

MOORE BIOLOGICAL CONSULTANTS

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Subject: "SANTA NELLA/VOLTA WATER QUALITY IMPROVEMENT PROJECT", MERCED COUNTY, CALIFORNIA: BIOLOGICAL ASSESSMENT

Dear Amy:

Thank you for asking Moore Biological Consultants to assist with the Santa Nella/Volta Water Quality Improvement Project in western Merced County, California (Figures 1 and 2). The purpose of this assessment is to describe existing biological resources in the project site, identify potentially significant impacts to biological resources from the project, and provide recommendations for how to reduce those impacts to a less-than-significant level. The work involved reviewing databases, aerial photographs, and documents, and conducting a field survey to document vegetation communities, potentially jurisdictional Waters of the U.S. and/or wetlands, and potentially suitable habitat for or presence of special-status species. This report details the methodology and results of our investigation.

Project Overview

The Santa Nella/Volta Water Quality Improvement Project is in an unincorporated area in western Merced County. The project involves improvements to the water supply facilities of the existing Santa Nella and Volta potable water systems. The project will involve project components in the rural communities of Santa Nella and Volta, and a pipeline between these communities connecting the facilities,

cumulatively considered the “Project Site” (Figure 3 and Attachment A).

Proposed improvements would include the following new facilities:

- A well serving both communities (600+ gallons per minute),
- Trunk lines delivering water to the Santa Nella and Volta potable water distribution systems, and
- Water storage, blending, and pumping facilities.

The water storage, blending, and pumping facilities will be located in a field just west of the Santa Nella County Water District (SNCWD) offices (Figure A-1).

The new large well will be constructed in an open field in northwest Volta (Figure A-4); there will also be pipelines connecting the existing well site in Volta and the new larger well (Figure A-5). An 8-inch pipeline installed along the south shoulder of Henry Miller Road, within the road right-of-way and in close proximity to the edge of pavement. This pipeline will require crossings of Interstate 5 (I-5), State Route 33, and two canals; these crossings will be constructed using horizontal directional drilling (HDD) methods.

Methods

Prior to the field survey, we conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB, 2016). The CNDDDB search was conducted on the USGS 7.5-minute San Luis Dam, Volta, Ingomar, and Howard Ranch topographic quadrangles, encompassing approximately 240+/- square miles surrounding the site (Attachment B). The United States Fish and Wildlife Service (USFWS) IPaC Trust Resource Report of Federally Threatened and Endangered species that may occur in or be affected by projects in the project vicinity was also reviewed (Attachment B). This information was used to identify special-status wildlife and plant species that have been previously documented in the vicinity or have the potential to occur based on suitable habitat and geographical distribution. Additionally, the CNDDDB depicts the locations of sensitive habitats. The USFWS on-line-maps of designated critical habitat in the area were also downloaded.

A field survey was conducted on December 20, 2016. The survey area included all areas of project improvements, as well as adjacent areas that may be subject to construction disturbance. The survey consisted of driving and walking throughout the site making observations of habitat conditions and noting surrounding land uses, habitat types, and plant and wildlife species. The fieldwork included an assessment of potentially jurisdictional Waters of the U.S. and wetlands as defined by the U.S. Army Corps of Engineers (ACOE, 1987; 2008) and a search for special-status species and suitable habitat for special-status species (e.g., blue elderberry shrubs, vernal pools). Trees in and near the site were assessed for the potential use by nesting raptors, especially Swainson's hawk (*Buteo swainsoni*). The cropland and grasslands in the site and adjacent areas visible from the site were searched for burrowing owls (*Athene cunicularia*) or ground squirrel burrows with evidence of past occupancy.

Results

GENERAL SETTING: The project site extends west to east between the communities of Santa Nella and Volta, in Merced, County California (Figure 1). The site generally spans Townships 9 South and 10 South, within Range 8 East and 9 East of the USGS 7.5-minute San Luis Dam and Volta topographic quadrangles (Figure 2). The site slopes very gently to the east and is at elevations of approximately 100 to 150 feet above mean sea level.

Surrounding land uses in this part of Merced County are primarily agricultural with scattered residences and rural communities. The site is in an area of leveled fields intensively farmed in annual crops interspersed with dairies (Figure 3). There are also fallow fields, some relatively natural parcels, and wildlife refuges managed for waterfowl in the area.

VEGETATION: The field just west of the SNCWD offices where the water storage, blending, and pumping facilities will be located is periodically disked and highly disturbed (See photographs in Attachment C). The field in Volta where the new

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Legend

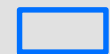

-  Project Facilities
-  Pipelines

Figure 3

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Map Date: 12/28/2016
Aerial Source: ESRI, 2015

0 1,000 2,000
1 inch = 2,000 feet



AERIAL

Santa Nella and Volta Water Supply Project

Merced County, CA

well will be constructed is moderately disturbed by past uses as evidence by soil stockpiles and scraped areas. The old well site in Volta is in the corner of a leveled field that is also disturbed. Vegetation in these areas is disturbed ruderal grassland vegetation consisting almost entirely of non-native grasses and weeds. There are narrow strips of even more highly disturbed ruderal grassland vegetation along the edges of Henry Miller Road, and the agricultural fields, dirt roads, irrigation and/or drainage ditches, and canals in the area.

