
Appendix B:

Biological Resources Supporting Information

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Russell at Truxel Residential Project

CEQA Guidelines Section 15183 Consistency Checklist

B.1 - Arborist Certification Letter

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California Tree and Landscape Consulting, Inc.

August 16, 2022 Revised August 17, 2022

Anton Fong Ranch Owners, LLC
Attn: Matt Kozina
1610 R Street, Suite 250
Sacramento, CA 95811
Phone: (650) 249-6629 office, (209) 337-8632 mobile
Email: MKozina@antondev.com

PROPERTY CERTIFICATION LETTER – NO PROTECTED TREES

RE: 3625 Fong Ranch Road, City of Sacramento, CA jurisdiction

Matt Kozina of Anton Fong Ranch Owners LLC, on behalf of the property owner, contacted Edwin Stirtz of California Tree and Landscape Consulting, Inc. to review the trees located on the property. The purpose of the inspection is to provide preliminary information regarding the trees on the site. The property is located at 3625 Fong Ranch Road, in the City of Sacramento, CA. See Appendix 1 – Tree Location Map.

R. Cory Kinley, ISA Certified Arborist #WE-9717A, visited the property on August 11th, 2022, and evaluated all the trees.

No native oak trees were found on the property. Several other species of trees including Chinese Tallow, Tree of Heaven, Pecan, Chinese Pistache, and Hackberry were found on the property but none met the size requirement of 24" DSH for protection according to the City of Sacramento tree preservation code, Chapter 12.56 Tree Planting, Maintenance, and Conservation. Accordingly, NO trees on this property are considered protected and no trees on this property require a permit for removal. See Appendix 2 – Site Photographs.

Two (2) offsite trees, a Callery Pear and a Black Willow, are located approximately 10' off site on the school property. These trees will need to be shown on the development plans and protected during any development project. See Appendix 1 – Tree Location Map.

Report Prepared by:

Nicole Harrison
ISA Certified Arborist #WC-6500AM, TRAQ
American Society of Consulting Arborists,
Registered Consulting Arborist #719

Attachments

- Appendix 1 – Tree Location Map
- Appendix 2 – Tree Data
- Appendix 3 – Site Photographs from August 11, 2022
- Appendix 4 – Supplemental Information

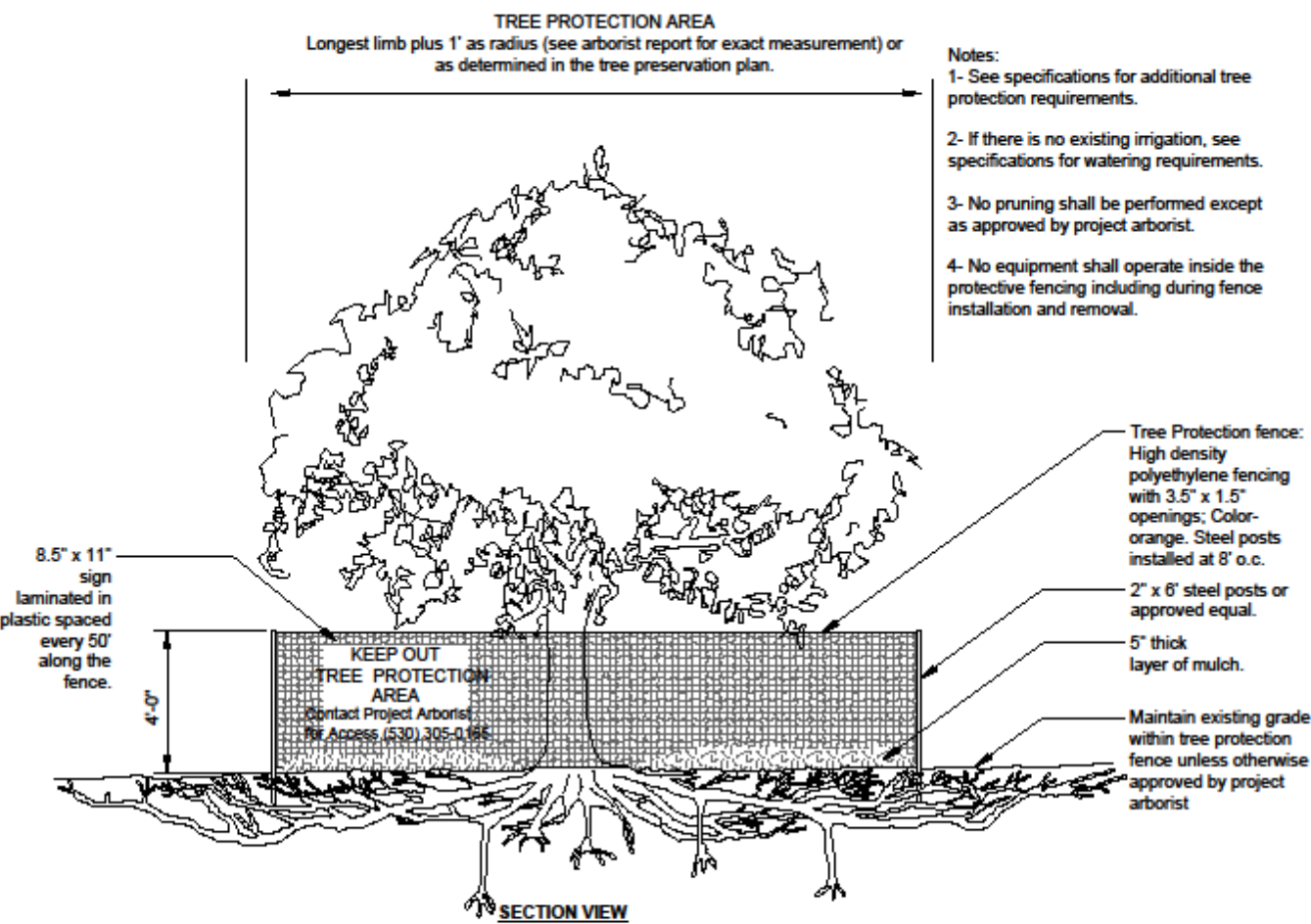


California Tree &
Landscape Consulting, Inc.

359 Nevada Street, Suite 201
Auburn, CA 95603

Tree Protection General Requirements

1. The project arborist for this project is California Tree & Landscape Consulting. The primary contact information is Edwin E. Stirtz (916) 801-8059. The project arborist may continue to provide expertise and make additional recommendations during the construction process if and when additional impacts occur or tree response is poor. Monitoring and construction oversight by the project arborist is recommended for all projects and required when a final letter of assessment is required by the jurisdiction.
2. The project arborist should inspect the exclusionary root protection fencing installed by the contractor prior to any grading and/or grubbing for compliance with the recommended protection zones. Additionally, the project arborist shall inspect the fencing at the onset of each phase of construction. The protection zone for trees is specified as the 'canopy radius' in Appendix 2 unless otherwise specified in the preservation requirements. The location of the tree protection fencing shall be depicted on the plans pursuant to the arborist recommendations. Note 'dripline' is not an acceptable location for installation of tree protection fencing.
3. The project arborist should directly supervise any clearance pruning, irrigation, fertilization, placement of mulch and/or chemical treatments. If clearance pruning is required, the Project Arborist should approve the extent of foliage elevation and oversee the pruning to be performed by a contractor who is an ISA Certified Arborist. Clearance pruning should include removal of all the lower foliage that may interfere with equipment PRIOR to having grading or other equipment on site.
4. No trunk within the root protection zone of any trees shall be removed using a backhoe or other piece of grading equipment.
5. Clearly designate an area on the site outside the drip line of all trees where construction materials may be stored, and parking can take place. No materials or parking shall take place within the root zones of protected trees.
6. Any and all work to be performed inside the protected root zone fencing, including all grading and utility trenching, shall be approved and/or supervised by the project arborist.
7. Trenching, if required, inside the protected root zone shall be approved and/or supervised by the project arborist and may be required to be by a hydraulic or air spade, placing pipes underneath the roots, or boring deeper trenches underneath the roots.



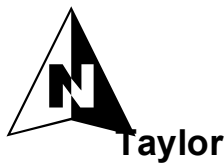
SX TREE PROTECTION

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

TREE INVENTORY MAP

>Tree locations are approximate and were collected using apple iOS products.
>Property line information was downloaded from Placer County on 05/15/2020.

Property Line	Arborist Rating
Measured Tree Canopy	0 Dead
	1 Extreme Structure or Health Problems
	2 Major Structure or Health Problems
	3 Fair - Minor Problems
	4 Good - No Apparent Problems
	5 Excellent



Sheet No.
TPP 1.0

FONG RANCH ROAD

Anton Fong Ranch Owners LLC

ADDRESS

Date: 8/17/2022

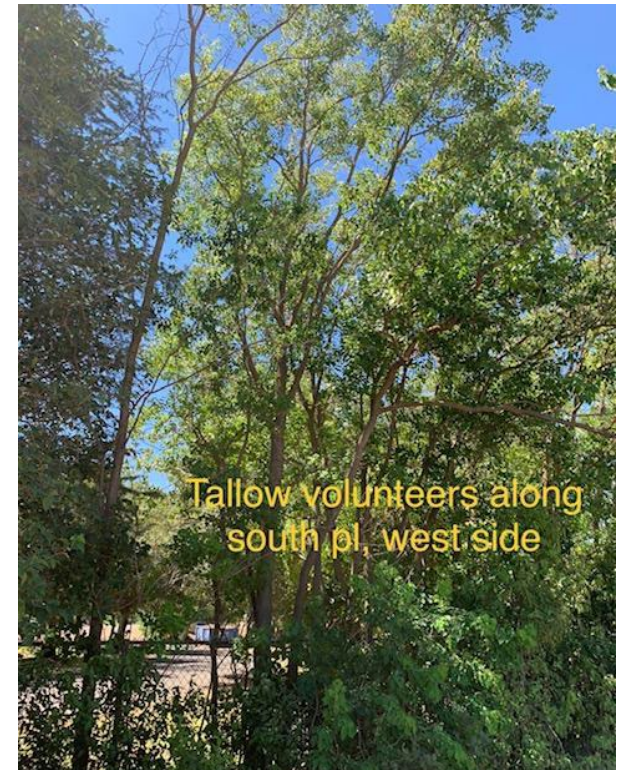
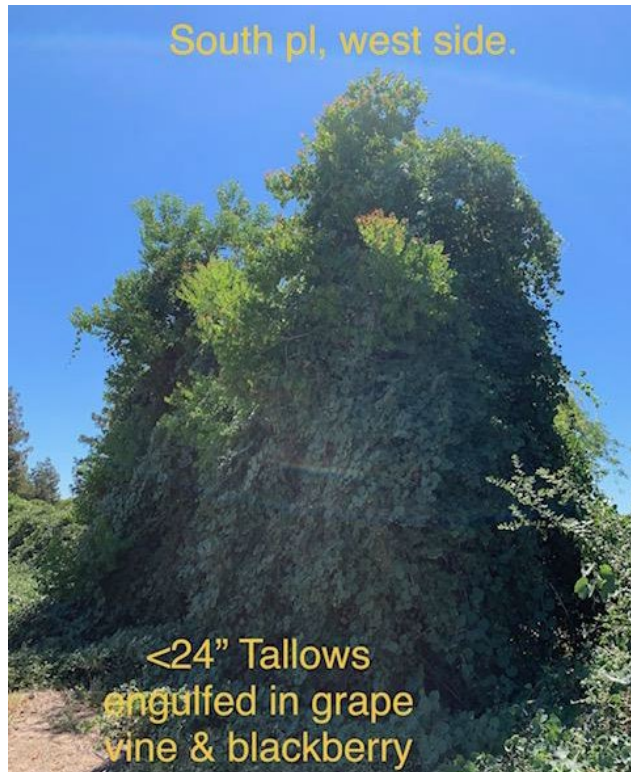
APPENDIX 2 – TREE DATA

Field Tag #	Offsite	Species Common Name	Species Botanical Name	Multi-Stem	DSH	Measured at	Canopy Radius	Arborist Rating	Notes
3402		Tree of Heaven	<i>Ailanthus altissima</i>	5,5,5,4,4,2,2	16	54	10	2 Major Structure or Health Problems	Volunteer. Multi-stem at ground, weak attachments. Buried flare.
3403		Ailanthus	<i>Ailanthus altissima</i>	4,3,3,2,2	9	54	10	2 Major Structure or Health Problems	Volunteer. Multi-stem at ground, weak attachments. Buried flare.
3404	Yes	Callery Pear	<i>Pyrus calleryana</i>		12	54	12	2 Major Structure or Health Problems	Off site. On School property. Trunk is 6 feet south of site, canopy overhangs 4 feet north. Tree is declining. Severe dieback. Bark decay.
3405	Yes	Black Willow	<i>Salix sp.</i>	17,14,14	31	36	20	3 Fair - Minor Problems	Off site. No tag, measurements approximate. On School property. Trunk is 8 feet south of site, canopy overhangs 10 feet north.
3406		Black Willow	<i>Salix sp.</i>	10,10,8	19	54	10	2 Major Structure or Health Problems	Multi stem at base. Declining, top is dead.
3407		Chinese Tallow	<i>Sapium sebiferum</i>	10,8,5,5	19	54	12	2 Major Structure or Health Problems	Growing out of bottom of chain link fence. Multi stem at base, weak attachments. Trunk cavities.
3408		Ailanthus	<i>Ailanthus altissima</i>	6,4,3,3,2,2,2,2	15	54	12	2 Major Structure or Health Problems	Multi stem at base, weak attachments. Buried flare.
3409		Black Willow	<i>Salix sp.</i>	±10, ±8	14	12	12	2 Major Structure or Health Problems	Growing out of bottom of chain link fence. Multi stem at base. Severe lean, poor structure. Previously topped at 6 feet, possibly by CalTrans.

APPENDIX 3 – SITE PHOTOGRAPHS

Photographs by R. Cory Kinley, August 11, 2022





APPENDIX 4 – SUPPLEMENTAL INFORMATION

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture’s best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Measurements: DBH (diameter breast high) is normally measured at 4’6” (above the average ground height for “Urban Forestry”), but if that varies then the location where it is measured is noted. A steel diameter tape was used to measure the trees. Canopy radius measurements were estimated.

Arborist Rating Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection.

<u>Arborist Ratings</u>		
No problem(s)	Excellent	5
No apparent problem(s)	Good	4
Minor problem(s)	Fair	3
Major problem(s)	Fair to Poor	2
Extreme problem(s)	Poor	1
Dead	Dead	0

Rating #0: This indicates a tree that has no significant sign of life.

Rating #1: The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

Rating #3: The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

Rating #4: The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

Rating #5: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Russell at Truxel Residential Project

CEQA Guidelines Section 15183 Consistency Checklist

B.2 - Biological Resources Assessment Report

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Wetland & Biological Resources Assessment

3625 Fong Ranch Rd (APN 225-0170-064)
in
Sacramento, CA
95833

Prepared For:

Anton Development Co.

