



Environmental Consulting,
Regulatory Compliance and
Aerial Photographic Services

5214 El Cerrito Avenue
Davis, CA 95618-4418
Tel/Fax: 530.758.9235
Cell: 530.902.9670

bdbarnet@sbcglobal.net
bruce@barnettenvironmental.com
barnettenvironmental.com
flickr.com/photos/bioflyer

March 2, 2018

Yuba County Community Development Department
915 8th Street, Suite 123
Marysville, CA 95901

**ATTN: Van Boeck, Principal Engineer, Department of Public Works
Kevin Perkins, Senior Planner, Planning Department**

**Subject: McGowan Parkway Widening Project, Olivehurst, CA
Biological & Wetland Resources Assessment**

Dear Van and Kevin,

Yuba County is proposing to widen and improve approximately 0.8 mile of McGowan Parkway in Olivehurst, CA – from Powerline Road to CA State Route 65 (Project Area). The project will widen the roadway to construct new curb, gutter, sidewalks, storm drains, Class III bicycle route, new crosswalks, and rapid flashing beacons. Our understanding is the new construction will remain within the existing right of way.

We have prepared this assessment as a summary of our findings related to biological and wetland considerations the County must review as a requirement of the California Environmental Quality Act (CEQA). In addition, this report addresses federal and state resource permitting that could be required under the Clean Water Act (CWA) to address impacts to potential wetlands and other waters of the United States.

Project Location

The Project Area is in Section 9, Township 14 North, Range 4 East of the Olivehurst, California 7.5-minute USGS quadrangle (Figure 1) and is completely surrounded by residential and development. The Project Area is relatively flat and located at approximately 58 - 60 feet above mean sea level (msl) and centered at approximately 39°4'39" North latitude and 121°32'9" West longitude within the Lower Feather Watershed (HUC8 18020106).

Site Research and Survey

Barnett Environmental biologists surveyed the Project Area on January 27, 2017 for special status plant and wildlife species and habitats that could support them within the project area and recorded observations of: (1) dominant plant communities, (2) observed plant and animal species (with emphasis on rare and endangered species) or their sign (nests, burrows, tracks, scat) and (3) the suitability of

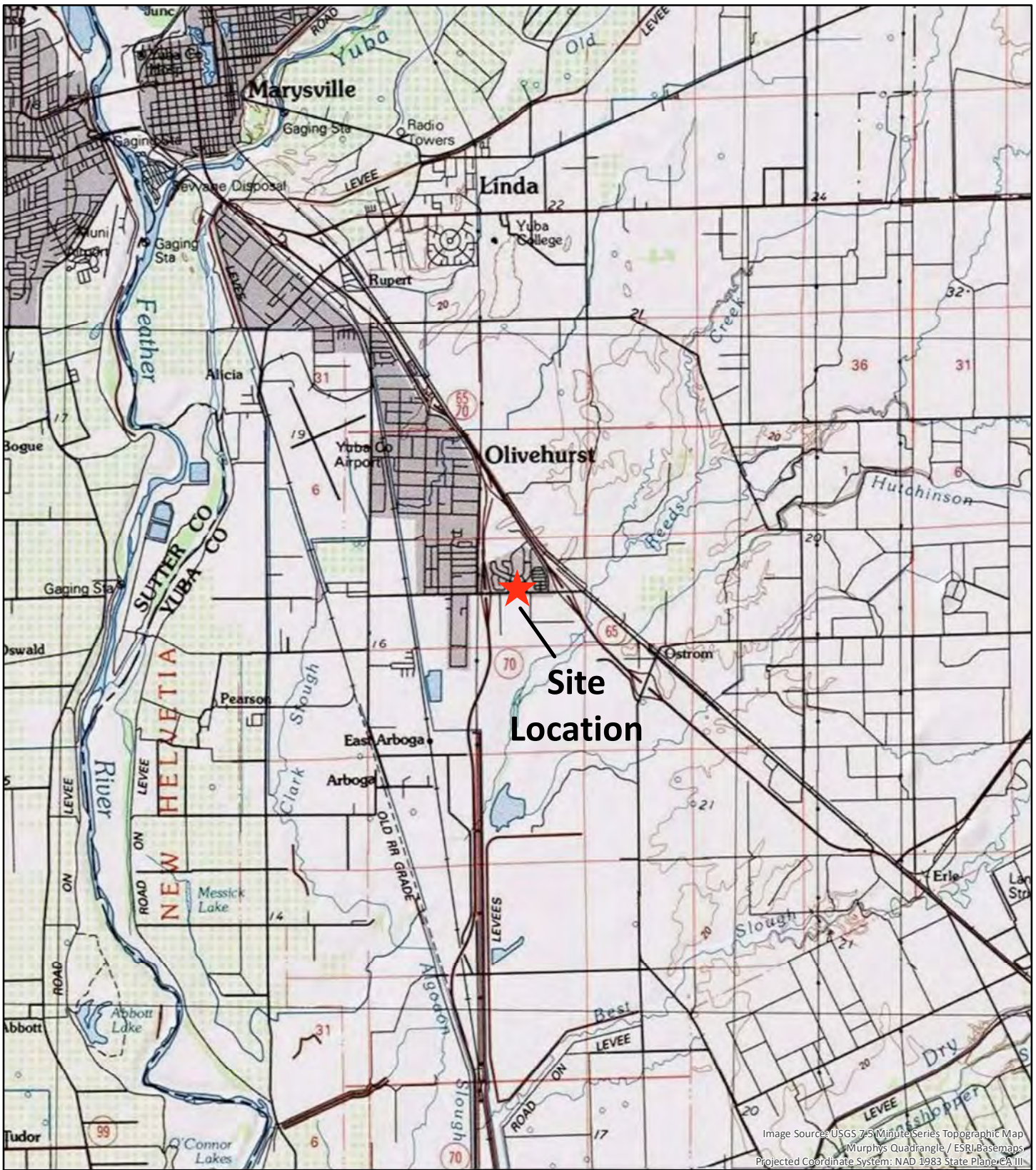


Image Source: USGS 7.5-Minute Series Topographic Map -
 Murphys Quadrangle / ESRI Basemaps
 Projected Coordinate System: NAD 1983 State Plane, CA III

Source: USGS 7.5-Minute Series Topographic Map - Olivehurst Quadrangle

FIGURE 1: VICINITY MAP

MCGOWAN PARKWAY OLIVEHURST ROAD WIDENING • YUBA COUNTY, CALIFORNIA

Not to Specific Scale



Date: January 27, 2018

onsite habitats and those immediately adjoining the Project 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). The site assessment consisted of walking the entire Project Area to note current habitat conditions, surrounding land uses, general habitat types, and wildlife species.

Prior to our field survey, we queried both the U.S. Fish & Wildlife Service’s *National Wetland Inventory* (NWI; Figure 2) and EcoAtlas’ *California Aquatic Resource Inventory* (CARI; Figure 3) to determine whether any wetlands or “other waters of the U.S.” or “waters of the State” had been historically recorded on or around the site, as defined by the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and its 2008 Arid West Region Regional Supplement. We also assessed potentially federal and/or state jurisdictional wetlands and other waters in the Project Area in accordance with the 2008 *Arid West Region Regional Supplement* and 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*.

The Project Area, however, does not support any wetlands and/or other “waters of the State” under the Porter-Cologne Act, but does contain 0.0725 acre of upland, interment drainage ditches along both sides of McGowan Parkway that contain no hydrophytic vegetation other than sparse annual grasses and forbs (Figure 4).

Table 1: Potentially Jurisdictional “Other Waters of the U.S.”

Type	Length	Sq_Feet	Acreage
Ditches	1,574	3,149	0.0725
Culvert	45	268	0.0062
Total	1,619	3,417	0.0787

We observed no terrestrial wildlife along the Project Area alignment during the field survey, but this is likely due to the relatively high level of traffic and residential disturbance and ruderal vegetation habitat that likely precludes the presence of most wildlife species in these habitats, which include reptiles such as the western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), and western rattlesnake (*Crotalus viridis*), mammals such as the California ground squirrel (*Spermophilus beecheyi*) and western harvest mouse (*Reithrodontomys megalotis*), common birds like the western scrub jay (*Aphelocoma californica*), western meadowlark (*Sturnella neglecta*), killdeer (*Charadrius vociferus*), and western kingbird (*Tyrannus verticalis*) and raptors such as the burrowing owl (*Athene cunicularia*) and short-eared owl (*Asio flammeus*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*) black-shoulder kite (*Elanus axillaris*), and the prairie falcon (*Falco mexicanus*). We did see several raptors (e.g. red-tailed hawk [*Buteo jamaicensis*] and turkey vulture [*Cathartes aura*]) circling overhead at the time of the field survey, but no nests in the occasional trees along the project alignment.

We then queried the California Department of Fish & Wildlife’s *California Natural Diversity Database* (CNDDDB), U.S. Fish and Wildlife Service’s *iPAC Database*, and California Native Plant Society’s (CNPS) *Inventory of Rare & Endangered Plants* for special status species that could occur in the vicinity within a five-mile radius of the Project Area (Figure 5).

