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Biological Study

September 20, 2016

Storage Tech, LLC
Beth Painter
2783 Napa Valley Corporate Drive
Napa, CA 94558

Subject: Napa Vault Swainson's Hawk Focused Assessment, Napa County, California

Dear Ms. Painter:

On behalf of Storage Tech, LLC, FirstCarbon Solutions prepared a focused assessment of the potential for the project site to support foraging habitat for Swainson's hawk, a state-listed as threatened species.

In the past, this species was not regularly known to occur within this extent of the County; however, given the recent recovery of this species, it is now nesting and foraging in areas not previously found to have supported this species. For this reason, this assessment focused on the potential for this species to forage on the site, as nesting habitat is lacking within the proposed development area and adequate mitigations are included to protect the riparian area on the property.

Project Site Location and Description

The project site is located at 1055 Soscol Ferry Road, Napa, California 94558. The project site is 10.32 acres in size and consists of undeveloped land with non-native grasses and riparian habitat in association with Suscol Creek. The surrounding area is mostly undeveloped with a storage facility to the east. The project proposes the construction of new storage buildings, a parking area, and landscaped areas within the non-native grass area of the site. The project site is located within an agricultural landscape, with patches of non-native grasslands and light commercial uses to the north and south of the site. Trees are located within the riparian area, but are absent from the proposed development area of the project site.

Swainson's Hawk Background

Swainson's hawk (*Buteo swainsoni*) is a state-listed threatened species, protected pursuant to the California Endangered Species Act (CESA), and Title 14 of the California Code of Regulations. While it has no special federal status, it is protected from direct take under the Federal Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711). Swainson's hawks, their nests, eggs, and young are also protected under California Fish and Game Code (Sections 3503, 3503.5, 3513, and 3800). Swainson's hawk inhabits open to semi-open areas at low to middle elevations in valleys, dry meadows, foothills, and level uplands (Kochert 1986).

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It nests almost exclusively in trees and will nest in a variety of trees that are at least 10 feet tall (Schmutz et. al. 1984). In the Central Valley of California, the majority of Swainson's hawk nests and territories are associated with riparian systems and nests are commonly found in cottonwoods and oaks (Schlorff et. al. 1984). It has also been documented nesting in eucalyptus (*Eucalyptus* spp.), black walnut (*Juglans hindsii*), black locust (*Robinia pseudoacacia*), almond (*Prunus dulcis*), Osage orange (*Maclura pomifera*), Arizona cypress (*Cupressus arizonica*), and pine (*Pinus* spp.). Foraging habitats include grasslands, alfalfa fields, fallow fields, beet, tomato, and other low-growing row or field crops, dry-land and irrigated pasture, and rice land when not flooded. The Swainson's hawk generally forages in open habitats with short vegetation containing small mammals, reptiles, birds, and insects. It does not forage in vineyards, orchards, or flooded rice fields. Grasslands and agricultural lands (with the exception of orchards and vineyards) provide suitable foraging habitat for this species. Its primary prey in the Central Valley is California meadow vole (*Microtus californicus*). Agricultural areas are often preferred over more natural grassland habitats because of larger prey populations. In addition, agricultural practices (planting, maintenance, harvesting, disking) allow for access to prey, and very likely increase foraging success of Swainson's hawks by flushing prey.

During the nesting season, this species usually forages close to the nest, although extensive studies have shown that nesting birds can forage in a radius of up to 18 miles from the nest (Estep, 1989, Babcock, 1993). Swainson's hawk does not require habitats that contain many perches because it most often searches for prey aerially; therefore, it can occupy habitats with few or no perches except the nest tree (James 1992). Swainson's hawks are regular summer visitors and breeders throughout the western states. In the fall months, most Swainson's hawks migrate to Argentina before returning to the United States to breed in the late spring (typically April). For decades, Argentina farmers were spraying insecticides over habitats that included gregarious night roosts of the Swainson's hawk, killing many thousands of these hawks. This practice was halted in the last 10 years and as a result the Swainson's hawk population in California appears to be dramatically increasing its range and distribution. While in the 1970s through 1990s there were only two relatively small populations of Swainson's hawks that remained resident in California year-round—in the Davis area and in the Sacramento River Delta—resident and migrant populations of the Swainson's hawks are now dramatically expanding their nesting distribution in California since the Argentinian wintering grounds practices were halted. For example, Swainson's hawks were never recorded nesting in the Napa County area until relatively recently. This species is far more common in the agricultural settings of the Central Valley of California northward up to the Modoc Plateau in northeastern California, although its range has greatly been expanding in the last 10 years throughout California

Methodology

We have reviewed the project materials prepared by LSA Associates, Inc. regarding the distribution of this species in the region and potential for this species to occur on the site. These documents also discuss the potential for mitigation for this species, as part of the CEQA process. We have also reviewed the project revision statement with respect to the mitigation for any potential nesting habitat. The analysis also included a current review of publicly available existing information regarding the project

and vicinity, the project's environmental documentation, and previously certified projects in the region with respect to this issue. Data reviewed includes but is not limited to:

- Existing documentation and studies of the biological resources within vicinity of the project site;
- California Department of Fish and Wildlife (CDFW) comment letter, July 13, 2016
- Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California, State of California, Department of Fish and Game, Nov. 8, 1994
- Biological Study—Biological Mitigation Measures for Use Permit, prepared by LSA Associates, Inc., August 28, 2015
- Application for Section 1602 Streambed Alteration Agreement—Napa Vault Project, Napa, Napa County, prepared by LSA Associates, Inc., June 9, 2016
- County of Napa Planning, Building & Environmental Services Department—Napa Vault Initial Study, February 2015
- The Federal Register listing package for each federally listed endangered or threatened species potentially occurring in the site action area
- The California Department of Fish and Wildlife (CDFW) Annual Report on the status of California's listed threatened and endangered plants and animals
- Literature pertaining to habitat requirements of special-status species potentially occurring in or adjacent to the project site, including the CDFW's California Wildlife Habitat Relationships (CWHR) system
- California Natural Diversity Data Base (CNDDB) information regarding sensitive habitat areas, and special-status plant and wildlife species potentially occurring in and adjacent to the project area
- United States Geological Service (USGS) topographic maps and current aerial photos will be reviewed for evidence of United States Army Corps of Engineers (USACE), state, and/or CDFW jurisdictional special aquatic areas pursuant to Section 404 and 401 of the Clean Water Act, the Porter Cologne Water Quality Act, and Section 1602 of the California Fish and Game Code

First Carbon Solutions has extensive experience and expertise in a broad range of habitat assessments and the development of associated mitigation plans. My credentials and a selected list of related experiences are attached for reference.

Results

The majority of the vegetation on-site is dominated by wild oats, Mediterranean mustard (*Hirschfeldia incana*), bishop weed (*Ammi majus*), wild radish, common mustard (*Brassica rapa*), slender wild oat (*Avena barbata*), sweet fennel (*Foeniculum vulgare*), yellow star thistle (*Centaurea solstitialis*), wild mustard (*Brassica* spp.), and cut-leaved geranium (*Geranium dissectum*). There are no trees located within the development area of the site.

CNDDDB searches returned six recorded occurrences of Swainson's hawk within a 1-mile radius of the project site, and nests of this species were observed during previous documented studies in the area. Exhibit 1 shows these nests as previously recorded in the vicinity. No Swainson's hawk nesting habitat occurs within the development area on the project site, and foraging habitat on the site is limited, which is due to the less-than-optimal conditions and the availability of more optimal surrounding foraging habitat. Specifically, the on-site vegetation lacks potential to sustain rodent populations sufficient to support Swainson's hawk foraging compared with those in the surrounding habitats. Furthermore, this species is highly mobile, nesting in different locations from year to year.

Discussion

Since Swainson's hawks are nesting in proximity of the proposed project site (Exhibit 1), implementation of the proposed project could be viewed by CDFW as a project that could impact nesting Swainson's hawks. Loss or alteration of foraging habitat or nest site disturbance could result in (1) nest abandonment, (2) loss of young, (3) and reduced health and vigor of eggs and/or nestlings (resulting in reduced survival rates); and (4) it may ultimately result in the take (killing) of nestling or fledgling Swainson's hawks incidental to otherwise lawful activities. The taking of Swainson's hawks in this manner can be viewed by the CDFW as a violation of the Section 2080 of the Fish and Game Code. This interpretation of take has been judicially affirmed by the landmark appellate court decision pertaining to CESA (*Department v. ACID*, 8 CA App.4, 41554) (CDFG 1994). Any disturbance surrounding a Swainson's hawk nest that is not characteristic of the normal activities surrounding the nest site that caused disruption of the nesting attempt would likely be regarded by the CDFW as a violation of the CESA. Typically, the CDFW requires that any adverse effect to a Swainson's hawk nest be permitted through a Fish and Game Section 2081 management authorization. If an active nest is found on or adjacent to the project site within the area of influence of the project site (which is generally considered to be within 1,000 feet of the project site) "to avoid potential violation of Fish and Game Code 2080 (i.e., killing of listed species), project-related disturbance at active Swainson's hawk nesting sites should be reduced or eliminated during critical phases of the nesting cycle (March 1–September 15 annually)" (CDFG 2000). If disturbance would occur, a Fish and Game Section 2081 management authorization would be required.

Because Swainson's hawks would be unlikely to nest on the project site and given the extensive foraging habitat in the region, adverse effects to this species are considered unlikely and, as such, not meeting a threshold of significance pursuant to the CEQA. Additionally, based on the extent of nesting and more optimal foraging habitat in surrounding areas up to a maximal area of an 18-mile radius from a given nest, it is unlikely that the site supports significant foraging habitat for this species. Specifically, this site would constitute a total of 0.07% of marginal foraging loss due to development when compared to the total available habitat in that radius. When considered in terms of foraging habitat lost relative to the availability of surrounding habitats, this impact is negligible and would not significantly contribute to an overall cumulative loss of regional foraging habitat loss. Moreover, this species is on an upward trend of viability and distribution in the region, amidst continued planned development, most of which has not been conditioned to mitigate for foraging habitat for this species.

In summary, the range of the Swainson's hawk to access foraging habitat is extensive, up to an 18-mile radius; therefore, the loss of the small amount of non-native grassland on the project site is less than significant. In the unlikely event that a nest is established on-site, additional measures will be taken to ensure that a local adequate buffer is established. As outlined in the project revision statement and required under Mitigation Measure IV.a.1, pre-construction surveys will be completed by a qualified Biologist to determine the presence or absence of Swainson's hawk on the project site. If nesting is determined, an adequate buffer zone around the active nest shall be established in consultation with CDFW. This mitigation will ensure that any unforeseen nest impacts occurring prior to construction will not result in net adverse effects on this species.