Oats (*Avena* sp.), soft chess brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), foxtail barley (*Hordeum murinum*), and perennial ryegrass (*Lolium perenne*) are some of the most common grasses in the ruderal grassland vegetation. Other grassland species such as yellow star-thistle (*Centaurea solstitialis*), black mustard (*Brassica nigra*), bull thistle (*Cirsium vulgare*), morning glory (*Convolvulus arvensis*), rancher's fireweed (*Amsinckia menziesii*), common sunflower (*Helianthus annuus*), plantain (*Plantago lanceolata*), common mallow (*Malva neglecta*), and filaree (*Erodium* spp.) are intermixed with the grasses. Table 1 is a list of plant species observed in the site.

The pipeline alignment along the edge of Henry Miller Road just west of Volta is adjacent to a large duck pond that was full of water during the recent survey (Figure A-4 and photographs in Attachment C). This pond supports hydrophytic (i.e., wetland) vegetation such tules (*Scirpus acutus*), cattails (*Typha* sp.), rabbit's foot grass (*Polypogon monspeliensis*), water smartweed (*Polygonum lapathifolium*), cocklebur (*Xanthium strumarium*), and umbrella sedge (*Cyperus eragrostis*). A subset of these same species occurs in an irrigation and/or drainage ditch along the edge of Henry Miller Road just west of the Main Canal (see photographs in Attachment C). The pipeline will be between these aquatic habitats and the road and there will be no work in the duck pond or the ditch.

Just west of the duck pond, the pipeline alignment along the edge of Henry Miller Road is adjacent to a relatively natural parcel supporting alkali sink scrub vegetation (Figure A-3 and photographs in Attachment C). The area supports

TABLE 1
PLANT SPECIES OBSERVED IN THE SITE

<i>Allenrolfea occidentalis</i>	iodine bush
<i>Amaranthus blittoides</i>	prostrate pigweed
<i>Amsinckia menziesii</i>	rancher's fireweed
<i>Avena fatua</i>	wild oat
<i>Brassica nigra</i>	black mustard
<i>Bromus diandrus</i>	ripgut brome
<i>Bromus hordeaceus</i>	soft chess brome
<i>Capsella bursa var. pastoris</i>	shepherd's purse
<i>Centaurea solstitialis</i>	yellow star-thistle
<i>Cerastium glomeratum</i>	mouse-eared chickweed
<i>Convolvulus arvensis</i>	morning glory
<i>Conyza bonariensis</i>	hairy fleabane
<i>Conyza canadensis</i>	horseweed
<i>Cirsium vulgare</i>	bull thistle
<i>Cynodon dactylon</i>	Bermuda grass
<i>Cyperus eragrostis</i>	umbrella sedge
<i>Erodium botrys</i>	filaree
<i>Erodium cicutarium</i>	red-stem filaree
<i>Eucalyptus</i> sp.	blue gum
<i>Grindelia squarrosa</i>	curlycup gumweed
<i>Helianthus annuus</i>	common sunflower
<i>Hordeum marinum</i>	Mediterranean barley
<i>Hordeum murinum</i>	foxtail barley
<i>Lactuca serriola</i>	prickly lettuce
<i>Lolium perenne</i>	perennial ryegrass
<i>Malva neglecta</i>	common mallow
<i>Paspalum dilatatum</i>	dallis grass
<i>Pinus</i> sp.	ornamental pine
<i>Plantago lanceolata</i>	plantain
<i>Polygonum persicaria</i>	lady's thumb
<i>Polygonum</i> sp.	water smart weed
<i>Rumex crispus</i>	curly dock
<i>Salsola iberica</i>	Russian thistle
<i>Senecio vulgaris</i>	common groundsel
<i>Sorghum halepense</i>	Johnsongrass

iodine bush (*Allenrolfea occidentalis*) that is dense in some areas, and contains a mosaic of upland grassland and seasonal wetland areas. The pipeline will be between the alkali sink scrub habitat and the road and there will be no work in the alkali sink scrub vegetation.

Trees in and near the project site are primarily blue gum (*Eucalyptus* sp.), ornamental pine (*Pinus* sp.), black walnut (*Juglans californicus*), and a variety of ornamentals (see photographs in Attachment C). No blue elderberry (*Sambucus mexicana*) shrubs were observed within or adjacent to the project site.

WILDLIFE: A variety of bird species were observed in the site. Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferous*), Brewer's blackbird (*Euphagus cyanocephalus*), and red-winged blackbird (*Agelaius phoeniceus*) are representative bird species observed in and near the site (Table 2). All of these are species commonly found in agricultural areas in the greater project vicinity.

The project area is primarily open fields and there are only a few clusters of potential nest trees within or near the project site that are suitable for nesting raptors, including Swainson's hawks. There is a notable cluster of eucalyptus near the SNCWD offices, and some large pines along Henry Miller Road. Given the presence of trees and shrubs in and near the site, it is likely one or more pairs of raptors and a variety of songbirds nest in and/or near the site during most years. It is possible that ground-nesting songbirds such as killdeer and red-winged blackbird nest in the grassland habitats in the site.