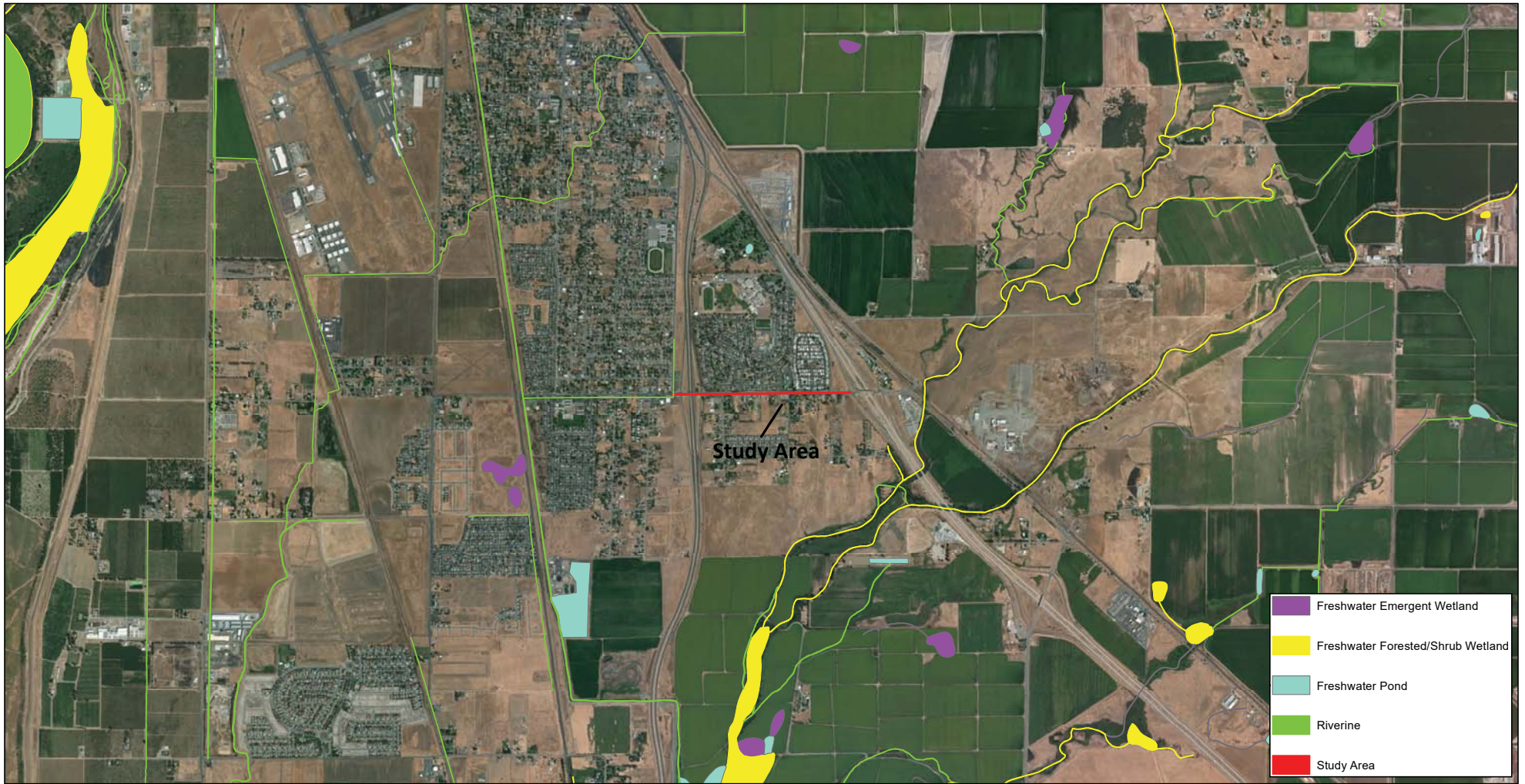


FIGURE 2: NATIONAL WETLANDS INVENTORY MAP

MCGOWAN PARKWAY OLIVEHURST ROAD WIDENING • YUBA COUNTY, CALIFORNIA

Not to Specific Scale



Date: January 27, 2018



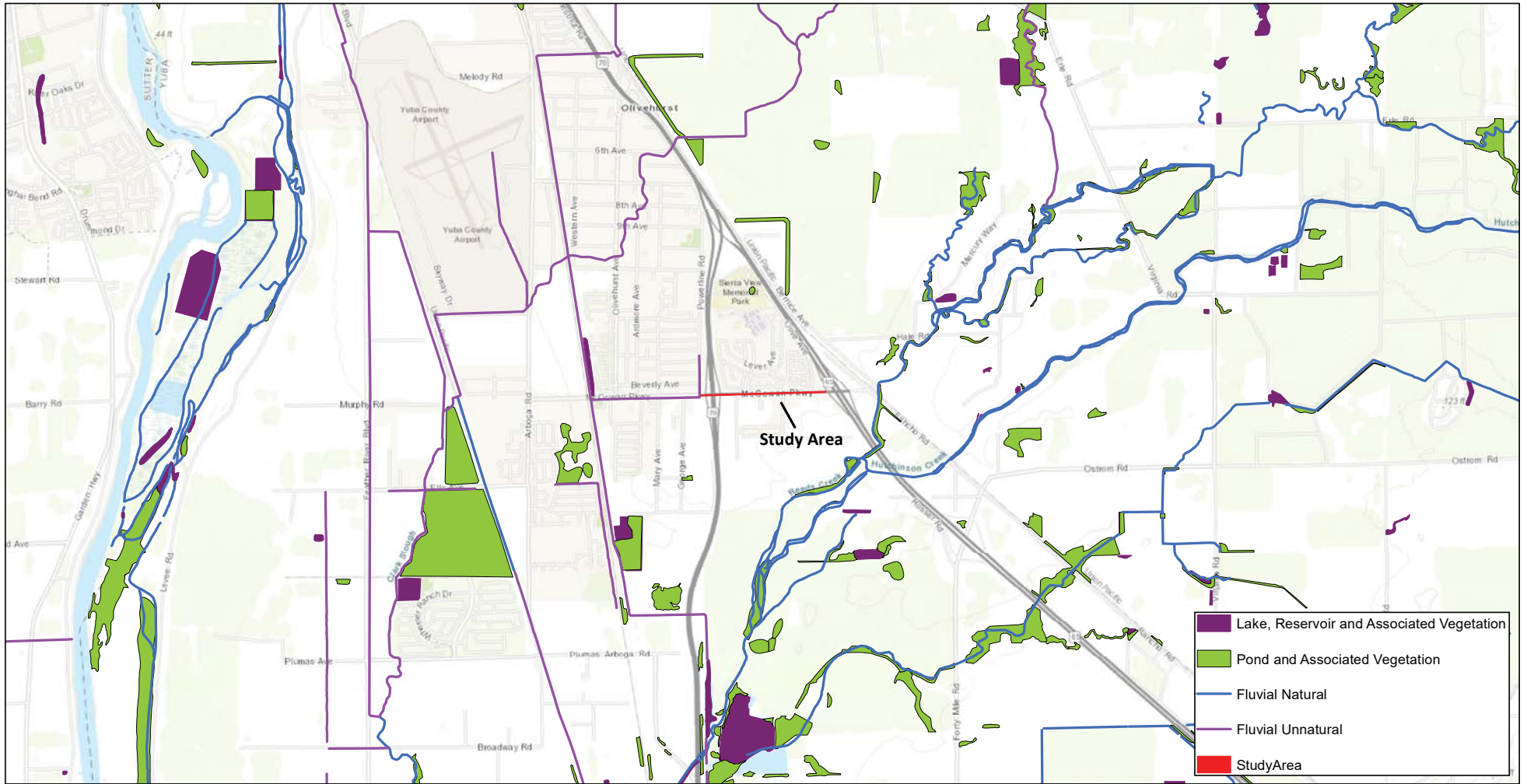
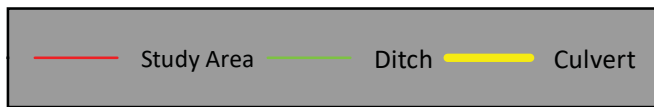
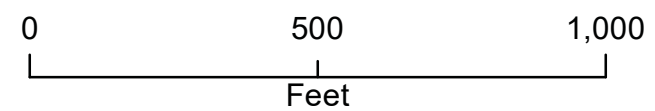
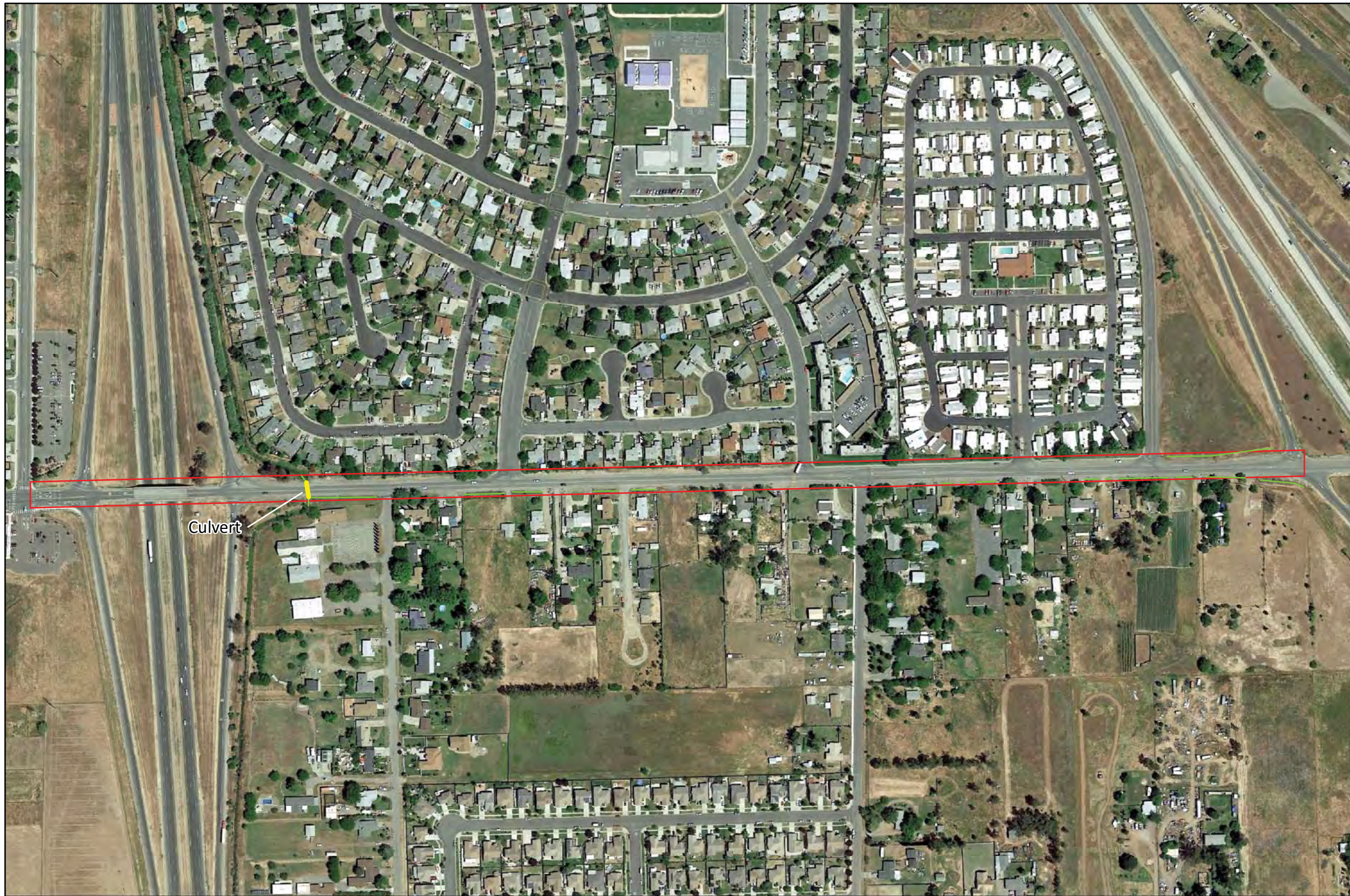