FCS appreciates the opportunity to assist you on this project. If we can be of any further assistance, or if you have any questions concerning this letter report, please contact me at 916.430.2178.

Sincerely,



Brian Mayerle, Senior Biologist
FirstCarbon Solutions
1350 Treat Boulevard, Suite 350
Walnut Creek, CA 94597

Enc: Exhibit 1: Project Site and Swainson's Hawk Nest Locations
Brian Mayerle resume



Source: cnddb, 8/2016; Bing Imagery, 2015

Exhibit 1

FIRSTCARBON
SOLUTIONS™



0.35 0.175 0 0.35
Miles

Project Site Location and Swainson's Hawk Nest Locations

OVERVIEW

- Over 25 years of experience

Education

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

Professional Affiliations

- Association of Environmental Professionals (AEP)
- Society of Wetland Scientists (SWS)
- California Native Plant Society (CNPS)

Training, Permits, and Certifications

- California Department of Fish and Wildlife (CDFW) Scientific Collecting Permit
- Wetland Delineation Certification Course, Wetland Training Institute, 1996

Brian Mayerle is an experienced ecologist and biological/environmental consultant with over 25 years of experience in natural resources assessment and regulatory analysis for projects located throughout the western United States. Mr. Mayerle has conducted surveys for numerous private and public sector clients throughout Northern California dealing with the issue of Swainson's Hawk, some of which are listed below. Mr. Mayerle is an expert in the provisions of Sections 10, 401, and 404 of the federal Clean Water Act (CWA); the California Fish and Game Code; California Environmental Quality Act (CEQA); National Environmental Policy Act (NEPA); the federal Migratory Bird Treaty Act (MBTA); and the state of California and Federal Endangered Species Acts (ESA). 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 United States Fish and Wildlife Service (USFWS), CDFW, and U.S. Army Corps of Engineers (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.

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

Caltrans NEPA/CEQA Documentation and Permitting for the Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek), Calaveras County, CA

FCS is assisting the County of Calaveras with Caltrans NEPA/CEQA documentation and the completion of regulatory permit applications for the replacement of three structurally deficient bridges and associated improvements to Dogtown Road. FCS is coordinating the required air, noise, hazardous materials, biological, cultural, water quality, floodplain, land use and traffic studies for local agency compliance with Federal Highway Administration (FHWA) funding administered through the California Department

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of Transportation (Caltrans) District 10. FCS is also preparing an Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to CEQA and a NEPA Categorical Exclusion, as well as coordinating permitting through the USACE, Central Valley Regional Water Quality Control Board (RWQCB), and CDFW. As the Senior Biologist, Mr. Mayerle is directing all aspects of the Natural Environment Study (NES) preparation and permitting tasks.

Caltrans NEPA/CEQA Documentation and Permitting for the Travers Creek Bridge Replacement Project, Fresno County, CA

The Travers Creek Bridge Replacement Project at Manning Avenue involves the replacement of an existing structurally deficient bridge with a wider bridge to allow for the ultimate right-of-way design for Manning Avenue and improvements to associated roadway approaches. FCS is preparing the IS/MND pursuant to CEQA and the NEPA Categorical Exclusion in accordance with FHWA procedures. FCS is also coordinating the required air, noise, hazardous materials, biological resources, and cultural resources technical studies to ensure local agency compliance with FHWA funding administered through Caltrans District 6 and coordinating permitting through the USACE, Central Valley RWQCB, and CDFW. As the Senior Biologist, Mr. Mayerle is directing/performing all of the survey and permitting work and is preparing the Natural Environmental Study (NES). Surveys include an assessment of the presence of Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*).

Previous Project Experience

Morgan Creek Golf and Country Club, Placer County, CA

Mr. Mayerle was the project manager for all regulatory services involved in planning and construction of this project. The project is a 546-acre master planned development consisting of residences, 18-hole golf course, open space along Dry Creek, bike/ pedestrian and equestrian trails, wetland preserves, and an elderberry preserve. As required by the conditions of the U.S. Army Corps of Engineers (Corps) Nationwide permit, the project required a Preserve Management and Mitigation and Monitoring Plan. The project also included the preparation of the Dry Creek Riparian Preserve and Management Plan and a Native Tree Mitigation and Monitoring Program. The site was also assessed for the potential presence of Swainson's Hawk.

Gross Field Regional Airport Runway Extension EIS/EIR, Marin County, CA

Mr. Mayerle was the directing principal and senior project manager for the preparation of preliminary site assessments for the proposed improvements to the Marin County Airport (Gross Field). Mr. Mayerle headed the preparation of Environmental Impact Statement/Environmental Impact Report (EIS/EIR) analyses and documentation to accurately assess and document the foreseeable direct, indirect, and cumulative impacts associated with the Gross Field runway and taxiway extensions, as well as drainage realignments and the construction of levees to protect the runway extension from flooding. Mr. Mayerle led the project team in conducting a biological assessment, performed focused surveys for special-status species, and conducted a jurisdictional delineation of waters on the 213-acre project site. As part of the delineation, Mr. Mayerle conducted a field review with the USACE that verified the extent of the jurisdictional Section 10 and 404 waters, including wetlands, on the site. The site was also assessed for the potential presence of burrowing owl.

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Persephone Ranch, Napa County, CA

Mr. Mayerle was the directing principal and project manager for the preparation of an IS, biological resources assessment, wetland delineation, CWA Section 404 Individual Permit, Water Quality Certification, and Streambed Alteration Agreement in support of the appropriation of approximately 420 acre-feet of water from the Upper Putah Creek Watershed for expanded vineyard irrigation in Napa County. The project consisted of the expansion of an existing onsite reservoir and the construction of two new reservoirs. Additionally, a culvert crossing was replaced with a span bridge over Burton Creek. The channel bank was re-vegetated with native species for bank stabilization and erosion control.

Oasis Road Specific Plan EIR, City of Redding, CA

Mr. Mayerle managed the preparation of an independent report for the Oasis Road Specific Plan area for use in identifying wetland and other biologic constraints in the Specific Plan area. The document was prepared in support of the Draft EIR. Biologists reviewed available materials regarding site conditions, biological resources, and wetlands in the Specific Plan Area, including resources such as U.S. Geological Survey (USGS) topographic maps, Natural Resources Conservation Service (NRCS) soils maps, and information from the California Natural Diversity Database (CNDDB). Mr. Mayerle also conducted field assessments to identify dominant plant communities, characterize wildlife habitats, locate sensitive areas, and evaluate the potential for the property to support special-status species, including rare plants, burrowing owl, and Swainson's hawk. He also conducted a formal wetland delineation for the Specific Plan Area not previously delineated.

Hemsted Rodeo Biological Analysis, City of Anderson, CA

Mr. Mayerle managed a biological constraints analysis for the proposed 3A Ranch project site east of Anderson, California. The analysis provided an overview of the general biological resources located on the site, including habitats, plant and wildlife species, and potential waters of the U.S. The analysis also included an assessment of the suitability of habitats to potentially support special-status species, including white-tailed kite (*Elanus leucurus*), migratory birds, bats, salmonids (*Salmonidae* sp.), and fox sedge (*Carex vulpinoidea*).

Anderson Landfill Culvert Repair, City of Anderson, CA

Mr. Mayerle was the project manager who prepared a biological and wetland constraints analysis for a culvert removal project at the Anderson Landfill. The project occurred within an unnamed drainage tributary to Cottonwood Creek and a large seasonal marsh area was located upstream of the existing culvert and road crossing. These features are both waters of the U.S. and regulated by local, state, and federal agencies. Mr. Mayerle conducted a field survey of the site to record plant and animal species, observed, and characterized biological communities. Special attention was given to identifying those portions of the site with the potential to support special-status species and sensitive habitats.

Ward Ranch, Shasta County, CA

Mr. Mayerle was the project manager for biological studies and permitting for the 317-acre Ward Ranch site. The site was composed of annual grassland and blue oak woodland, with a section of Antelope Creek, a pond, and associated tributaries occurring on the site. The biological resources assessment included observations of botanical and wildlife on site. Potential biological constraints on the site

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included the following: habitat for special-status plant species including pink creamsacs (*Castilleja rubicundula*) and silky cryptantha (*Cryptantha crinita*); nesting and foraging habitat for raptors, including burrowing owl; habitat for northwestern pond turtle (*Actinemys marmorata*); special-status salmonid habitat; and sensitive habitats.

Lake Front at Walker Ranch EIR, Plumas County, CA

Mr. Mayerle was the directing principal and project manager for the preparation of an EIR for the Lake Front at Walker Ranch project in Plumas County. The project proposed a mixed-use development located on approximately 1,397 acres on the Lake Almanor peninsula. A total of 1,674 residential units were proposed, ranging from eight dwelling units per acre to estate lots with one unit per 1.5 acres. The project considered onsite wastewater treatment, recycled water for golf course irrigation, open space preserves, bald eagle (*Haliaeetus leucocephalus*) habitat, and deer migration corridors and roadway/deer crossings. The EIR analyzed potential impacts related to aesthetics (visual impacts from Lake Almanor), water quality, biological resources (including potential impacts to existing bald eagle nests), population and housing, noise, air quality, and traffic. The Final EIR was certified by Plumas County on March 2, 2010.

Dorris Ridge Reservoir, Modoc County, CA

Mr. Mayerle assisted in preparing a jurisdictional wetland delineation and a biological resources assessment for the subdivision of a 2,000-acre ranch near Alturas, California. The delineation of habitat included migration routes for mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocapra americana*), nesting habitat for greater sandhill cranes (*Grus canadensis tabida*), and many other threatened and endangered species. Mr. Mayerle performed follow up pronghorn fieldwork and migration route observation; he then worked with the landowner and CDFW to devise a plan to minimize impacts on wintering pronghorns.

Auburn Lake Trails Water Treatment Plant Environmental Review, El Dorado County, CA

Mr. Mayerle was the senior project manager for the preparation of a joint CEQA/NEPA document in support of securing a U.S. Department of Agriculture (USDA) Loan for improvements to the Auburn Trails Water Treatment Facility for the Georgetown Divide Public Utility District (PUD) located in El Dorado County. Mr. Mayerle oversaw the preparation of a combined CEQA IS/MND and NEPA Environmental Assessment/Finding of No Significant Impact (EA/FONSI). The environmental review was performed concurrently with the preliminary engineering report. Mr. Mayerle also conducted pre-construction surveys for special-status species and sensitive habitats and an assessment of trees proposed for removal.