By



July 25, 2022

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1.0 INTRODUCTION

Barnett Environmental and Cox Planning were asked to prepare a *Wetland & Biological Resources Assessment* (W/BRA) of a 17.4-acre Development Area that comprises the developable portion of a larger, 22.78 parcel at 3625 Fong Ranch Rd (APN 225-0170-064) in the City of Sacramento, CA 95833. This Development Area is located in Section 13, Township 9 North, and Range 4 East of the Rio Linda 7.5-minute USGS quadrangle map (Figure 1). It lies in the Upper Coon Creek – Upper Auburn Ravine watershed (Hydrologic Unit Code 18020161) at approximately 10-15 feet above mean sea level (msl) in elevation and centered at approximately 38°38'1.18" North latitude and 121°29'48.71" West longitude. It is also located within the boundary of the Natomas Basin Conservancy (Figure 2).

The parcel is located at the southeast intersection of Interstate 80 and Truxel Road. To the south are the baseball and football fields of Natomas High School, and to the east are existing residential subdivisions.

Beyond a delineation of wetlands and “other waters of the U.S.” and “waters of the State” within the Development Area according to U.S. Army Corps of Engineers (1987) and California Regional Water Quality Control Board (2020) protocol, this report also:

- Identifies and describes extant vegetation communities;
- Records all plant and animal species observed during the field survey(s);
- Evaluates and identifies sensitive habitats and special status plant and animal species that may occur in the Development Area and could be affected by project activities; and
- Provides conclusions and recommendations for mitigating potential adverse impacts to identified resources.

2.0 REGULATORY SETTING

The following federal laws, regulations and/or policies provide the legal framework guiding the protection of biological resources. We have included those laws most relevant to biological and wetland resources in and around the Development Area.

2.1 FEDERAL LAWS & REGULATIONS

Federal Endangered Species Act (FESA)

The FESA, enacted in 1973, prohibits the taking, possession, sale, or transport of endangered species. Under the FESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered. Both the National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service (USFWS) administer FESA. NMFS is accountable for animals that are threatened or endangered (16 United States Code [USC] 1533[c]) and spend most of their lives in marine waters, including marine fish, most marine mammals, and anadromous fish such as Pacific salmon. The USFWS is accountable for all other federally listed plants and animals.

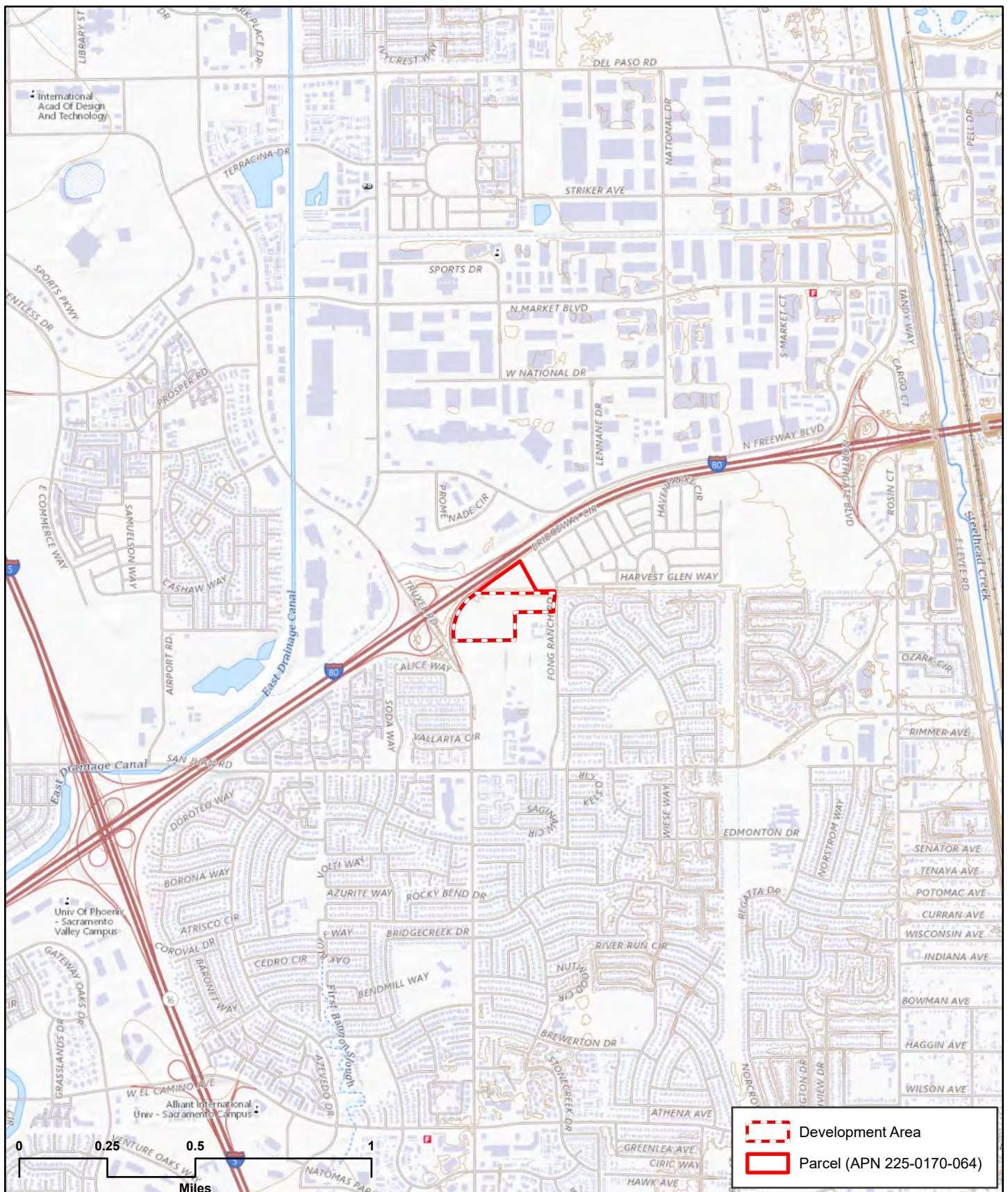


FIGURE 1 - VICINITY MAP

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 20, 2022



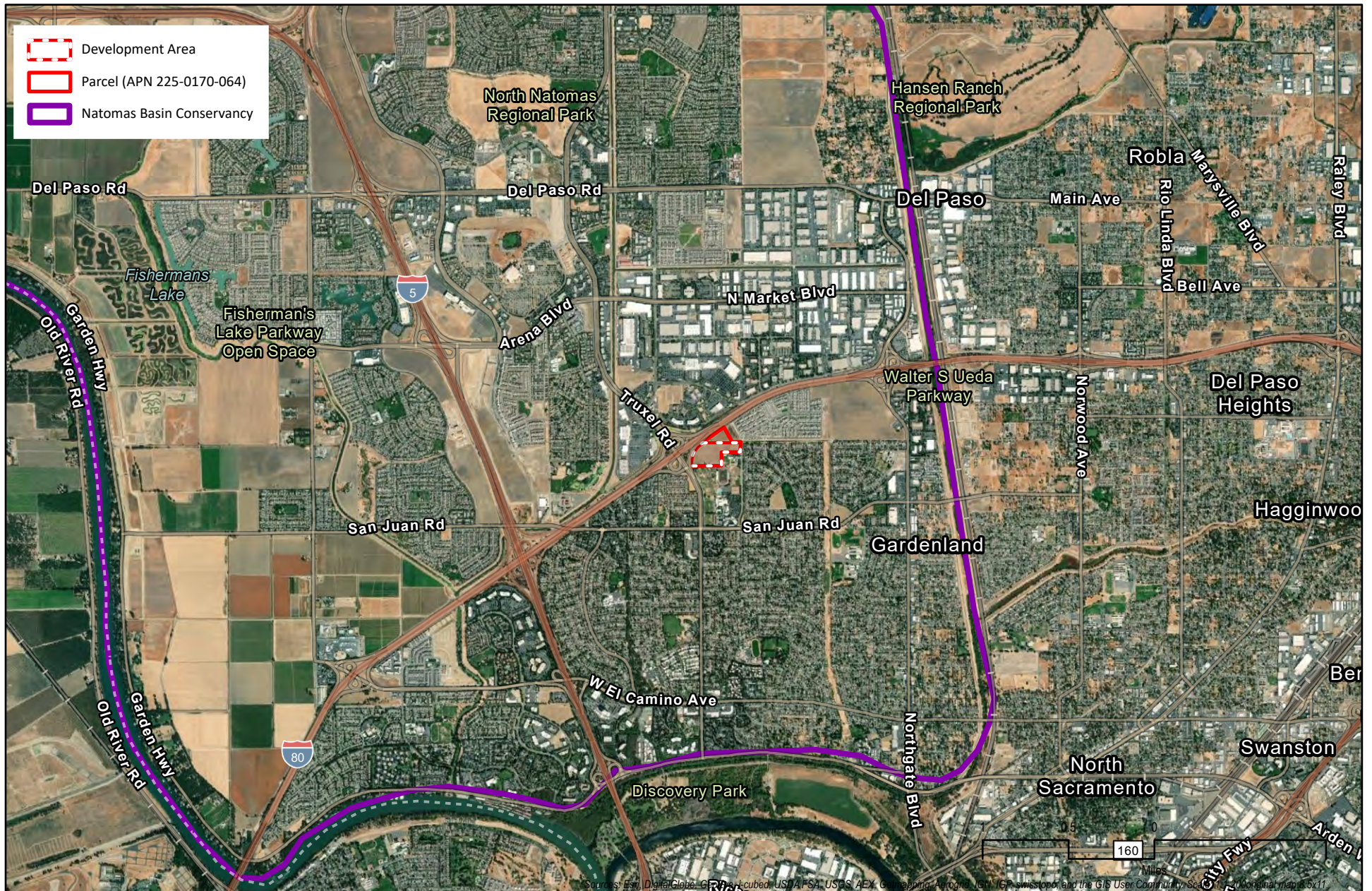


FIGURE 2 - NATOMAS BASIN CONSERVANCY

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: August 16, 2022



Pursuant to the requirements of FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species could be present in the Development Area and whether the project will have a potentially significant impact on such species. In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]).

Projects that would result in a “take” of any federally listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either Section 7 (interagency consultation) or section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The Section 7 authorization process is used to determine if a project with a federal nexus would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species. The Section 10(a) process allows take of endangered species or their habitat in non-federal activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act regulates or prohibits taking, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3).

Federal Clean Water Act (CWA)

Section 404

Section 404 of the CWA identifies the U.S. Army Corps of Engineers (USACE) as the principal authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or Waters of the U.S. (WOUS). The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function. U.S. Congress has authorized the Environmental Protection Agency (EPA) to have a specific oversight role over USACE's authority.

Section 401

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy.

The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate state agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. The Central Valley Regional Water Quality Control Board (CVRWQCB) is the appointed authority for Section 401 compliance in the project site. The SWRCB additionally requires additional Waste Discharge Requirements under Porter-Cologne to protect aquatic resources that are outside federal jurisdiction.

A request for certification or waiver is submitted to the Regional Board at the same time an application is filed with the USACE. The regional board has 60 days to review the application and act on it. Because no USACE permit is valid under the CWA unless "certified" by the state, these boards may effectively veto or add conditions to any USACE permit.

2.2 STATE LAWS & REGULATIONS

California Endangered Species Act (CESA)

The CESA was enacted in 1984. Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility for maintaining a list of threatened and endangered species, while The California Department of Fish & Wildlife (CDFW) is responsible for enforcement. CDFW also maintains lists of species of special concern. A Species of Special Concern (CSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered;
- meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of California listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the project site and

determine whether the project would have a potentially significant impact on such species. In addition, CDFW encourages consultation on any project that could affect a listed or candidate species.

Fish and Game Code – Sections 1600-1616

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "*... bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit ...*" (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

The CDFW also derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), Section 30411 of the California Coastal Act (CDFW becomes the lead agency for the study and identification of degraded wetlands within the Coastal Zone), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

Fish and Game Code – Sections 1900-1913

These Sections embody the Native Plant Protection Act, which is intended to preserve, protect, and enhance endangered or rare native plants in the state. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Under the act, CDFW may adopt regulations governing the taking, possessing, propagation or sale of any endangered or rare native plant.

Section 1913 of that Act allows landowners in conducting certain activities to take actions that will destroy rare or endangered plants, provided that, where the Department of Fish and Game (DFG) has previously notified the owner "that rare or endangered plants are growing" on his or her land, the owner notifies CDFW "at least 10 days in advance of changing the land" to allow the state agency to come and "salvage" the plants. Subject to this requirement, section 1913 states that "the presence of rare or endangered plants" on a property shall not restrict (1) timber operations conducted pursuant to an approved timber harvest plan, (2) "required mining assessment work pursuant to federal or state mining laws," (3) "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, other right-of-way by the owner of the land or his agent," or (4) "the performance by a public agency or publicly or privately owned public utility of its obligation to provide service to the public."

Fish and Game Code – Sections 3503, 3503.5, 3513

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

Fish and Game Code – Sections 3511, 4700, 5050, and 5515

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as “fully protected.” Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the CFWC or any other law may be construed to authorize the issuance of permits or licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for any such purpose, except that the CFGC may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFW. Porter-Cologne Water Quality Control Act.

California Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the SWRCB and each Regional Water Quality Control Board (RWQCB) as the principal state agencies for coordinating and controlling water quality in California. Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. Pursuant to the Act, each of California’s nine regional boards must prepare and periodically update basin plans that set forth water quality standards for surface and groundwater, as well as actions to control point and non-point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetlands protection through enforcement of water quality standards.

The Porter-Cologne Water Quality Control Act provides that “All discharges of waste into the waters of the State are privileges, not rights.” Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as “...any surface water or groundwater, including saline waters, within the boundaries of the state.” All dischargers are subject to regulation under the Porter-Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction, which would include the project site. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the project site. If the USACE determines that they have no regulatory authority on the project site and they also determine that a CWA Section 404 permit is not required, the project proponent could still be responsible for obtaining the appropriate CWA Section 401 permit or waiver from RWQCB for impacts to Waters of the State.

In 2019, the State Water Resource Control Board extended their water quality certification to include waste discharge requirements as adopted in the “State Wetland Definition and

Procedures for Discharges of Dredged or Fill Material to Waters of the State,” which include elements of the Clean Water Act. These procedures also lay out the steps for the submission, review, and approval of applications for activities related to these activities.

California Environmental Quality Act

Although specific federal and state statutes protect threatened and endangered species, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals and allows a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would “substantially reduce the number or restrict the range of an endangered, rare, or threatened species.” Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

2.3 LOCAL LAWS AND REGULATIONS

The City of Sacramento adopted its 2040 General Plan to guide long-range planning and development, with a strong emphasis on sustainability, equity, and climate resiliency. The updated plan includes the following environmental goals and policies relevant to biological and wetland resource protection:

Goal ER-1.1: Preserve and Protect Natural Resources

Protect and enhance local natural resources, including watersheds, wetlands, and riparian ecosystems, to support biodiversity and resilience to climate change.

Policies

- **ER-1.1.1:** Require development projects to avoid, minimize, and mitigate adverse impacts on sensitive habitats, wetlands, and riparian areas.
- **ER-1.1.2:** Promote nature-based solutions and green infrastructure to protect aquatic resources and support habitat connectivity.
- **ER-1.1.3:** Require implementation of Low Impact Development (LID) strategies and stormwater BMPs consistent with City’s Stormwater Quality Improvement Plan and the Municipal Stormwater NPDES Permit.
- **ER-1.1.7:** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City’s erosion and sediment control ordinance and stormwater management and discharge control ordinance.