A variety of mammals are likely to occur in the project site. However, California ground squirrel (*Spermophilus beecheyi*) was the only mammal observed in the site; sign of raccoon (*Procyon lotor*) was also observed. Coyote (*Canis latrans*),

TABLE 2
WILDLIFE SPECIES OBSERVED IN THE SITE

Birds

Great blue heron	<i>Ardea herodias</i>
Great egret	<i>Casmerodius albus</i>
Canada goose	<i>Branta canadensis</i>
Mallard	<i>Anas platyrhynchos</i>
Bufflehead	<i>Bucepahala albeola</i>
California gull	<i>Larus californicus</i>
Turkey vulture	<i>Cathartes aura</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Northern harrier	<i>Circus cyaneus</i>
American kestrel	<i>Falco sparverius</i>
Sandhill crane	<i>Grus Canadensis</i>
American coot	<i>Fulica americana</i>
Killdeer	<i>Charadrius vociferous</i>
Mourning dove	<i>Zenaida macroura</i>
Northern flicker	<i>Colaptes auratus</i>
Black phoebe	<i>Sayornis nigricans</i>
Western kingbird	<i>Tyrannus verticalis</i>
Western scrub jay	<i>Aphelocoma coerulescens</i>
Yellow-billed magpie	<i>Pica nuttalli</i>
American crow	<i>Corvus brachyrhynchos</i>
Northern mockingbird	<i>Mimus polyglottos</i>
Western meadowlark	<i>Sturnella neglecta</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>

Mammals

Raccoon	<i>Procyon lotor</i>
California ground squirrel	<i>Spermophilus beecheyi</i>

black-tailed hare (*Lepus californicus*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*) are expected to occur at the project site. A number of species of small rodents including mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*) and voles (*Microtus californicus*) also likely occur.

Based on habitat types present, only a few amphibian and reptile species are expected to use habitats in the site. Although none were observed, common species such as western fence lizard (*Sceloporus occidentalis*), Pacific chorus frog (*Pseudacris regilla*), gopher snake (*Pituophis melanoleucus*), common king snake (*Lampropeltis getulus*), and common garter snake (*Thamnophis sirtalis*) are expected to occur at the site.

WATERS OF THE U.S. AND WETLANDS: Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any waters of the U.S., including wetlands. ACOE, CDFW, and the California Regional Water Quality Control Board (RWQCB) have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.

“Waters of the U.S.”, as defined in 33 CFR 328.4, encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, as well as their tributaries. The limit of federal jurisdiction of Non-Tidal Waters of the U.S. extends to the “ordinary high water mark”. The ordinary high water mark is established by physical characteristics such as a natural water line impressed on the bank, presence of shelves, destruction of terrestrial vegetation, or the presence of litter and debris.

Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the ACOE *Wetlands Delineation Manual* and

Regional Supplement (ACOE, 1987; 2008). Jurisdictional wetlands are usually adjacent to or hydrologically associated with Waters of the U.S. Isolated wetlands are outside federal jurisdiction, but may still be regulated by state agencies including CDFW and RWQCB.

Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetlands and Waters of the U.S. provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

No potentially jurisdictional Waters of the U.S. or wetlands were observed within the footprint of the proposed project. The fields in Santa Nella and Volta where project facilities will be constructed are vegetated in upland grasses and weeds. The pipeline alignment along Henry Miller Road will be constructed in either the graveled road shoulder or in disturbed upland ruderal grassland vegetation.

Several created and managed irrigation and/or drainage facilities in the area, as well as duck ponds managed for waterfowl, have potential to fall under ACOE jurisdiction due to hydrologic connectivity with jurisdictional Waters of the U.S. Main Canal and Outside Canal, which flow under Henry Miller Road are likely jurisdictional as they derive water from the San Joaquin River. The San Luis Wasteway, which is located along the edge of the field west of the SNCWD offices, the duck pond west of Volta, and the irrigation and/or drainage ditch along the edge of Henry Miller Road just west of the Main Canal are also potentially jurisdictional Waters of the U.S. The project will not involve work in any of these potentially jurisdictional features.

SPECIAL-STATUS SPECIES: Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Act or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve

endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species. Both FESA and CESA prohibit unauthorized “take” (i.e., killing) of listed species, with take broadly defined in both acts to include activities such as harassment, pursuit and possession.

Special-status wildlife species also includes species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The federal Migratory Bird Treaty Act and Fish and Game Code of California protect special-status bird species year-round, as well as their eggs and nests during the nesting season. Fish and Game Code of California also provides protection for mammals and fish.

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2016). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on CNPS List 3.