Northeast Warner Fuels Reduction and Habitat Restoration EA, Modoc County, CA

Mr. Mayerle was the directing principal and project manager for the preparation of the EA for the Northeast Warner Fuels Reduction and Habitat Restoration project. The Bureau of Land Management (BLM) proposed hazardous fuels reduction treatments within areas of juniper (*Juniperus* sp.) encroachment in sage steppe plant communities to improve hydrologic conditions, enhance the forage base for wildlife and domestic animals, and restore vegetation conditions that resemble historic mosaic plant communities on lands within Modoc County, California, and Washoe County, Nevada. Mr. Mayerle

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led the project team to conduct botanical and wildlife surveys on the cumulative 1,600 acres on four units and conducted the analysis for the EA.

Canyon Springs EIR, Town of Truckee, Nevada County, CA

Mr. Mayerle was the project manager for the Biological Resources Section as input to the Tahoe Boca Draft EIR prepared by Quad Knopf for the Town of Truckee. This large proposed residential development located in the Sierra Nevada spans approximately 284 acres in the eastern portion of the Town of Truckee and five acres in Nevada County. Mr. Mayerle performed an assessment of sensitive resources on the site, including plants, wildlife, and wetlands, as well as a study regarding migratory deer herds relative to the project design.

Timberline at Auburn, Placer County, CA

Mr. Mayerle was the senior program manager for the preparation of a Section 404 permit package and all necessary mitigation needed for implementation of the Timberline at Auburn project. He provided project team coordination to conduct surveys for special-status species such as Swainson's hawk and burrowing owl and prepared alternatives analysis for the Individual Permit and a detailed Operations and Maintenance (O&M) plan for a wetland preserve onsite.

Red Dawn Solar Environmental Documentation, Los Angeles County, CA

Mr. Mayerle served as project manager for preparing the environmental documentation for a 540-acre privately held property located in a Significant Ecological Area (SEA) zoning designation by the Los Angeles County Department of Regional Planning (DRP). Mr. Mayerle led fieldwork and the preparation of a Biological Constraints Analysis, impact analysis, and a mitigation strategy for a 110-acre Joshua Tree Woodlands area following Los Angeles County DRP regulations and guidelines. He also assessed the potential for impacts and future permitting needs for an on-site drainage following federal, state, and local wetland regulations.

Tesoro Viejo Specific Plan, Madera County, CA

Mr. Mayerle was the senior program manager for the preparation of a Section 404 application package for the entire specific plan design that will be implemented in several phases. Mr. Mayerle led the project team in conducting a peer review of the biological assessment and jurisdictional delineation of waters on the approximate 1,600-acre plan area.

Beale Air Force Base Habitat Conservation Planning Program, CA

Mr. Mayerle was the senior project manager for conducting a 2,000-acre focused wetland determination and delineation and performing a protocol wet and dry season survey for federally threatened and endangered fairy shrimp species on a 156-acre parcel on Beale Air Force Base.

Beale Air Force Base Anti-Terrorism Fence, CA

Mr. Mayerle served as project manager for mapping more than 50 acres of wetland features within the study area at Beale Air Force Base. The study area consisted of ±243 total acres, including the Air Force

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Base perimeter and additional interior areas where the Anti-terrorism/Force Protection (AT/FP) fence construction activities were proposed. Mr. Mayerle worked with the USACE for formal verification.

Mockingbird Canyon Estates, Riverside County, CA

Mr. Mayerle conducted a wetland delineation to determine the presence and extent of jurisdictional wetlands and waters as mandated by the federal CWA, the extent of jurisdictional areas subject to California Fish and Game Code Section 1602, and the extent of areas subject to Riverside County's Multiple Species Habitat Conservation Program (MSHCP) Riparian/Riverine Areas on the 150-acre Mockingbird Canyon Estates property in Riverside County.

All Nations Church, Los Angeles County, CA

As project manager, Mr. Mayerle conducted field surveys and prepared a biota report pursuant to Los Angeles County DRP guidelines. The report incorporated recommendations from the Sensitive Environmental Area Technical Advisory Committee (SEATAC) or the Regional Planning Biologist along with mitigation measures.

Leatherneck Substation Special-Status Species Surveys, San Bernardino County, CA

Mr. Mayerle supported focused surveys for Southern California Edison (SCE) for the proposed installation of fiber optic lines on over 40 miles of extant electrical poles between two substations in San Bernardino County. Desert tortoises (*Gopherus agassizii*) are of particular regional concern. Mr. Mayerle assisted in examining the alignment for live desert tortoises and desert tortoise sign (i.e., scat, burrows, shell fragments, bones, and tracks). He also completed mapping and field analysis of desert washes and waters of the State.

East Kern Wind Resources Rare Plant Surveys, Kern and Los Angeles Counties, CA

As a subconsultant to Plegadis LLC., Mr. Mayerle conducted focused botanical surveys and jurisdictional waters surveys and mapping for various segments of SCE's Eastern Kern Wind Resources Area (EKWRA) project in 2010 and 2011. These surveys were conducted in accordance with and subject to guidelines provided by CDFW and the CNPS and included several special-status plant species that potentially occur in this region. Mr. Mayerle also supported the vegetation mapping effort concurrently with the botanical surveys and the surveys and mapping of federal and State waters during the life of the contract.

Unocal Guadalupe Oil Field Remediation, CA

As part of the remediation activities on the former oil field (located on the Guadalupe Dunes on the central coast of California), Mr. Mayerle was part of a multi-disciplinary team that prepared a project-wide restoration plan for dune strand, dune swale, foredune, coastal dune scrub, and marsh habitats. The project also involved the preparation of incidental take permits for the state-listed La Graciosa thistle (*Cirsium loncholepis*), surf thistle (*Cirsium rhotophilum*), and beach spectaclepod (*Dithyrea maritima*) under Section 2081 of the California Endangered Species Act (CESA). Mr. Mayerle was also a contributing author on a multi-species Habitat Conservation Plan (HCP) for California red-legged frog, snowy plover, and tidewater goby under the federal ESA.

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Vandenberg Air Force Base Peacekeeper Rail Garrison Wetland Creation and Coastal Dune Scrub Restoration Project, CA

From August 1990 through November 1992, Mr. Mayerle served as the onsite field biologist for the Peacekeeper Rail Garrison wetland (freshwater marsh) creation and coastal dune scrub restoration project on Vandenberg Air Force Base (VAFB), which is located on the central coast of California. As the only biologist employed by the Prime Contractor to the Air Force, Mr. Mayerle was involved with virtually all aspects of the mitigation plan implementation. Mr. Mayerle's performance on this project (which extended into 1994) included monitoring the excavation of two 8-acre wetland sites (within sensitive native dune swale communities) to ensure compliance with the biological specifications of the mitigation plan; monitoring the collection of native wetland and dune scrub seed used to create palettes of seed mixes for specific portions of the creation/restoration sites; monitoring topsoil, seed mix, and soil stabilization applications to wetland and dune scrub revegetation sites; performing seasonal mammal, avian, and herpetological surveys as part of wildlife mitigation monitoring; performing line-transect vegetation analysis in natural and created wetland sites; monitoring extensive (~350 acres) iceplant (*Carpobrotus edulis*) control efforts in sensitive upland dune scrub communities; and conducting monthly groundwater sampling and preparing reports as part of the hydrological monitoring for wetland creation sites.

Statewide Lethal Electrified Fence Project Wildlife Surveys, CA

As part of the California Department of Corrections' (CDC's) Statewide Electrified Fence Project, Mr. Mayerle conducted detailed wildlife surveys at 17 of the state's prison facilities. The project involved extensive baseline surveys and mitigation planning throughout California. The objective of these efforts was to fully describe the wildlife electrocution impacts related to the construction and operation of lethal electrified fences, the development of mitigation measures to minimize the impacts, and the development of a compensatory mitigation package to compensate for residual impacts.

Base Realignment and Closure (BRAC) NEPA Compliance, Various Locations

Mr. Mayerle worked on several projects involving the preparation of biological resources documentation for NEPA EISs, Environmental Baseline Surveys (EBSs), or mitigation projects. These projects included the Space Thermonuclear Propulsion EIS at the Idaho National Engineering Laboratory; the Chanute Air Force Base (AFB) EBS in central Illinois; the Richards-Gebaur AFB Closure EIS; and the Loring AFB Closure EIS.

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



LSA ASSOCIATES, INC.
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BERKELEY
CARLSBAD

FRESNO
IRVINE
PALM SPRINGS

RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

August 28, 2015

Erik Bedford
2783 Napa Valley Corporate Drive
Napa, CA 94558

Subject: Biological Mitigation Measures for Use Permit Modification (File #P09-00101-PU) for
the Tentative Parcel Map (File#P09-00100-PM), Napa County, California

Dear Erik:

This letter addresses the applicability of biological mitigation measures, for a previously approved winery project, to a Use Permit modification for the parcel referred to above. The 10.32-acre parcel (project site) is located adjacent to and south of Soscol¹ Ferry Road, Napa County, California (Figure 1). Suscol Creek forms the southern boundary of the project site (Figure 1). In 2006, the Suscol Creek Winery project was approved for the project site as a 200,000 gallon per year facility with by appointment visitation for an average of 70 visitors a week and a marketing plan with four events per week (P05-0434-UP). In 2009, a Use Permit modification was approved to increase the production to 600,000 gallons per year, increase floor area, increase employees, increase visitation to 100 persons per week, increase onsite parking from 36 to 55 spaces, revise the waste treatment system, and to divide the property into separate condominium units. Both a Use Permit modification and Tentative Map were approved. The Use Permit was used pursuant to Napa County Code (Section 18.124.080).

The current owner, Storage Tech, LLC has developed industrial designed storage facilities that are owned rather than rented by users. Six projects have been successfully completed in Colorado. Storage Tech, LLC requests a modification of use to construct a 130-unit industrial condominium facility, the Napa Vault Project, on the property.

The layout of the facility would be in 11 buildings with three unit types. The site plan identifies the unit types and the owner's common area. A minimum of 60 feet between buildings, will allow ample space for an owner to park in front of their unit without impeding other owners from passing. In addition, 13 parking stalls are included.