Goal ER-1.2: Climate-Resilient Habitat Conservation

Enhance ecological integrity through strategic conservation and restoration of habitat corridors and climate-resilient ecosystems.

Policies

- **ER-1.2.4:** Preserve, restore, and expand areas that provide critical habitat for sensitive species, including vernal pools, annual grasslands, and wetlands.
- **ER-1.2.6:** Incorporate climate adaptation planning into biological resources management to address anticipated shifts in species distributions and habitat viability.

Goal ER-2.1: Natural and Open Space Protection

Protect and enhance open space, natural areas, and significant wildlife and vegetation in the City as integral parts of a sustainable environment within a larger regional ecosystem.

Policies

- **ER-2.1.2:** The City shall continue to preserve, protect, and provide access to designated open space areas along the American and Sacramento rivers, floodways, and undevelopable floodplains.
- **ER-2.1.4:** The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.
- **ER-2.1.5:** The City shall preserve the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by preserving native plants and, to the extent feasible, removing invasive nonnative plants. If not feasible, adverse impacts on riparian habitat shall be mitigated by the preservation and/or restoration of this habitat at a 1:1 ratio, in perpetuity.

Goal ER-2.2: Integrated Biodiversity Strategy

Implement an integrated approach to biodiversity conservation that aligns with regional conservation plans.

Policies

- **ER-2.2.1:** Support the continued implementation of the Natomas Basin Habitat Conservation Plan (NBHCP) to manage habitat for Covered Species within the Natomas Basin, including this project's location.
- **ER-2.2.3:** Ensure all new development complies with applicable HCPs, mitigates impacts through off-site conservation, and provides adequate pre-construction biological surveys.

Goal ER-3.1: Urban Tree Canopy and Habitat Protection

Protect urban trees and habitat patches that contribute to biodiversity, air quality, and urban cooling.

Policies

- **ER-3.1.1:** Enforce the Heritage Tree Ordinance and update it to include additional habitat value criteria.
- **ER-3.1.4:** Require habitat assessments and tree surveys for discretionary projects, including mitigation for tree removal and impacts to wildlife habitat.

Natomas Basin Habitat Conservation Plan (NBHCP)

The Development Area lies within the boundaries of the Natomas Basin Habitat Conservation Plan. The NBHCP remains a primary local conservation mechanism, providing regulatory coverage under the California Endangered Species Act (CESA) and the Federal Endangered Species Act (FESA) through incidental take permits. All project activities must comply with NBHCP requirements, including:

- Pre-construction biological surveys.
- Implementation of take avoidance measures.
- Acquisition of mitigation land or payment of habitat conservation fees.
- Coordination with the Natomas Basin Conservancy and the Wildlife Agencies.

3.0 METHODOLOGY

We queried the U.S. Fish & Wildlife Service's *National Wetland Inventory* (NWI; Figure 4); EcoAtlas' *California Aquatic Resources Inventory* (CARI; Figure 5); the NRCS Web Soil Survey (Appendix A; Figure 4); and the *Hydric Soil Map Units* Sacramento County, California prior to our field surveys to determine whether any wetlands or "other waters of the U.S.," "waters of the State," or soils compatible with wetland resources had been historically recorded on or around, or are likely to occur on the site, as defined by the 1987 U.S. Army Corps of Engineers (USACE, 1987) *Wetlands*

Delineation Manual and its 2008 *Arid West Regional Supplement*. We also assessed potentially federal and/or state jurisdictional wetlands and "other waters of the U.S." in the Development Area in accordance with the 2014 Corps *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) for Non-perennial Streams in the Arid West Region of the Western United States*.

To help anticipate which potential biological resources may be present on the property, we queried the following online sources for information on the Development Area's potential plant and wildlife communities.

1. California Department of Fish & Wildlife's Natural Diversity Database (RareFind 5) for observations of special status plant and animal species within five miles of the Development Area (Figure 6; Appendix D),

2. U.S. Fish and Wildlife Service's iPac Database of federally-listed special status species in Alameda County (Appendix E),
3. The California Native Plant Society's Inventory of Rare & Endangered Plants in Californiac

A Barnett Environmental biologist surveyed the Development Area on July 27, 2022, for special status plant and wildlife species and their habitats that could occur there. The survey included recorded observations of: (1) dominant plant communities, (2) plant and animal species (with emphasis on rare and endangered species) observed or their sign (nests, burrows, tracks, scat) and (3) the suitability of onsite habitats and those immediately adjoining the Development Area to support special status plant or animal species. We used generalized plant community classification schemes to classify onsite habitat types (Sawyer, Keeler-Wolf, and Evens, 2009).

4.0 EXISTING CONDITIONS

4.1 SOILS

According to Natural Resource Conservation Service (NRCS), the Development Area is comprised of one soil type (Figure 3; Appendix A):

1. Consumes silt loam, partially drained, 0 to 2% slopes

Consumes silt loam, partially drained, 0 to 2% slopes, occurs on flood plains at elevations ranging from 0 – 40 feet above mean sea level (msl). Alluvium derived from igneous and metamorphic rocks is the parent material of these soils. A typical profile consists only of silt loam and stratified silty clay loam to clay. The depth to the water level is typically 0 inches, and these soils are somewhat poorly drained and have a moderately low to moderately high permeability – 0.06 to 0.20 inches/hour – with a low run-off rate. They have no ponding frequency and rare flooding frequency.

4.2 HYDROLOGY

The project site sits at an elevation between 10 and 15 feet above mean sea level (msl) within the Upper Coon Creek – Upper Auburn Ravine Watershed ((Hydrologic Unit Code 18020161). The site is largely flat, and water generally flows overland in a northeast to southwest direction. Hydrologic inputs include direct precipitation and sheet-flow runoff from surrounding uplands and adjacent parcels.

4.3 WETLANDS AND “OTHER WATERS OF THE U.S.” AND “WATERS OF THE STATE”

Neither the National Wetlands Inventory (NWI; Figure 4) nor the California Aquatic Resources Inventory (CARI; Figure 5) map show any aquatic resources within the Development Area. A Barnett Environmental field visit confirmed the lack of water features within the Development Area; an existing irrigation canal immediately north of the Development Area that would not be in any way affected by proposed future development (Figure 5, Existing Conditions).

4.4 VEGETATION

The Development Area is mostly barren, and, at the time of our field survey, it appeared that herbicide had been applied in the recent past. The only groundcover vegetation remaining at the time of the July 2022 field survey were invasive weeds such as morning glory, mallow, bull thistle and prickly lettuce.

Irrigation from the adjacent high school, however, supports a healthy band of vegetation along the Development Area's southern fence line. Overstory tree species include the introduced: pin oak (*Quercus palustris*), privet (*Ligustrum lucidum*), Chinese tallow (*Triadica sebifera*), several willows (*Salix* sp.), tree of heaven (*Ailanthus altissima*), and Mexican fan palm (*Washingtonia robusta*). The understory is dominated by pacific blackberry (*Rubus ursinus*) and grape (*Vitis* sp.) Several (two) trees of heaven also occur on the parcel's southeast corner.

The northern approximately seven (7) acres of the parcel north of the canal (that will remain undeveloped) is relatively (to the southern portion of the property) undisturbed with dominant vegetation including a grassland community dominated by common annual species such as slender wild oat (*Avena barbata*), Bermuda grass (*Cynodon dactylon*), and annual rye grass (*Lolium multiflorum*), along with non-native weedy species such as yellow star-thistle (*Centaurea solstitialis*), milk thistle (*Silybum marianum*), rose clover (*Trifolium hirtum*), black mustard (*Brassica nigra*), cocklebur (*Xanthium strumarium*), and prickly lettuce (*Lactuca serriola*). A few California native species – cocklebur (*Xanthium strumarium*) and chicory (*Cichorium intybus*) – also occur here.

4.5 WILDLIFE

No wildlife at all were observed on the parcel, which would be expected on a site that is adjacent to areas of high human activity, such as the Interstate. No ground squirrel, rabbit or other rodent burrows were found and no indication of ground nesting by burrowing owl or northern harrier.



FIGURE 4 - NATIONAL WETLANDS INVENTORY (NWI) WETLANDS

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 19, 2022



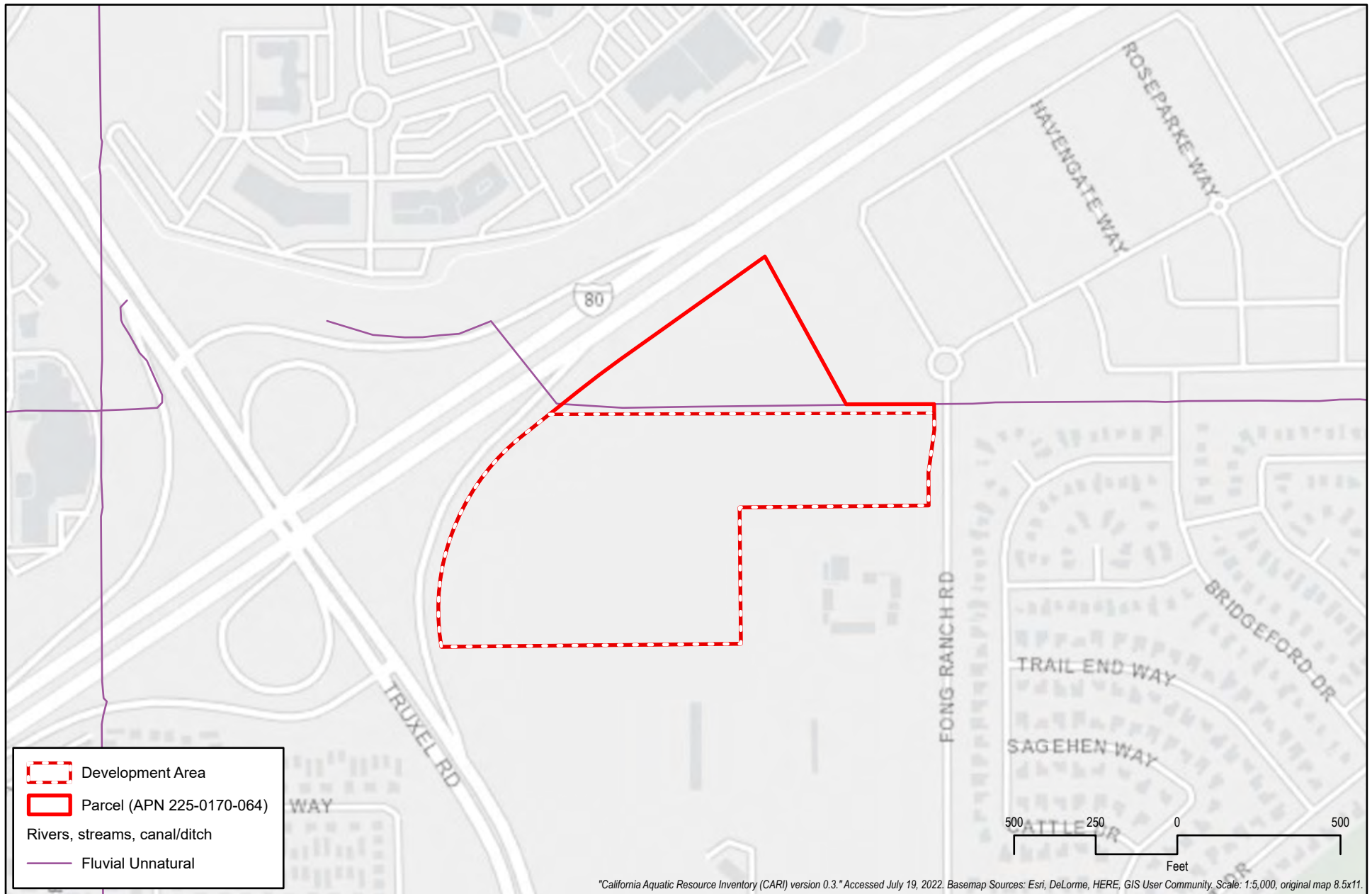


FIGURE 5 - CALIFORNIA AQUATIC RESOURCES INVENTORY (CARI) WETLAND

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 19, 2022





FIGURE 6 - EXISTING CONDITIONS

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: August 22, 2022



5.0 SPECIAL STATUS SPECIES

Special status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the Federal Endangered Species Act (FESA) (50 CFR 17.11/17.12) (or formally proposed for listing) (64 FR 205, October 25, 1999; 57533-57547),
- Listed as endangered or threatened under the California Endangered Species Act (CESA) (or proposed for listing) (14 California Code of Regulations [CCR] 670.5),
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code (FGC, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Designated a Species of Concern by the California Department of Fish and Game,
- Defined as rare or endangered under the California Environmental Quality Act (CEQA), or
- Occurring on List 1 or 2 maintained by the California Native Plant Society.

We reviewed California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS) Inventory, and U.S. Fish & Wildlife Service (FWS) iPAC database for special status species with the potential to occur within the project vicinity (i.e. five-mile radius). While there may be a number of plant and animal species occurring within five miles of the Development Area (Figure 7), we can refine the list of those species with any real potential of occurring in the Development Area by filtering our query for relevant onsite habitats, locations, and elevations. A summary of the results of this query can be found in Table 1.

5.1 CRITICAL HABITAT FOR SPECIAL STATUS SPECIES

The Federal Endangered Species Act (FESA) requires the federal government to designate critical habitat for any listed species. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. There is critical habitat for the valley elderberry longhorn beetle (*Desmocerus californicus*) two and a half miles to the south/southeast of Development Area, and for the delta smelt (*Hypomesus transpacificus*), there is critical habitat approximately four miles to the south/southwest (Figure 8). No critical habitat is designated within the Development Area.