Table 3 provides a summary of the listing status and habitat requirements of special-status plant and wildlife species that have been documented in the greater project vicinity or for which there is potentially suitable habitat in the project area. This table also includes an assessment of the likelihood of occurrence of each of these species in the site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Project Site
PLANTS						
Heartscale	<i>Atriplex cordulata</i> var. <i>cordulata</i>	None	None	1B	Valley and foothill grassland, chenopod scrub	Unlikely: the ruderal grassland and disturbed road shoulder in the site does not provide suitable habitat for heartscale. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 1 mile north of the site.
Round-leaved filaree	<i>California macrophylla</i>	None	None	1B	Cismontane woodland and valley and foothill grassland.	Unlikely: the ruderal grassland and disturbed road shoulder in the site does not provide suitable habitat for round-leaved filaree. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 7.5 miles northwest of the project site.
Hispid bird's-beak	<i>Chloropyron molle</i> spp. <i>hispidum</i>	None	None	1B	Meadows, playas, valley and foothill grassland.	Unlikely: the ruderal grassland and disturbed road shoulder in the site does not provide suitable habitat for this species. There are a few occurrences of hispid bird's-beak in the CNDDDB (2016) search area near the east end of the site, primarily within wildlife refuges; the nearest occurrence is immediately northeast of Volta.
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	None	None	1B	Standing or slow moving freshwater ponds, marshes and ditches.	Unlikely: the ruderal grassland and disturbed road shoulder in the site does not provide suitable habitat for Sanford's arrowhead. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 9.5 miles north of the site.
Slender-leaved pondweed	<i>Stuckenia filiformis</i>	None	E	2	Marshes and swamps.	Unlikely: there is no suitable marsh habitat for slender-leaved pondweed in the site. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 5 miles north of the site.

TABLE 3
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Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Project Site
WILDLIFE						
BIRDS						
Burrowing owl	<i>Athene cunicularia</i>	None	None	N/A	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.	Unlikely: while the agricultural fields and grasslands in the area provide suitable foraging habitat for burrowing owls, only a few patches of ground squirrel burrows were observed in the site. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 0.75 miles south of Santa Nella.
Swainson's hawk	<i>Buteo swainsoni</i>	None	T	N/A	Nesting: large trees, usually within riparian corridors. Foraging: agricultural fields and annual grasslands.	Moderate: cropland and grassland in the site is suitable for foraging and large trees in and near the site are suitable for nesting. Swainson's hawks have nested in several locations along Henry Miller Road and in and near Santa Nella and Volta. The nearest occurrences of nesting Swainson's hawks in the CNDDDB (2016) search area are along Henry Miller Road.
Golden eagle	<i>Aquila chrysaetos</i>	None	FP	N/A	Nesting areas are associated with cliff-walled canyons and large trees. Forages in rolling hills and mountain areas	Unlikely: the site does not provide highly suitable nesting habitat for golden eagles, as they prefer cliffs or very large trees isolated from any type of disturbance. The nearest occurrence of golden eagle in the CNDDDB (2016) search area is approximately 4 miles southeast of the site.
Tricolored blackbird	<i>Agelaius tricolor</i>	None	SC	N/A	Nests in dense brambles and emergent wetland vegetation associated with open water habitat.	Moderate: although there is no suitable nesting habitat in or immediately adjacent to the site, this species likely flies over or forages in the area. The nearest occurrence of tricolored blackbird in the CNDDDB (2016) search area is in the vicinity of the duck pond just west of Volta.
Northern harrier	<i>Circus cyaneus</i>	None	SC	N/A	Salt and fresh water marshes, nests and forage in grasslands.	Moderate: while there is no suitable nesting habitat for northern harrier in the site, the cropland and grassland in the site is suitable for foraging. A northern harrier was observed flying over fields north of the Henry Miller Road. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 1 mile south of the site.

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Project Site
Loggerhead shrike	<i>Lanius ludovicianus</i>	None	SC	N/A	Annual grasslands and agricultural areas throughout the Central Valley.	Unlikely: trees and shrubs near the site could potentially be used for nesting by this species. Loggerhead shrike may fly over or forage in the site on occasion. The closest occurrence of loggerhead shrike in the CNDDDB (2016) search area is approximately 9.5 miles northeast of the site.
MAMMALS						
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	E	T	N/A	Annual grasslands or grassy open stages with scattered shrubby vegetation.	Unlikely: the cropland and ruderal grassland in the site provides potentially suitable foraging habitat for San Joaquin kit fox. However, this species primarily occurs in the hills south and west of the site, and is rarely seen on the valley floor. The nearest occurrence of San Joaquin kit fox in the CNDDDB (2016) search area is a 1989 observation in Santa Nella just west of Interstate 5.
Fresno kangaroo rat	<i>Dipodomys nitratoides exilis</i>	E	E	N/A	Alkali sink scrub habitats throughout the southwestern San Joaquin Valley.	Unlikely: while Fresno kangaroo rat may occur in alkali sink scrub habitats in the vicinity of Volta, there is no suitable habitat in the footprint of the project improvements for this species. There are no occurrences of Fresno kangaroo rat in the CNDDDB (2016) search area.
American badger	<i>Taxidea taxus</i>	None	SC	N/A	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Unlikely: the ruderal grassland and disturbed road shoulder in the site does not provide suitable habitat for American badger. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 2.5 miles west of the site.
REPTILES & AMPHIBIANS						
California tiger salamander	<i>Ambystoma californiense</i>	T	T	N/A	Breeds in seasonal water bodies such as deep vernal pools or stock ponds. Requires small mammal burrows for summer refugia.	Unlikely: there are no potentially suitable breeding ponds for California tiger salamander in the site and the cropland near of the site is not suitable for aestivation. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 6.5 miles southwest of the site. The site is not within an area designated critical habitat for California tiger salamander (USFWS, 2005a).