FIGURE 3: CALIFORNIA AQUATIC RESOURCES INVENTORY





Vicinity Map



Not to Scale

Type	Length	Sq Feet	Acreage
Ditches	1,574	3,149	0.0725
Culvert	45	268	0.0062
Total	1,619	3,417	0.0787

FIGURE 4: Roadside Drainage Ditch & Culvert Locations

MCGOWEN PARKWAY OLIVEHURST ROAD WIDENING • YUBA COUNTY, CALIFORNIA

Date: March 2, 2018



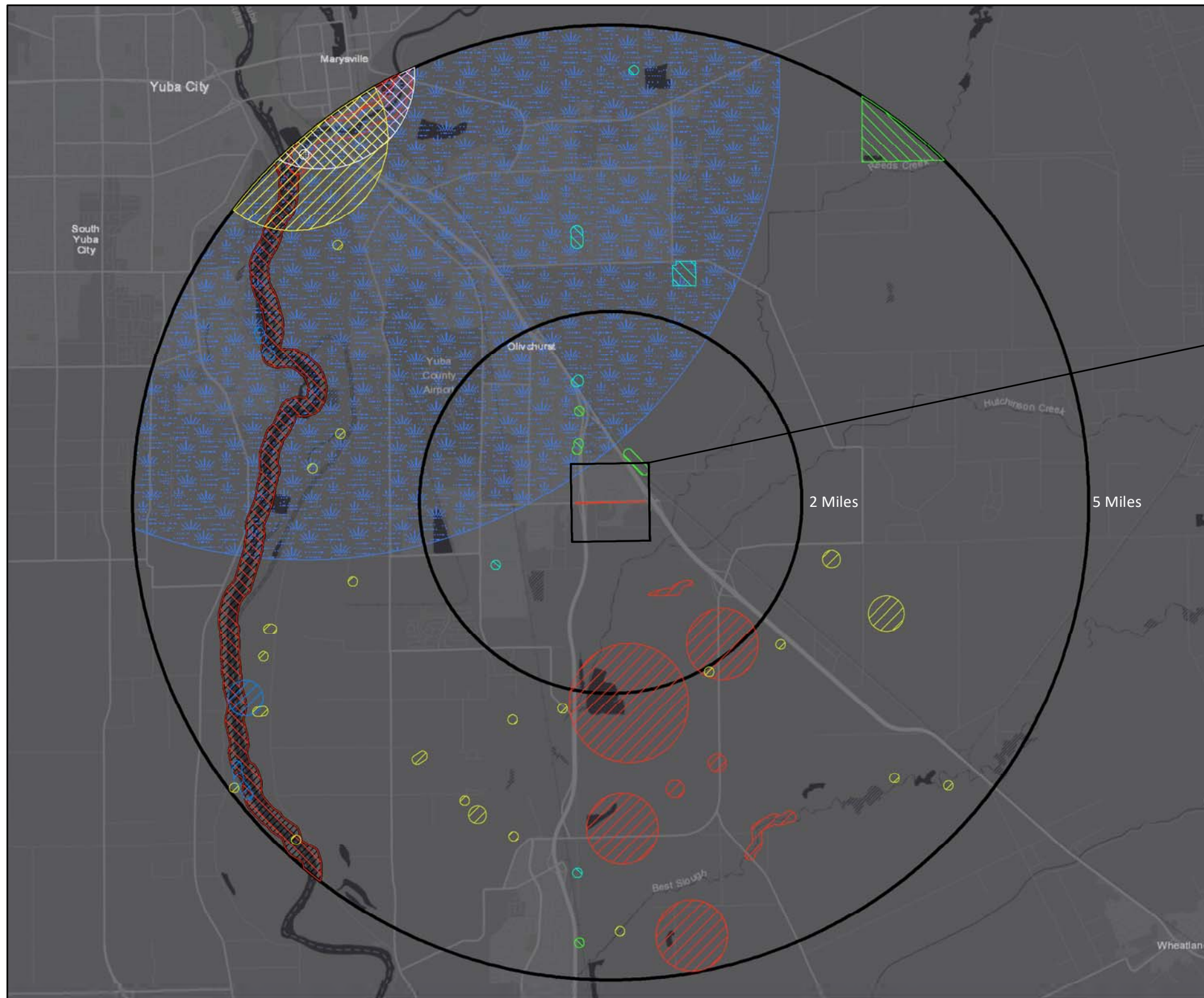
Special status species are those that fall into one or more of the following categories:

- 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),
- Designated as a Species of Concern by the Sacramento District of the U.S. Fish and Wildlife Service,
- 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.

Barnett biologists reviewed CNDDDB, CNPS, and iPAC for special status species with similar habitat and elevation requirements occurring in a five-mile radius of the Project Area. A single special status plant species – the hartweg’s golden sunburst (*Pseudobahia bahiifolia*) has been previously recorded in the region, along with three animal species in the following Table 2 and Appendix A, but a lack of appropriate habitat for any these species within the Project Area preclude their occurrence here.

Table 2: Special Status Species within the Vicinity of the Permit Areas

Species	Federal	State	CNPS	Habitat	Potential for Occurrence in Project Area	Rationale for Assessing Potential for Occurrence
Plants						
Hartweg’s golden sunburst <i>Pseudobahia bahiifolia</i>	FE	CE	1B	Found in valley and foothill grasslands, as well as, cismontane woodland within clay soils that are often acidic.	Low	The Project Area contains marginal suitable grassland habitat along the roadside. There is a single recoded occurrence of this species within the Project Area. The occurrence was documented in 1990 and has not been documented since.

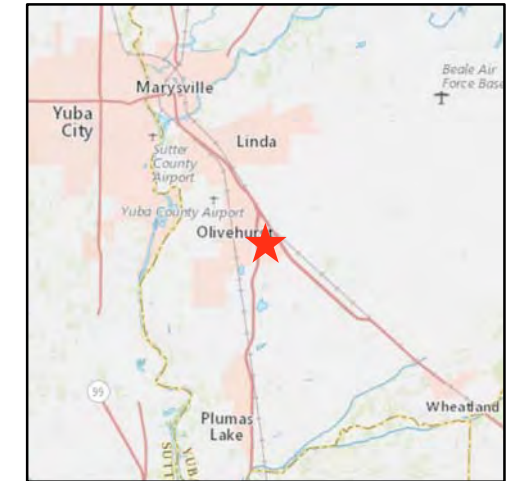


Detail Map



Not to Scale

Vicinity Map



Not to Scale

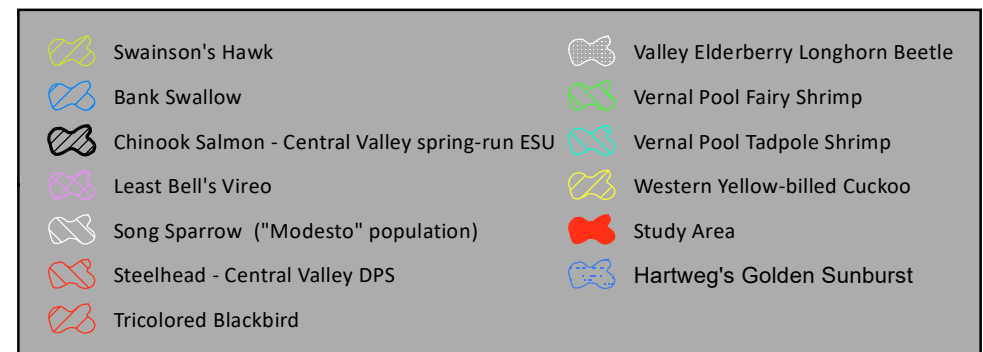


FIGURE 5: CALIFORNIA NATIONAL DIVERSITY DATABASE

MCGOWAN PARKWAY OLIVEHURST ROAD WIDENING • YUBA COUNTY, CALIFORNIA

Date: January 27, 2018

Scaled to Fit



Species	Federal	State	CNPS	Habitat	Potential for Occurrence in Project Area	Rationale for Assessing Potential for Occurrence
Invertebrates						
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FE	-	-	Valley and foothill vernal pools. Small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	None	The Project Area does not contain suitable habitat (i.e. seasonal wetlands at least one foot deep). However, there are 3 recorded CNDDDB occurrences of this species within five miles of the Project Area, with the nearest occurrence a quarter of a mile northeast.
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	FT	-		Vernal pools, seasonal wetlands and grass-bottomed swales in unplowed Valley and foothill grasslands in the Sacramento Valley, containing clear to highly turbid water.	None	The Project Area does not contain suitable habitat (i.e. seasonal wetlands at least one foot deep). However, there are 6 recorded CNDDDB occurrences within five miles of the Project Area, with the nearest occurrence one mile southwest.
Birds						
Swainson's hawk <i>Buteo swainsoni</i>	-	CT		Great Basin grassland, riparian forest and woodlands, valley, and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, savannahs, & agricultural or ranch lands with groves or lines of trees.	Low	The Project Area contains marginal grassland foraging habitat, though due to the highly disturbed nature of these grasslands, small size of the Project Area and proximity to human activity, their presence onsite is unlikely. No Swainson's hawks were observed during the survey and the nearest recorded CNDDDB occurrence is approximately two miles southwest from the Project Area.