FIGURE 4 - NATIONAL WETLANDS INVENTORY (NWI) WETLANDS

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 19, 2022



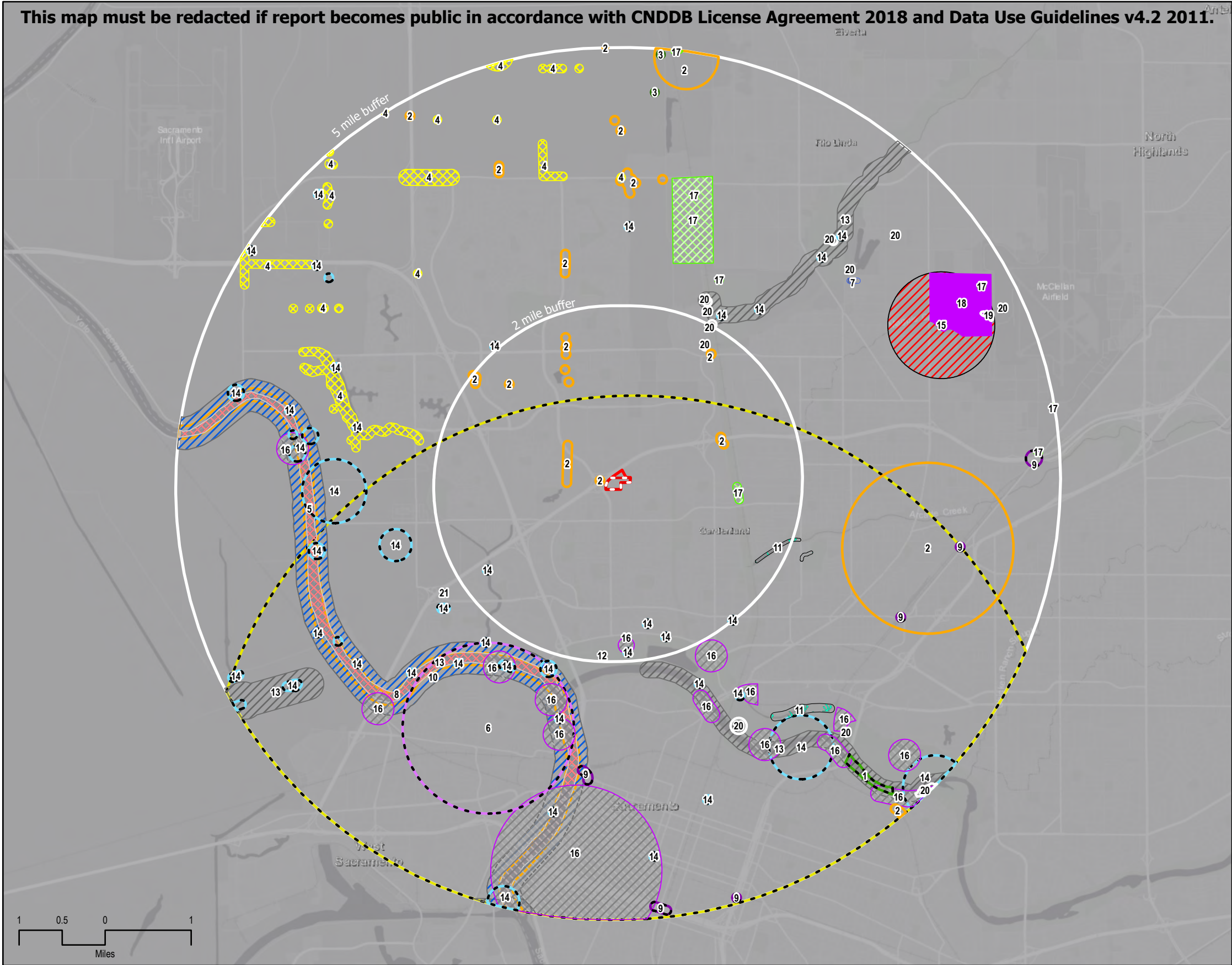


FIGURE 6 - EXISTING CONDITIONS

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: August 22, 2022





Parcel (APN 225-0170-064)	Sanford's arrowhead, 11
Development Area	song sparrow ("Modesto" population), 12
bank swallow, 1	steelhead - Central Valley DPS, 13
burrowing owl, 2	Swainson's hawk, 14
dwarf downingia, 3	tricolored blackbird, 15
giant gartersnake, 4	valley elderberry longhorn beetle, 16
green sturgeon - southern DPS, 5	vernal pool fairy shrimp, 17
least Bell's vireo, 6	vernal pool tadpole shrimp, 18
legenerie, 7	western pond turtle, 19
longfin smelt, 8	white-tailed kite, 20
purple martin, 9	woolly rose-mallow, 21
Sacramento splittail, 10	

CNDDDB version July 2022. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDDB about a species or an area can never be used as proof that no special status species occur in an area CDFW. <https://www.wildlife.ca.gov/Data/CNDDDB> July 5, 2022. Sources: Esri, DeLorme, HERE. Scale: 1:78,000, original map 11x17.

FIGURE 7 - CALIFORNIA NATIONAL DIVERSITY DATABASE (CNDDDB) RECORDED SPECIES OBSERVATION

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA





FIGURE 8 - CRITICAL HABITAT

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 21, 2022



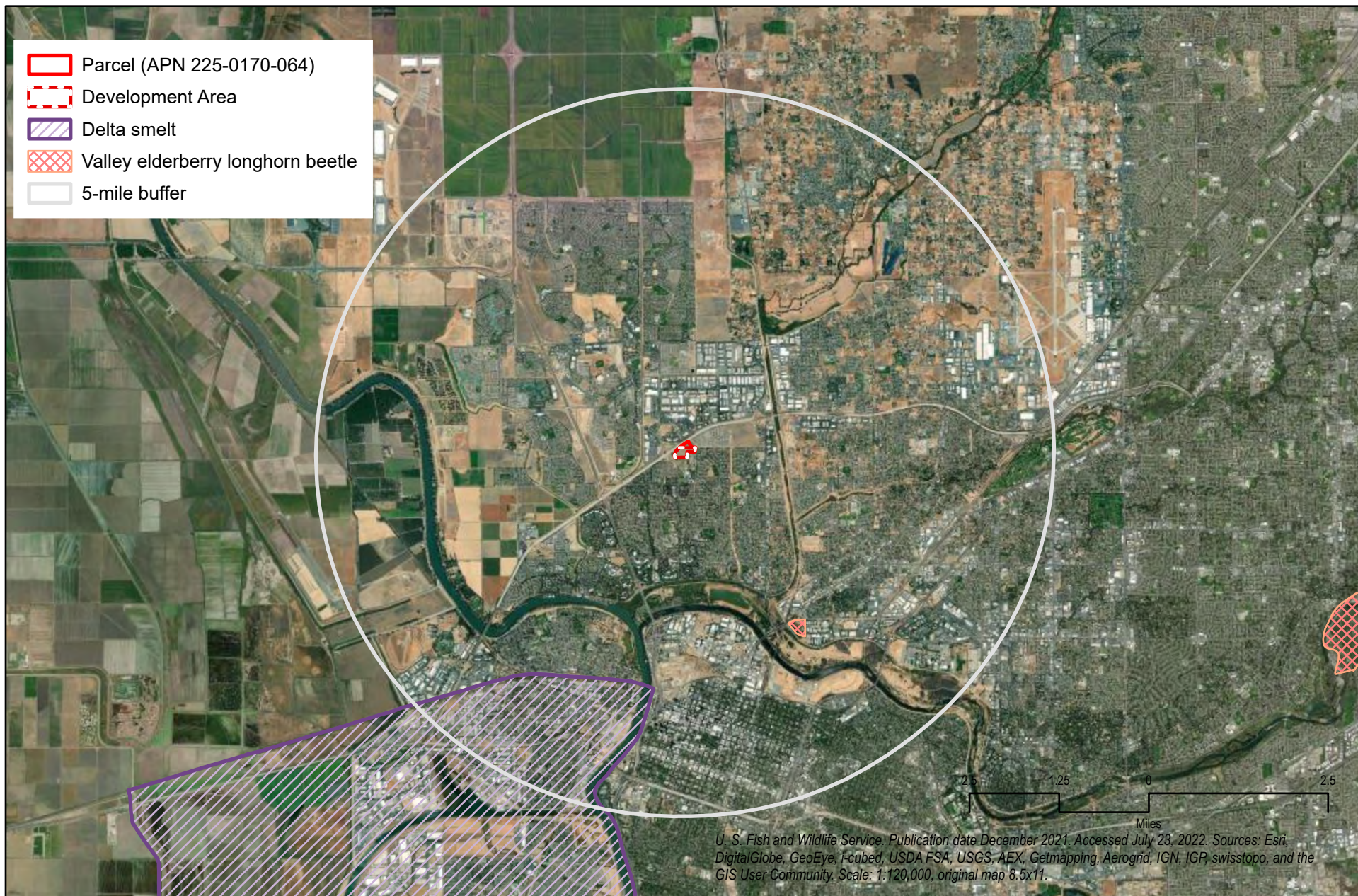


FIGURE 8 - CRITICAL HABITAT

3625 FONG RANCH ROAD • SACRAMENTO COUNTY, CA

Date: July 21, 2022



Birds						
Species	Federal	State	CNPS	Habitat	Potential for Occurrence	Rationale for Assessing Potential
bank swallow <i>Riparia riparia</i>		CT		A colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks or cliffs with fine-textured or sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Very low	There are no sandy soils or vertical cliffs in the Development Area to provide nesting habitat for this species, although the site may offer marginal foraging habitat. There is only one reported CNNDDB occurrence within five miles of the Development Area, 4.06 miles to the southeast in 1984, and Barnett Environmental observed no sign of this species during the July 2022 site visit.
burrowing owl <i>Athene cunicularia</i>		SSC		Burrowing owls live in burrows dug by other animals in open, treeless spaces. Favored nest burrow sites are those with sandy locations and areas with low vegetation around the burrows.	Low	The site may offer marginal habitat for this species due to the low and sparse vegetation, although no burrows were found. There are 16 reported occurrences within five miles of the Development Area. The most recent was in 2012, 1.86 miles to the northeast of the Development Area. The closest was 0.034 miles to the west in 2007. There was no sign of this species during the Barnett Environmental July 2022 field survey.
loggerhead shrike <i>Lanius ludovicianus</i>		SSC		In California, loggerhead shrike breed primarily in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs, trees, fences, or powerlines for hunting perches and pair maintenance.	None	There are no shrubs, trees, or fences on the Development Area to provide a hunting perch for this species, and thus the site offers no foraging habitat for the loggerhead shrike. There are no reported CNDDDB occurrences within five miles of the Development Area. There was no sign of this species during the Barnett Environmental July 2022 field survey.
song sparrow (modesto) <i>Melospiza melodia</i> <i>pop. 1</i>		SSC		Brushy fields, streamsides, shrubby marsh edges, woodland edges, hedgerows, well-vegetated gardens comprise primary habitat. Some coastal populations live in salt marshes.	Low	The Development Area could provide marginal foraging habitat for this species. There are three reported CNDDDB occurrences of this species within five miles of the Development Area. The last reported occurrence was in 1900 within five miles of the Development Area. There was no sign of this species during the Barnett environmental 2022 site visit.
Swainson's hawk <i>Buteo swainsoni</i>		CT		This species prefers open areas like savannas, grasslands, steppes, and cultivated lands.	Moderate	The site could provide marginal foraging habitat for this species. There are 41 reported CNDDDB occurrences within five miles of the Development Area. The closest was in 2001, 1.544 miles to the southwest, and the most recent was in 2017, 3.69 to the northwest. Barnett Environmental saw no sign of this species during the July 2022 field visit.

Birds						
Species	Federal	State	CNPS	Habitat	Potential for Occurrence	Rationale for Assessing Potential
white-tailed kite <i>Elanus leucurus</i>		FP		Found in a wide variety of open habitats in North America, including open oak grassland, desert grassland, farm country, marshes. The main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	Moderate	The site could offer marginal foraging habitat for this species. There are 12 reported CNDDDB occurrences within five miles of the Development Area. The closest was 1.71 miles to the northeast of the Development Area, and the most recent was in 2009, 3.87 miles to the northeast. There was no sign of this species during the Barnett Environmental July 2022 field visit.

Reptiles						
Species	Federal	State	CNPS	Habitat	Potential for Occurrence	Rationale for Assessing Potential
giant gartersnake <i>Thamnophis gigas</i>	FT	CT		Agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley provide habitat.	Very low	The giant gartersnake could find habitat in the upland area adjacent to the canal. There are 15 reported occurrences within five miles of the Development Area. The closest and most recent was 2016, 2.178 miles to the west of the Development Area. Barnett Environmental found no sign of this species during the July 2022 field survey.

western pond turtle <i>Emys marmorata</i>		SSC		The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. Turtles bask on land or near water on logs, branches or boulders.	None	There are no aquatic features on the Development Area to provide habitat for this species. There are two reported CNDDDB occurrences within five miles of the Development Area. The closest and most recent report was in 4.494 miles to the north/northeast of the Development Area. Barnett Environmental saw no sign of this species during the July 2022 field survey.
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Special Status Species Codes:

FE = Federally listed as Endangered
 FT = Federal listed as Threatened
 CE = State listed as Endangered
 CT = State listed as Threatened
 Rare = State listed as Rare
 FP = State, Fully Protected
 SSC = State Species of Special Concern

1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
 1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
 2B.1 = Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
 2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

Potential for Occurrence Codes:

None: No suitable habitat for the special status species within the Development Area

Very Low: Either the special status species is known to occur within five miles and there is marginal suitable habitat exists in the Development Area, or the Development Area provides suitable habitat, but the species is not known to occur within a five-mile radius.

Low: Marginally suitable habitat exists in the Development Area and the special status species occurs within 5 miles but surrounding urban land use conditions and regularity of human activity make it unlikely that the species occurs in the Development Area.

Moderate: The special status species is known to occur within a five-mile radius and the Development Area contains suitable habitat, however surrounding urban land use conditions and onsite disturbance reduce the likelihood of occurrence.

High: The Development area provides suitable habitat and there is either documentation of species occurrence within a five-mile radius or evidence gathered by a professional surveyor during an onsite field assessment.

Present: Species known to occur within the Development Area based on record search and/or evidence collect during onsite field surveys.

6.0 EFFECT OF THE PROPOSED ACTION AND AVOIDANCE AND MINIMIZATION EFFORTS

6.1 EFFECTS OF THE PROPOSED ACTION ON SPECIAL STATUS PLANTS

There were no plants identified through the CNDDDB, IPAC, or California Native Plant Society's as having a potential to occur within five miles of the Development Area.

6.2 EFFECTS OF THE PROPOSED ACTION ON WILDLIFE AND HABITAT

Federal Listed Wildlife Species

There is one federal species with the potential to occur in the Development Area.

1. **Giant garter snake** (*Thamnophis gigas*) – The giant garter snake is found from sea level to about 160 feet in or within 10-feet of perennial waters or temporary, slow-moving waters such as sloughs, irrigation canals, drainage ditches, and flooded rice fields during summer and in underground hibernacula within 200 feet of these waters during winter. Garter snake habitat is typically devoid of a dense tree canopy and usually contains tule, cattail, blackberry, mustard, various thistles, and annual and perennial grasses. The snake could seasonally occur in the irrigation canal along the Development Area's northern boundary, and areas immediately adjacent to the canal - could provide some marginal upland habitat for this species. There are 15 reported occurrences within five miles of the Development Area. The closest and most recent was 2016, 2.178 miles to the west of the Development Area. No giant garter snakes were observed during Barnett Environmental's July 2022 field survey.

State-Listed Wildlife Species

There is only one state-listed species with the potential to occur in the Development Area (Table 2):

1. **Swainson's hawk** (*Buteo swainsoni*) – This raptor is listed as threatened by the state of California. Swainson's hawk is a medium sized raptor that occurs in great basin grasslands, riparian forest and woodlands, and valley and foothill grasslands. Swainson's hawks breed in grasslands with scattered trees, juniper-sage flats, savannahs, and agricultural or ranch lands with groves or lines of trees. While the Development Area could provide marginal foraging habitat for this species, the lack of native trees means there is no nesting habitat present. There are 41 reported CNDDDB occurrences within five miles of the Development Area. The closest was in 2001, 1.544 miles to the southwest, and the most recent was in 2017, 3.69 to the northwest. There was no sign of Swainson's hawks during the Barnett Environment July 2022 site visit. The highly compacted soils that appear to prevent burrowing by small mammals and a distinct lack of groundcover throughout the Development Area would likely discourage foraging hawks.