Both the 2006 and the 2009 Use Permits were used pursuant to Napa County Code (Section 18.124.080). The Planning Commission adopted a Mitigated Negative Declaration (MND) with the 2006 Use Permit and a Subsequent Mitigated Negative Declaration with the 2009 Use Permit modification and Tentative Map. The following discussion is a summary of relevant biological information, project conditions, and the applicability of the mitigation measures for the previously approved projects to the proposed request.

¹ The road and creek have different spellings: Soscol Ferry Road and Suscol Creek.

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Biological Resources

The 2006 winery approval included reducing the setback along Suscol Creek from 150 feet to 75 feet. In exchange for this encroachment, the applicant at that time voluntarily proposed to enhance the habitat within the proposed 75-foot creek setback by removing non-native vegetation (primarily Himalayan blackberry) and promoting growth and maintenance of native species. The MND biological resources section for the approved winery was based on three biological reports. The reports found no presence of Swainson's hawk (SWHA) (a species listed as threatened under the California Endangered Species Act) on the project site, but noted the presence of this species in the area. The reports also identified a drainage swale near Suscol Ferry Road as a wetland (verified as jurisdictional by the Corps of Engineers in 2007, but verification has since expired) and indicated that the Suscol Creek setback reduction as requested would not likely adversely affect the creek or the adjoining riparian habitat. The report recommended the removal of invasive, non-native Himalayan blackberry plants and replacement with native plant species. Subsequent to the approval of the Use Permit for the habitat enhancement work, the property owner entered into a Section 1602 Lake and Streambed Alteration Agreement with the California Department of Fish and Wildlife (CDFW) (then Fish and Game). A mitigation measure was included in the agreement requiring continued coordination with CDFW to ensure that aquatic populations are not adversely affected by creek restoration activities. The Use Permit was determined used based upon the creek enhancement and restoration work performed by the applicant. The 75-foot setback is included on the project plans.

All the biological mitigation measures that were applied to the approved 2006 winery still apply for the proposed 2015-project modification. Studies conducted by LSA biologists have confirmed that these mitigation measures are still applicable and that the proposed 75-foot setback with habitat restoration would be adequate to preserve the biological values of Suscol Creek. As with the 2006 modification, this setback is contingent on habitat restoration being conducted along Suscol Creek setback by removing Himalayan blackberry and planting native trees, shrubs, grasses and forbs. LSA has verified that the Himalayan blackberry removal has been successfully implemented. The restoration area will be planted, monitored and maintained until success criteria are attained. The restoration will also help stabilize the eroding stream banks of Suscol Creek.

Swainson's hawk nesting habitat, steelhead passage habitat and wildlife movement habitat along Suscol Creek will also be preserved and/or enhanced within the setback by the following proposed mitigation measures from the approved MND and suggested modifications for the proposed Use Permit Modification.

Mitigation Measure IV.a.1: To mitigate potential impacts due to the conversion of non-native grassland habitat, the following measure shall be implemented:

- A qualified biologist shall conduct a preconstruction survey to determine the presence or absence of Swainson's hawk nests on the project site. If nesting is determined, an adequate buffer zone around the active nest should be established in consultation with DFG. The buffer zone shall be maintained for the duration of the nesting season, typically February through August, and monitored weekly to assure compliance and success of this action.

Proposed Project Modification: An updated analysis for the proposed 130-unit storage facility was conducted by LSA biologists Richard Nichols and Eric Lichtwardt and included a site visit on July 15, 2015. Prior to conducting the survey, LSA searched the California Natural Diversity Database (CNDDB) for records of nesting SWHA within a one-mile buffer of the project site vicinity and

mapped them on an aerial photograph showing one-mile buffer (Figure 1). Figure 1 also provides information of a 2015 raptor nesting survey conducted by Eric Jepson of Garcia and Associates. A SWHA nest, active in 2015, is located in a large valley oak along the south bank of Suscol Creek and adjacent to the southwest property line (Figure 1); this nest contained two young birds on May 28, 2015 (Eric Jepson pers. com. July 2015). During the LSA field survey, three SWHA (the nesting pair and a juvenile) were observed flying over the site and perching on trees and power poles on the site. Previous biological reports for the 2006 winery noted that SWHA were known to nest in the area; documented nest locations and the years the nests were active are shown on Figure 1. The project applicant has agreed that no large trees suitable for raptor nesting habitat will be removed. Mitigation Measure IV.a.1 (above) concerning preconstruction surveys for nesting SWHA and consulting with CDFW if an active nest is found will be implemented. This mitigation measure will therefore still apply to the Modification.

Mitigation Measure IV.a.2: To mitigate impacts due to removal/disturbance of active raptor nests the following measure shall be implemented:

- Prior to grading and/or tree removal, a qualified biologist should conduct pre-construction surveys to determine the presence or absence of active raptor nests. If present, the habitat or trees should not be removed until the end of the breeding season, and an appropriate setback buffer from construction activities be defined, as determined in consultation with the

Proposed Project Modification: Mitigation Measure IV.a.1 (above) for avoidance of construction during the nesting season and a pre-construction survey will be extended to all birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code. This mitigation measure will therefore still apply to the Modification.

Mitigation Measure IV.a.3: To ensure that the presumed presence of steelhead trout in the creek is not adversely affected by restoration activities:

- Any restoration work within the channel must be performed in accordance with CDFW protocols and including consultation prior to commencing activities, best management practices to prevent unnecessary disturbance of creek areas, and timing of activities during appropriate low-flow seasonal periods.

Proposed Project Modification: CDFW will be consulted and best management practices implemented in accordance with this mitigation measure.

Mitigation Measure IV.b.1: To mitigate impacts within the jurisdictional drainage swale:

- Prior to commencing grading the permittee shall obtain a Nationwide 24 Permit for grading and revegetation activities that will occur within the unnamed drainage channel, pursuant to the requirements of Section 404 of the Clean Water Act and subject to authorization by the U.S. Army Corps of Engineers as stipulated in their February 2, 2006 letter.

Proposed Project Modification: The 2015 modification still qualifies for Nationwide Permit for fill of the proposed drainage swale.

Section VIII: Hydrology and Water Quality

Mitigation Measure VIII.c.1: To mitigate the potential erosion and sedimentation impacts associated with project construction, the following measures shall be implemented.

- As a condition of Use Permit approval, obtain a NPDES General Construction Activity Permit from the RWQCB. This permit is required of all construction projects totaling one acre or more. As part of the permit and post-construction agency monitoring process, the applicant shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with guidelines set forth by the RWQCB.

The SWPPP shall include design details and construction specifications for all site drainage controls and other water quality mitigations. In addition, the SWPPP shall contain the implementation schedule, methods, and locations of erosion control features, and be designed to prevent sediment loads greater than ten percent of background levels during construction.

The SWPPP shall specify the use of siltation basins during construction. In addition, bare areas created by the removal of vegetation shall be stabilized and seeded with an erosion control mix prior to October 15th of each construction year.

Typical site erosion control measures, also referred to as BMPs, are outlined in the California Storm Water Best Management Practice Handbooks for Construction Activity. In addition to practices discussed above, BMPs which could be implemented as a part of the SWPPP include:

- Seeding and protection of bared soils against raindrop impact and detachment by overland runoff through application of a sterile, broadcasted rice straw, or other approved mulch.
- Vegetated buffers and drainage swales to filter sediments and adsorbed contaminants from site runoff.
- Isolation and disposal of waste construction materials.

Mitigation Measure VII.c.2: To mitigate construction-related impacts to downslope riparian areas, the following measure shall be implemented:

- Temporary high visibility fencing shall be used 50 feet away from the outside edge of the riparian habitat for the duration of construction activities in order to prevent inadvertent impacts from encroachment into this community. Where project improvement plans require construction activities to occur within that 50-foot buffer, fencing shall be placed at the limits of the required construction activity. Placement of the fencing should be determined by a qualified biologist prior to construction and monitored at least once a month by County staff during the construction period to assure the success of this action. This measure will be applied to the proposed project modification.

Proposed Project Modification: Restoration of the Suscol Creek setback will improve water quality. Removal of the shallow-rooted non-native Himalayan blackberry and replacement with deep-rooted native shrubs and trees will more firmly anchor soils and stabilize the eroding Suscol Creek banks, reducing erosion and sedimentation. In addition, the following mitigation measure from the 2006 modification will be implemented.

Mitigation Measure VIII.c.2 To mitigate construction related impacts to downslope riparian areas, the following measure shall be implemented:

Temporary high visibility fencing shall be used 50 feet away from the outside edge of the riparian habitat for the duration of construction activities in order to prevent inadvertent impacts from encroachment into this community. Where project improvement plans require construction activities to occur within that 50-foot buffer, fencing shall be placed at the limits of the required construction activity. Placement of the fencing should be determined by a qualified biologist prior to construction and monitored at least once a month by County staff during the construction period to assure the success of this action. This measure will be applied to the proposed project modification.

If you have any questions please call Eric Lichtwardt or myself at 510/236-6810 or via e-mail at eric.lichtwardt@lsa-assoc.com or richard.nichols@lsa-assoc.com.

Sincerely,

LSA ASSOCIATES, INC.

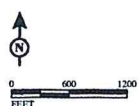
A handwritten signature in black ink, appearing to read "Richard Nichols".

Richard Nichols
Associate



LSA

FIGURE 1



LEGEND

- Project Site
- 1-mile Buffer of Project Site
- Swainson's Hawk Occurrence (CNDDB)
- 2015 Swainson's Hawk Observation (nest)

SOURCE: CDFW CNDDB (06/2015); USDA NAIP Imagery (06/2014).

