



Memorandum

24 November 2021

To	Roland Curry, Kinder Morgan Project Manager		
Copy to	Chryss Meier, GHD Environmental Planner		
From	Elizabeth Meisman, GHD Wildlife Biologist	Tel	707-267-2217
Subject	Bradshaw Rail Terminal – Biological Reconnaissance Site Visit to Support CEQA	Project no.	12555811

SFPP, L.P. (SFPP), a subsidiary of Kinder Morgan, proposes to expand its Bradshaw Terminal to allow for renewable diesel (RD) and B100 (biodiesel) operations. To assist with preparation the project's California Environmental Quality Act (CEQA) document, GHD evaluated the potential for sensitive biological resources (federally or state listed or state special status plants and wildlife, sensitive natural communities, and wetlands) to occur within the terminal sites and potential impacts to these resources (if any). Based on occurrence records, habitat availability, and the reconnaissance-level site visit, no special status plant or wildlife biological resources are expected to occur at the sites, with the exception of potential seasonal nesting by protected migratory birds. The potential for wetlands on-site will be determined through an upcoming formal wetland delineation

Regards

Elizabeth Meisman
Wildlife Biologist

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Memorandum

1. Introduction

SFPP, L.P. (SFPP), a subsidiary of Kinder Morgan, proposes to expand the Kinder Morgan Bradshaw Terminal to allow for Renewable Diesel (RD) and B100 (biodiesel) operations (hereafter “Project”; Attachment 1, Figure 1). The terminal is located at 2901 Bradshaw Road, Sacramento, California (Attachment 1, Figures 2.1). The proposed rail turnaround along the Sacramento Regional Rail Transit (SacRT) is located nearby (Attachment 1, Figure 2.2). The Project includes the construction and operation of the following components: rail offloading, storage tanks, and truck-blending and loading racks. The Project facilities would have capacity for up to 20,000 barrels per day (BPD) (5 Days/Week) of total renewable diesel product with an option to include 1,800 BPD of biodiesel.

To assist with preparation the Project’s CEQA document, GHD evaluated the potential for sensitive biological resources (federally or state listed or state special status plants and wildlife, sensitive natural communities, and wetlands) to occur within the Project site. In addition, potential Project impacts to these resources (if any), were evaluated. Special status species and resources are the primary focus of this evaluation. Common species or resources without special protections are not considered. The purpose of this biological reconnaissance technical memorandum is to document the results of the August 12, 2021 site visit and provide information to support the Project’s CEQA document.

1.1 Rail and Loading Facilities

The Project will include two rail spurs dedicated for biodiesel and RD offloading. The spurs will have a total of 22 railcar storage locations. Two new motorized mobile gangways systems are included for accessing the top of each railcar and for venting. There will be three offloading spots dedicated to either offloading biodiesel or RD. All other locations will be dedicated to offloading RD only. The two systems will be clearly marked and identified for the two different offloading products. The biodiesel offloading system will include a valve manifold system to direct product flow to either the existing 5,000 barrel (bbl) customer dedicated B-7 Biodiesel storage tank or into the proposed new communal storage tank (discussed below).

Offloading hoses, valves, fittings, instruments, etc. will be connected to common piping suction headers. Piping systems (with pumps, valves, meters, instruments, etc.) will be included to transfer the product from railcars, to storage tank, and to a new single lane truck rack. The Project is also required to install a new rail run-around on SacRT right of way (ROW) for railcar delivery purposes. Union Pacific Railroad (UPRR) will accommodate switches up to 5 times per week.

1.2 Storage Tanks

The Project includes construction and operation of two new storage tanks within a new secondary containment area. Proposed new storage tanks would be:

- 50,000 bbl RD storage tank
- 15,000 bbl Biodiesel storage tank for communal biodiesel

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1.3 Truck-Blending and Road Racks

The Project will also include a new two-lane truck blending and loading rack, with option of red dye injection. The truck rack will be capable of blending biodiesel with California Air Resources Board (CARB) or RD. Both new truck lanes will be capable of blending up to 20 percent Biodiesel with either 80 percent CARB or RD. (B5, B10, and B20).

There will be two separate and independent offloading headers:

- One for biodiesel; and
- One for RD.

One lane will be dedicated to a single customer (customer-dedicated lane) while the second lane will be used for community load outs (community lane). The customer-dedicated lane will be supplied from the existing B-7 Biodiesel storage tank. A new piping system will be required from existing pumps to new truck rack.

New rack pumps will be installed and be capable of providing up to 10,000 bbls/day of product throughput to each truck loading lane (total of 20,000 bbls/day for two lanes). A red dye skid is included with red dye injection options on dedicated loading arms only. The loading arms will be capable of flushing residual red dye from the system between truckloads.