California Species of Special Concern

There are three California Species of Special Concern have the potential to occur in the Development Area.

1. **Western burrowing owl** (*Athene cunicularia*) – The western burrowing owl is a species of special concern in California. It is a small, long-legged owl, ranging from seven to 10 inches in height that can be found in grasslands, rangelands, agricultural areas, deserts, or any other open dry area with friable soils and low vegetation. They nest and roost in burrows, such as those excavated by ground squirrels or jackrabbits. While burrowing owls could conceivably occur in this sparsely vegetated Development Area, highly compacted soils throughout the Development Area appear to discourage burrowing by small mammals and none were observed during our field survey. There are 16 reported occurrences within five miles of the Development Area. The most recent was in 2012, 1.86 miles to the northeast of the Development Area. The closest was 0.034 miles to the west in 2007. No ground squirrel, rabbit or other burrows were found and no indication of ground nesting by burrowing owl.
2. **Bank swallow** (*Riparia riparia*) – This species of special concern is a colonial nester primarily in riparian and other lowland habitats. While there is a slight possibility of the species occurring along the banks of the irrigation canal north of the Development Area, no nests or birds were observed in this area during our field survey. There is only one reported CNNDDB occurrence within five miles of the Development Area, 4.06 miles to the southeast in 1984.
3. **Song Sparrow** (*Melospiza melodia*) A species of special concern in California, the song sparrow is found in brushy fields, streamsides, shrubby marsh edges, woodland edges, hedgerows, well-vegetated gardens. Some coastal populations live in salt marshes.. There are three reported CNDDDB occurrences of this species within five miles of the Development Area. The last reported occurrence was in 1900 within five miles of the Development Area. While the song sparrow could find marginal foraging habitat on the Development Area, no song sparrows were observed within the Development Area during any of Barnett Environmental's field surveys.

California fully protected species

There is only one California fully protected species with the potential to occur in the Development Area.

1. **White-tailed kite** (*Elanus leucurus*) – This raptor is a fully protected species in California. It occurs in open grasslands, fields, and meadows. Isolated trees in close proximity to foraging habitat are used for perching and nesting. The Development Area could provide potential foraging habitat for this species. There are 12 reported CNDDDB occurrences within five miles of the Development Area. The closest was 1.71

miles to the northeast of the Development Area, and the most recent was in 2009, 3.87 miles to the northeast. Barnett Environmental saw no sign of the white-tailed kite during its field visit in July 2022.

7.0 MITIGATION FOR POTENTIAL IMPACTS

According to the NBHCP, the following mitigation measures should be initiated as part of construction activities within authorized development sites.

Not less than 30 days or more than six months prior to commencement of construction activities, a pre-construction survey of the site shall be conducted to determine the status and presence of, and likely impacts to, all Covered Species on the site. However, pre-construction surveys for an individual species may be completed up to one year in advance if the sole period for reliable detection of that species is between May 1 and December 31. The applicant seeking to develop land will be responsible for contracting with qualified biological consultants to carry out the pre-construction surveys, and as necessary, to implement specific take minimization, and other Conservation Measures set forth in the NBHCP and approved by the Wildlife Agencies.

The results of the pre-construction surveys along with recommended take minimization measures shall be documented in a report and shall be submitted to the Land Use Agency, USFWS, CDFW and the Natomas Basin Conservancy. Based upon the survey results, the Land Use Permittees will identify applicable take avoidance and other site-specific Conservation Measures, consistent with this NBHCP, required to be carried out on the site. The approved pre-construction survey documents and list of Conservation Measures will be submitted by the developer of the Authorized Development project to the applicable Land Use Agency to demonstrate compliance with the NBHCP.

8.0 CONCLUSIONS

The Development Area contains no wetlands or “other waters” of the U.S or State within its boundaries. However, there is one federally-listed species (giant garter snake), one state-listed species (Swainson’s hawk), three state species of special concern (western burrowing owl, the song sparrow [Modesto population], and the bank swallow) and one state fully protected species (white-tailed kite) that have the potential to occur on site. In order to confirm the presence or absence of these species of special concern, we recommend pre-construction surveys within two weeks of planned construction. With the implementation of these measures, the project would have less than significant impact on the environment.

9.0 REFERENCES

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APPENDIX A – NATURAL RESOURCE CONSERVATION SERVICE (NRCS) SOILS REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Sacramento County, California**

3625 Fong Ranch



July 19, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sacramento County, California
Survey Area Data: Version 20, Sep 3, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 8, 2019—May 20, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
127	Cosumnes silt loam, partially drained, 0 to 2 percent slopes	17.4	100.0%
Totals for Area of Interest		17.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sacramento County, California

127—Cosumnes silt loam, partially drained, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2x415

Elevation: 0 to 40 feet

Mean annual precipitation: 17 to 20 inches

Mean annual air temperature: 61 to 62 degrees F

Frost-free period: 271 to 330 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Cosumnes and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cosumnes

Setting

Landform: Flood plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from igneous and metamorphic rock

Typical profile

Ap - 0 to 8 inches: silt loam

C - 8 to 21 inches: stratified silty clay loam to clay

2Ab - 21 to 43 inches: stratified clay loam to clay

2Bk - 43 to 60 inches: stratified clay loam to clay

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Hydric soil rating: Yes

Minor Components

Clear lake

Percent of map unit: 4 percent
Landform: Basin floors
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Sailboat

Percent of map unit: 4 percent
Landform: Flood plains on delta plains, natural levees on delta plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R016XA002CA - Freshwater, Stratified, Fluventic Sites
(PROVISIONAL)
Hydric soil rating: Yes

Columbia

Percent of map unit: 4 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R016XA002CA - Freshwater, Stratified, Fluventic Sites
(PROVISIONAL)
Hydric soil rating: Yes

Egbert

Percent of map unit: 3 percent
Landform: Flood plains on delta plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R016XA001CA - Tidally-Influenced, Freshwater Sites
(PROVISIONAL)
Hydric soil rating: Yes

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APPENDIX B – CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB)



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad> IS (Rio Linda (3812164))
> AND (Federal Listing Status> IS (Endangered> OR Threatened)
> OR State Listing Status> IS (Endangered> OR Threatened))

<i>Buteo swainsoni</i>				Element Code: ABNKC19070			
Swainson's hawk							
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5		
	State:	Threatened		State:	S3		
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern					
Habitat:	General:	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.					
	Micro:	REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.					
Occurrence No.	1015	Map Index:	50702	EO Index:	50702	Element Last Seen:	2002-07-01
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-07-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-03
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.66296 / -121.46558			Accuracy:	80 meters		
UTM:	Zone-10 N4280493 E633499			Elevation (ft):	35		
PLSS:	T09N, R05E, Sec. 05, NE (M)			Acres:	0.0		
Location:	ALONG DRY CREEK, BETWEEN RIO LINDA/MARYSVILLE BOULEVARD AND NATOMAS EAST MAIN DRAINAGE CANAL, IN RIO LINDA.						
Detailed Location:	VICINITY OF 1992 DETECTION BY CDFW SURVEYORS; REPORTED ON FIELD SURVEY FORM (PER LOCATION DRAWN ON ATTACHED MAP) AND IN CDFW DATABASE AS TERRITORY #SA073. MAPPED TO POINT ON MAP SUBMITTED WITH FIELD SURVEY FORM FROM 2002.						
Ecological:	1992 NEST IN OAKS SURROUNDED BY PASTURE, WITHIN URBANIZED AREA. IN 2001-2002, HABITAT CONSISTED OF A NARROW VALLEY OAK RIPARIAN CORRIDOR ALONG DRY CREEK; SURROUNDED BY GRAZED GRASSLAND. POSSIBLE FUTURE SITE OF HANSEN PARK GOLF COURSE.						
General:	SITE WAS FIRST REPORTED AS A BREEDING TERRITORY IN 1992. TERRITORY WAS ACTIVE IN 2001. ADULT OBSERVED CARRYING PREY TO THE NEST ON 1 JUL 2002; UNKNOWN NUMBER OF YOUNG IN NEST.						
Owner/Manager:	PVT						
Occurrence No.	1016	Map Index:	50704	EO Index:	50704	Element Last Seen:	2002-07-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-07-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-03-25
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.67521 / -121.44783			Accuracy:	80 meters		
UTM:	Zone-10 N4281878 E635021			Elevation (ft):	40		
PLSS:	T10N, R05E, Sec. 32, SE (M)			Acres:	0.0		
Location:	ALONG NW SIDE OF DRY CREEK SOUTH, JUST WEST OF THE RIO LINDA AIRPORT, RIO LINDA.						
Detailed Location:	NEST TREE IS LOCATED ABOUT 200' SW OF WHERE THE BIKE TRAIL CROSSES DRY CREEK.						
Ecological:	HABITAT CONSISTS OF A NARROW VALLEY OAK RIPARIAN CORRIDOR ALONG DRY CREEK; SURROUNDED BY OPEN GRASSLAND, RESIDENTIAL, AND AN AIRPORT.						
General:	3-4 YOUNG HATCHED IN 2002, BUT ONLY 2 SURVIVED TO FLEDGING.						
Owner/Manager:	PVT						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	1017	Map Index:	50706	EO Index:	50706	Element Last Seen:	2002-07-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-07-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-03-25
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.67164 / -121.45212				Accuracy:	80 meters	
UTM:	Zone-10 N4281475 E634654				Elevation (ft):	40	
PLSS:	T10N, R05E, Sec. 32, SW (M)				Acres:	0.0	
Location:	ALONG DRY CREEK SOUTH, JUST EAST OF RIO LINDA/MARYSVILLE BOULEVARD, RIO LINDA.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF A NARROW VALLEY OAK RIPARIAN CORRIDOR ALONG DRY CREEK; SURROUNDED BY OPEN GRASSLAND AND NEARBY RESIDENTIAL.						
General:	NEST SITE ALSO OCCUPIED IN 2001. ADULTS OBSERVED CARRYING PREY ITEMS TO NEST ON 11 JUL 2002.						
Owner/Manager:	SAC COUNTY FLOOD CONTROL						

Occurrence No.	1018	Map Index:	50708	EO Index:	50708	Element Last Seen:	2002-07-15
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-07-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-03-25
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.66197 / -121.47375				Accuracy:	80 meters	
UTM:	Zone-10 N4280371 E632790				Elevation (ft):	30	
PLSS:	T09N, R05E, Sec. 06, SE (M)				Acres:	0.0	
Location:	ALONG DRY CREEK, APPROXIMATELY 300' EAST OF THE NATOMAS EAST MAIN DRAINAGE CANAL, RIO LINDA.						
Detailed Location:	WESTERN PACIFIC RR TRACKS LOCATED JUST WEST OF NEST TREE.						
Ecological:	HABITAT CONSISTS OF A NARROW VALLEY OAK RIPARIAN CORRIDOR ALONG DRY CREEK; SURROUNDED BY OPEN GRASSLAND, WITH THE NATOMAS EAST DRAINAGE CANAL AND RESIDENTIAL TO THE WEST.						
General:	NESTING OBSERVED ON 15 JUL 2002.						
Owner/Manager:	CITY OF SACRAMENTO						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	1487	Map Index:	62634	EO Index:	62671	Element Last Seen:	2001-07-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-07-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-03-26
Quad Summary:	Rio Linda (3812164)						
County Summary:	Placer						
Lat/Long:	38.74304 / -121.46907				Accuracy:	80 meters	
UTM:	Zone-10 N4289374 E633047				Elevation (ft):	55	
PLSS:	T10N, R05E, Sec. 07, NE (M)				Acres:	0.0	
Location:	SOUTH OF LOCUST ROAD, 0.2 MILE SOUTH OF THE INTERSECTION OF BROWNING STREET AND LOCUST ROAD, 2 MILES NORTH OF ELVERTA.						
Detailed Location:							
Ecological:	NEST TREE WAS A 50' EUCALYPTUS; SURROUNDED BY RESIDENTIAL TO THE NE AND NW, AND GRASSLAND TO THE SE AND SW.						
General:	3 ADULTS PRESENT ON 13 APR 2001; 1 ADULT IN THE NEST AND 1 DELIVERING STICKS. ON 2 JUL 2001, THERE WERE 2 ALMOST COMPLETELY FEATHERED YOUNG IN THE NEST.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1629	Map Index:	64685	EO Index:	64764	Element Last Seen:	2002-07-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-07-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-05-15
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.67703 / -121.49353				Accuracy:	80 meters	
UTM:	Zone-10 N4282014 E631041				Elevation (ft):	18	
PLSS:	T10N, R04E, Sec. 36, SW (M)				Acres:	0.0	
Location:	EAST EDGE OF AMERICAN BASIN, 1.1 MILES SW OF THE INTERSECTION OF ELKHORN BOULEVARD & WEST 6TH STREET, WEST OF RIO LINDA.						
Detailed Location:							
Ecological:	NEST TREE WAS A VALLEY OAK, WITH THE NEST LOW IN THE NEST TREE; SURROUNDED BY ROW CROPS TO THE NW AND SW, AND RIPARIAN TO THE NE AND SE.						
General:	NEST SITE ACTIVE ON 19 APR, 6 JUN, AND 18 JUL 2002; 1 PARTIALLY-FEATHERED CHICK PRESENT IN NEST ON 6 JUN 2002, AND 2 ADULTS AND 1 JUVENILE FORAGING ON 18 JUL 2002.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	2200	Map Index:	88534	EO Index:	89546	Element Last Seen:	2010-07-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-07-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-10
Quad Summary:	Rio Linda (3812164)						
County Summary:	Placer, Sutter						
Lat/Long:	38.74743 / -121.48467				Accuracy:	80 meters	
UTM:	Zone-10 N4289839 E631682				Elevation (ft):	40	
PLSS:	T10N, R04E, Sec. 01, E (M)				Acres:	0.0	
Location:	WEST SIDE OF PLEASANT GROVE RD, ABOUT 0.25 MILE SOUTH OF W RIEGO RD & 1 MILE NORTH OF RIO LINDA BLVD, NW OF RIO LINDA.						
Detailed Location:	MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORM FROM 2010.						
Ecological:	NEST IN LARGE PINE IN FRONT YEARD OF RURAL HOMESTEAD. SURROUNDING HABITAT INCLUDED RURAL RESIDENCES, PASTURES, AND AGRICULTURAL FIELDS.						
General:	NEST SITE MONITORED IN 2010; NEST-BUILDING OBSERVED IN APR, INCUBATION OBS IN MAY, YOUNG IN NEST OBS 10 JUN, FLEDGED YOUNG IN NEST TREE OBS 10 JUL.						
Owner/Manager:	PVT						
Occurrence No.	2201	Map Index:	88536	EO Index:	89548	Element Last Seen:	2003-07-19
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-07-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-05-10
Quad Summary:	Rio Linda (3812164)						
County Summary:	Placer						
Lat/Long:	38.73938 / -121.39744				Accuracy:	non-specific area	
UTM:	Zone-10 N4289075 E639279				Elevation (ft):	90	
PLSS:	T10N, R05E, Sec. 11, E (M)				Acres:	75.0	
Location:	NORTH OF DRY CREEK, ON EITHER SIDE OF DYER LN ABOUT 0.2 MILE WEST OF ITS JUNCTION WITH WATT AVENUE, NW OF ANTELOPE.						
Detailed Location:	MAPPED TO COORDINATES FROM CDFW 2000-2004 NEST RECORDS. SOUTH POLYGON REPRESENTS SUSPECTED NEST TERRITORY RECORDED IN 2001, UNCLEAR IF ACTIVE NEST WAS FOUND. NORTH POLYGON MAPPED TO NEST SITE RECORDED IN 2003.						
Ecological:	2001: SUSPECTED NEST IN LARGE VALLEY OAKS SURROUNDED BY FALLOW LAND, GRASSLAND, AND RIPARIAN, WITH RESIDENTIAL TO THE SE. 2003: NEST IN 45' VALLEY OAK WITH GRASSLAND TO THE SOUTH AND CROPLAND TO THE NORTH.						
General:	DEFENSIVE SWAINSON'S HAWK PAIR OBSERVED APR 2001; HAWK FLUSHED FROM A TREE CONTAINING POSSIBLE NEST. NEST MONITORED IN 2003; FLEDGED 2.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	2202	Map Index:	88537	EO Index:	89549	Element Last Seen:	2003-07-19	
Occ. Rank:	Unknown			Presence:	Presumed Extant		Site Last Seen:	2003-07-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown		Record Last Updated:	2013-03-26
Quad Summary:	Rio Linda (3812164)							
County Summary:	Placer							
Lat/Long:	38.73663 / -121.40671				Accuracy:	80 meters		
UTM:	Zone-10 N4288756 E638478				Elevation (ft):	95		
PLSS:	T10N, R05E, Sec. 11, NW (M)				Acres:	0.0		
Location:	N SIDE OF DYER LN, ABOUT 0.25 MI ENE OF TAN WOODS RD JUNCTION & 1.75 MI NNW OF WATT AVE AT ELVERTA RD, NW OF ANTELOPE.							
Detailed Location:	MAPPED TO COORDINATES FROM CDFW 2000-2004 NEST RECORDS.							
Ecological:	NEST IN 50' VALLEY OAK WITH GRASSLAND TO THE EAST AND CROPS TO THE WEST. SURVEYOR NOTED MOBBING OF ADULT SWAINSON'S HAWK BY SMALLER BIRD.							
General:	ACTIVE NEST MONITORED IN 2003; FLEDGLING/BANCHER, STILL A BIT DOWNY, OBSERVED OUT OF NEST ON 19 JUL, WITH BOTH PARENTS AT TOP OF NEST TREE.							
Owner/Manager:	UNKNOWN							

