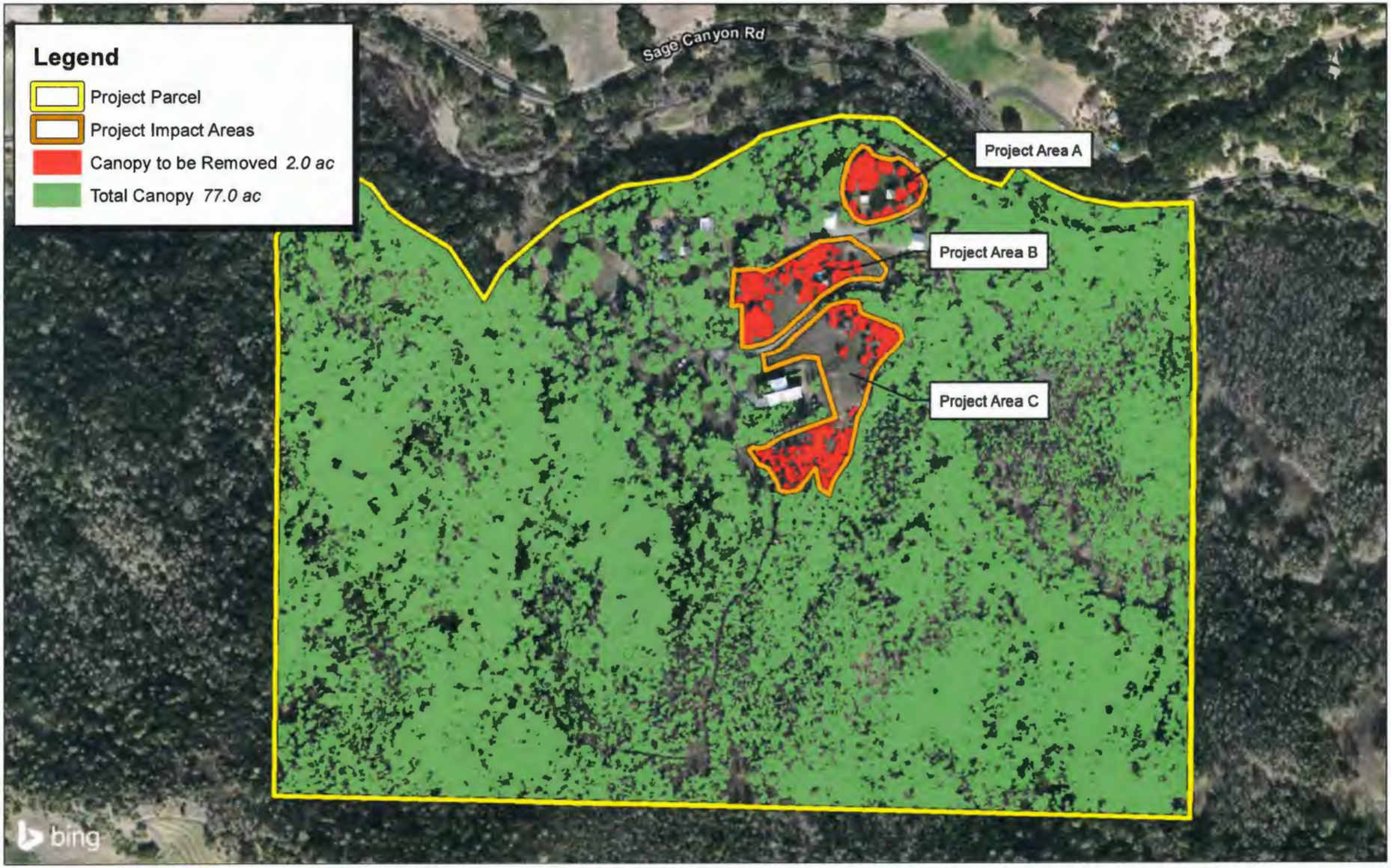
Native Trees/Oak Woodland

Two acres of the 4.18-acre project area support native trees that would be removed to prepare the site for viticulture (Exhibit 4). However, as documented above, the majority of the oak woodland in the project area is in the most developed part of the property that has been previously impacted by livestock grazing, fire suppression/control, and general site cleanup activities. Therefore, the woodland in the project area lacks a complex understory; consequently, wildlife habitat quality is generally low in these areas. The 109.6-acre property supports 77.0 acres of native tree canopy (oak woodland, chaparral, riparian woodland). The 2 acres of disturbed woodland and chaparral in the project area represent approximately 2.6 percent of the total canopy cover on the property, and are adjacent to the historically cleared and developed portion of the property.