Special Status Species Codes:

Federal: FE Federal Endangered FT Federal Threatened

State: CSC California Species of Concern CE California Endangered

 CFP California Fully Protected CT California Threatened

 CR California Rare

CNPS: 1B Rare or threatened in CA and elsewhere 2B Rare, threatened, or Endangered in CA, but more common elsewhere

Potential for Occurrence Codes:

- None:* No suitable habitat for the special status species within the Project Area
- Low:* Either the special status species is known to occur within five miles but no suitable habitat exists in the Project Area, or the Project Area provides suitable habitat but the species is not known to occur within a five-mile radius.
- Moderate:* The special status species is known to occur within a five-mile radius of the Project Area, however, the Project Area provides only moderately suitable habitat.
- High:* The Project 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 Project Area based on record search and/or evidence collect during onsite field surveys.

Summary of Findings

The U.S. Army Corps of Engineers (Corps) and Environmental Protection Agency (EPA) 5/26/15 Final Rule defining “waters of the U.S.”, “... excludes all ditches with ephemeral flow that are not excavated in or relocate a tributary, ... ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands, regardless of whether or not the wetland is a jurisdictional water, (and) ... ditches that do not connect to a traditional navigable water, interstate water, or territorial sea either directly or through another water ..., regardless of whether the flow is ephemeral, intermittent, or perennial.” While this rule has been held up in the courts since its issuance under the previous administration, it is generally followed by the Corps in their CWA, Section 404 permitting and authorization.

The single special status plant species identified in the CNDDDB with potential to occur within the Project Area is actually a mis-recorded observation from the plant’s recognized range in Stanislaus, Merced and Madera Counties.

Hartweg’s golden sunburst – (*Pseudobahia bahiafolia*) is a annual herb of the sunflower family (Asteraceae). This species is federally and State listed as endangered. Hartweg’s golden sunburst is approximately two to eight inches tall with linear or lance-shaped leaves with three small lobes near the tip of each leaf. The inflorescent consists of clusters of small yellow ray floret at the top. This species is found in clay soils within grasslands and open woodlands. It blooms from March to May at elevations approximately 300 to 700 feet. This species is threatened by development, agriculture, foot traffic, and overgrazing. Hartweg’s golden sunburst has a low potential to occur, given the habitat requirements and that there is a single recorded CNDDDB occurrence located within the Project Area. This species was not observed during the biological assessment conducted in January 2018. Though the CNDDDB contains a single recorded occurrence of this species within Project Area in 1990, this species actually occurs farther south in the Central Valley, in Stanislaus, Merced, and Madera counties. (Figure 5).

State listed species are plants and animals that are legally protected under the California Endangered Species Act (CESA). A single state listed species has the potential to occur but is not known to occur within the Project Area. Potential for occurrence is based on habitat requirements, elevation range, and observances within a five-mile radius

Swainson’s hawk (*Buteo swainsoni*) – The Swainson’s hawk is a California threatened, large (1.75 - 2 pounds), broad-winged bird-of-prey (raptor) that frequents open country. It is a long-distance migrator that nests in the Central Valley from March 1 to September 15 and over-winters in Mexico or South

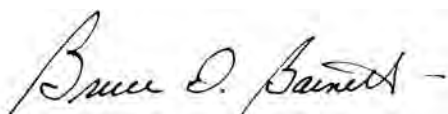
America. This hawk forages almost exclusively in agricultural row-crops and grasslands. Its favored prey are voles and small rodents that are more readily available in suitable densities on agricultural lands. Unlike some other local raptors, urban areas or dense vegetation do not provide suitable foraging habitat for this hawk. Sacramento, Yolo, and San Joaquin Counties support most of the Central Valley Swainson's hawk breeding population. Narrow riparian systems and scattered Valley oak trees, combined with suitable agricultural foraging habitat, provide high-quality habitat conditions in Sacramento County, where an estimated 100 pairs nest. Swainson's hawks are monogamous and actively nest from March through July. Nests of twigs and grasses are constructed in isolated trees or bushes, shelterbelts, riparian groves, or abandoned homesteads, approximately nine to 15 feet above the ground in cottonwood, poplar, oak and the occasional pine tree in the Central Valley. The incubation period is 34 to 35 days, with fledging at about 38 to 46 days. No Swainson's hawks were observed during the January 2018 field survey, though the species does have a low potential to forage over the site, given the Project Area provides marginal suitable habitat and there are 21 recorded CNDDDB occurrences within five miles of the Project Area, with the nearest sighting 2 miles southwest (Figure 6).

Conclusion and Recommendations

1. There are no jurisdictional wetlands or "other waters of the United States" within the Project Area beyond 0.0686 acre of roadside ditches. A Clean Water Act, Section 404 Nationwide Permit (NWP#14 – Transportation Corridors), under which this project could be authorized, states that "The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre ..." Since the approximately 0.07 acre of ditches removed by road improvement activities is well under the NWP#14 0.1-acre pre-construction notification threshold, the project could proceed with minimal construction delay by POST-notifying the Corps following construction, if necessary.
2. General Condition 23.c of NWP#14 states that: "Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre." Consequently, a 0.07 acre loss of roadside ditches with the proposed road improvement should require no mitigation with a NWP post-notification, should one be filed with the Army Corps of Engineers.
3. The California Natural Diversity Database (Rarefind) contains a single recorded occurrence of Hartweg's golden sunburst located within the Project Area, but the mis-representation of the species occurrence in this area precludes the need for a rare plant survey for this plant.
4. The Swainson's hawk also has a low potential for occurrence within the Project Area.

Please feel free to contact me at (530) 758-9235 or via email at bdbarnet@sbcglobal.net should you have any questions or comments.

Sincerely,



Bruce D. Barnett, Ph.D

ATTACHMENT A



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



Query Criteria: Quad IS (Olivehurst (3912115))
 AND (Federal Listing Status IS (Endangered OR Threatened) OR State Listing Status IS (Endangered OR Threatened OR (Rare))
 AND IS (Pavement plain OR Valley & foothill grassland)

<i>Buteo swainsoni</i>		Element Code: ABNKC19070	
Swainson's hawk			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G5
	State: Threatened		State: S3
Other:	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern		
Habitat:	General:	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & 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.	1513	Map Index:	62840	EO Index:	62894	Element Last Seen:	2004-07-23
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2004-07-23	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-10-18	

Quad Summary: Olivehurst (3912115)
County Summary: Sutter

Lat/Long: 39.08278 / -121.59393 **Accuracy:** 80 meters
UTM: Zone-10 N4326903 E621614 **Elevation (ft):** 50
PLSS: T14N, R03E, Sec. 12 (M) **Acres:** 0.0

Location: FEATHER RIVER, 1.25 MILES SE OF SHANGHAI BEND, 3 MILES SSE OF YUBA CITY.
Detailed Location:
Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN IN ALL DIRECTIONS.
General: INCUBATING ADULT OBSERVED ON 20 & 26 MAY 2004; 1 DOWNY CHICK OBSERVED ON 2 JUL 2004; 1 FEATHERED CHICK OBSERVED IN THE NEST ON 16 & 23 JUL 2004.
Owner/Manager: UNKNOWN

Occurrence No.	1514	Map Index:	62843	EO Index:	62897	Element Last Seen:	2004-07-16
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2004-07-23	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-10-19	

Quad Summary: Olivehurst (3912115)
County Summary: Sutter

Lat/Long: 39.08797 / -121.58847 **Accuracy:** 80 meters
UTM: Zone-10 N4327487 E622077 **Elevation (ft):** 55
PLSS: T14N, R03E, Sec. 01 (M) **Acres:** 0.0

Location: FEATHER RIVER, 1 MILE SE OF SHANGHAI BEND, 3 MILES SE OF YUBA CITY.
Detailed Location:
Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN IN ALL DIRECTIONS.
General: INCUBATING ADULT OBSERVED ON 26 MAY 2004; 3 DOWNY CHICKS OBSERVED ON 23 JUN 2004; 1 FEATHERED CHICK OBSERVED IN THE NEST ON 8 & 16 JUL 2004; NEST EMPTY (FLEDGED) BY 23 JUL 2004.
Owner/Manager: UNKNOWN



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



Occurrence No.	1522	Map Index: 62893	EO Index: 62947	Element Last Seen:	2003-07-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-05-06

Quad Summary: Olivehurst (3912115)

County Summary: Sutter, Yuba

Lat/Long:	39.02634 / -121.59743	Accuracy:	80 meters
UTM:	Zone-10 N4320635 E621408	Elevation (ft):	30
PLSS:	T14N, R03E, Sec. 26 (M)	Acres:	0.0

Location: EAST BANK OF THE FEATHER RIVER, ABOUT 1 MILE WNW OF FEATHER RIVER BLVD AT RICH RD & 6.5 MILES SOUTH OF YUBA CITY.

Detailed Location: MAPPED TO COORDINATES FROM CDFW SWAINSON'S HAWK NEST RECORDS 2000-2004 (IN MIDDLE OF RIVER; SHOULD BE ON EAST BANK). 2012 DETECTIONS ABOUT 0.5 MILE TO WEST AND 0.6-0.8 MILE TO SOUTH.