TABLE 3

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Project Site
Giant garter snake	<i>Thamnophis gigas</i>	T	T	N/A	Freshwater marsh and low gradient streams; adapted to drainage canals and irrigation ditches, primarily for dispersal or migration.	Unlikely: there is no suitable habitat in the site for giant garter snake. There are several occurrences of giant garter snake in the CNDDDB (2016) search area in the wildlife refuges east of the site; the nearest occurrence of this species in the CNDDDB is approximately 2.5 miles northeast of the site.
California red-legged frog	<i>Rana aurora draytonii</i>	T	SC	N/A	Lowlands and foothills in or near permanent sources of water with vegetation.	Unlikely: there is no suitable aquatic habitat for California red-legged frog in or near the site. There are no occurrences of this species recorded in the CNDDDB (2016) search area. The site is not in designated for California red-legged frog critical habitat (USFWS, 2006).
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	E	E	N/A	Sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief. Requires small mammal burrows for cover.	Unlikely: while blunt-nosed leopard lizard may occur in alkali sink scrub habitats in the vicinity of Volta, there is no suitable habitat in the footprint of the project improvements for this species. The nearest occurrence of blunt-nosed leopard lizard in the CNDDDB (2016) search area is approximately 3 miles southwest of the site.
Western pond turtle	<i>Emys marmorata</i>	None	SC	N/A	Permanent or semi-permanent water bodies; require basking sites such as logs.	Unlikely: while this species occurs in regional streams and ponds, there is no suitable aquatic habitat for western pond turtle in site. The nearest occurrence of this species in the CNDDDB (2016) search area is in the San Luis Wasteway, approximately 0.5 miles north of the site.
Western spadefoot	<i>Spea hammondi</i>	None	SC	N/A	Breeds and lays eggs in seasonal water bodies such as deep vernal pools or stock ponds.	Unlikely: there is no suitable aquatic habitat for western spadefoot in the site. The nearest occurrence of western spadefoot in the CNDDDB (2016) search area is approximately 10 miles northeast of the site.

TABLE 3

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Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Project Site
FISH						
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	T	None	N/A	Riffle and pool complexes with adequate spawning substrates within Central Valley drainages.	Unlikely: there is no suitable aquatic habitat for Central Valley steelhead in or near the site. There are no occurrences of this species recorded in the CNDDDB (2016) search area. The site is not within designated critical habitat for Central Valley steelhead (NOAA, 2005).
Delta smelt	<i>Hypomesus transpacificus</i>	T	T	N/A	Shallow lower delta waterways with submersed aquatic plants and other suitable refugia.	Unlikely: there is no suitable aquatic habitat for delta smelt in or near the site. There are no occurrences of delta smelt recorded in the CNDDDB (2016) within the search area. There is no designated critical habitat for delta smelt (USFWS, 1994) in or near the site.
INVERTEBRATES						
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	None	N/A	Vernal pools and seasonally inundated depressions in the Central Valley.	Unlikely: there are no vernal pools or seasonal wetlands in the site. There are no occurrences of this species recorded in the CNDDDB (2016) search area. The site is not within designated critical habitat for any vernal pool shrimp species (USFWS, 2005b).
Longhorn fairy shrimp	<i>Branchinecta longiantennae</i>	E	None	N/A	Vernal pools	Unlikely: there are no vernal pools in the site. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 3.5 miles southeast of the site.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E	None	N/A	Vernal pools and seasonally wet depressions within the Central Valley	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of vernal pool tadpole shrimp in the CNDDDB (2016) search area is approximately 10 miles northeast of the site.
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	None	N/A	Elderberry shrubs in the Central Valley and surrounding foothills	Unlikely: no blue elderberry shrubs were observed in the site. There are no occurrences of valley elderberry longhorn beetle in the CNDDDB (2016) in the search area.

¹ T= Threatened; E = Endangered; SC = Species of Special Concern per California Department of Fish and Wildlife.

² CNPS List 1B includes species that are rare, threatened, or endangered in California and elsewhere; List 2 includes plants that are rare, threatened or endangered in California but are more common elsewhere.

SPECIAL-STATUS PLANTS: Only five species of special-status plants were identified in the CNDDDB (2016) search: heartscale (*Atriplex cordulata*), round-leaved filaree (*California macrophylla*), hispid bird's-beak (*Chloropyron molle* spp. *hispidum*), Sanford's arrowhead (*Sagittaria sanfordii*), and slender-leaved pondweed (*Stuckenia filiformis*) (Table 3 and Attachment B). There are no special-status plants included in the USFWS IPaC Trust Resource Report (Attachment B).

Most of the special-status plants identified in the CNDDDB (2016) query in the project vicinity (Table 3) occur in relatively undisturbed areas within vegetation communities such as marshes, swamps, alkali playas, vernal pools, and chenopod scrub. None of these habitat types occur in the site and due to lack of suitable habitat, no special-status plant species are expected to occur in the site.