Recommendations

This project site has several biological constraints. Based on the field work and office analysis completed, the following recommendations will help ensure compliance with applicable biological resources laws and regulations.

1. Nesting Native Birds: If project construction work is required to be scheduled during the breeding season (February 1 through August 31), a qualified ornithologist shall conduct a pre-construction survey of the work area to determine if any native birds, including raptors, are nesting in or in the vicinity of vegetation to be removed. The pre-construction survey will be conducted within 14 days prior to the start of work. If active nests are found in the work area, the biologist will determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist and, if necessary, in consultation with the CDFW and Napa County. Buffer widths depend on the nesting species and its sensitivity to disturbance.
2. Bat Surveys: Prior to ground clearing activities, pre-construction surveys for special-status bats shall be conducted in suitable habitat (buildings, trees, etc.) that is within 100 feet of the project area; surveys shall be conducted within 15 days prior to construction. Bat habitat trees (those trees containing habitat features such as limbs and trunks with cavities, crevices, and deep bark fissures), as determined by a qualified biologist, may be removed between August 15 and October 15, when young will be self-sufficient, and prior to hibernation and formation of maternity. If a maternity roost supporting more than 20 individuals of non-special-status bats, or pallid bats of any size, is detected during the pre-construction survey, a qualified bat biologist shall determine the construction-free buffer around the active roost that shall be maintained. This construction free buffer will be maintained until the young are flying. If eviction and/or relocation activities of non-maternity roost(s) are recommended, they will be conducted by a qualified biologist in coordination with CDFW ad Napa County, as necessary.



Source: Bing Imagery; NAIP Imagery

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Exhibit 4
Oak Woodland Canopy Analysis

3. Native Vegetation and Trees: Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan, or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the County's environmental sensitivity maps. The Napa County Zoning Ordinance requires retention of greater than 60 percent of existing canopy cover.

   Existing trees 6 inches in diameter or larger, measured at diameter breast height, (DBH), or tree stands of trees 6 inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized. Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriate methods during the construction phase.

4. Special-status Plants: A rare plant survey was conducted on May 4, 2017 and no rare plants were identified. No further actions regarding special-status plants are recommended.

5. Wetlands and Waters of the U.S.: There are no wetlands or waters of the U.S. within the 4.18-acre project area. It is recommended that the work areas be clearly marked prior to construction to be sure work stays out of jurisdictional areas.

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Attachment A:
CNNDB Inventory Results

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Yountville (3812243))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	650 650	408 S:1	0	0	1	0	0	0	0	1	1	0	0
Ardea alba great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	350 350	38 S:1	0	0	1	0	0	0	0	1	1	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	350 350	138 S:1	0	0	1	0	0	0	0	1	1	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	800 800	181 S:1	0	0	0	0	0	1	1	0	1	0	0
Brodiaea leptandra narrow-anthered brodiaea	G3? S3?	None None	Rare Plant Rank - 1B.2	800 1,360	39 S:2	0	0	0	0	0	2	2	0	2	0	0
Castilleja ambigua var. meadii Mead's owls-clover	G4T1 S1	None None	Rare Plant Rank - 1B.1	1,600 1,600	3 S:2	0	0	0	0	0	2	0	2	2	0	0
Ceanothus purpureus holly-leaved ceanothus	G2 S2	None None	Rare Plant Rank - 1B.2	600 2,350	43 S:13	0	4	1	0	1	7	7	6	12	1	0
Downingia pusilla dwarf downingia	GU S2	None None	Rare Plant Rank - 2B.2	1,600 1,600	126 S:1	1	0	0	0	0	0	0	1	1	0	0
Elanus leucurus white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	100 1,260	164 S:2	1	0	0	0	1	0	2	0	1	1	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	140 140	1236 S:1	1	0	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Erigeron greenei Greene's narrow-leaved daisy	G3 S3	None None	Rare Plant Rank - 1B.2	300 600	20 S:3	0	0	0	0	0	3	3	0	3	0	0
Eryngium jepsonii Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2		19 S:1	0	0	0	0	0	1	1	0	1	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	315 315	325 S:1	1	0	0	0	0	0	1	0	1	0	0
Hesperolinon sharsmithiae Sharsmith's western flax	G2Q S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 2,200	32 S:7	0	2	3	0	0	2	2	5	7	0	0
Leptosiphon jepsonii Jepson's leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	350 350	39 S:2	0	0	0	0	0	2	1	1	2	0	0
Limnanthes vinculans Sebastopol meadowfoam	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	90 90	45 S:1	0	1	0	0	0	0	1	0	1	0	0
Navarretia leucocephala ssp. pauciflora few-flowered navarretia	G4T1 S1	Endangered Threatened	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	1,600 1,600	10 S:1	0	1	0	0	0	0	0	1	1	0	0
Penstemon newberryi var. sonomensis Sonoma beardtongue	G4T2 S2	None None	Rare Plant Rank - 1B.3	600 600	11 S:1	0	0	0	0	0	1	1	0	1	0	0
Phalacrocorax auritus double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	350 350	38 S:1	0	0	1	0	0	0	0	1	1	0	0
Rana boylii foothill yellow-legged frog	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	80 780	888 S:2	0	0	0	0	0	2	1	1	2	0	0