Ecological: 2004: LARGE STICK NEST IN COTTONWOOD; SURROUNDED BY RIPARIAN TO THE NW AND SW, AND ORCHARDS TO THE NE AND SE.

General: NEST PRODUCED 2 YOUNG, AT LEAST 1 FLEDGED IN 2004. 3 INCIDENTAL DETECTIONS OF AGITATED, POSSIBLY TERRITORIAL SWAINSON'S HAWKS MADE IN VICINITY DURING YELLOW-BILLED CUCKOO SURVEYS, JUN-AUG 2012.

Owner/Manager: UNKNOWN

Occurrence No.	1523	Map Index: 62900	EO Index: 62954	Element Last Seen:	2003-07-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-11-14

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.03876 / -121.57338	Accuracy:	specific area
UTM:	Zone-10 N4322046 E623468	Elevation (ft):	45
PLSS:	T14N, R04E, Sec. 30, NW (M)	Acres:	9.4

Location: 0.3 MILE SE OF THE INTERSECTION OF ANDERSON AVENUE AND FEATHER RIVER BOULEVARD, 6 MILES SSE OF YUBA CITY.

Detailed Location: 2002 AND 2003 NEST TREES WERE VALLEY OAKS.

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY RIPARIAN TO THE NE AND SE, AND GRASSLAND TO THE NW AND SW.

General: NESTING CONFIRMED IN 2002 BY THE PRESENCE OF FLEDGED YOUNG, BUT NEST NEVER FOUND. NEST TREE DISCOVERED ON 19 APR 2003; 1 DOWNY CHICK OBSERVED IN THE NEST ON 18 JUN 2003; 1 FLEDGLING OBSERVED IN THE ADJACENT FIELD ON 9 JUL 2003.

Owner/Manager: UNKNOWN



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



Occurrence No.	1524	Map Index:	62901	EO Index:	62955	Element Last Seen:	2003-07-09
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2003-07-09	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-10-20	
Quad Summary:	Olivehurst (3912115)						
County Summary:	Yuba						
Lat/Long:	39.06556 / -121.58619			Accuracy:	80 meters		
UTM:	Zone-10 N4325003 E622313			Elevation (ft):	50		
PLSS:	T14N, R03E, Sec. 13, NW (M)			Acres:	0.0		
Location:	0.5 MILE SW OF THE INTERSECTION OF ELLA ROAD AND FEATHER RIVER BOULEVARD, 4 MILES SSE OF YUBA CITY.						
Detailed Location:							
Ecological:	NEST TREE WAS A VALLEY OAK IN THE MIDDLE OF A FALLOW FIELD; SURROUNDED BY ORCHARDS TO THE NW, NE, AND SE, AND FALLOW/RUDERAL TO THE SW.						
General:	NEST TREE DISCOVERED ON 4 MAY 2003; 1 SWHA ON THE NEST ON 18 JUN 2003; 1 CHICK OBSERVED FLAPPING ON THE OUTER EDGE OF THE NEST ON 9 JUL 2003.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1525	Map Index:	62903	EO Index:	62957	Element Last Seen:	2015-04-22
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2015-04-22	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2018-01-25	
Quad Summary:	Olivehurst (3912115)						
County Summary:	Sutter, Yuba						
Lat/Long:	39.04569 / -121.60469			Accuracy:	specific area		
UTM:	Zone-10 N4322774 E620747			Elevation (ft):	47		
PLSS:	T14N, R03E, Sec. 23, SE (M)			Acres:	26.0		
Location:	BOTH SIDES OF THE FEATHER RIVER, FROM ABOUT 0.2 MI NNW TO 0.6 MI SW OF LEVEE RD AT BROADWAY ST, 5 MI SOUTH OF YUBA CITY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	2002 & 2003 NEST TREES WERE COTTONWOODS SURROUNDED BY ORCHARDS TO THE EAST & RIPARIAN TO THE WEST. 2014: NEST TREES IN OCCASIONALLY-MOWED GRASSLAND. 2015: RIPARIAN COTTONWOOD CORRIDOR & OVERGROWN GRASSLAND ADJACENT TO ORCHARDS.						
General:	1 PAIR FLEDGED AT LEAST 1 YOUNG IN 2002 & 2003. 3 PAIRS OBSERVED IN 2014; 1ST ABANDONED NEST, 2ND PRODUCED 2 YOUNG THAT DIED IN NEST; & 3RD PRODUCED 1 YOUNG OBSERVED IN LATE NESTLING STAGE. NESTING PAIR OBS MAR-APR 2015.						
Owner/Manager:	UNKNOWN						



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



Occurrence No.	1526	Map Index: 62904	EO Index: 62958	Element Last Seen:	2003-07-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-10-20

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.05424 / -121.60363	Accuracy:	80 meters
UTM:	Zone-10 N4323723 E620823	Elevation (ft):	50
PLSS:	T14N, R03E, Sec. 23 (M)	Acres:	0.0

Location: WEST OF LEVEE ROAD, 1.4 MILES WNW OF BROADWAY ST JUNCTION WITH FEATHER RIVER BOULEVARD, 4.5 MILES SOUTH OF YUBA CITY.

Detailed Location:

Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY ORCHARDS TO THE NE AND SE, AND RIPARIAN TO THE NW AND SW.

General: NEST TREE DISCOVERED ON 4 MAY 2003; 2 FLEDGLINGS OBSERVED PERCHED NEAR THE NEST ON 9 JUL 2003.

Owner/Manager: UNKNOWN

Occurrence No.	1527	Map Index: 62905	EO Index: 62959	Element Last Seen:	2003-07-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-10-20

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.04447 / -121.55524	Accuracy:	80 meters
UTM:	Zone-10 N4322705 E625028	Elevation (ft):	50
PLSS:	T14N, R04E, Sec. 20, SW (M)	Acres:	0.0

Location: 0.6 MILE NE OF MARYSVILLE MUNICIPAL GOLF COURSE, SOUTH OF ARBOGA.

Detailed Location: NEST WAS LOCATED 3/4 OF THE WAY UP THE NEST TREE.

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY GRAZING LAND TO THE NE, ROW CROPS TO THE SE, AND RIPARIAN TO THE NW AND SW.

General: NEST TREE DISCOVERED ON 24 APR 2003; AT LEAST 1 DOWNY CHICK OBSERVED IN THE NEST ON 18 JUN 2004; 1 FLEDGLING OBSERVED ON 9 JUL 2003.

Owner/Manager: UNKNOWN



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



Occurrence No.	1528	Map Index: 62906	EO Index: 62960	Element Last Seen:	2003-07-10
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-10
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-10-20
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.04614 / -121.54550		Accuracy:	80 meters	
UTM:	Zone-10 N4322903 E625868		Elevation (ft):	45	
PLSS:	T14N, R04E, Sec. 20, SE (M)		Acres:	0.0	
Location:	WEST SIDE OF PLUMAS-ARBOGA ROAD, 0.25 MILE NW OF THE HIGHWAY 70 JUNCTION, SE OF ARBOGA.				
Detailed Location:					
Ecological:	NEST TREE WAS A VALLEY OAK; SURROUNDED BY GRAZING LAND IN ALL DIRECTIONS.				
General:	COURTSHIP DISPLAYS OBSERVED ON 24 APR 2003; NEST TREE DISCOVERED ON 18 JUN 2003; 1 FLEDGLING AND BOTH PARENTS OBSERVED IN THE NEST TREE AND NEARBY ON 10 JUL 2003.				
Owner/Manager:	UNKNOWN				
Occurrence No.	1529	Map Index: 62907	EO Index: 62961	Element Last Seen:	2003-07-10
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2003-07-10
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-10-20
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.05156 / -121.51696		Accuracy:	80 meters	
UTM:	Zone-10 N4323545 E628328		Elevation (ft):	58	
PLSS:	T14N, R04E, Sec. 22, NW (M)		Acres:	0.0	
Location:	WEST SIDE OF FORTY-MILE ROAD, 1 MILE SOUTH OF HIGHWAY 65, SE OF OLIVEHURST.				
Detailed Location:					
Ecological:	NEST TREE WAS A PINE; SURROUNDED BY FALLOW LAND TO THE NE AND SE, AND ROW CROPS TO THE NW AND SW.				
General:	NEST POTENTIAL FIRST OBSERVED ON 24 APR 2003; 1 ADULT OBSERVED IN THE NEST, BUT NO CHICKS VISIBLE, ON 18 JUN 2003; 2 FEATHERED CHICKS OBSERVED IN THE NEST, WHILE ADULTS FORAGED NEARBY, ON 10 JUL 2003.				
Owner/Manager:	UNKNOWN				
Occurrence No.	1534	Map Index: 62962	EO Index: 63016	Element Last Seen:	2004-07-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2004-07-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-10-26
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.01220 / -121.53456		Accuracy:	80 meters	
UTM:	Zone-10 N4319152 E626876		Elevation (ft):	50	
PLSS:	T14N, R04E, Sec. 33 (M)		Acres:	0.0	
Location:	WEST SIDE OF BEST SLOUGH, 8.5 MILES SSE OF YUBA CITY.				
Detailed Location:					
Ecological:	NEST TREE WAS A WILLOW; SURROUNDED BY GRAZING LAND TO THE NE, SE, AND SW, AND ROW CROPS TO THE NW.				
General:	ACTIVE NEST OBSERVED ON 12 MAY 2004; BY 7 JUL 2004, THE NEST STRUCTURE WAS GONE, BUT A JUVENILE WAS OBSERVED ADJACENT TO THE NEST SITE ON 9 JUL 2004.				
Owner/Manager:	UNKNOWN				



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



Occurrence No.	1554	Map Index: 63041	EO Index: 63114	Element Last Seen:	2004-07-02
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2004-07-02
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-11-14

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.05838 / -121.60226	Accuracy:	specific area
UTM:	Zone-10 N4324185 E620935	Elevation (ft):	50
PLSS:	T14N, R03E, Sec. 14 (M)	Acres:	7.4

Location: EAST SIDE OF THE FEATHER RIVER, NORTH OF ABBOTT LAKE, 4.5 MILES SOUTH OF YUBA CITY.