Coccyzus americanus occidentalis

Element Code: ABNRB02022

western yellow-billed cuckoo

Listing Status:	Federal:	Threatened	CNDDDB Element Ranks:	Global:	G5T2T3
	State:	Endangered		State:	S1
	Other:	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive			
Habitat:	General:	RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS.			
	Micro:	NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, WITH LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE.			

Occurrence No.	194	Map Index:	90034	EO Index:	96966	Element Last Seen:	1877-07-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1877-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-04-03
Quad Summary:	Sacramento East (3812154), Sacramento West (3812155), Rio Linda (3812164), Taylor Monument (3812165)						
County Summary:	Sacramento, Yolo						
Lat/Long:	38.57656 / -121.49319				Accuracy:	5 miles	
UTM:	Zone-10 N4270865 E631254				Elevation (ft):	20	
PLSS:	T08N, R04E, Sec. 01 (M)				Acres:	0.0	
Location:	SACRAMENTO.						
Detailed Location:	1877 EXPEDITION CONDUCTED IN "VICINITY OF SACRAMENTO CITY...WHERE VEGETATION WAS NOURISHED BY THE PRESENCE OF WATER." MAPPED GENERALLY CENTERED ON SACRAMENTO.						
Ecological:							
General:	FOUND BREEDING IN VICINITY OF SACRAMENTO BETWEEN 6 JUN AND 4 JUL 1877.						
Owner/Manager:	UNKNOWN						



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Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status: **Federal:** None **CNDDDB Element Ranks:** **Global:** G1G2
State: Threatened **State:** S1S2
Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern
Habitat: **General:** HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.
Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Occurrence No. 302 **Map Index:** 30630 **EO Index:** 4275 **Element Last Seen:** 2000-05-04
Occ. Rank: Excellent **Presence:** Presumed Extant **Site Last Seen:** 2014-04-20
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2016-10-24

Quad Summary: Rio Linda (3812164), Taylor Monument (3812165)

County Summary: Sacramento, Sutter

Lat/Long: 38.7321 / -121.4965 **Accuracy:** 2/5 mile
UTM: Zone-10 N4288121 E630684 **Elevation (ft):** 24
PLSS: T10N, R04E, Sec. 12, SE (M) **Acres:** 280.0

Location: JUST WEST OF EAST LEVEE ROAD (NATOMAS DRAIN LEVEE ROAD), 0.2 MILE SOUTH OF THE SACRAMENTO COUNTY LINE, RIO LINDA.

Detailed Location: MAPPED ACCORDING TO PROVIDED MAPS AND COORDINATES. COLONY DATA STORED IN THE UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME WAS "DEWITT FARMS" AND "NATOMAS." SITE CONSIDERED A GREAT EXAMPLE OF TRBL MANANGEMENT IN 2000.

Ecological: OWNER SOLD TO NATOMAS BASIN CONSERVANCY CIRCA 2000. PREVIOUS OWNER HAD USED PROPANE CANNON AND A HIGH-FREQUENCY NOISE GENERATOR TO KEEP BLACKBIRDS FROM NESTING. 5 SEPARATE BLACKBERRY CLUMPS OCCUPIED IN 2000. POSSIBLE NESTING IN 1987.

General: NESTING IN 1993. 50 OBS FORAGING ON 21 JAN & 3 FEB 1994. AT LEAST 2 MALES OBS ON 21 APR 1995. 0 OBS IN 1997. 60 OBS ON 22 APR 2000. 4K OBS NESTING ON 4 MAY 2000. 100 OBS ON 23 APR 2005; NESTING UNK. 0 OBS IN JUL 2010, APR 2011, & APR 2014.

Owner/Manager: NATOMAS BASIN CONSERVANCY

Occurrence No. 494 **Map Index:** 95903 **EO Index:** 97047 **Element Last Seen:** 1998-05-18
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 2014-04-20
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2016-10-21

Quad Summary: Rio Linda (3812164)

County Summary: Sacramento

Lat/Long: 38.66009 / -121.42649 **Accuracy:** 3/5 mile
UTM: Zone-10 N4280233 E636905 **Elevation (ft):** 50
PLSS: T09N, R05E, Sec. 03 (M) **Acres:** 0.0

Location: GENERAL AREA BETWEEN DRY CREEK RD AND PATROL ROAD, S OF ASCOT AVE, W OF MCCLELLAN AIR FORCE BASE, SE OF RIO LINDA.

Detailed Location: MAPPED GENERALLY TO PROVIDED COORDINATE AND POSSIBLE SUITABLE HABITAT BASED ON 1993-2014 AERIAL IMAGERY (GOOGLEEARTH). COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "MCCLELLAN AFB."

Ecological: 1998 HABITAT DESCRIBED AS SMALL TULE MARSH. TRICOLORED BLACKBIRD PORTAL DESCRIBES HABITAT AS BULRUSH OR TULE. AERIAL IMAGERY SHOWS THAT SURROUNDING AREA HAS BEEN SUBSTANTIALLY DEVELOPED. IMPACT ON BIRDS NOT DETERMINED.

General: BREEDING COLONY OF A FEW HUNDRED OBSERVED ON 18 MAY 1998 FLYING IN AND OUT OF SITE. OBSERVED ON 20 APR 2014 DURING STATEWIDE SURVEY; SITE OBSERVED FOR ABOUT 17 MINUTES.

Owner/Manager: UNKNOWN



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Oncorhynchus mykiss irideus pop. 11

Element Code: AFCHA0209K

steelhead - Central Valley DPS

Listing Status: **Federal:** Threatened

CNDDDB Element Ranks: **Global:** G5T2Q

State: None

State: S2

Other: AFS_TH-Threatened

Habitat: **General:** POPULATIONS IN THE SACRAMENTO AND SAN JOAQUIN RIVERS AND THEIR TRIBUTARIES.

Micro: ☐

Occurrence No. 3 **Map Index:** 90973 **EO Index:** 92020 **Element Last Seen:** 2007-XX-XX

Occ. Rank: Poor **Presence:** Presumed Extant **Site Last Seen:** 2007-XX-XX

Occ. Type: Natural/Native occurrence **Trend:** Decreasing **Record Last Updated:** 2014-03-28

Quad Summary: Folsom (3812162), Citrus Heights (3812163), Rio Linda (3812164), Pilot Hill (3812171), Rocklin (3812172), Roseville (3812173)

County Summary: Placer, Sacramento

Lat/Long: 38.76061 / -121.25324 **Accuracy:** non-specific area

UTM: Zone-10 N4291660 E651767 **Elevation (ft):**

PLSS: T11N, R06E, Sec. 36 (M) **Acres:** 4977.0

Location: DRY CREEK AND ITS TRIBUTARIES SECRET RAVINE AND MINERS RAVINE.

Detailed Location: MAPPED TO REACHES OF DRY CREEK & OCCUPIED TRIBUTARIES CURRENTLY NAVIGABLE BY STEELHEAD. COTTONWOOD DAM WAS TOTAL BARRIER ON MINERS PRIOR TO ITS FAILURE IN 2009. ALL SPAWNING REPORTS FROM U/S OF WASTEWATER TREATMENT PLANT (38.736, -121.316).

Ecological: MAINSTEM DRY CREEK (DC) USED AS MIGRATORY CORRIDOR, BUT WATER QUALITY & SUBSTRATE TOO DEGRADED TO SUPPORT SPAWNING. SPAWNING & REARING HABITAT UPSTREAM, IN SECRET (SR) & MINERS (MR) RAVINES.

General: 1998-2000: ESTIMATED RUN TO UPPER DC "A FEW 100"; JUVENILES CAUGHT AT MR/SR CONFLUENCE, PRESUMED PRESENT IN BOTH TRIBS. '04-05 ELECTROFISHING SURVEYS CAUGHT 136 O. MYKISS IN SR, 0 IN DC & MR. EVIDENCE OF SPAWNING OBS IN SR IN 2007.

Owner/Manager: UNKNOWN

Thamnophis gigas

Element Code: ARADB36150

giant gartersnake

Listing Status: **Federal:** Threatened

CNDDDB Element Ranks: **Global:** G2

State: Threatened

State: S2

Other: IUCN_VU-Vulnerable

Habitat: **General:** PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.

Micro: THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.



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Occurrence No.	88	Map Index:	21510	EO Index:	18146	Element Last Seen:	2016-09-21
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2016-09-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-10-11
Quad Summary:	Rio Linda (3812164), Taylor Monument (3812165)						
County Summary:	Sacramento, Sutter						
Lat/Long:	38.72875 / -121.52191			Accuracy:	specific area		
UTM:	Zone-10 N4287714 E628481			Elevation (ft):	18		
PLSS:	T10N, R04E, Sec. 15 (M)			Acres:	717.0		
Location:	ELVERTA CANAL, NORTH & EAST DRAINAGE CANAL & INTERSECTING CANALS, FROM SACRAMENTO/SUTTER COUNTY LINE S TO ELVERTA RD.						
Detailed Location:	SECTIONS 9, 10, 11, 12, 13, 14, 15, & 16. NATOMAS BASIN; INCLUDED BIANCHI W; BKS 1-3 & WETLAND; FRAZER S; SILLS SITES 1-3 (2015). MOST SNAKES DETECTED VIA CAPTURE, SOME ONLY OBSERVED. MANY SNAKES CAUGHT MORE THAN ONCE DURING YEARLY SURVEYS.						
Ecological:	MONITORED SINCE 1995. MANAGED WETLAND HABITAT CHARACTERIZED BY MUD/SILT SUBSTRATE WITH STEEP BANKS VEGETATED WITH GRASSES & RUDERALS. CANAL PROPER DENSELY VEGETATED WITH BULRUSH, CATTAIL, SMARTWEED, AND WATER PRIMROSE. RICE FIELDS ADJACENT.						
General:	DETECTED 1986-87 & 1990. 40-164 CAPTURED 1998-2000, 11-57 IN 2001-03, UP TO 26 IN 2004, 49-68 IN 2005-06, 52-85 IN 2007-10, 87-92 IN 2011-13, 109 IN 2014. 59 CAP/12 RECAP/2 SEEN/1 MORTALITY IN 2015. 113 CAP/71 RECAP/5 SEEN IN 2016.						
Owner/Manager:	NATOMAS BASIN CONSERVANCY, PVT						

Occurrence No.	145	Map Index:	36594	EO Index:	31591	Element Last Seen:	1996-09-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-09-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-09-04
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.68530 / -121.49512			Accuracy:	80 meters		
UTM:	Zone-10 N4282929 E630889			Elevation (ft):	15		
PLSS:	T10N, R04E, Sec. 36, NW (M)			Acres:	0.0		
Location:	ELKHORN ROAD, 0.5 MILE WEST OF EAST LEVEE ROAD.						
Detailed Location:							
Ecological:	SURROUNDING HABITAT CONSISTS OF RICE FIELDS TO THE SOUTH, PLOWED AGRICULTURAL FIELDS TO THE NORTH, AND RUDERAL VEGETATION ALONG THE ROADWAY.						
General:	1 INDIVIDUAL (3 FEET IN LENGTH) WAS FOUND DOR ON ELKHORN ROAD ON 27 SEPTEMBER 1996.						
Owner/Manager:	PVT, SAC COUNTY						



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Occurrence No.	239	Map Index:	64531	EO Index:	64610	Element Last Seen:	1998-06-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-07-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-12-10
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.70949 / -121.49839				Accuracy:	80 meters	
UTM:	Zone-10 N4285609 E630560				Elevation (ft):	15	
PLSS:	T10N, R04E, Sec. 24, NW (M)				Acres:	0.0	
Location:	DRAINAGE CANAL ABOUT 0.6 MILE WSW OF ELVERTA RD & E LEVEE RD INTERSECTION, EAST OF HWY 99, NW OF RIO LINDA.						
Detailed Location:	MAPPED ACCORDING TO PROVIDED COORDINATES AND MAP LOCATIONS. 2003 SITE NAME WAS "AYALA-EAST END OF PROPERTY." DRAINAGE CANAL RUNS NORTH-SOUTH.						
Ecological:	SUBSTRATE WAS A MIX OF OPEN WATER & BARE GROUND. VEG MOSTLY DICOTS W/ GRASSES & MISCELLANEOUS WETLAND VEG. PREY DENSITY WAS RELATIVELY LOW, W/ SOME FISH PRESENT. ADJACENT FIELD CONDITIONS RANGED FROM DRY NON-RICE CROPS TO FLOODED RICE.						
General:	ONE SNAKE OBSERVED ON 2 JUN 1998. 0 CAPTURED DURING SURVEYS CONDUCTED BETWEEN 26 JUN-24 JUL 2003; "CONSISTENT WITH 2002 FINDINGS."						
Owner/Manager:	UNKNOWN						

Occurrence No.	315	Map Index:	93225	EO Index:	94366	Element Last Seen:	2010-09-29
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2010-09-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-07-18
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.72629 / -121.48898				Accuracy:	80 meters	
UTM:	Zone-10 N4287488 E631347				Elevation (ft):	30	
PLSS:	T10N, R04E, Sec. 13, NE (M)				Acres:	0.0	
Location:	ALONG E LEVEE RD, ABOUT 0.83 MILE N OF ELVERTA RD INTERSECTION, 1.7 MILES S OF RIEGO RD, NW OF RIO LINDA.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. PROVIDED LOCATION DESCRIPTION WAS "PAVED ROAD APPROXIMATELY 4.5 KM EAST OF SR-99/70; APPROXIMATELY 1.4 KM NORTH OF ELVERTA ROAD."						
Ecological:	PAVED ROAD SURFACE WITH STEELHEAD CREEK TO THE EAST AND RICE FIELDS TO THE WEST.						
General:	1 MALE SNAKE FOUND DEAD ON ROAD ON 29 SEP 2010.						
Owner/Manager:	UNKNOWN						

Branchinecta lynchi			Element Code: ICBRA03030		
vernal pool fairy shrimp					
Listing Status:	Federal:	Threatened	CNDDB Element Ranks:	Global:	G3
	State:	None		State:	S3
	Other:	IUCN_VU-Vulnerable			
Habitat:	General:	ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS.			
	Micro:	INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.			