Summary Table Report

California Department of Fish and Wildlife

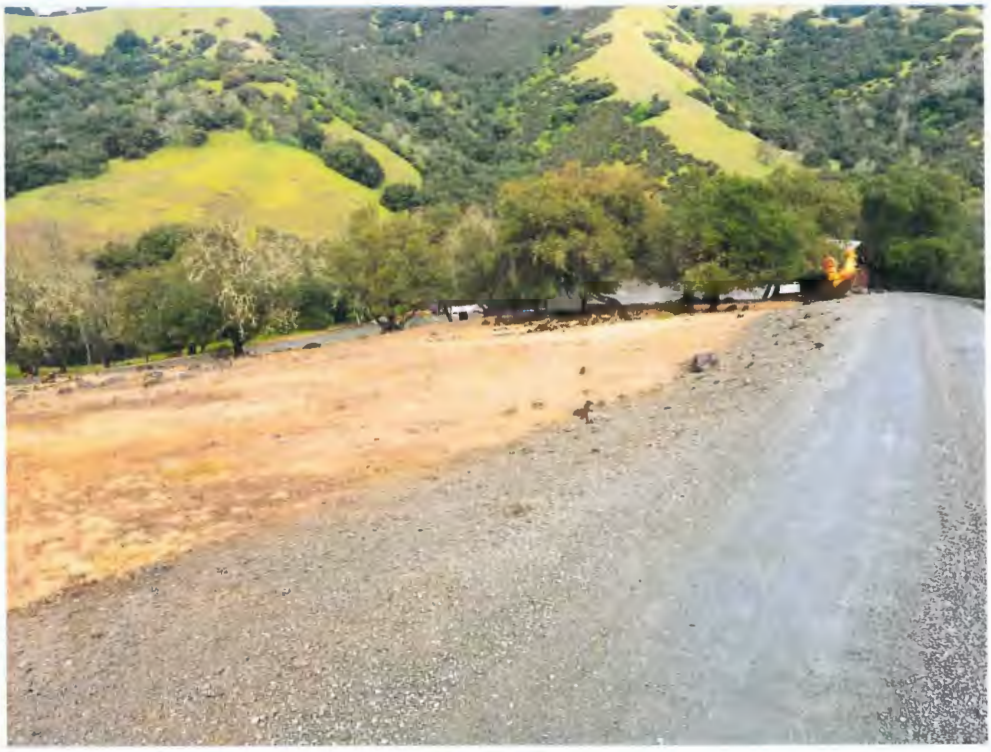
California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Streptanthus hesperidis	G2	None	Rare Plant Rank - 1B.2		19	0	0	0	0	0	2	2	0	2	0	0
green jewelflower	S2	None			S:2											
Trichostema ruygtii	G1G2	None	Rare Plant Rank - 1B.2	260	19	0	0	1	0	0	5	1	5	6	0	0
Napa bluecurls	S1S2	None		1,600	S:6											

Attachment B: Site Photos

Photograph 1: View of Project Area C; facing east.

Photograph 2: View of Project Area C; facing north.



Photograph 3: Project Area B, facing east.

Photograph 4: View of Project Area B; facing north.

Photograph 5: View of Project Area B; facing west.

Photograph 6: View of Project Area C, facing south.