Sanford's arrowhead and narrow-leaved pondweed occur in marshes, swamps, and/or riparian scrub. Hispid bird's-beak occurs in alkali meadows, playas, and vernal pools; there are no vernal pools, playas, or meadows in the site. Heartscale and round-leaved filaree occur in upland grassland habitats, chenopod scrub, playas, and meadows. The fields of ruderal grassland in the site, and ruderal grassland areas along the edges of the roads, canals fields, farm roads, irrigation ditches, and drainage ditches are highly disturbed and do not provide suitable habitat for special-status species in Table 3 that occur in upland annual grassland habitats.

SPECIAL-STATUS WILDLIFE: The potential for intensive use of habitats within the project site by special-status wildlife species is generally low. Special-status wildlife species that have been recorded in greater project vicinity in the CNDDDB (2016) include Swainson's hawk, burrowing owl, gold eagle (*Aquila chrysaetos*), tricolored blackbird (*Agelaius tricolor*), northern harrier (*Circus cyaneus*), loggerhead shrike (*Lanius ludovicianus*), San Joaquin kit fox (*Vulpes macrotis mutica*), American badger (*Taxidea taxus*), California tiger salamander (*Ambystoma californiense*), giant garter snake (*Thamnophis gigas*), blunt-nosed

leopard lizard (*Gambelia sila*), western pond turtle (*Emys marmorata*), western spadefoot (*Spea hammondi*), longhorn fairy shrimp (*Branchinecta longiantennae*), and vernal pool tadpole shrimp (*Lepidurus packardii*). Although not included in the CNDDB within the search area, California red-legged frog (*Rana aurora draytonii*), Fresno kangaroo rat (*Dipodomys nitratooides exilis*), Sacramento Central Valley steelhead (*Oncorhynchus mykiss*), delta smelt (*Hypomesus transpacificus*), vernal pool fairy shrimp (*Branchinecta lynchi*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) were added to Table 3 because they are included in the USFWS IPaC Trust Resource Report (Attachment B).

The project site and surrounding areas may have provided habitat for the special-status wildlife species listed in Table 3 at some time in the past. However, farming, development, and construction and maintenance of roads, duck ponds, fences, and irrigation facilities have substantially modified natural habitats within the greater project vicinity. Of the wildlife species identified in the CNDDB, Swainson's hawk and burrowing owl are the only species that have much potential to occur in the project site on more than a transitory or very occasional basis. These species are discussed further below because they could be adversely affected by conversion of habitat to development; these birds could also be disturbed by noise if they nested on or near the project site during construction.

SWAINSON'S HAWK: The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species. The Migratory Bird Treaty Act and Fish and Game Code of California protect Swainson's hawks year-round, as well as their nests during the nesting season (March 1 through September 15). Swainson's hawk are found in the Central Valley primarily during their breeding season, a population is known to winter in the San Joaquin Valley.

Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat

crops. Most Swainson's hawks are migratory, wintering in Mexico and breeding in California and elsewhere in the western United States. This raptor generally arrives in the Central Valley in mid-March, and begins courtship and nest construction immediately upon arrival at the breeding sites. The young fledge in early July, and most Swainson's hawks leave their breeding territories by late August.

The CNDDDB (2016) contains several records of nesting Swainson's hawk in the greater project vicinity. The nearest occurrence of nesting Swainson's hawks in the CNDDDB (2016) search area is a pair nesting in a cluster of eucalyptus along the north side of Henry Miller Road just east of Outside Canal (see photograph of these trees in Attachment C). There are suitable nest trees near the proposed project improvements and the annual cropland and grasslands in the region provide suitable foraging habitat for this species. Due to the small size of the parcels in Volta and Santa Nella where project facilities will be constructed, it is unlikely Swainson's hawks either of these areas for intensive foraging. However, Swainson's hawks may forage in these areas on occasion and may also nest in trees in or near the site in the future.

BURROWING OWL: The Migratory Bird Treaty Act and Fish and Game Code of California protect burrowing owls year-round, as well as their nests during the nesting season (February 1 through August 31). Burrowing owls are a year-long resident in a variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere.

The primary habitat requirement of the burrowing owl is small mammal burrows for nesting. The owl usually nests in abandoned ground squirrel burrows, although they have been known to dig their own burrows in softer soils. In urban areas, burrowing owls often utilize artificial burrows including pipes, culverts, and piles of concrete pieces. This semi-colonial owl breeds from March through August, and is most active while hunting during dawn and dusk. The nearest

occurrence of this species in the CNDDDB (2016) search area is approximately 0.75 miles south of Santa Nella.

The intensity of development, irrigation, and cultivation within and surrounding the site reduces the likelihood of burrowing owls using the site for nesting. No burrowing owls were observed in the project site during the recent survey. Only a few clusters of ground squirrel burrows were observed in the site; none of these burrows had evidence of burrowing owl occupancy.