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Occurrence No.	3	Map Index:	23049	EO Index:	16973	Element Last Seen:	1993-02-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1993-02-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-03-24
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.70682 / -121.48283				Accuracy:	non-specific area	
UTM:	Zone-10 N4285335 E631918				Elevation (ft):	35	
PLSS:	T10N, R05E, Sec. 19, W (M)				Acres:	8.3	
Location:	0.5 MILE WEST OF THE JUNCTION OF WEST 6TH STREET AND "U" STREET, RIO LINDA.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF TWO DISTURBED VERNAL POOLS. BURROWING OWLS ALSO FOUND AT THIS LOCATION.						
General:	FAIRY SHRIMP IDENTIFIED BY STEPHANIE MYERS (JSA); ALTHOUGH NOT COMMON, THERE WERE TOO MANY TO COUNT.						
Owner/Manager:	PVT						

Occurrence No.	4	Map Index:	23050	EO Index:	29284	Element Last Seen:	1996-02-13
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1996-02-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-09-04
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.71310 / -121.48367				Accuracy:	1/5 mile	
UTM:	Zone-10 N4286031 E631833				Elevation (ft):	35	
PLSS:	T10N, R05E, Sec. 19, NW (M)				Acres:	0.0	
Location:	EAST SIDE OF WESTERN PACIFIC RAILROAD TRACKS, SOUTH OF JUNCTION OF ELVERTA RD AND SORENTO RD, 2.0 KM WEST OF ELVERTA.						
Detailed Location:	1993: 1 DISTURBED POND ADJACENT TO RR TRACKS SAMPLED, SHRIMP IDENTIFIED BY S. MEYERS (JSA); ALTHOUGH NOT COMMON, TOO MANY TO COUNT. 1996: 3 POOLS SAMPLED BY S. LEACH; TOTAL APPROXIMATE SIZE OF POOLS AND SWALES ARE 250 SQ. METERS.						
Ecological:	HABITAT IS COMPLEX OF SEASONAL POOLS AND SWALES; SAN JOAQUIN SOIL SERIES; ASSOCIATED PLANTS: CRASSULA AQUATICA, LOLIUM MULTIFLORUM, CALLITRICHE MARGINATA, LILAEA SCILLOIDES, LYTHRUM HYSSOPIFOLIUM, MIMULUS GUTTATUS, MONTIA FONTANA ET AL.						
General:	1993: SHRIMP OBS BY S. MEYERS. 2/13/1996: >50 ADULTS OBS IN SMALL (93 SQ. METERS) ISOLATED POOL ABOUT 1000 FT S OF ELVERTA RD; 50-100 ADULTS OBS IN POOL 800 FT E OF SORENTO RD; 50-100 ADULTS OBS IN 92 SQ. METER POOL 230 FT S OF ELVERTA RD.						
Owner/Manager:	PVT, UNKNOWN						



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Occurrence No.	90	Map Index:	94697	EO Index:	2087	Element Last Seen:	1996-02-16
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		1996-02-16	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-12-16	
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.66660 / -121.41778			Accuracy:	80 meters		
UTM:	Zone-10 N4280968 E637651			Elevation (ft):	50		
PLSS:	T09N, R05E, Sec. 03, NW (M)			Acres:	0.0		
Location:	0.2 MILE SE OF INTERSECTION OF ASCOT AVE AND 20TH STREET, WEST SIDE OF MCCLELLAN AIRFIELD, SACRAMENTO.						
Detailed Location:	MAPPED TO OCCUPIED POOL MCC95B (=M95B), PER PROVIDED MAPS AND COORDINATES.						
Ecological:	VERNAL POOL WITH ALGAE AND GRASS BOTTOM. POOL ESTIMATED TO BE 25 FEET LONG AND 15 FEET WIDE WITH A MAXIMUM DEPTH OF 10 INCHES; SURROUNDED BY ANNUAL GRASSLAND. OSTRACODS, COPEPODS, AND LINDERIELLA OCCIDENTALIS ALSO PRESENT.						
General:	MANY OBSERVED ON 10 FEB AND 16 MAR 1995; 8 VOUCHERS COLLECTED, IN CAS (CASIZ #102856 AND 102858). HUNDREDS OBSERVED ON 22 JAN 1996, COLLECTED 16 FEB 1996 (CASIZ #106746).						
Owner/Manager:	DOD-MCCLELLAN AFB						

Occurrence No.	130	Map Index:	34789	EO Index:	14402	Element Last Seen:	1992-04-01
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1992-04-01	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1996-06-18	
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.68218 / -121.47949			Accuracy:	80 meters		
UTM:	Zone-10 N4282605 E632253			Elevation (ft):	40		
PLSS:	T10N, R05E, Sec. 31, N (M)			Acres:	0.0		
Location:	ALONG UNION PACIFIC RAILROAD (USED TO BE WESTERN PACIFIC RR?); 0.2 MILE SOUTH OF ELKHORN BLVD, RIO LINDA.						
Detailed Location:							
Ecological:							
General:	KOFORD OBSERVED B. LYNCHI DURING SURVEY IN SPRING OF 1992; LINDERIELLA OCCIDENTALIS ALSO OBSERVED.						
Owner/Manager:	PVT-UNION PACIFIC RR						



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Occurrence No.	145	Map Index:	28339	EO Index:	29428	Element Last Seen:	1995-01-14
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1995-01-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-25
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.63202 / -121.47038				Accuracy:	specific area	
UTM:	Zone-10 N4277052 E633139				Elevation (ft):	25	
PLSS:	T09N, R05E, Sec. 03, SW (M)				Acres:	14.6	
Location:	ALONG NATOMAS EAST MAIN DRAINAGE CANAL, WEST OF WESTERN AVENUE, BETWEEN SOUTH AVENUE AND SILVER EAGLE ROAD, SACRAMENTO.						
Detailed Location:	EAST SIDE OF LEVEE ROAD, WEST SIDE OF WESTERN PACIFIC RAILROAD TRACKS IN RIGHT-OF-WAY.						
Ecological:	LONG POOL (14 FEET WIDE AND 275 FEET LONG, DEPTH=0.15 M) IN TIRE RUTS FROM VEHICLES. VERY TURBID WATER. FLAT, INUNDATED AREA DEVOID OF VEGETATION. SANDY CLAY LOAM SOIL.						
General:	2 SITES IN SAME POOL SAMPLED 14 JAN 1995. AT SOUTH SITE FEWER THAN 50 ADULTS WERE OBSERVED, AT NORTH SITE MORE THAN 50 ADULTS WERE OBSERVED. VOUCHER SPECIMENS COLLECTED AND DEPOSITED IN CAS (CASIZ #106792).						
Owner/Manager:	PVT-WESTERN PACIFIC RR						

Occurrence No.	146	Map Index:	28338	EO Index:	29427	Element Last Seen:	1995-02-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1995-02-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-09-24
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.66796 / -121.47418				Accuracy:	80 meters	
UTM:	Zone-10 N4281035 E632742				Elevation (ft):	20	
PLSS:	T09N, R05E, Sec. 05, NW (M)				Acres:	0.0	
Location:	APPROX. 1500 FEET NORTHEAST OF NATOMAS EAST MAIN DRAINAGE CANAL AT DRY CREEK; 700 FEET SE OF ASCOT AVE AT WEST 6TH ST.						
Detailed Location:							
Ecological:	SEASONAL POND (500 FEET LONG X 45 FEET WIDE), AVERAGE DEPTH=6 INCHES; MAX. DEPTH=20 INCHES; TEMP=21.5 DEGREES CELSIUS; TURBIDITY=98%; CONDUCTIVITY=98 MICROHMS/CM.						
General:	<10 ADULTS OBSERVED IN POND, NO VOUCHER SPECIMENS TAKEN.						
Owner/Manager:	CITY OF SACRAMENTO						



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Occurrence No.	167	Map Index:	33694	EO Index:	30606	Element Last Seen:	1992-04-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-04-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-03-20
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.67805 / -121.47978				Accuracy:	non-specific area	
UTM:	Zone-10 N4282147 E632236				Elevation (ft):	30	
PLSS:	T10N, R05E, Sec. 31 (M)				Acres:	300.5	
Location:	SOUTH OF ELKHORN BLVD, WEST OF WEST 6TH ST, EAST OF NATOMAS EAST MAIN DRAINAGE CANAL, SOUTHWEST OF RIO LINDA.						
Detailed Location:	LOCATED SOMEWHERE IN SECTION 31.						
Ecological:	MANMADE ROADSIDE DITCH.						
General:	UNKNOWN NUMBER OF B. LYNCHI OBSERVED IN THE ONE FEATURE INSPECTED. SUGNET RECORD #82. NO LEPIDURUS PACKARDI OBSERVED.						
Owner/Manager:	UNKNOWN						

Occurrence No.	182	Map Index:	36116	EO Index:	31113	Element Last Seen:	1997-01-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-01-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-07-15
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.71116 / -121.47762				Accuracy:	80 meters	
UTM:	Zone-10 N4285824 E632363				Elevation (ft):	31	
PLSS:	T10N, R05E, Sec. 19, NW (M)				Acres:	0.0	
Location:	0.25 MILE SOUTH OF ELVERTA ROAD AND 0.4 MILE EAST OF SORENTO ROAD, WEST OF ELVERTA.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF A VERNAL POOL (12-14 IN DEEP); ASSOCIATED PLANT SPECIES INCLUDE CALLITRICHE MARGINATA, ELEOCHARIS MACROSTACHYA, LASTHENIA GLABRATA, LILEA SCILLOIDES, LIMNANTHES ALBA, AND OTHERS. LINDERIELLA OCCIDENTALIS ALSO PRESENT.						
General:	30 ADULTS OBSERVED ON 22 JAN 1997.						
Owner/Manager:	WESTERN AREA POWER ADMIN						



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Occurrence No.	420	Map Index:	66815	EO Index:	66972	Element Last Seen:	2006-01-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-01-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-11-19
Quad Summary:	Rio Linda (3812164)						
County Summary:	Placer						
Lat/Long:	38.74321 / -121.44536				Accuracy:	1/10 mile	
UTM:	Zone-10 N4289428 E635107				Elevation (ft):	63	
PLSS:	T10N, R05E, Sec. 09, NW (M)				Acres:	0.0	
Location:	ABOUT 0.35 MILE WEST OF PALLADAY ROAD AND 0.58 MILES SOUTH OF BASE LINE ROAD.						
Detailed Location:	MAPPED TO LOCATION OF 2006 DETECTION AT VP-29. POOL SW-57 IN WHICH CYSTS FOUND IN 2005 ABOUT 0.5 MILE TO SW (NOT MAPPED).						
Ecological:	SITE CONSISTS OF ANNUAL GRASSLAND COMPRISED OF NATURALIZED MEDITERRANEAN GRASSES AND NUMEROUS ASSOCIATED VERNAL POOLS (OVER 200), SEASONAL WETLANDS, AND SEASONAL WETLAND SWALES.						
General:	BRANCHINECTA CYSTS FOUND IN POOL SW-57 ON 11 OCT 2005 (NOT IDED TO SPECIES). ABOUT 10 ADULTS OBSERVED IN VP-29 ON 6 JAN 2006.						
Owner/Manager:	PVT						

Occurrence No.	421	Map Index:	66816	EO Index:	66973	Element Last Seen:	2006-01-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-01-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-07
Quad Summary:	Rio Linda (3812164)						
County Summary:	Placer						
Lat/Long:	38.74347 / -121.46294				Accuracy:	1/10 mile	
UTM:	Zone-10 N4289432 E633579				Elevation (ft):	48	
PLSS:	T10N, R05E, Sec. 08, NW (M)				Acres:	0.0	
Location:	JUST EAST OF LOCUST ROAD ABOUT 0.63 MILE SOUTH OF BASE LINE ROAD.						
Detailed Location:	MAPPED TO SW-57, WHERE ADULTS WERE DETECTED IN 2006. LOCATION OF BASIN WHERE CYSTS WERE FOUND IN 2005 WAS TO THE SOUTHEAST (NOT MAPPED).						
Ecological:	NON-NATIVE ANNUAL GRASSLAND WITH NUMEROUS ASSOCIATED VERNAL POOLS (OVER 200), SEASONAL WETLANDS, AND SEASONAL WETLAND SWALES. SITE APPEARS TO BE DISKED ANNUALLY FOR VEGETATION CONTROL.						
General:	BRANCHINECTA CYSTS FOUND IN 1 BASIN ON 11 OCT 2005 (NOT IDED TO SPECIES). ABOUT 1000 ADULTS OBSERVED IN SW-281 AREA, 6 JAN 2006.						
Owner/Manager:	PVT						



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Occurrence No.	429	Map Index:	68132	EO Index:	68276	Element Last Seen:	2007-07-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-26
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.63860 / -121.40582			Accuracy:	80 meters		
UTM:	Zone-10 N4277878 E638745			Elevation (ft):	59		
PLSS:	T09N, R05E, Sec. 14, NE (M)			Acres:	0.0		
Location:	ALONG THE RR TRACKS ON NW SIDE OF ROSEVILLE RD ABOUT 450' N OF THE I-80 OVERPASS, 0.6 MI S OF DUDLEY BLVD AT FORCUM AVE.						
Detailed Location:	MCCLELLAN BUSINESS PARK. MAPPED TO GIVEN COORDINATES FOR POOLS #9 AND 32.						
Ecological:	DISTURBED RR/ROADSIDE DITCHES SURROUNDED BY NON-NATIVE GRASSLAND IN AN INDUSTRIAL AREA OF FORMER MCCLELLAN AIR FORCE BASE. LINDERIELLA OCCIDENTALIS PRESENT. DISTURBANCE FROM TRASH, TRANSIENTS, & OIL NOTED.						
General:	ABOUT 200 ADULTS & 50 JUVENILES FOUND IN POOL #9 ON 8 JAN 2007; OF 10 VOUCHERS COLLECTED, 9 ARE IN CAS (CASIZ #174967). NONE FOUND IN POOL 32 DURING WET SURVEY, BUT 1000S OF CYSTS DETECTED ON 27 JUL 2007; 25 IDENTIFIED IN CAS (CASIZ#175318).						
Owner/Manager:	PVT-MCCLELLAN PARK						