Photograph 7: View of the Project Area A; facing north

Photograph 8: View of Project Area A; facing south

Photograph 9: View of Project Area C, facing southwest.

FIRSTCARBON SOLUTIONS™

BRIAN MAYERLE—BIOLOGICAL RESOURCES SPECIALIST

Education

- Bachelor of Science, Ecology and Systematic Biology, California Polytechnic State University, San Luis Obispo, 1992

Professional Affiliations

- BIA
- Society of Wetland Scientists
- California Native Plant Society

Training, Permits, and Certifications

- Wetland Delineation Certification Course, Wetland Training Institute, 1996

Brian Mayerle is an experienced Ecologist and Biological/Environmental Consultant with more than 27 years of experience in natural resources assessment and regulatory analysis for projects located throughout the western United States. Mr. Mayerle is an expert with the provisions of Sections 10, 401, and 404 of the federal Clean Water Act; the California Fish and Game Code; CEQA; NEPA; the federal Migratory Bird Treaty Act; and the state of California and Federal Endangered Species Acts. He is also extensively experienced with the local ordinances and policies protecting natural resources in California and with survey protocols established by state and federal regulatory agencies, including the USFWS, the California Department of Fish and Wildlife, and the USACE. Mr. Mayerle has conducted extensive fieldwork throughout northern and southern California and has led teams of Field Biologists on complex field projects with diverse geography and resources. He has extensive experience with the requirements surrounding sensitive biological issues in the Rohnert Park area and throughout Sonoma County, including direct experience developing conservation strategies for species protected under the Santa Rosa Plain Conservation Strategy (SRPCS), such as the California tiger salamander and Burke's goldfields.

RELATED EXPERIENCE AND CLIENT SUMMARY

- 110 Dry Creek Road Hotel and Affordable Housing Project IS/MND, City of Healdsburg, CA
- Caltrans NEPA/CEQA Documentation and Permitting for the Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek), Calaveras County, CA
- Caltrans NEPA/CEQA Documentation and Permitting for the Travers Creek Bridge Replacement Project, Fresno County, CA
- Caltrans NEPA Documentation and Regulatory Permitting for the John Muir Parkway Extension, City of Brentwood, CA
- Planning Services and IS/MND for the Chang Property Subdivision, City of San Ramon, CA
- Gnoss Field Regional Airport Runway Extension EIS/EIR, Marin County, CA
- Persephone Ranch, Napa County, CA
- Tesoro Viejo Specific Plan, Madera County, CA
- Canyon Springs EIR, Town of Truckee, Nevada County, CA
- Oasis Road Specific Plan EIR, City of Redding, CA
- Lake Front at Walker Ranch EIR, Plumas County, CA
- Auburn Lake Trails Water Treatment Plant Environmental Review, El Dorado County, CA