F:\STT1501\GIS\Maps\Swainson's Hawk\Figure 1_Project Site Location and Swainson's Hawk Nesting Sites.mxd (8/26/2015)

Bedford Property
Napa County, California
Project Site Location and Swainson's Hawk Nesting Sites

DEPARTMENT OF FISH AND GAME

BAY DELTA REGION

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Mailing address:

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7329 SILVERADO TRAIL

NAPA CALIFORNIA 94558



October 3, 2007

Notification Number: 1600-2007-0323-3

Michael Fennell
Suscol Creek Winery
3520 Jomar Drive
Napa, California 94558

1602 LAKE AND STREAMBED ALTERATION AGREEMENT

This agreement is issued by the Department of Fish and Game pursuant to Division 2, Chapter 6 of the California Fish and Game Code:

WHEREAS, the applicant Michael Fennell, Suscol Creek Winery, hereafter called the Operator, submitted a signed NOTIFICATION proposing to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed or lake of the following waters: Suscol Creek, tributary to the Napa River, in the County of Napa, State of California; and

WHEREAS, the Department has determined that such operations may substantially adversely affect existing fish and wildlife resources including water quality, hydrology, aquatic or terrestrial plant or animal species; and

WHEREAS, the project has undergone the appropriate review under the California Environmental Quality Act; and

WHEREAS, the Operator shall undertake the project as proposed in the signed PROJECT DESCRIPTION and PROJECT CONDITIONS (attached). If the Operator changes the project from that described in the PROJECT DESCRIPTION and does not include the PROJECT CONDITIONS, this agreement is no longer valid; and

WHEREAS, the agreement shall expire on December 31, 2010; with the work to occur between June 1 and October 31 and

WHEREAS, nothing in this agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of the responsibility for compliance with applicable Federal, State, or local laws or ordinances. Placement, or removal, of any material below the level of ordinary high water may come under the jurisdiction of the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act;

THEREFORE, the Operator may proceed with the project as described in the PROJECT DESCRIPTION and PROJECT CONDITIONS. A copy of this agreement, with attached PROJECT DESCRIPTION and PROJECT CONDITIONS, shall be provided to contractors and subcontractors and shall be in their possession at the work site.

Failure to comply with all conditions of this agreement may result in legal action.

This agreement is approved by:

Charles Armor
Regional Manager
Bay Delta Region

cc: Lieutenant Richardson



PRUNUSKE CHATHAM, INC.

January 27, 2014

Erik Bedford
Storage Technologies, LLC.
2783 Napa Valley Corporate Drive
Napa, CA 94558

Subject: Due Diligence Biological Survey
1055 Soscol Ferry Road, Napa County

Dear Mr. Bedford:

You are currently under contract to purchase a 10.32-acre parcel at 1055 Soscol Ferry Road, Napa, Napa County (APN 057-170-018) and within a 60-day inspection period. As part of background research for the purchase of the property, you have retained Prunuske Chatham, Inc. (PCI) to complete a due diligence biological survey and prepare a memo describing biological resource constraints associated with future development of the property. This memo serves as a summary of our findings.

Field Survey Methodology

A field survey of the property was conducted by PCI's Senior Biologist on January 7, 2014. The purpose of the survey was to briefly evaluate the biological communities present on the property and provide guidance on potential constraints associated with future development. The field survey consisted of evaluating all representative habitats on the property. During the survey, an inventory of all plant and animal species observed was compiled. The survey was conducted with the aid of binoculars. Visual cues, calls, and songs were used to identify bird species. Unique habitat features (e.g., woody debris, water sources, etc.) and other plant materials were examined for presence of mammals, amphibians, reptiles, and invertebrates.

Representative photographs taken during the field survey are provided following this summary. Figure 1 is a location map with the property location noted. Figure 2 is a map of the reported occurrences of special-status species within the project area's region (CDFW 2014). Figure 3 is a map of potential aquatic resource constraints observed during the field survey.

Previous assessments of the property were completed by PCI when the property was under different ownership. These include formal wetland delineations and a biological resource evaluation (PCI 2006). These reports were reviewed and references herein as appropriate.

Setting and Existing Conditions

The property is located at 1055 Soscol Ferry Road on the west side of Highway 12/29 in Napa County. It is mapped on the Cuttings Wharf USGS 7.5' Quadrangle (38°14'19"N and 122°16'33"W, WGS84) at approximately 30 feet in elevation. The property is zoned industrial. It is adjacent to Suscol Creek and the creek serves as the southern property boundary. From the site, Suscol Creek flows west into the Napa River, thence San Pablo Bay. Portions of the site have been graded and there is an existing building pad at the northeast corner of the property. The remainder of the site has varying topography. The property borders Soscol Ferry Road to the north, a developed parcel to the east, undeveloped land to the west, and Suscol Creek and vineyards to the south. Land uses in the area are primarily commercial development, open space, airport, roads, and state highway.

Plant communities within property include nonnative grassland and ruderal habitat with patches of native coyote brush scrub and narrow riparian woodland associated with stream corridors and seasonal wetland. Nonnative grassland and ruderal habitat occupy the majority of the property. It is dominated by disturbance-adapted forbs and annual grasses such as wild oats (*Avena* sp.), wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), and miscellaneous annuals not identifiable at the time of the survey. Small patches of native coyote brush (*Baccharis pilularis*) are beginning to establish on the site.

Suscol Creeks meanders along the southern property boundary. There is an established setback along the length of Suscol Creek, as indicated on the ALTA/ACSM Land Title Survey (Riechers Spence Associates 2013). No development is allowed within this setback. Riparian vegetation is present along a narrow corridor adjacent to the creek. This habitat is dominated by valley oak (*Quercus lobata*), live oak (*Q. agrifolia*), California buckeye (*Aesculus californica*), California wild grape (*Vitis californica*), native California blackberry (*Rubus ursinus*), nonnative Himalaya blackberry (*R. discolor*) and introduced species of hybrid poplar and locust. Large areas of Himalaya blackberry have been removed and areas of bare ground are present (PCI 2006). The creek was completely dry at the time of the survey. Napa County is currently experiencing drought conditions and rainfall is well below average for the winter 2013-2014.

There is a large drainage/wetland complex that runs from the center of the northern property line to the western property line. These areas were delineated by PCI in 2006 and verified by the U.S. Army Corps of Engineers as a jurisdictional feature (Corps 2006 and 2007). The Corps determinations have since expired, they are only valid for 5 years; however, these features would still fall under the Corps jurisdiction and may also be regulated by California Department of Fish and Wildlife (CDFW), Regional Water Quality

Control Board, and Napa County. The drainage/wetland is largely dominated by grasses and herbaceous plant species. Due to the current drought conditions and timing of the survey, plant species within the drainage were not identifiable to species.

A wide variety of wildlife species were observed within the property during the half-day January survey. Birds were the most abundant and prominent wildlife species and ranged from small songbirds to large raptors. The site is used extensively by large and small mammals; an adult coyote was observed foraging within the open grasslands and scat, tracks, and small mammal trails are present throughout the site. Due to the current drought conditions in California, the creek was dry and only small isolated areas of water were present within the wetland limiting observations of wildlife usage in these areas.

Specific wildlife observations included: black phoebe, white-tailed kite¹, dark-eyed junco, California towhee, acorn woodpecker, yellow-rumped warbler, common bushtit, killdeer, house finch, Anna's hummingbird, American robin, northern flicker, red-shouldered hawk (pair), red-tailed hawk (pair), rock dove², northern mockingbird, turkey vulture, European starling², golden-crowned sparrow, white-crowned sparrow, western scrub-jay, ruby-crowned kinglet, Bewick's wren, coyote (foraging in fields), Botta's pocket gopher (mounds), black-tailed jackrabbit, and raccoon (scat).

Background Research

A background literature and database search was conducted to determine the potential occurrence of special-status species³ within the property. The potential occurrence of

¹ Special-status bird species

² Nonnative bird species

³ In California, special-status species include those plants and animals that are afforded legal protection under the federal and California Endangered Species Acts (ESA and CESA, respectively) and other regulations. Consideration of these species must be included during project evaluation in order to comply with the California Environmental Quality Act³ and in consultation with state and federal resource agencies. Special-status species of California include, but may not be limited to:

- Species listed or proposed for listing as threatened or endangered under the federal ESA;
- Species listed or proposed for listing as threatened or endangered under CESA;
- Species that are recognized as candidates for future listing by agencies with resource management responsibilities such as USFWS, NOAA's National Marine Fisheries Service (NOAA Fisheries), and CDFG;
- Species defined by CDFG as California Species of Special Concern;
- Species classified as Fully Protected by CDFG;
- Plant species, subspecies, and varieties defined as rare or threatened by the California Native Plant Protection Act (California Fish and Game Code §1900 et seq.);
- Plant species listed by the California Native Plant Society (CNPS) as List 1 and 2 and some List 3 plants under CEQA (CEQA Guidelines §15380); Napa County also considers List 4 plants (Felker 2011); and

special-status species was determined based on occurrences reported in the CDFW California Natural Diversity Database⁴ (CNDDDB), the primary source for special-status plant and animal sighting information in the state (CDFW 2014). Additional references consulted included U.S. Fish and Wildlife Service (USFWS 2014) and California Native Plant Society databases, local and regional studies, field guides, and vegetation classification systems. Special-status species with potential to occur on the property were identified based on a comparison of existing habitat conditions and presence of unique habitat features, proximity to reported occurrences, and geographic range of subject species. See attached CDFW CNDDDB and USFWS species lists for the Cuttings Wharf quadrangle.

Plants

According to the background literature review, there are a number of reported occurrences for special-status plants within the project area's region. A majority of these sightings occur in vernal pools to the north at Suscol Ridge and in downstream aquatic habitats. The species reported within these areas (e.g., alkali milk-vetch, saline clover, Contra Costa goldfields, legenere, Delta tule pea, Mason's lilaeopsis, Marin knotweed, soft bird's-beak, etc.) typically occur in valley and foothill grasslands, vernal pools, and freshwater, brackish, and/or coastal salt marshes. There is a single sighting of dwarf downingia within one mile of the site between Suscol and Sheehy Creeks along Highway 12/29. This species typically occurs in vernal pools.

A botanical inventory of the property was completed by Coast Range Biological LLC in April 2007 (Coast Range Biological LLC 2007). The purpose of the single day inventory was to determine if special-status plant species were present within the site. The botanist identified 50 plants species on the site; however, none of these plants were special-status species. Based on the 2007 survey and existing disturbed site conditions, special-status plants are unlikely to occur within the upland areas. However, the PCI 2014 field survey occurred during winter and during drought conditions which is not the optimal time for plant identification as many plants are not in flower or have died back for the winter. The optimal time for plant identification is early or mid-spring. Since

-
- Species that otherwise meet the definition of rare, threatened, or endangered pursuant to §15380 of the CEQA Guidelines.

⁴ The California Natural Diversity Data Base (CNDDDB) is a repository of information on sightings and collections of rare, threatened, or endangered plant and animal species within California. It is maintained by the California Department of Fish and Wildlife (CDFW). CNDDDB reports occurrences of special-status species that have been entered into the database and does not generally include inventories of more common animals or plants. The absence of a species from the database does not necessarily mean that they do not occur in the area, only that no sightings have been reported. In addition, sightings are subject to observer judgment and may not be entirely reliable as a result.

plant communities can change over time and it has been nearly 7 years since the last botanical survey, if work is proposed within the seasonal drainage/wetland or riparian habitats, further surveys of these areas should occur. Surveys should follow protocols established by CDFW (CDFW 2009) and Napa County (2007).