Occurrence No.	739	Map Index:	93587	EO Index:	94719	Element Last Seen:	2007-07-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-07-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-25
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.64610 / -121.40221			Accuracy:	80 meters		
UTM:	Zone-10 N4278716 E639045			Elevation (ft):	65		
PLSS:	T09N, R05E, Sec. 11, SW (M)			Acres:	0.0		
Location:	MCCLELLAN BUSINESS PARK, 0.2 MILE ESE OF THE INTERSECTION OF DUDLEY BLVD AND FORCUM AVENUE, SACRAMENTO.						
Detailed Location:	MAPPED TO GIVEN COORDINATES.						
Ecological:	DISTURBED VERNAL POOL IN NON-NATIVE GRASSLAND PERIODICALLY MECHANICALLY TREATED FOR WEEDS.						
General:	BRANCHIOPOD CYSTS COLLECTED ON 27 JUL 2007 WERE IDENTIFIED AS BRANCHINECTA LYNCHI AND ACCESSIONED TO CAS (CASIZ #175319).						
Owner/Manager:	PVT						



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Occurrence No.	740	Map Index:	93588	EO Index:	94730	Element Last Seen:	2010-02-11
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2010-02-11	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-11-19	
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.72159 / -121.42379			Accuracy:	80 meters		
UTM:	Zone-10 N4287061 E637023			Elevation (ft):	75		
PLSS:	T10N, R05E, Sec. 15, W (M)			Acres:	0.0		
Location:	ABOUT 0.5 MILE NNW OF INTERSECTION OF ELVERTA ROAD AND RIVERGREEN DR AND 0.6 MILE SSE OF KASSER RD AT 16TH ST, ELVERTA.						
Detailed Location:	"D.R. STEPHENS CENTRAL PROPERTY" WITHIN THE ELVERTA SPECIFIC PLAN PROPERTIES. MAPPED TO LOCATION GIVEN FOR POOL SW3.						
Ecological:	SEASONAL WETLAND IN GRAZED PROPERTY WITH SOME OHV DISTURBANCE.						
General:	RARE (ONLY 1 OR 2 DIPNETTED) IN SW3 ON 11 FEB 2010.						
Owner/Manager:	PVT						

Occurrence No.	741	Map Index:	93589	EO Index:	94732	Element Last Seen:	2010-02-12
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2010-02-12	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-08-26	
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.71787 / -121.43179			Accuracy:	specific area		
UTM:	Zone-10 N4286636 E636335			Elevation (ft):	70		
PLSS:	T10N, R05E, Sec. 16, SE (M)			Acres:	17.0		
Location:	0.2 TO 0.3 MILE NW AND NNW OF THE INTERSECTION OF ELVERTA ROAD AND 16TH STREET, ELVERTA.						
Detailed Location:	2006: MAPPED TO OCCUPIED POOL 15 ON GRISMAN PROPERTY (NORTH END OF FEATURE). 2010: MAPPED TO OCCUPIED POOL SW5 ON "ELVERTA 59 1/2 PROPERTY" FROM ELVERTA SPECIFIC PLAN (SOUTH END OF FEATURE).						
Ecological:	2006: BASIN 15 A LARGE VERNAL POOL, HABITAT QUALITY FAIR, CALIFORNIA CLAMP SHRIMP ALSO PRESENT. 2010: SEASONAL WETLAND ON PROPERTY WITH SOME DISTURBANCE FROM GRAZING AND OHV USE.						
General:	FEWER THAN 24 DETECTED JAN 2006, IN 1 OF 20 BASINS SAMPLED. PRESENT IN POOL SW5 ON 12 FEB 2010.						
Owner/Manager:	PVT						



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Occurrence No.	742	Map Index:	93590	EO Index:	94733	Element Last Seen:	2010-02-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2010-02-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-08-26
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.71499 / -121.44478			Accuracy:	80 meters		
UTM:	Zone-10 N4286297 E635210			Elevation (ft):	50		
PLSS:	T10N, R05E, Sec. 16, SW (M)			Acres:	0.0		
Location:	AT THE NORTHWEST CORNER OF PALLADAY ROAD AND ELVERTA ROAD IN ELVERTA.						
Detailed Location:	"ELVERTA PALLADAY PROPERTY" FROM ELVERTA SPECIFIC PLAN. MAPPED TO LOCATION GIVEN FOR OCCUPIED POOLS V21, POND, AND D2.						
Ecological:	A DITCH, A POND, AND A VERNAL POOL IN GRASSLAND WITH SOME OHV AND GRAZING DISTURBANCE.						
General:	DETECTED IN 3 ADJACENT BASINS, 25 FEB 2008.1S TO 10 DETECTED IN 3 ADJACENT BASINS, 29 JAN - 25 FEB 2010.						
Owner/Manager:	PVT						

Occurrence No.	743	Map Index:	93591	EO Index:	94741	Element Last Seen:	2008-02-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2008-02-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-11-20
Quad Summary:	Rio Linda (3812164)						
County Summary:	Sacramento						
Lat/Long:	38.72609 / -121.43699			Accuracy:	specific area		
UTM:	Zone-10 N4287541 E635867			Elevation (ft):	70		
PLSS:	T10N, R05E, Sec. 16, NE (M)			Acres:	37.0		
Location:	BETWEEN 16TH STREET AND PALLADAY ROAD, ABOUT 0.8 MILE NORTH OF ELVERTA ROAD, ELVERTA.						
Detailed Location:	FROM W TO E: "TLC-ELVERTA 24", "MITIGATION AREA 1," & "SPORTS PARK" PARCELS FROM ELVERTA SPECIFIC PLAN PROPERTIES. MAPPED TO LOCATIONS GIVEN FOR OCCUPIED POOLS.						
Ecological:	FOUND IN VERNAL POOLS. 2 OCCUPIED POOLS ON ELVERTA 24 PROPERTY PROBABLY CONNECT IN HIGH RAIN YEARS. MITIGATION AREA 1 PROPOSED AS MITIGATION BANK AS OF 2007. CALIFORNIA FAIRY SHRIMP AND CALIFORNIA CLAM SHRIMP ALSO FOUND.						
General:	BRANCHINECTA CYSTS FOUND IN 1 POOL ON TLC-ELVERTA PROPERTY, AUG 2005. FEWER THAN 24 FOUND IN 2 OF 53 WETLANDS SAMPLED ON ELVERTA 24 PROPERTY, JAN-FEB 2006. FOUND IN 14 BASINS IN "MITIGATION AREA 1" & "SPORTS PARK" PARCELS, 4 & 18 FEB 2008.						
Owner/Manager:	PVT						



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Lepidurus packardii

Element Code: ICBRA10010

vernal pool tadpole shrimp

Listing Status: **Federal:** Endangered

CNDDDB Element Ranks: **Global:** G4

State: None

State: S3S4

Other: IUCN_EN-Endangered

Habitat: **General:** INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.

Micro: POOLS COMMONLY FOUND IN GRASS-BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED AND HIGHLY TURBID.

Occurrence No.	147	Map Index:	11427	EO Index:	42235	Element Last Seen:	1998-07-10
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		1998-07-10	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2000-01-20	

Quad Summary: Rio Linda (3812164)

County Summary: Sacramento

Lat/Long:	38.66358 / -121.42228	Accuracy:	specific area
UTM:	Zone-10 N4280626 E637266	Elevation (ft):	50
PLSS:	T09N, R05E, Sec. 19 (M)	Acres:	320.6

Location: WEST OF MCCLELLAN AIR FORCE BASE BETWEEN MAGPIE CREEK & ASCOT AVE, DEL PASO, NORTH OF SACRAMENTO.

Detailed Location: SEASONAL WETLANDS, INNUNDATED APPROXIMATELY >30 DAYS DURING WINTER 1998. LOCATION GIVEN ONLY AS T9N, R5E, SECTION 19. SNAPPED TO EXISTING MAPPED VERNAL POOLS.

Ecological: SURROUNDING LAND USE: AGRICULTURE AND FALLOW FIELDS.

General: 10 CYSTS WERE FOUND IN THE SURVEYS IN JUNE AND JULY, 1998.

Owner/Manager: PVT



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Gratiola heterosepala

Element Code: PDSCR0R060

Boggs Lake hedge-hyssop

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: Endangered

State: S2

Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive

Habitat: **General:** MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS.

Micro: CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 4-2410 M.

Occurrence No. 3 **Map Index:** 11397 **EO Index:** 17785 **Element Last Seen:** 1960-04-21

Occ. Rank: None **Presence:** Possibly Extirpated **Site Last Seen:** 1997-06-18

Occ. Type: Natural/Native occurrence **Trend:** Decreasing **Record Last Updated:** 2011-01-04

Quad Summary: Rio Linda (3812164)

County Summary: Sacramento

Lat/Long: 38.70480 / -121.43596 **Accuracy:** non-specific area

UTM: Zone-10 N4285180 E635997 **Elevation (ft):** 65

PLSS: T10N, R05E, Sec. 21, S (M) **Acres:** 132.0

Location: VERNAL POOLS JUST NORTH OF AND ADJACENT TO U STREET, AT NORTHEASTERN BORDER OF RIO LINDA.

Detailed Location: FOUND OPPOSITE OF MAIL BOX MARKED "CASE." EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS BY CNDDDB ALONG U STREET.

Ecological: DRIED-UP AND VERY SHALLOW VERNAL POOLS.

General: SITE BASED ON 1960 BACIGALUPI COLLECTION, NONE FOUND WHEN HE REVISITED SITE IN 1977. VERNAL POOLS N OF JUNCTION OF U ST AND DRY CREEK RD SEARCHED IN 1978 & 1997, BUT ONLY G. EBRACTEATA FOUND. STILL SOME HABITAT IN 1997, MORE SURVEYS NEEDED.

Owner/Manager: UNKNOWN

APPENDIX C – U.S. FISH AND WILDLIFE SERVICE IPAC

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Sacramento County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* Threatened
Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened
Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered
Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/2246>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS
INDICATED FOR A BIRD ON
YOUR LIST, THE BIRD MAY
BREED IN YOUR PROJECT AREA
SOMETIME WITHIN THE
TIMEFRAME SPECIFIED, WHICH
IS A VERY LIBERAL ESTIMATE
OF THE DATES INSIDE WHICH
THE BIRD BREEDS ACROSS ITS
ENTIRE RANGE. "BREEDS
ELSEWHERE" INDICATES THAT
THE BIRD DOES NOT LIKELY
BREED IN YOUR PROJECT
AREA.)

Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

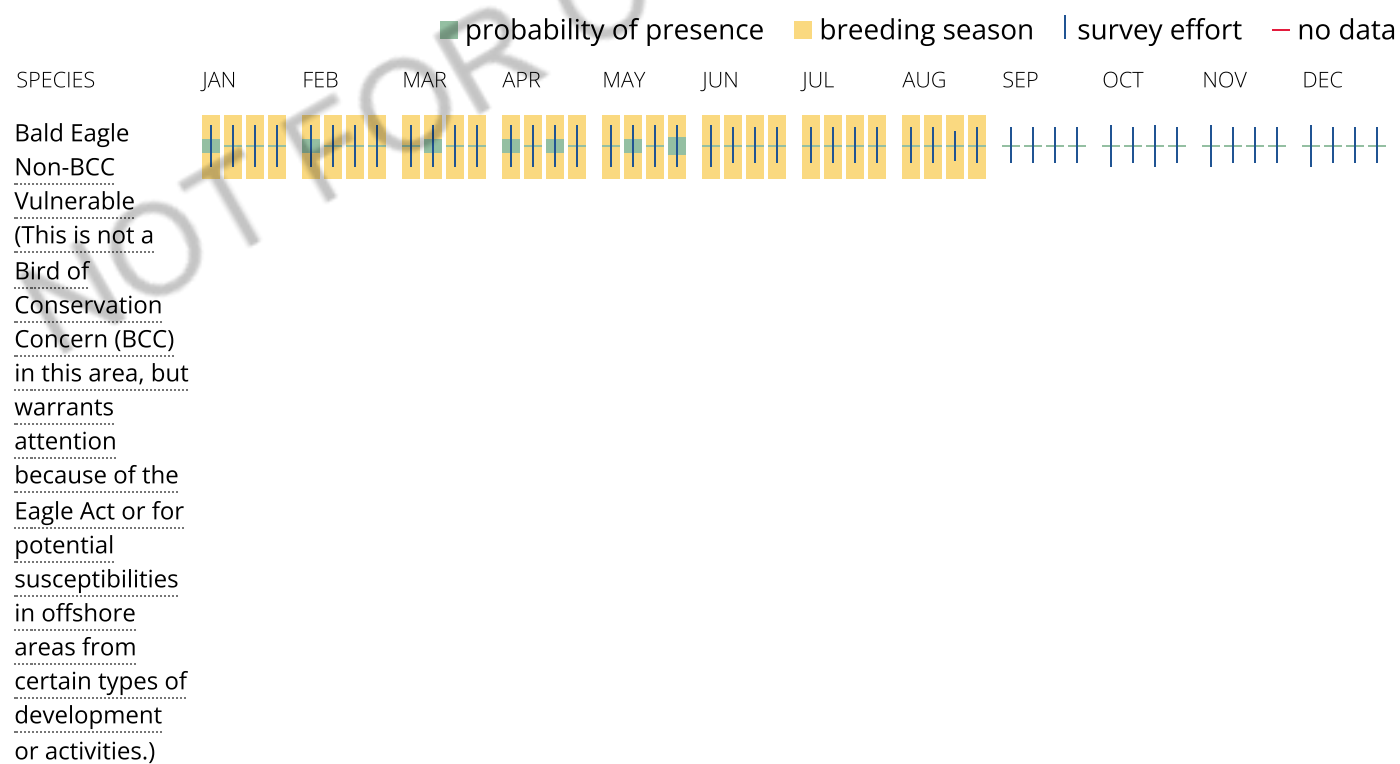
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Clark's Grebe BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	
Common Yellowthroat BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)	
Golden Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)	



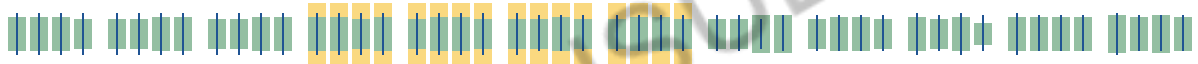
Tricolored
Blackbird
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental
USA and
Alaska.)



Wrentit
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental
USA and
Alaska.)



Yellow-billed
Magpie
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental
USA and
Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA](#)

[Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX D – PHOTO PLATE



1. West of canal facing northerly, near standpipe



2. Canal looking east from the west end

July 27, 2022

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3. Canal looking west



4. Panoramic view of canal from the south bank

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5. North of canal and east of the parcel



6. Canal looking west from the east

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7. Project site looking west



8. Trees along the southern fence

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