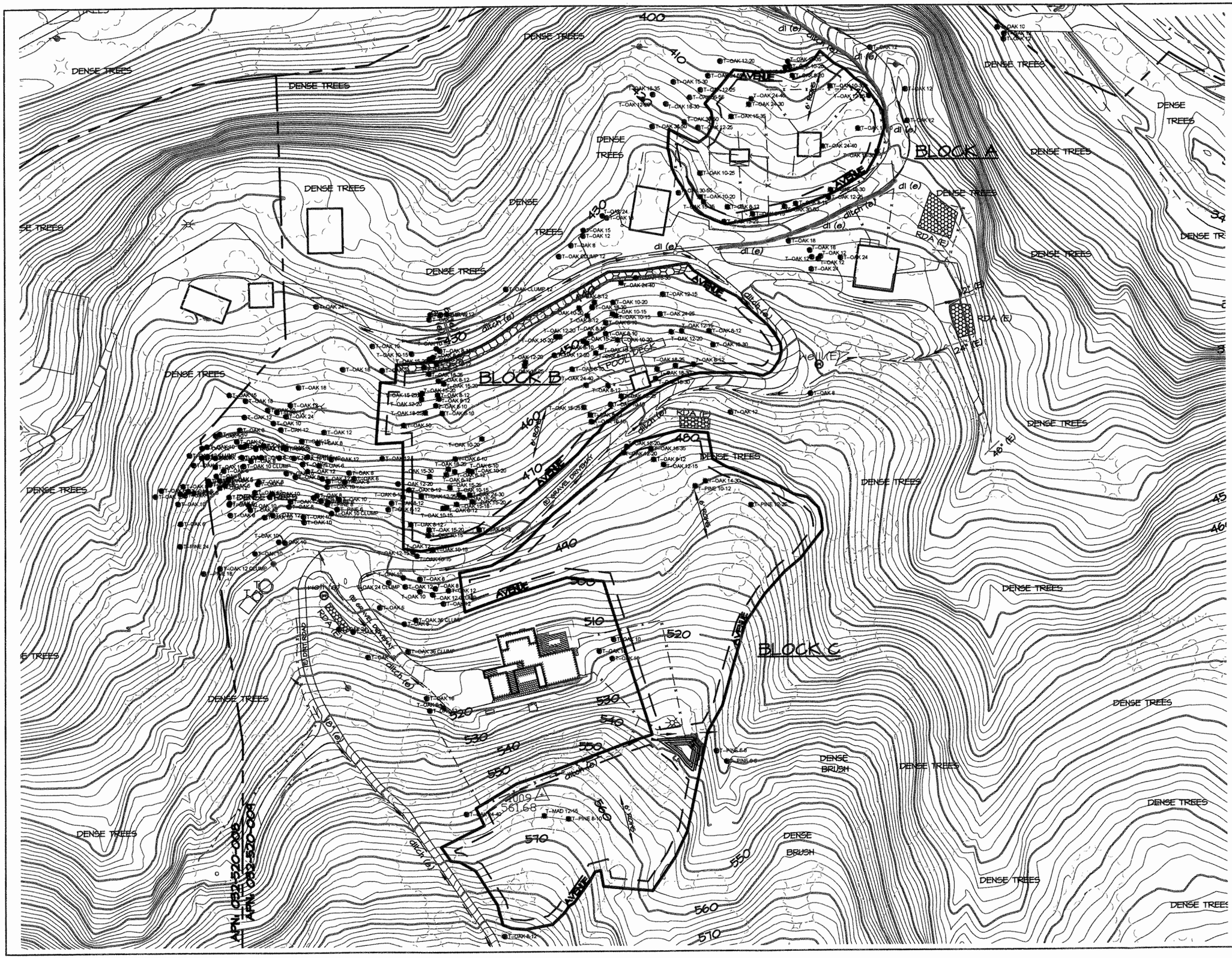
BRIAN MAYERLE—BIOLOGICAL RESOURCES SPECIALIST

- Dorris Ridge Reservoir, Modoc County, CA
- Northeast Warner Fuels Reduction and Habitat Restoration EA, Modoc County, CA
- Timberline at Auburn, Placer County, CA
- Morgan Creek Golf and Country Club, Placer County, CA
- Ward Ranch, Shasta County, CA
- Hemsted Rodeo Biological Analysis, City of Anderson, CA
- Anderson Landfill Culvert Repair, City of Anderson, CA
- Red Dawn Solar Environmental Documentation, Los Angeles County, CA
- East Kern Wind Resources Rare Plant Surveys, Kern, and Los Angeles Counties, CA
- All Nations Church, Los Angeles County, CA
- Mockingbird Canyon Estates, Riverside County, CA
- Leatherneck Substation Special-Status Species Surveys, San Bernardino County, CA
- Beale Air Force Base Habitat Conservation Planning Program, CA
- Beale Air Force Base Anti-Terrorism Fence, CA
- Unocal Guadalupe Oil Field Remediation, CA
- Vandenberg Air Force Base Peacekeeper Rail Garrison Wetland Creation and Coastal Dune Scrub Restoration Project, CA
- Statewide Lethal Electrified Fence Project Wildlife Surveys, CA
- Base Realignment and Closure NEPA Compliance, Various Locations

Publications

Mulroy, T. M. Dungan, R. Rich, and B. Mayerle. 1992. Wildland Weed Control in Sensitive Native Communities (co-author)

Mayerle, B. 1992. The Effects of Wood Smoke on Overwintering Clusters of Monarch Butterfly (*Danaus plexippus*) Clusters. Senior Thesis-California Polytechnic State University, San Luis Obispo



SCALE: 1"=100'

Tree Legend	
Number	Tree Type
105	OAK
3	PINE
1	MAD

TREE REMOVAL

McPHERSON RANCH
2000, 2004 SAGE CANYON RD
APN: 032-520-002, 007
TREE REMOVAL MAP
NVVE 7-25-17

REV. 1 - 2-2-2018