Animals

According to the background literature review, there are a number of reported occurrences of special-status animals within the surrounding areas. Based on the literature review, a number of species have potential for occurrence within the property, especially Suscol Creek, based on the proximity of the site to reported sightings and existing resources. Three species are reported within 1 mile of the property. These include tricolored blackbird, ferruginous hawk, and Swainson's hawk. Additional species are reported within 3 miles of the property. Representative species include burrowing owl, Pacific pond turtle, California red-legged frog, vernal pool fairy shrimp, and American badger. Additional salt marsh associated species (i.e., California black rail, salt-marsh harvest mouse, California clapper rail, salt marsh common yellowthroat) are reported downstream of the property or in nearby saltmarshes; however, the site does not support habitat for these species.

Tricolored blackbirds can occur year-round in Napa County. There are several historic colonial breeding occurrences for this species in the vicinity of the Napa County Airport (Berner et al. 2003 and CDFW 2014). Tricolored blackbirds could forage on the property year-round. Marginally suitable breeding habitat is present along Suscol Creek. Precautionary measures should be in place to protect this species year-round (see discussion below).

Burrowing owls are known to winter in Napa County. There are no recent confirmed breeding sightings for this species (Berner et al. 2003). A single occurrence for this species has been reported to the CNDDB within approximately 1 mile (CDFW 2014). The observation was of a wintering adult. The habitat description for this sighting is very similar to the current conditions present on the subject property. Burrowing owls could utilize the property during the winter. Precautionary measures should be in place to protect this species year-round.

Ferruginous hawks are known to occur in winter and during migration in Napa County. Ferruginous hawks are reported as wintering immediately adjacent to the property (CDFW 2014). Ferruginous hawks could use the property as wintering habitat. Precautionary measures should be in place to protect this species year-round.

Swainson's hawks can occur year-round in Napa County. According to the CNDDB, breeding Swainson's hawks have been reported along Suscol Creek immediately

adjacent and possibly within the site (CDFW 2014). Suitable breeding and foraging habitat for Swainson's hawk is present within the property. Precautionary measures should be in place to protect this species year-round.

Pacific pond turtles are a year-round resident in Napa County utilizing both aquatic and upland (nesting) habitats. According to the CNDDDB, pond turtles are reported in aquatic habitats south of the property (CDFW 2014). Suscol Creek may provide seasonal habitat for this species. Turtles could also utilize upland areas for nesting. Precautionary measures should be in place to protect this species year-round.

California red-legged frogs are a year-round resident in Napa County utilizing both aquatic habitat and upland (aestivation and overland migration) habitats. According to the CNDDDB, frogs are reported in aquatic habitats south of the property (CDFW 2014). Suscol Creek may provide seasonal foraging and aestivation habitat for this species, if suitable breeding occurs elsewhere on Suscol Creek and/or if suitable breeding ponds are present nearby (e.g., Google Earth shows a pond further upstream on Suscol Creek and a potential wetland complex to the north, these areas would need to be further evaluated to determine if they would support breeding habitat). Precautionary measures should be in place to protect this species year-round.

Vernal pool fairy shrimp occur in vernal pools in Napa County. According to the CNDDDB, there is a reported occurrence of this species in a vernal pool adjacent to the airport (CDFW 2014). Suitable habitat for this species is not present on the property.

American badgers are a year-round resident in Napa County utilizing open habitats with friable soils. According to the CNDDDB, badgers are reported approximately 1.5 miles northwest of the property (CDFW 2014). Suitable habitat is present, but evidence of badgers was not observed during the field survey. Precautionary measures should be in place to protect this species year-round.

Habitat protections measures for these above-mentioned species and additional special-status and common wildlife species potentially occurring on the property should be developed and implemented prior to site development.

Special-status Communities

CNDDDB records indicate the occurrence of three special-status plant communities: coastal brackish marsh, northern coastal salt marsh, and northern vernal pool within the project area's region (CDFW 2014). No special-status communities are mapped on the site. However, sensitive riparian habitat/stream channel and jurisdictional wetlands are present.

Protected Bird Species

Under the Migratory Bird Treaty Act (MBTA), it is unlawful to take, kill, and/or possess migratory birds at any time or in any manner, unless the appropriate permits are obtained. Protections extend to active nests, eggs, and young birds still in the nest. Most bird species, with a few specific exceptions, are protected under this act. Construction activities (in work areas with suitable breeding habitat) during the breeding period, typically mid-March to mid-August in this region (RHJV 2004), could result in losses to these and other native wildlife species. All breeding birds should be protected during construction and on-going use of the property.

Conclusions

The following items should be considered during negotiations and purchase of the property:

- This due diligence survey and memo represents PCI's best professional effort to identify biological resource issues associated with the property. Our work is constrained by the limited field survey and available resources.
- Biological constraints associated with development of property will ultimately be determined by the resource agencies with jurisdiction over the property and California Environmental Quality Act (CEQA) compliance. Further investigation, including consultation with Napa County planning staff, is recommended to identify potential legal and regulatory issues relevant to potential development of the site.
- The property supports native riparian/stream channel and jurisdictional wetland communities that may provide habitat and support populations of listed species (see below).
- Minimum setback requirement occur along Suscol Creek. Napa County planning department should be consulted to verify the setback distance.
- All impacts to seasonal drainage/wetland habitats should be avoided, as feasible, or mitigation will be required according to state and federal regulations (Napa County 2009). These areas were verified as jurisdictional features in 2006/2007, but these verifications have since expired. Any work within these areas may require formal delineation according to current U.S. Army Corps of Engineers protocols. This would include a formal evaluation of wetland soils, hydrology, and vegetation. Depending on the proposed site development and guidance from Napa County planning staff, additional resource agency consultation may be required (i.e., consultation with the Corps, CDFW, and/or Regional Water Quality Control Board). Napa County planning department should be consulted to verify the wetland setback requirements.
- If work is proposed within the seasonal wetland or riparian habitats, further special-status plant surveys of these areas should occur. Surveys should follow

- protocols established by California Department of Fish and Wildlife (CDFW 2009) and Napa County (2007).
- The property supports habitat for a variety of common wildlife species (e.g., reptiles, amphibians, mammals, birds), special-status species (e.g., Swainson's hawk, ferruginous hawk, white-tailed kite), and potential seasonal habitat for additional wildlife (i.e., California red-legged frog, Pacific pond turtle). The property also supports breeding habitat for additional birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Protection measures should be developed and in place to avoid impacts on these species. These measures should include, but may not be limited to, preconstruction surveys and construction crew trainings, temporary exclusionary fencing, retention of a qualified biologist to oversee site grading and initial disturbance, preconstruction breeding bird surveys, and terrestrial species relocations for common wildlife.
 - Development of the property may require completion of more detailed background studies, consultation, and/or mitigation as determined by the resource agencies.

If you have any questions or concerns, please feel free to call me directly at (707) 824-4601, ext. 108. Thank you for the opportunity to assist with your project.

Sincerely,
PRUNUSKE CHATHAM, INC.

Submitted electronically

Jennifer Michaud
Senior Biologist

Attachments:

Figure 1 – 3

CDFW CNDDDB and USFWS Species Lists for the Cuttings Wharf Quadrangle

References

Berner, M., B. Grummer, R. Leong, and M. Rippey. 2003. Breeding Birds of Napa County, California. Napa-Solano Audubon Society, Vallejo, CA.

California Department of Fish and Wildlife (CDFW). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Sacramento, CA.

California Department of Fish and Wildlife (CDFW). 2014. California Natural Diversity Database, RareFind Version 5.0. California Department of Fish and Game. Sacramento, CA.

Coast Range Biological LLC. 2007. Special-status Plant Survey, Ceccotti Project Area (APN 057-170-017), Napa, CA. Letter dated April 27, 2007.

Napa County. 2007. Guidelines for Preparing Biological Reconnaissance Surveys and Guidelines for Preparing Special-Status Plant Studies. Napa, CA.

Napa County. 2009. Napa County General Plan, June 2008. Prepared by Napa County Department of Conservation, Development & Planning.

Prunuske Chatham, Inc. (PCI). 2006. Biological Resources Evaluation, Soscol Ferry Road Development Project, March 2006.

Riechers Spence Associates. 2013. ALTA/ACSM Land Title Survey of the Lands of Acorn 6A Soscol Ferry Road Real Estate, LLC.

Riparian Habitat Joint Venture (RHJV). 2004. Version 2.0. The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California.

U.S. Army Corps of Engineers (Corps). 2006. Letter to Harold Appleton, Prunuske Chatham, Inc. regarding verification of wetland delineation on Parcel 2, Soscol Ferry Road (APN 057-170-018) dated February 2, 2006.

U.S. Army Corps of Engineers (Corps). 2007. Letter to Harold Appleton, Prunuske Chatham, Inc. regarding verification of wetland delineation on Parcel 1, Soscol Ferry Road (APN 057-170-017) dated April 25, 2007.

U.S. Fish and Wildlife Service (USFWS). 2014. On-line endangered species lists. Accessed at: <http://www.fws.gov/sacramento/>

Property Photographs

All photos taken on January 7, 2014 by PCI.



Above: Looking southeast from the northwest corner of the property.

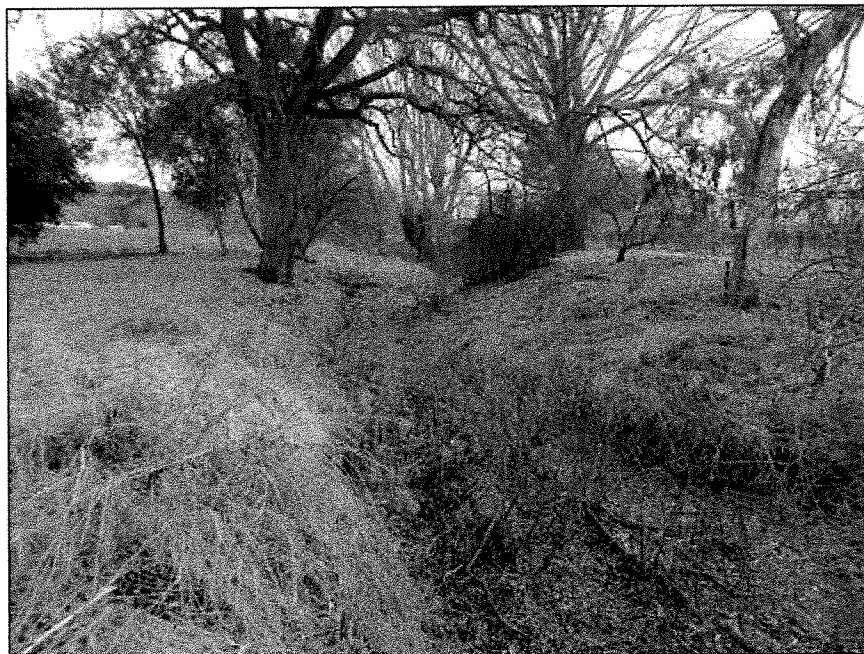
Below: Looking east at drainage from western property line.