OTHER SPECIAL-STATUS SPECIES: The site does not provide suitable aquatic habitat for any type of fish, giant garter snake, California tiger salamander, California red-legged frog, western spadefoot, or western pond turtle. There is no alkali sink scrub habitat in the site for Fresno kangaroo rat or blunt-nosed leopard lizard. There is no emergent wetland habitat in the site for nesting tricolored blackbirds. There are no blue elderberry shrubs in the site, precluding the potential occurrence of valley elderberry longhorn beetle. There are no vernal pools or seasonal wetlands in the site for vernal pool branchiopods (i.e., fairy and tadpole shrimp).

The ruderal grassland in the site provides potentially suitable foraging habitat for San Joaquin kit fox and American badger, but there is no suitable denning habitat in the site for these species. San Joaquin kit fox also primarily occurs in the hills south and west of the site, and is rarely seen on the valley floor. Special-status bats may fly over or forage in the site and may also roost in trees near the site.

CRITICAL HABITAT: The site is not within designated critical habitat for California red-legged frog (USFWS, 2006), California tiger salamander (USFWS, 2005a), federally listed vernal pool shrimp or plants (USFWS, 2005b), delta smelt (USFWS, 1994), valley elderberry longhorn beetle (USFWS, 1980), or Central Valley steelhead (NOAA, 2005).

Conclusions and Recommendations

- The site consists of a few small fields of ruderal grassland and disturbed habitats along a road shoulder. On-site habitats are biologically unremarkable.
- No potentially jurisdictional Waters of the U.S. or wetlands were observed in the site. The duck pond south of Henry Miller Road near Volta and irrigation and/or drainage ditch near the Main Canal are outside the limits of work and there will be no impact to these potentially jurisdictional features.
- No riparian habitats or other sensitive natural communities were observed in the site. The alkali sink scrub vegetation south of Henry Miller Road near Volta is outside the limits of work and there will be no impact to this vegetation community.
- Due to a lack of suitable habitat, it is unlikely that special-status plants occur in the site.
- With the exception of Swainson's hawk and burrowing owl, no special-status wildlife species are expected to occur in or near the site on more than a very occasional or transitory basis. Conversion of the small fields of ruderal grassland in the site to project features will result in a less than significant loss of potential Swainson's hawk foraging habitat.
- Pre-construction surveys for nesting Swainson's hawks within 0.5 miles of the project site are recommended if construction commences between March 1 and September 15. If active nests are found, a qualified biologist should determine the need (if any) for temporal

restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 1994).

- Pre-construction surveys for burrowing owls within 250 feet of the site are recommended if construction commences between February 1 and August 31. If occupied burrows are found, a qualified biologist should determine the need (if any) for temporal restrictions on construction. The determination should be pursuant to criteria set forth by CDFW (CDFG, 2012).
- On-site trees, shrubs, and grasslands could be used by birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California. If construction commences during the general avian nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended. If active nests are found, work in the vicinity of the nest should be delayed until the young fledge.

Thank you, again, for asking Moore Biological Consultants to assist with the project. Please call me at (209) 745-1159 with any questions.

Sincerely,



Diane S. Moore, M.S.
Principal Biologist

References and Literature Consulted

ACOE (U.S. Army Corps of Engineers). 1987. Technical Report Y87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MI.

ACOE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. U.S. Army Engineer Research and Development Center, Vicksburg, MS. September.

CDFG (California Department of Fish and Game). 1994. Staff Report regarding Mitigation for Impacts to Swainson's Hawks (*Buteo Swainsoni*) in the Central Valley of California. November.

CDFG. 2012. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Wildlife, Sacramento, California. March 7.

CNDDDB (California Natural Diversity Database). 2016. California Department of Fish and Wildlife's Natural Heritage Program, Sacramento, California.

CNPS (California Native Plant Society). 2016. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. <http://www.rareplants.cnps.org>

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Prepared for California Department of Fish and Game, Rancho Cordova, California. November.

National Oceanic and Atmospheric Administration (NOAA). 2005. Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionarily Significant Units of Pacific Salmon and Steelhead in California; Final Rule. Federal Register 70 (170): 52488-52585. September 2, 2005.

Sawyer, J.O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento. California.

USFWS (United States Fish and Wildlife Service). 1994. Final Critical Habitat for the Delta Smelt (*Hypomesus transpacificus*). Federal Register Vol. 59, No. 242, December 19, 1994, pp. 65256 – 65279.

USFWS. 1999. Conservation Guidelines for the Valley Elderberry Longhorn Beetle. July 9.

USFWS. 2005a. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population; Final Rule. Federal Register Vol. 70, No. 162, August 23, 2005, pp. 49390 – 49458.

USFWS. 2005b. Part II, Department of the Interior, Fish and Wildlife Service. 50 CFR Part 17: Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; Evaluation and Economic Exclusions from August 2003 Final Designation, Final Rule. Federal Register Vol. 70, No. 154, August 11.

USFWS. 2006. Part II, Department of the Interior, Fish and Wildlife Service. 50 CFR Part 17: Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for California Red-Legged Frog, and Special Rule Exemption Associated with Final Listing for Existing Routine Ranching Activities, Final Rule. Federal Register Vol. 71, No. 71, April 13.