1.4 Operation

Site operations, including receipt and unloading of rail cars, and truck loading, would occur during site operational hours. The site currently operates 24/7. The rail system will be able to offload up to 20,000 BPD (5 Days/Week) of total RD product with an option to include 1,800 BPD of Biodiesel.

The Biodiesel product offloaded from rail will be stored in either the proposed 15,000 bbl storage tank dedicated to community storage or can be delivered into the existing 5k bbl B-7 storage tank. All new above ground B100 piping will be heat traced and insulated and the new storage Biodiesel tank will be insulated.

2. Survey Methods

2.1 Database Searches (CNDDDB, CNPS, IPaC, NOAA Fisheries, and NWI)

A database search for sensitive biological resource records in the Project vicinity was conducted by GHD on August 11, 2021. Database searches (Attachment 2) included the California Natural Diversity Database (CNDDDB; CDFW 2021a), California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants (CNPS 2021), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC; USFWS 2021), and the National Oceanic and Atmospheric Administration (NOAA) Fisheries West Coast Region California Species List Tools (NMFS 2021). The search encompassed the Carmichael U.S. Geological Survey 7.5-minute quadrangle. Figure 3 (Attachment 1) shows all special status species records tracked by the CNDDDB that are known to occur within a one-mile radius of the Project. A search of the USFWS National Wetlands Inventory for the Project vicinity was completed on August 11, 2021 (Attachment 1, Figure 4).

2.2 Field Survey

A reconnaissance field survey was conducted by Elizabeth Meisman, GHD Wildlife Biologist, on August 12, 2021 from 09:30 to 13:00. Weather conditions were hazy and with a light breeze (Beaufort scale 2), about 79 to 93 degrees Fahrenheit.

The survey included the proposed terminal expansion site (Attachment 1, Figure 2.1) and rail turnaround (Attachment 1, Figure 2.2). The surveyor walked the perimeter and a meandering transect throughout the large rectangular field, where the rail offload area is proposed (Attachment 1, Figure 2.1). Additionally, the

surveyor walked the sidewalk adjacent to the existing SacRT rail line to assess the proposed rail turnaround area (access to the SacRT ROW was not permitted).

The survey methods were intended to assess the potential for special status resources and habitats to occur within the Project sites. The survey involved a physical search of the area, including inspecting the ground, shrubs, holes, and trees for the presence of any wildlife species (additionally, the bark of vegetation and the ground layer under vegetation were inspected for evidence of wildlife species, such as feathers, pellets, whitewash, scat, tracks, etc.); assessing the potential for available habitat to support rare plants; and visual observations to identify Sensitive Natural Communities (SNCs). No protocol-level surveys for wetlands, SNCs, or special status plants and wildlife were conducted at this time.

3. Results

3.1 Summary of General Biological Resources

The proposed terminal expansion site primarily consists of a large rectangular field. Although this field has not been developed, it appears to have been formerly graded and hosts numerous non-native plant species (Attachment 3, Table 1). The dominant vegetation consisted of grass species, Russian thistle (*Salsola australis*), and sapling tree of heaven (*Ailanthus altissima*). There was extensive human trash (e.g., likely from homeless people) and the field had been recently mowed at the time of the site visit. This field is bordered by existing SFPP facilities to the west, a commercial business park to the south and east, and Folsom Boulevard and residential properties to the north (Attachment 1, Figure 2.1).

The proposed rail turnaround site is located along the existing SacRT rail line which runs parallel to Folsom Boulevard (immediately to the south). The existing rail line is bordered by residential properties to the southeast and north, by commercial properties to the northeast and southwest, and by agricultural land to the northwest (Attachment 1, Figure 2.2).

Overall, across the terminal and rail turnaround sites, there was little natural habitat structure. There are some trees that may provide suitable nesting habitat for common avian species protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (FGC). There is a line of planted trees (all approximately 15-20 diameter at breast height) along the eastern border of the large rectangular field composed of coast redwood (*Sequoia sempervirens*) trees as well as blue (*Quercus douglasii*) and valley oaks (*Q. lobata*). Additional oak trees are present along the SacRT rail line.

No suitable habitat for any special status species was observed (full lists of species observed on-site are provided in Attachment 3, Tables 1 through 4) within or directly adjacent to the Project sites. Several representative photographs are included in Attachment 4 to document the site condition at the time of the site visit.