Detailed Location: 2002 AND 2004 NEST TREES WERE COTTONWOODS.

Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN TO THE NW AND SW, AND ORCHARDS TO THE NE AND SE.

General: NEST FOUND ON 25 APR 2002; HEADS OF 2 CHICKS VISIBLE ON 22 MAY 2002; YOUNG FLEDGED BY 14 JUL 2002. 2 ADULTS OBSERVED (NO NEST FOUND) ON 26 MAY 2004; ADULT OBSERVED FEEDING 2 RECENTLY-FLEDGED YOUNG ON 2 JUL 2004.

Owner/Manager: UNKNOWN

Occurrence No.	1555	Map Index: 63042	EO Index: 63115	Element Last Seen:	2004-07-07
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2012-06-21
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-02-13

Quad Summary: Olivehurst (3912115)

County Summary: Sutter

Lat/Long:	39.03428 / -121.60941	Accuracy:	80 meters
UTM:	Zone-10 N4321500 E620357	Elevation (ft):	45
PLSS:	T14N, R03E, Sec. 26, NW (M)	Acres:	0.0

Location: WEST SIDE OF THE FEATHER RIVER, 6 MILES SOUTH OF YUBA CITY. FEATHER RIVER WILDLIFE AREA.

Detailed Location: MAPPED TO COORDINATES FROM CDFW NEST RECORDS 2000-2004. 2012 DETECTION ABOUT 0.5 MILE TO SOUTH.

Ecological: 2004 NEST TREE WAS A COTTONWOOD; SURROUNDED BY RIPARIAN IN ALL DIRECTIONS. BANK SWALLOWS ARE KNOWN TO OCCUR IN THIS AREA ALONG THE RIVER.

General: ADULT OBSERVED SOARING AND DIVING ON A TURKEY VULTURE ON 7 JUL 2004, THEN NEST WITH 1 YOUNG WAS DISCOVERED. ALARM-CALLING SWHA DETECTED INCIDENTALLY ON 21 JUN 2012 DURING YELLOW-BILLED CUCKOO SURVEY; NESTING STATUS UNCONFIRMED.

Owner/Manager: DFG-FEATHER RIVER WA



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



Occurrence No.	1581	Map Index: 63263	EO Index: 63355	Element Last Seen:	2004-05-25
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2004-05-25
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-02-13

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.03217 / -121.56466	Accuracy:	nonspecific area
UTM:	Zone-10 N4321327 E624234	Elevation (ft):	45
PLSS:	T14N, R04E, Sec. 30, SE (M)	Acres:	22.0

Location: 0.1 MILE SOUTH OF THE INTERSECTION OF DIVOT STREET AND COUNTRY CLUB ROAD, SOUTH OF MARYSVILLE GOLF COURSE.

Detailed Location: TWO NEST SITES REPRESENTED. NW SITE ACTIVE IN 2002. SE SITE ACTIVE IN 2004, EXACT LOCATION OF NEST NOT DETERMINED, OBSERVER GAVE COORDINATES FOR "NEST GROVE." MAPPED TO COORDINATES FROM CDFW NEST RECORDS 2000-2004.

Ecological: 2002 NEST TREE WAS A VALLEY OAK; SURROUNDED BY RESIDENTIAL/URBAN IN ALL DIRECTIONS. 2004 NEST IN VALLEY OAK SURROUNDED BY FALLOW LAND WITH DEVELOPMENT (GOLF COURSE) TO NE. THE GOLF COURSE IS ALSO KNOWN AS PLUMAS LAKE GOLF & COUNTRY CLUB.

General: ADULTS OBSERVED DIVING INTO NEST ON 18 JUN 2002, BUT NO YOUNG BIRDS VISIBLE; ADULTS STILL PRESENT ON 14 JUL 2002, AND STILL NO YOUNG FOUND. FOOD CARRY TO ACTIVE NEST OBSERVED FROM A DISTANCE IN 2004; NEST SUCCESS UNKNOWN.

Owner/Manager: UNKNOWN

Occurrence No.	2058	Map Index: 88195	EO Index: 89202	Element Last Seen:	2009-05-22
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2009-05-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-02-21

Quad Summary: Olivehurst (3912115)

County Summary: Yuba

Lat/Long:	39.05564 / -121.50303	Accuracy:	80 meters
UTM:	Zone-10 N4324017 E629526	Elevation (ft):	60
PLSS:	T14N, R04E, Sec. 23, NW (M)	Acres:	0.0

Location: SOUTH SIDE OF HWY 65 ABOUT 0.9 MI SE OF FORTY MILE RD OVERPASS & 1.7 MI NW OF RANCHO RD INTERSECTION, SE OF OLIVEHURST.

Detailed Location: MAPPED TO POINT FROM CDFW SHAPEFILE OF NEST RECORDS FROM 2009.

Ecological: NEST IN 20' TREE IN RIPARIAN HABITAT ADJACENT TO A FREEWAY.

General: ACTIVE NEST, INCUBATION OBSERVED ON 22 MAY 2009; SUCCESS UNKNOWN.

Owner/Manager: UNKNOWN



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



Occurrence No.	2059	Map Index: 88196	EO Index: 89203	Element Last Seen:	2009-07-01
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2009-07-01
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-02-13
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.11665 / -121.58882		Accuracy:	80 meters	
UTM:	Zone-10 N4330670 E621997		Elevation (ft):	60	
PLSS:	T15N, R03E, Sec. 25, SW (M)		Acres:	0.0	
Location:	EAST OF THE FEATHER RIVER, ABOUT 0.3 MILE WEST OF COTTONWOOD AVE AT FEATHER RIVER BLVD IN WEST LINDA.				
Detailed Location:	MAPPED TO POINT FROM SHAPEFILE OF CDFW NEST RECORDS FROM 2009.				
Ecological:	NEST IN 65' VALLEY OAK SURROUNDED BY ORCHARDS, WITH RESIDENTIAL TO THE NORTHEAST.				
General:	NEST WITH YOUNG OBSERVED ON 1 JUL 2009; FLEDGING SUCCESS UNKNOWN.				
Owner/Manager:	UNKNOWN				
Occurrence No.	2060	Map Index: 88197	EO Index: 89204	Element Last Seen:	2009-04-08
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2009-04-08
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2013-02-13
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.02670 / -121.55514		Accuracy:	80 meters	
UTM:	Zone-10 N4320733 E625068		Elevation (ft):	40	
PLSS:	T14N, R04E, Sec. 29, SW (M)		Acres:	0.0	
Location:	SOUTH OF ARBOGA, ABOUT 0.4 MILE WEST OF HWY 70 AT ALGODON RD, 2.5 MILES ENE OF STAR BEND AT FEATHER RIVER.				
Detailed Location:	MAPPED TO POINT FROM CDFW SHAPEFILE OF SWAINSON'S HAWK NEST RECORDS FROM 2009.				
Ecological:	NEST IN 35' VALLEY OAK SURROUNDED BY PASTURE.				
General:	NEST WITH YOUNG OBSERVED ON 8 APR 2009.				
Owner/Manager:	UNKNOWN				
Occurrence No.	2737	Map Index: A8236	EO Index: 110017	Element Last Seen:	2015-04-22
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2015-04-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-01-26
Quad Summary:	Nicolaus (3812185), Olivehurst (3912115)				
County Summary:	Sutter				
Lat/Long:	38.99984 / -121.596		Accuracy:	80 meters	
UTM:	Zone-10 N4317696 E621578		Elevation (ft):	42	
PLSS:	T13N, R03E, Sec. 1, SW (M)		Acres:	5.0	
Location:	ABOUT 0.7 MILES ENE OF GARDEN HWY AT PECK AVE & 1.1 MILES SW OF FEATHER RIVER BLVD AT ALGODON RD, FEATHER RIVER WA.				
Detailed Location:	MAPPED TO PROVIDED COORDINATES.				
Ecological:	NEST TREE IN RIPARIAN CORRIDOR.				
General:	ADULT OBSERVED IN INCUBATION POSITION ON 22 APR 2015.				
Owner/Manager:	DFG-FEATHER RIVER WA				



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



<i>Branchinecta lynchi</i>		Element Code: ICBRA03030
vernal pool fairy shrimp		
Listing Status:	Federal: Threatened	CNDDDB 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.	