Above: Looking northeast from southwest corner of the property.
Below: Coyote observed in open grassland area on property.





Above: Looking upstream at Suscol Creek from the downstream limits of the property.
Below: Looking upstream at Suscol Creek along middle reach of creek on the property.





Above: Looking upstream at Suscol Creek from middle reach of creek on the property;
recent vegetation removal apparent on left side of photo.

Below: Looking upstream at Suscol Creek along upper reach of creek on the property.





Above: Looking northwest from the southeast corner of the property.
Below: Looking north along the eastern property line at existing dirt road.





Above: Looking west at graded building pad and clusters of coyote brush.
Below: Looking southwest from the northeast corner of property.





Above: Looking west at mammal trails and drainage/wetland.

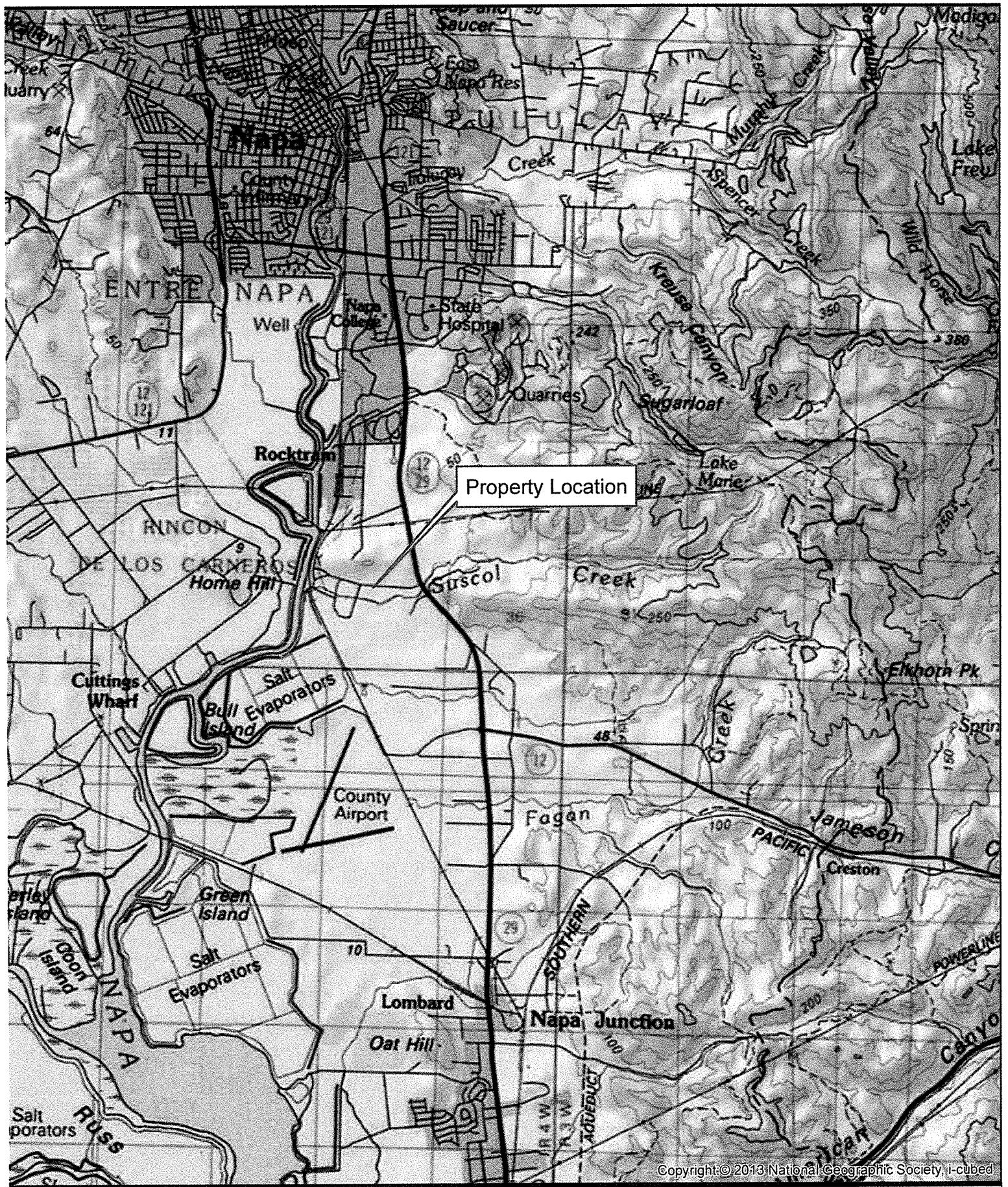
Below: Culvert under Soscol Ferry Road and drainage at northern property line.





Above and below: Looking west at drainage/wetland.





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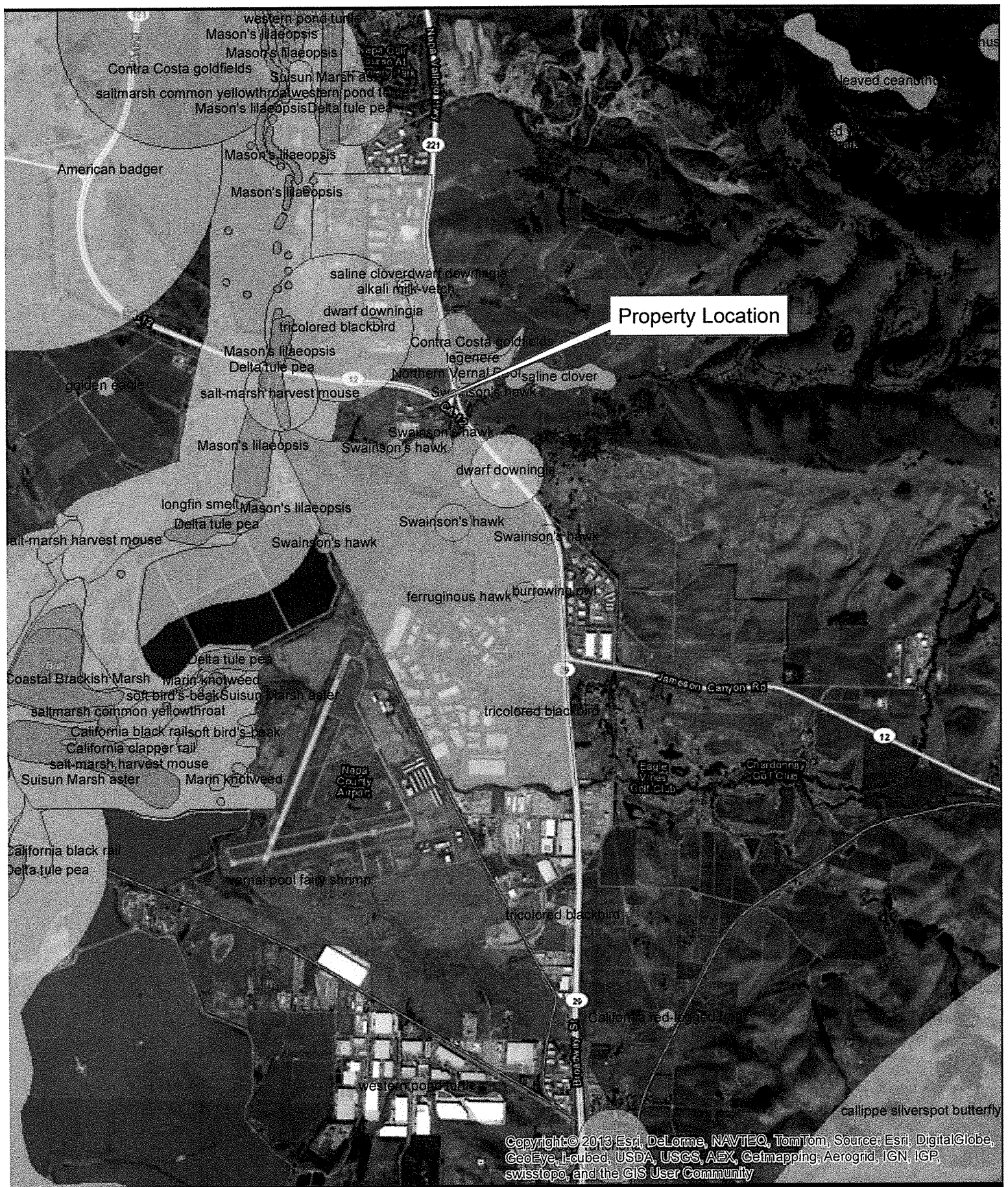
PRUNUSKE CHATHAM, INC.