3.2 Wetlands and Waters

The eastern third of a drainage running roughly west to east across the large rectangular field at the proposed terminal expansion site was identified as a potential wetland or jurisdictional aquatic resources. Large (approximately 30-inch) culverts are present at both the west and east sides of the field. Hydrophytic vegetation including willows (*Salix* sp.), Fremont cottonwood (*Populus fremontii*), tall flatsedge (*Cyperus eragrostis*), and an unidentified rush (*Juncus* sp.) were present near the culvert at the eastern edge of the field. No areas of standing water were visible during the reconnaissance-level site visit; however, the site visit occurred during the driest time of year in this region without any recent rainfall. A formal wetland delineation was completed on September 23, 2021, to investigate the presence of aquatic resources on-site, see separate Wetland Determination Technical Memorandum for details (GHD 2021). No potentially jurisdictional wetlands or waters of the U.S. or State were observed in the Project site or in areas to be impacted by proposed Project activities. No impact would result. No additional technical studies or permits specific to wetlands and waters are anticipated.

3.3 Sensitive Natural Communities (SNCs)

No SNCs were observed in the Project site. No impact would result. No technical additional studies or permits specific to SNCs are anticipated.

3.4 Special Status Plants

No special status plant species were observed on-site; however, the field survey was not protocol level nor conducted during the appropriate growing season windows for species with potential to occur in the vicinity (the site visit occurred during the late summer outside of the blooming period for some plants).

Nonetheless, based on existing habitat, the Project sites are unlikely to support special status plants, and no impacts are expected. A list of all plant species detected during the reconnaissance-level site visit are presented in Attachment 3, Table 1. No impacts to special status plants are expected as a result of the Project. No additional technical studies or permits specific to special status plants are anticipated.

3.5 Special Status Wildlife

No special status wildlife species were observed on-site. A list of terrestrial wildlife or sign thereof observed during the reconnaissance-level site visit is presented in Attachment 3, Table 2. A list of all bird species detected during the site visit and their associated breeding codes are presented in Attachment 3, Table 3 and 4. As many neotropical avian species have migrated south by late summer, Table 4 is not a comprehensive list of all species that could occur throughout the breeding season (in addition, the survey was not protocol-level). No other wildlife species were observed. Based on existing habitat, the Project sites likely only support urban-adapted common wildlife species. With implementation of the proposed avoidance and minimization measures (Section 5), impacts to special status wildlife species would be less than significant. No additional studies or permits specific to special status wildlife are required.

3.6 Habitat Conservation Plans and Natural Community Conservation Plans

Habitat Conservation Plans (HCPs) and Natural Community Conservation Plans are site-specific plans to address effects on sensitive species of plants and animals. The South Sacramento HCP overlaps the Project site. This HCP covers eight plants, five invertebrates, two amphibians, two reptiles, nine birds, and two mammals. The Project site does not provide suitable habitat for any of these species; no impact would result. There are no such adopted Natural Community Conservation Plans covering the Project site; no impact would result.

3.7 Critical Habitat

The Project site does not overlap any federally designated critical habitat. No impact would result.

3.8 Habitat Connectivity

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Maintaining the continuity of established wildlife corridors is important to: a) sustain species with specific foraging requirements, b) preserve a species' distribution potential, and c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource.

No wildlife movement corridors or regional wildlife linkages have been identified within the Project site. The Project site is not located within or near a high-integrity forest habitat "natural landscape block" identified in the California Essential Habitat Connectivity Project (Data Basin 2021). The Project site does not contain riparian or aquatic habitat or intersect riparian corridors. No impact on movement of native resident or migratory fish or essential fish habitat would result. No new barriers to terrestrial wildlife movement would result from the Project, and the Project would not substantially interfere with migratory birds, bats, or other species. The impact would be less than significant.

4. Discussion

No sensitive biological resources were observed during the August 16, 2021 reconnaissance-level site visit. Several common avian species were observed on-site that are protected by the MBTA and FGC (Attachment 3, Table 2). Trees adjacent to the Project sites could provide suitable nesting habitat for migratory bird species.

No suitable bat roosting habitat was observed within the Project sites. Requisite foraging habitat may be present in the periphery. The proposed Project may involve installation of new lighting; however, that lighting would be limited security lighting, and would be hooded and downcast consistent with City of Rancho Cordova requirements. Thus, no impacts to special status bats are expected as a result of the Project.

5. Proposed Avoidance and Minimization Measures

Potential Project impacts to special status birds during construction may include visual disturbance, habitat destruction, and noise disturbance. The following measures are proposed to avoid potential impacts.