Attachment A

Aerial Photographs (Enlargements)

Attachment B

CNDDB Summary Report and Exhibits & USFWS IPaC Trust Report



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Howard Ranch (3712121) OR Ingomar (3712028) OR San Luis Dam (3712111) OR Volta (3712018))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Candidate Threatened	G2G3	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
<i>Branchinecta longiantenna</i> longhorn fairy shrimp	ICBRA03020	Endangered	None	G1	S1S2	
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>California macrophylla</i> round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
<i>Chloropyron molle</i> ssp. <i>hispidum</i> hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T2	S2	1B.1
<i>Circus cyaneus</i> northern harrier	ABNKC11010	None	None	G5	S3	SSC
<i>Cismontane Alkali Marsh</i> Cismontane Alkali Marsh	CTT52310CA	None	None	G1	S1.1	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T3Q	S3	WL
<i>Gambelia sila</i> blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S3	2B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Valley Sacaton Grassland</i> Valley Sacaton Grassland	CTT42120CA	None	None	G1	S1.1	
<i>Valley Sink Scrub</i> Valley Sink Scrub	CTT36210CA	None	None	G1	S1.1	
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 29

IPaC resource list

Location

Merced 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 should not be used for planning or analyzing project level impacts.

[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 either from the Regulatory Review section in IPaC 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 creating a project and making a request from the Regulatory Review section.

Listed species¹ are managed by the [Endangered Species 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:

Amphibians

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

California Tiger Salamander *Ambystoma californiense*

Threatened

There is a **final critical habitat** designated for this species. Your location is outside the designated critical habitat.

<http://ecos.fws.gov/ecp/species/2076>

Crustaceans

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

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i>	Threatened
There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.	
http://ecos.fws.gov/ecp/species/321	
Steelhead <i>Oncorhynchus</i> (=Salmo) <i>mykiss</i>	Threatened
There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.	
http://ecos.fws.gov/ecp/species/1007	

Insects

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

Mammals

NAME	STATUS
Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i>	Endangered
There is a final critical habitat designated for this species. Your location is outside the designated critical habitat.	
http://ecos.fws.gov/ecp/species/5150	
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i>	Endangered
No critical habitat has been designated for this species.	
http://ecos.fws.gov/ecp/species/2873	

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i>	Endangered
No critical habitat has been designated for this species.	
http://ecos.fws.gov/ecp/species/625	
Giant Garter Snake <i>Thamnophis gigas</i>	Threatened
No critical habitat has been designated for this species.	
http://ecos.fws.gov/ecp/species/4482	

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

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

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service³. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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>
- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

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

NAME	SEASON(S)
Bald Eagle <i>Haliaeetus leucocephalus</i> http://ecos.fws.gov/ecp/species/1626	Year-round
Black Rail <i>Laterallus jamaicensis</i> http://ecos.fws.gov/ecp/species/7717	Breeding
Burrowing Owl <i>Athene cunicularia</i> http://ecos.fws.gov/ecp/species/9737	Year-round
Costa's Hummingbird <i>Calypte costae</i> http://ecos.fws.gov/ecp/species/9470	Breeding
Fox Sparrow <i>Passerella iliaca</i>	Wintering
Lawrence's Goldfinch <i>Carduelis lawrencei</i> http://ecos.fws.gov/ecp/species/9464	Breeding
Lesser Yellowlegs <i>Tringa flavipes</i> http://ecos.fws.gov/ecp/species/9679	Wintering
Lewis's Woodpecker <i>Melanerpes lewis</i> http://ecos.fws.gov/ecp/species/9408	Wintering
Loggerhead Shrike <i>Lanius ludovicianus</i> http://ecos.fws.gov/ecp/species/8833	Year-round
Long-billed Curlew <i>Numenius americanus</i> http://ecos.fws.gov/ecp/species/5511	Wintering

Marbled Godwit <i>Limosa fedoa</i> http://ecos.fws.gov/ecp/species/9481	Wintering
Mountain Plover <i>Charadrius montanus</i> http://ecos.fws.gov/ecp/species/3638	Wintering
Nuttall's Woodpecker <i>Picoides nuttallii</i> http://ecos.fws.gov/ecp/species/9410	Year-round
Oak Titmouse <i>Baeolophus inornatus</i> http://ecos.fws.gov/ecp/species/9656	Year-round
Peregrine Falcon <i>Falco peregrinus</i> http://ecos.fws.gov/ecp/species/8831	Year-round
Short-eared Owl <i>Asio flammeus</i> http://ecos.fws.gov/ecp/species/9295	Wintering
Swainson's Hawk <i>Buteo swainsoni</i> http://ecos.fws.gov/ecp/species/1098	Breeding
Tricolored Blackbird <i>Agelaius tricolor</i> http://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe <i>aechmophorus occidentalis</i> http://ecos.fws.gov/ecp/species/6743	Wintering
Yellow-billed Magpie <i>Pica nuttalli</i> http://ecos.fws.gov/ecp/species/9726	Year-round

Facilities

Wildlife refuges

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

THERE ARE NO REFUGES 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](#).

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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

Attachment C

Photographs

Appendix D

Designated Critical Habitat