Occurrence No.	708	Map Index: 93441	EO Index: 94577	Element Last Seen: 2007-10-20
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 2007-10-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-10-31

Quad Summary:	Olivehurst (3912115)			
County Summary:	Yuba			
Lat/Long:	39.08348 / -121.53113	Accuracy:	specific area	
UTM:	Zone-10 N4327067 E627044	Elevation (ft):	65	
PLSS:	T14N, R04E, Sec. 09, NE (M)	Acres:	20.0	

Location:	ALONG BERNICE AVENUE, NW OF HALE ROAD AND NE OF HIGHWAY 65, OLIVEHURST.
Detailed Location:	MAPPED TO LOCATION GIVEN FOR POOL D2A, IN WHICH B. LYNCHI INSTARS WERE FOUND.
Ecological:	OCCUPIED BASIN CLASSIFIED AS "NON-JURISDICTIONAL IRRIGATION DITCH."
General:	INSTARS OBSERVED IN SOIL COLLECTED FROM THIS BASIN ON 20 OCT 2007 WERE REARED AND POSITIVELY IDENTIFIED AS BRANCHINECTA LYNCHI. UNIDENTIFIED BRANCHINECTA CYSTS FOUND IN AN ADDITIONAL 14 BASINS ONSITE.
Owner/Manager:	UNKNOWN

Occurrence No.	709	Map Index: 93440	EO Index: 94578	Element Last Seen: 2013-08-23
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen: 2013-08-23
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-10-31

Quad Summary:	Olivehurst (3912115)			
County Summary:	Yuba			
Lat/Long:	39.08622 / -121.54221	Accuracy:	specific area	
UTM:	Zone-10 N4327356 E626082	Elevation (ft):	60	
PLSS:	T14N, R04E, Sec. 04, SW (M)	Acres:	14.0	

Location:	EAST SIDE OF POWERLINE ROAD FROM 9TH AVENUE SOUTH TO ABOUT 0.1 MILE NORTH OF 14TH STREET, OLIVEHURST.
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR OCCUPIED POOLS 1, 2, AND 3.
Ecological:	HORDEUM MARINUM-DOMINATED POOLS SURROUNDED BY MOWED ANNUAL GRASSLAND. AREA HIGHLY DISTURBED FROM RECENT GRADING, DISKING, MOWING, AND FIRE.
General:	6 CYSTS FOUND IN SOIL SAMPLES TAKEN FROM 3 POOLS ON 23 AUG 2013.
Owner/Manager:	UNKNOWN



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



Occurrence No.	913	Map Index:	A6812	EO Index:	108582	Element Last Seen:	2016-03-22
Occ. Rank:	Poor	Presence:	Presumed Extant	Site Last Seen:		2016-03-22	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2017-10-18	
Quad Summary:	Olivehurst (3912115)						
County Summary:	Yuba						
Lat/Long:	39.0105 / -121.54245			Accuracy:	80 meters		
UTM:	Zone-10 N4318952 E626196			Elevation (ft):	52		
PLSS:	T13N, R04E, Sec. 4, NW (M)			Acres:	5.0		
Location:	ABOUT 0.1 MI E OF CACTUS DR AT BRANDING IRON WAY & 0.9 MI SSE OF HWY 70 AT THE PLUMAS LAKE BLVD OVERPASS, PLUMAS LAKE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	SHALLOW POOL IN COMPACTED ROAD SHOULDER JUST E OF PAVED ACCESS ROAD, IN NON-NATIVE ANNUAL GRASSLAND DOMINATED BY MEDUSAHEAD. ROADSIDE HAD BEEN TREATED WITH HERBICIDE. LINDERIELLA OCCIDENTALIS & LEPIDURUS PACKARDI ALSO FOUND IN VICINITY.						
General:	1 MATURE MALE AND 1 MATURE FEMALE OBSERVED IN POOL ON 22 MAR 2016.						
Owner/Manager:	UNKNOWN						

<i>Lepidurus packardii</i>	Element Code: ICBRA10010
vernal pool tadpole shrimp	
Listing Status:	Federal: Endangered
	State: None
	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.
CNDDDB Element Ranks:	Global: G4
	State: S3S4

Occurrence No.	15	Map Index:	32450	EO Index:	973	Element Last Seen:	1997-02-19
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1997-02-19	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2015-01-06	
Quad Summary:	Olivehurst (3912115)						
County Summary:	Yuba						
Lat/Long:	39.11771 / -121.54226			Accuracy:	specific area		
UTM:	Zone-10 N4330851 E626021			Elevation (ft):	70		
PLSS:	T15N, R04E, Sec. 28, SW (M)			Acres:	17.0		
Location:	1 MI WNW OF ERLE RD AT GRIFFITH AVE, 2 MI NE THE CENTER OF YUBA COUNTY AIRPORT.						
Detailed Location:	EDGEWATER MITIGATION SITE, A WETLAND COMPENSATION/MITIGATION PRESERVE. VP3, 4 & 5 SAMPLED 1995-1997.						
Ecological:	CONSTRUCTED HARDPAN VERNAL POOL IN NON-NATIVE ANNUAL GRASSLAND. ACCORDING TO 2010 NAIP IMAGERY, THE SITE IS NOW ONLY ABOUT 60 M WIDE WITH RESIDENTIAL HOUSING BUILT TO THE IMMEDIATE EAST AND WEST OF SITE.						
General:	<50 OBSERVED AT VP3, 50+ OBS AT VP4 & 5 ON 6 FEB; 50+ OBS AT VP3 ON 23 FEB 1995 (3 VOUCHERS COLLECTED, 2 IN CASIZ #103143 & 103147). 0 OBS ON 30 JAN, <50 OBS AT VP3 & 4 ON 19 MAR 1996. 100S OBS AT VP3 ON 21 JAN & 19 FEB 1997.						
Owner/Manager:	PVT-STERLING PACIFIC ASSETS						



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



Occurrence No.	108	Map Index: 33698	EO Index: 30629	Element Last Seen:	2016-02-23
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen:	2016-02-23
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-01-10
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.0958 / -121.54228		Accuracy:	specific area	
UTM:	Zone-10 N4328419 E626059		Elevation (ft):	67	
PLSS:	T14N, R04E, Sec. 4, NE (M)		Acres:	8.0	
Location:	E SIDE OF HWY 70 JUST NORTH OF THE HWY 65/HWY 70 SPLIT, OLIVEHURST.				
Detailed Location:	1993: ROADSIDE DITCHES SOMEWHERE IN SECTION 5. MAPPED TO COORDINATES GIVEN FOR 2016 DETECTIONS.				
Ecological:	1993: MANMADE ROADSIDE DITCHES; MOST OF SECTION 5 IS URBANIZED. 2016: RAILROAD TOE DRAIN POOL IN COMPLEX OF SEASONALLY INUNDATED ARTIFICIAL FEATURES, DISTURBED ROAD RUTS. LINDERIELLA OCCIDENTALIS ALSO PRESENT IN AREA.				
General:	OBSERVED IN BOTH OF THE DITCHES INSPECTED ON 12 MAR 1993, SUGNET RECORD #188. CYSTS FOUND IN RAILROAD TOE DRAIN POOL, 10S OF ADULTS OBSERVED IN TWO ROAD RUT POOLS ON 23 FEB 2016.				
Owner/Manager:	UNKNOWN				
Occurrence No.	183	Map Index: 55808	EO Index: 55824	Element Last Seen:	2004-03-17
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2004-03-17
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2004-06-15
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.02110 / -121.54277		Accuracy:	80 meters	
UTM:	Zone-10 N4320128 E626149		Elevation (ft):	55	
PLSS:	T14N, R04E, Sec. 33, NW (M)		Acres:	0.0	
Location:	JUST WEST OF THE RECLAMATION DISTRICT 784 LEVEE FOR BEAR RIVER, APPROXIMATELY 6 MILES SOUTH OF OLIVEHURST.				
Detailed Location:					
Ecological:	HABITAT CONSISTS OF A VERY LONG SEASONAL WETLAND (ABOUT 1100 SQUARE METERS AT MAXIMUM CAPACITY) ALONG A DIRT ROAD. WATER WAS 22 DEGREES C AND SLIGHTLY TURBID. LINDERIELLA OCCIDENTALIS ALSO FOUND AT THIS SITE.				
General:	10-20 ADULTS OBSERVED ON 17 MAR 2004.				
Owner/Manager:	YUB COUNTY, RECLAM DIST 784				



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



Occurrence No.	221	Map Index: 60401	EO Index: 60437	Element Last Seen:	2004-12-01
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2004-12-01
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-03-10
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.06796 / -121.55838		Accuracy:	80 meters	
UTM:	Zone-10 N4325307 E624715		Elevation (ft):	55	
PLSS:	T14N, R04E, Sec. 17, NW (M)		Acres:	0.0	
Location:	NORTH SIDE OF MAPLEHURST STREET, ABOUT 800 FEET EAST OF ARBOGA ROAD, OLIVEHURST.				
Detailed Location:	THIS SEASONAL DEPRESSION APPEARS TO BE MAN-MADE AND WAS PROBABLY CREATED BY ROAD GRADING SOMETIME AFTER 1989.				
Ecological:	HABITAT CONSISTS OF A SEASONAL DEPRESSION WITHIN A FORMERLY-CULTIVATED AGRICULTURAL FIELD; NEARLY DEVOID OF VEGETATION EXCEPT FOR SOME CYPERUS, RUMEX, ELEOCHARIS MACROSTACHYA, AND LOLIUM. LINDERIELLA OCCIDENTALIS ALSO FOUND AT THIS SITE.				
General:	HUNDREDS OF ADULTS OBSERVED ON 1 DEC 2004. CLADOCERANS, COPEPODS, OSTRACODS AND AQUATIC SNAILS ALSO OBSERVED.				
Owner/Manager:	UNKNOWN				
Occurrence No.	242	Map Index: 67209	EO Index: 67365	Element Last Seen:	2014-03-11
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2014-03-11
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-01-06
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.11201 / -121.52143		Accuracy:	nonspecific area	
UTM:	Zone-10 N4330247 E627832		Elevation (ft):	68	
PLSS:	T15N, R04E, Sec. 34, NW (M)		Acres:	38.0	
Location:	REEDS CREEK VERNAL POOL PRESERVE, ON THE SOUTH SIDE OF SPENCEVILLE ROAD, 2 MILES NE OF OLIVEHURST.				
Detailed Location:	MAPPED TO BOUNDARY OF THE PRESERVE; OCCUPIED POOLS WERE LARGE, COVERING MOST OF THE PRESERVE AREA.				
Ecological:	38-ACRE PRESERVE WITH ABOUT 17.53 ACRES OF NATURALLY-OCCURRING VERNAL POOLS AND VERNAL SWALES SURROUNDED BY AGRICULTURAL LAND.				
General:	3 FOUND IN 1 OF OVER 25 POOLS SURVEYED ON 22 MAR 2006. FOUND IN 1 OF 27 POOLS ON 11 MAR 2008. 1 FOUND ON 31 MAR 2009. 25 FOUND ON 3 FEB 2011. FOUND IN 2 OF 27 POOLS ON 29 JAN 2013. FOUND IN 2 OF 27 POOLS, 11 MAR 2014.				
Owner/Manager:	PVT-WILDLANDS INC				