Date Created: January 23, 2014
Created By: Jennifer Michaud

Scale: 0 0.25 0.5 1 Miles

Figure 1. Property Location Map
1055 Soscol Ferry Road, Napa
Due Diligence Biological Memo





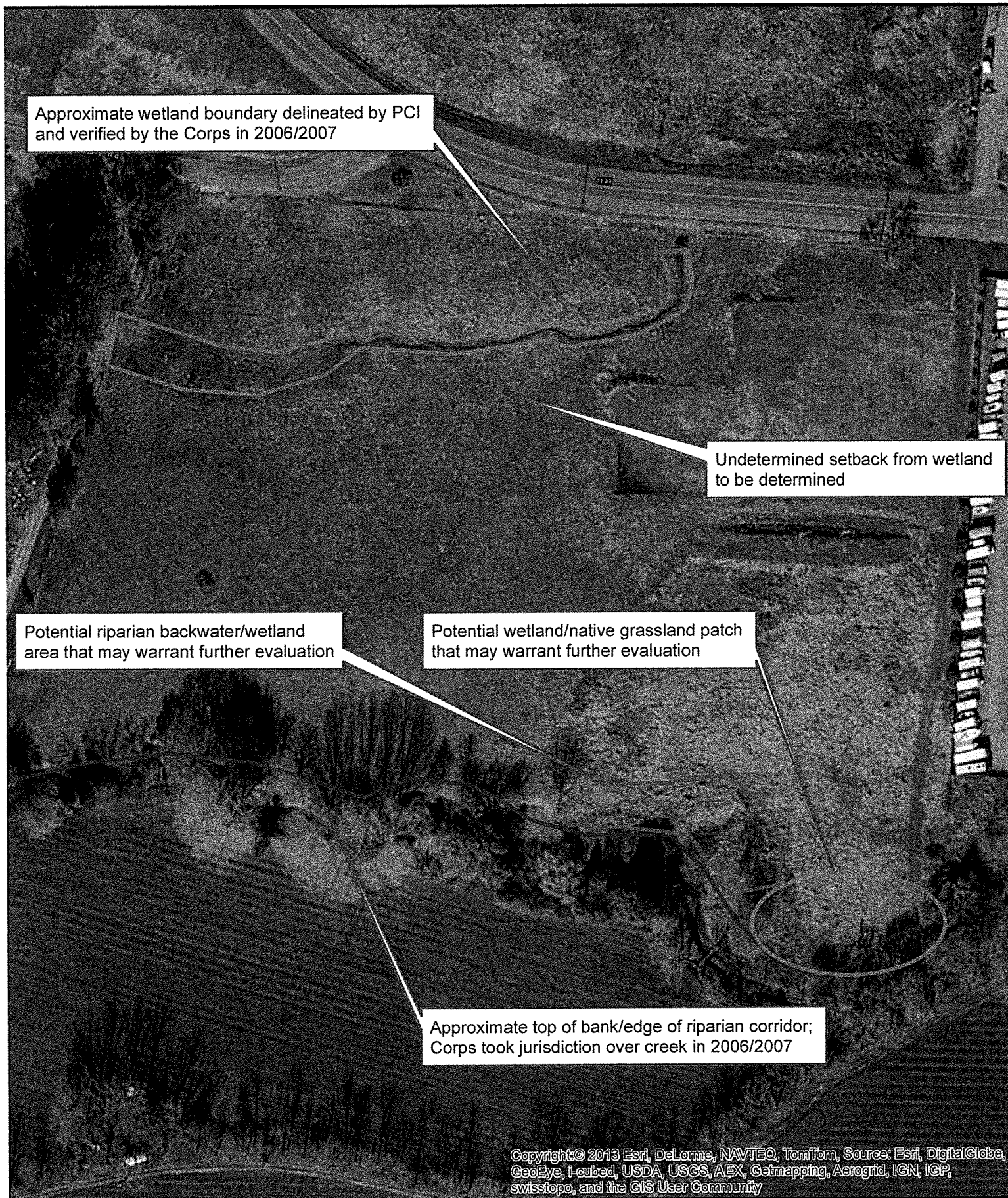
PRUNUSKE CHATHAM, INC.

Date Created: January 23, 2014
Created By: Jennifer Michaud

Figure 2. Reported Special-status Species Observations
1055 Soscol Ferry Road, Napa
Due Diligence Biological Memo

Scale: 0 0.25 0.5 1 Miles





PRUNUSKE CHATHAM, INC.

Date Created: January 8, 2014
Created By: Jennifer Michaud

**Figure 1. Potential Aquatic Resource Constraints
1055 Soscol Ferry Road, Napa
Due Diligence Biological Memo**

Scale: 0 0.025 0.05 0.1 Miles





Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad is (Cuttings Wharf (3812223))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i> | PDFAB0F8R1 | None | None | G2T2 | S2 | 1B.2 |
| American badger <i>Taxidea taxus</i> | AMAJF04010 | None | None | G5 | S4 | SSC |
| bank swallow <i>Riparia riparia</i> | ABPAU08010 | None | Threatened | G5 | S2S3 | |
| burrowing owl <i>Athene cunicularia</i> | ABNSB10010 | None | None | G4 | S2 | SSC |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ABNME03041 | None | Threatened | G4T1 | S1 | FP |
| California clapper rail <i>Rallus longirostris obsoletus</i> | ABNME05016 | Endangered | Endangered | G5T1 | S1 | FP |
| California freshwater shrimp <i>Syncaris pacifica</i> | ICMAL27010 | Endangered | Endangered | G1 | S1 | |
| callippe silverspot butterfly <i>Speyeria callippe callippe</i> | IILEPJ6091 | Endangered | None | G5T1 | S1 | |
| Caspian tern <i>Hydroprogne caspia</i> | ABNNM08020 | None | None | G5 | S4 | |
| Coastal Brackish Marsh <i>Coastal Brackish Marsh</i> | CTT52200CA | None | None | G2 | S2.1 | |
| Contra Costa goldfields <i>Lasthenia conjugens</i> | PDAST5L040 | Endangered | None | G1 | S1 | 1B.1 |
| Delta smelt <i>Hypomesus transpacificus</i> | AFCHB01040 | Threatened | Endangered | G1 | S1 | |
| Delta tule pea <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> | PDFAB250D2 | None | None | G5T2 | S2.2 | 1B.2 |
| dwarf downingia <i>Downingia pusilla</i> | PDCAM060C0 | None | None | GU | S2 | 2B.2 |
| ferruginous hawk <i>Buteo regalis</i> | ABNKC19120 | None | None | G4 | S3S4 | WL |
| golden eagle <i>Aquila chrysaetos</i> | ABNKC22010 | None | None | G5 | S3 | FP |
| legenere <i>Legenere limosa</i> | PDCAM0C010 | None | None | G2 | S2.2 | 1B.1 |
| longfin smelt <i>Spirinchus thaleichthys</i> | AFCHB03010 | Candidate | Threatened | G5 | S1 | SSC |
| Marin knotweed <i>Polygonum marinense</i> | PDPGN0L1C0 | None | None | G2Q | S2 | 3.1 |
| Mason's lilaeopsis <i>Lilaeopsis masonii</i> | PDAPI19030 | None | Rare | G2 | S2 | 1B.1 |



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|--------------|----------------|--------------|-------------|------------|--------------------------------|
| Northern Coastal Salt Marsh <i>Northern Coastal Salt Marsh</i> | CTT52110CA | None | None | G3 | S3.2 | |
| northern harrier <i>Circus cyaneus</i> | ABNKC11010 | None | None | G5 | S3 | SSC |
| Northern Vernal Pool <i>Northern Vernal Pool</i> | CTT44100CA | None | None | G2 | S2.1 | |
| pallid bat <i>Antrozous pallidus</i> | AMACC10010 | None | None | G5 | S3 | SSC |
| Sacramento splittail <i>Pogonichthys macrolepidotus</i> | AFCJB34020 | None | None | G2 | S2 | SSC |
| saline clover <i>Trifolium hydrophilum</i> | PDFAB400R5 | None | None | G2 | S2 | 1B.2 |
| saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i> | ABPBX1201A | None | None | G5T2 | S2 | SSC |
| salt-marsh harvest mouse <i>Reithrodontomys raviventris</i> | AMAFF02040 | Endangered | Endangered | G1G2 | S1S2 | FP |
| San Joaquin spearscale <i>Atriplex joaquinana</i> | PDCHE041F3 | None | None | G2 | S2 | 1B.2 |
| San Pablo song sparrow <i>Melospiza melodia samuelis</i> | ABPBXA301W | None | None | G5T2? | S2? | SSC |
| showy rancheria clover <i>Trifolium amoenum</i> | PDFAB40040 | Endangered | None | G1 | S1 | 1B.1 |
| soft salty bird's-beak <i>Chloropyron molle ssp. molle</i> | PDSCR0J0D2 | Endangered | Rare | G2T1 | S1 | 1B.2 |
| steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i> | AFCHA0209G | Threatened | None | G5T2Q | S2 | |
| Suisun Marsh aster <i>Symphyotrichum lentum</i> | PDASTE8470 | None | None | G2 | S2 | 1B.2 |
| Suisun shrew <i>Sorex ornatus sinuosus</i> | AMABA01103 | None | None | G5T1 | S1 | SSC |
| Swainson's hawk <i>Buteo swainsoni</i> | ABNKC19070 | None | Threatened | G5 | S2 | |
| tricolored blackbird <i>Agelaius tricolor</i> | ABPBXB0020 | None | None | G2G3 | S2 | SSC |
| vernal pool fairy shrimp <i>Branchinecta lynchi</i> | ICBRA03030 | Threatened | None | G3 | S2S3 | |
| western pond turtle <i>Emys marmorata</i> | ARAAD02030 | None | None | G3G4 | S3 | SSC |
| western snowy plover <i>Charadrius alexandrinus nivosus</i> | ABNNB03031 | Threatened | None | G3T3 | S2 | SSC |

Record Count: 40

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the
CUTTINGS WHARF (483A)
U.S.G.S. 7 1/2 Minute Quad

Database last updated: September 18, 2011

Report Date: January 27, 2014

Listed Species

Invertebrates

Branchinecta conservatio

Conservancy fairy shrimp (E)

Branchinecta lynchi

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Speyeria callippe callippe

callippe silverspot butterfly (E)

Syncaris pacifica

California freshwater shrimp (E)

Fish

Acipenser medirostris

green sturgeon (T) (NMFS)

Eucyclogobius newberryi

tidewater goby (E)

Hypomesus transpacificus

delta smelt (T)

Oncorhynchus kisutch

coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss

Central California Coastal steelhead (T) (NMFS)

Central Valley steelhead (T) (NMFS)

Critical habitat, Central California coastal steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)

Critical habitat, winter-run chinook salmon (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii

California red-legged frog (T)

Birds

Charadrius alexandrinus nivosus

western snowy plover (T)

Pelecanus occidentalis californicus

California brown pelican (E)

Rallus longirostris obsoletus

California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Strix occidentalis caurina

northern spotted owl (T)

Mammals

Reithrodontomys raviventris

salt marsh harvest mouse (E)

Plants

Cordylanthus mollis ssp. *mollis*

soft bird's-beak (E)

Lasthenia conjugens

Contra Costa goldfields (E)

Critical habitat, Contra Costa goldfields (X)

Trifolium amoenum

showy Indian clover (E)

Proposed Species

Plants

Cordylanthus mollis ssp. *mollis*

Critical habitat, soft bird's-beak (PX)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species