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



Occurrence No.	379	Map Index: A7618	EO Index: 109399	Element Last Seen:	2016-02-09
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen:	2016-02-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-01-24
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.01133 / -121.54239		Accuracy:	specific area	
UTM:	Zone-10 N4319045 E626200		Elevation (ft):	52	
PLSS:	T13N, R04E, Sec. 4, NE (M)		Acres:	13.0	
Location:	EAST SIDE OF HWY 70 ABOUT 2.2 TO 2.3 MI N OF FEATHER RIVER BLVD, PLUMAS LAKE.				
Detailed Location:	MAPPED TO PROVIDED COORDINATES.				
Ecological:	RAILROAD TOE DRAIN POOL AND COMPACTED SCRAPE IN NON-NATIVE GRASSLAND.				
General:	10S-100S OF IMMATURE LEPIDURUS OBSERVED ON 27 JAN & 9 FEB 2016. THE SITE WAS OBSERVED FROM THE FREEWAY IN JAN 2017; IT HAD BEEN PLANTED WITH RESTORATION PLANTINGS. FIELD WORK NEEDED TO EVALUATE IF SPECIES IS EXTIRPATED FROM THE SITE.				
Owner/Manager:	UNKNOWN				
Occurrence No.	380	Map Index: A7622	EO Index: 109403	Element Last Seen:	2016-06-29
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2016-06-29
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-12-18
Quad Summary:	Olivehurst (3912115)				
County Summary:	Yuba				
Lat/Long:	39.06801 / -121.54337		Accuracy:	specific area	
UTM:	Zone-10 N4325334 E626014		Elevation (ft):	60	
PLSS:	T14N, R04E, Sec. 17, NE (M)		Acres:	10.0	
Location:	FROM ABOUT 230 FT ESE TO 0.2 MI SE OF GEORGE AVE AT HARVEY RD & 0.5 TO 0.7 MI SSW OF HWY 70 AT MCGOWAN PKWY, OLIVEHURST.				
Detailed Location:	MAPPED TO PROVIDED COORDINATES.				
Ecological:	ARTIFICIAL SEASONAL WETLANDS IN RURAL RESIDENTIAL NEIGHBORHOOD. SURROUNDING LAND USES INCLUDED FLOOD PROTECTION, HORSE GRAZING, RESIDENTIAL HOUSING, CALTRANS RIGHT-OF-WAY, POWERLINE CORRIDOR.				
General:	CYSTS DETECTED FROM DRY SEASON SAMPLING ON 29 JUN 2016; HOWEVER, NOTHING WAS FOUND DURING WET SEASON SAMPLING.				
Owner/Manager:	PVT				



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



<i>Pseudobahia bahiifolia</i>		Element Code: PDAST7P010	
Hartweg's golden sunburst			
Listing Status:	Federal: Endangered	CNDDDB Element Ranks:	Global: G2
	State: Endangered		State: S2
	Other: Rare Plant Rank - 1B.1, SB_RSABG-Rancho Santa Ana Botanic Garden		
Habitat:	General: VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.		
	Micro: CLAY SOILS, OFTEN ACIDIC. PREDOMINANTLY ON THE NORTHERN SLOPES OF KNOLLS, BUT ALSO ALONG SHADY CREEKS OR NEAR VERNAL POOLS. 60-170 M.		

Occurrence No.	10	Map Index: 60170	EO Index: 16655	Element Last Seen: 1847-04-XX
Occ. Rank:	None	Presence: Extirpated	Site Last Seen: 1990-10-08	
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Record Last Updated: 2011-04-27	

Quad Summary: Olivehurst (3912115), Gilsizer Slough (3912116), Yuba City (3912125), Sutter (3912126)
County Summary: Sutter, Yuba

Lat/Long:	39.14086 / -121.59526	Accuracy:	5 miles
UTM:	Zone-10 N4333348 E621399	Elevation (ft):	
PLSS:	T15N, R03E, Sec. 24 (M)	Acres:	0.0

Location: NEAR CORDUAS FARM.
Detailed Location: CORDUAS FARM WAS A LARGE STOCK RANCH. ITS HEADQUARTERS WERE AT THE SITE WHICH GREW TO BECOME THE CITY OF MARYSVILLE ONCE THE GOLD RUSH BEGAN.
Ecological:
General: TYPE LOCALITY. OCCURRENCE KNOWN ONLY FROM AN 1847 HARTWEG COLLECTION FROM VICINITY OF CORDUAS FARM. PORTIONS OF THIS AREA WERE SEARCHED BY STEBBINS IN 1990 BUT NO SUITABLE HABITAT WAS FOUND.
Owner/Manager: UNKNOWN

ATTACHMENT B

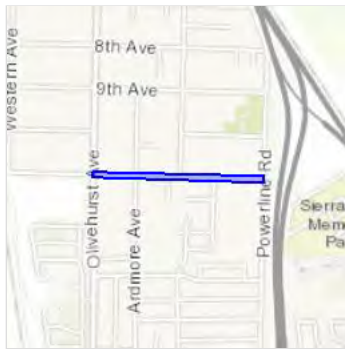
IPaC resource list

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

Yuba 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

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 are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service.

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.

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

Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

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

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
------	--------

Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/7850	

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8246	
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i>	Threatened
There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i>	Endangered
There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2246	

Flowering Plants

NAME	STATUS
Hartweg's Golden Sunburst <i>Pseudobahia bahiifolia</i>	Endangered
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1704	

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 <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwiderstandardconservationmeasures.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 maps of where birders and the general public have sighted birds in and around your project area, visit E-bird tools such as the [E-bird data mapping tool](#) (search for the name of a bird on your list to see specific locations where that bird has been reported to occur within your project area over a certain timeframe) and the [E-bird Explore Data Tool](#) (perform a query to see a list of all birds sighted in your county or region and within a certain timeframe). 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 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
Black Rail <i>Laterallus jamaicensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7717	Breeds Mar 1 to Sep 15
Burrowing Owl <i>Athene cunicularia</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/9737	Breeds Mar 15 to Aug 31
California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 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 Jan 1 to Dec 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
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
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
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere

Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
White Headed Woodpecker <i>Picoides albolarvatus</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/9411	Breeds May 1 to Aug 15
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in your project's counties 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 counties of your project area. 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 (—)

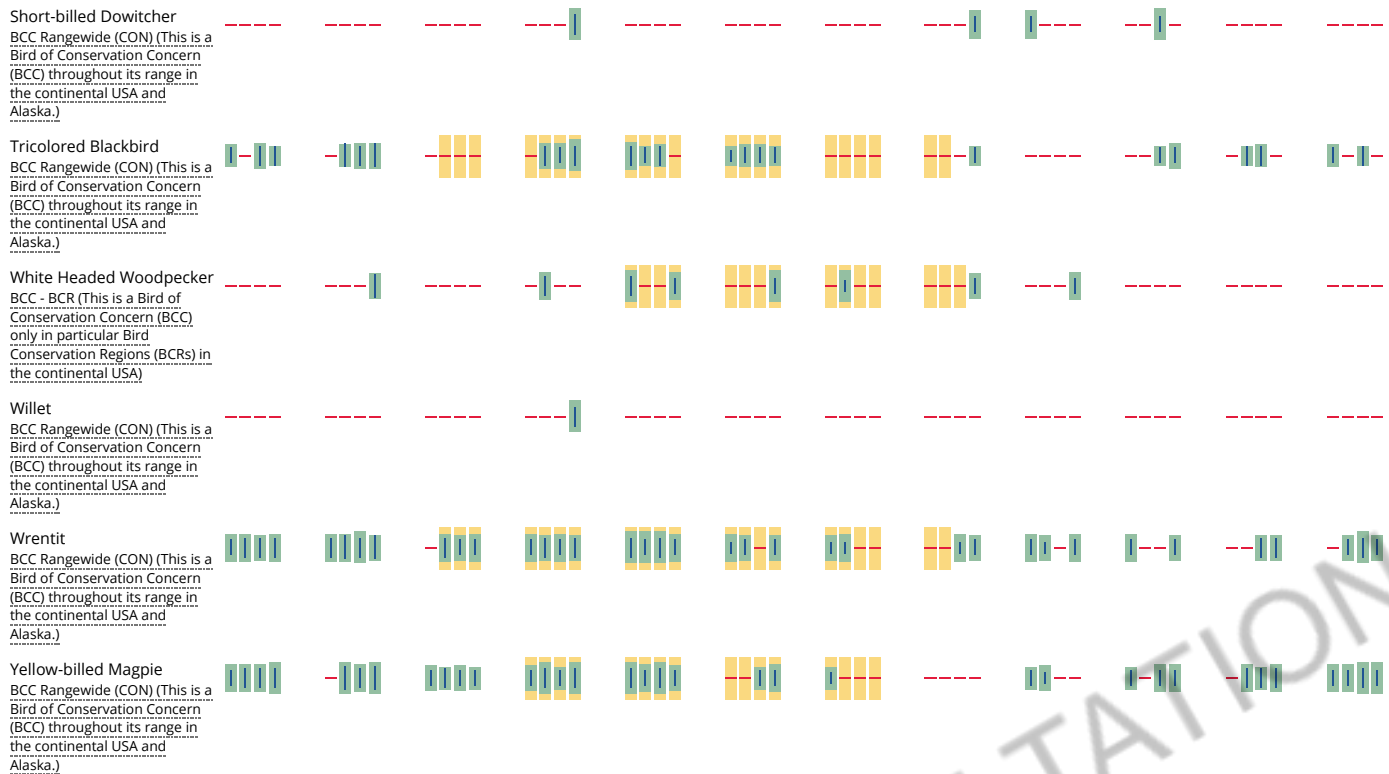
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information.







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](#) and/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 counties 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 [E-bird Explore Data 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 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 [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 entry on your migratory bird species list indicates a breeding season, it is probable that the bird breeds in your project's counties 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 BGEPA should such impacts occur.

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.

NOT FOR CONSULTATION