- Ground disturbance and vegetation clearing shall be conducted, if possible, during the fall and/or winter months and outside of the avian nesting season (generally February 1 – September 1) to avoid any direct effects to protected birds. If ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the Project Area, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist shall conduct at minimum a one-day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance or vegetation removal work lapses for seven days or longer during the breeding season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated.
- If active nests are detected within the construction footprint or up to 500 feet from construction activities, the ornithologist shall flag a buffer around each nest (assuming property access). Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers would be implemented as needed (buffer size dependent on species). Buffer sizes for common species would be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with USFWS. Buffer sizes would consider factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds.
- If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

6. Conclusion

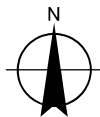
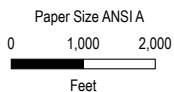
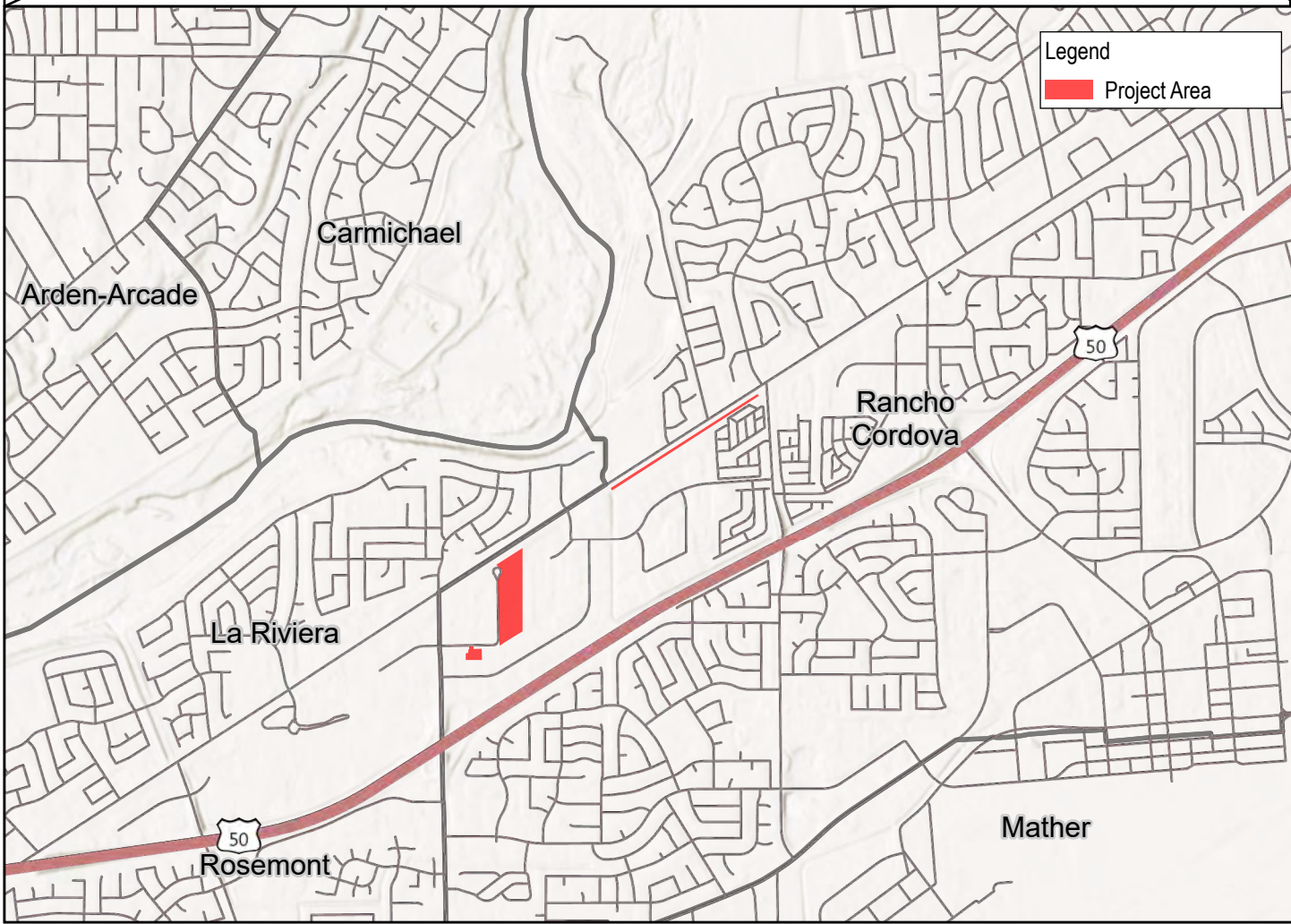
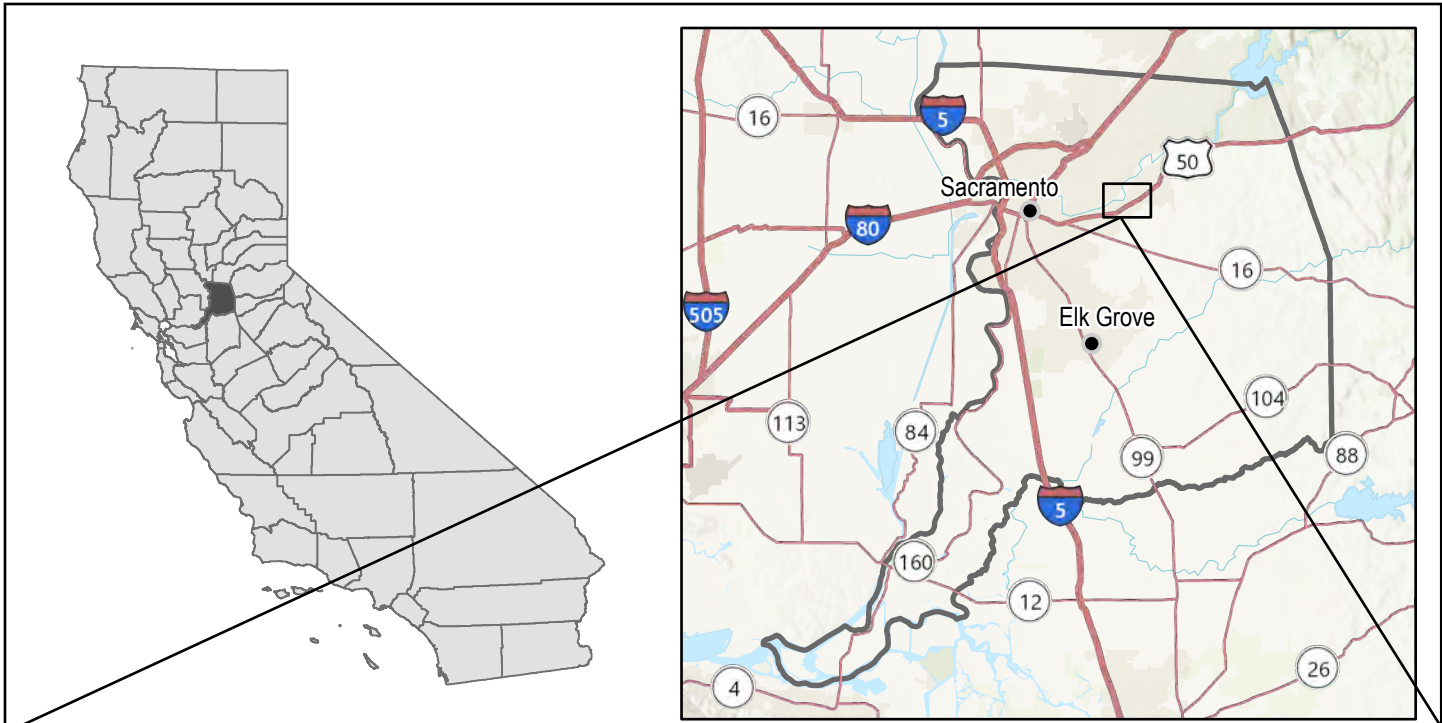
Based on occurrence records, habitat availability, the reconnaissance-level site visit, and Wetland Determination, no sensitive biological resources (federally or state listed or state special status plants and wildlife, sensitive natural communities, or wetlands) are expected to occur in the Project site, with the exception of potential seasonal nesting by protected migratory birds. No additional technical studies or permits are anticipated.

7. References

- California Department of Fish and Wildlife (CDFW). 2021a. *California Natural Diversity Database (CNDDDB)*. USGS 7.5 Minute Quadrangles. State of California, Natural Resources Agency, Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento, California, USA. <https://www.wildlife.ca.gov/Data/CNDDDB> (08/11/2021)
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- National Marine Fisheries Service (NMFS). 2021. *NOAA Fisheries West Coast Region California Species List Tool*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration Fisheries, NMFS, Portland, Oregon, USA. https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html (08/11/2021)
- U.S. Fish and Wildlife Service (USFWS). 2021. *IPaC - Information for Planning and Consultation*. Department of the Interior, U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office, Arcata, CA, USA. <https://ecos.fws.gov/ipac/> (08/11/2021)

Attachment 1

Figures



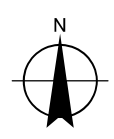
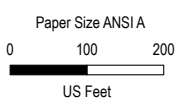
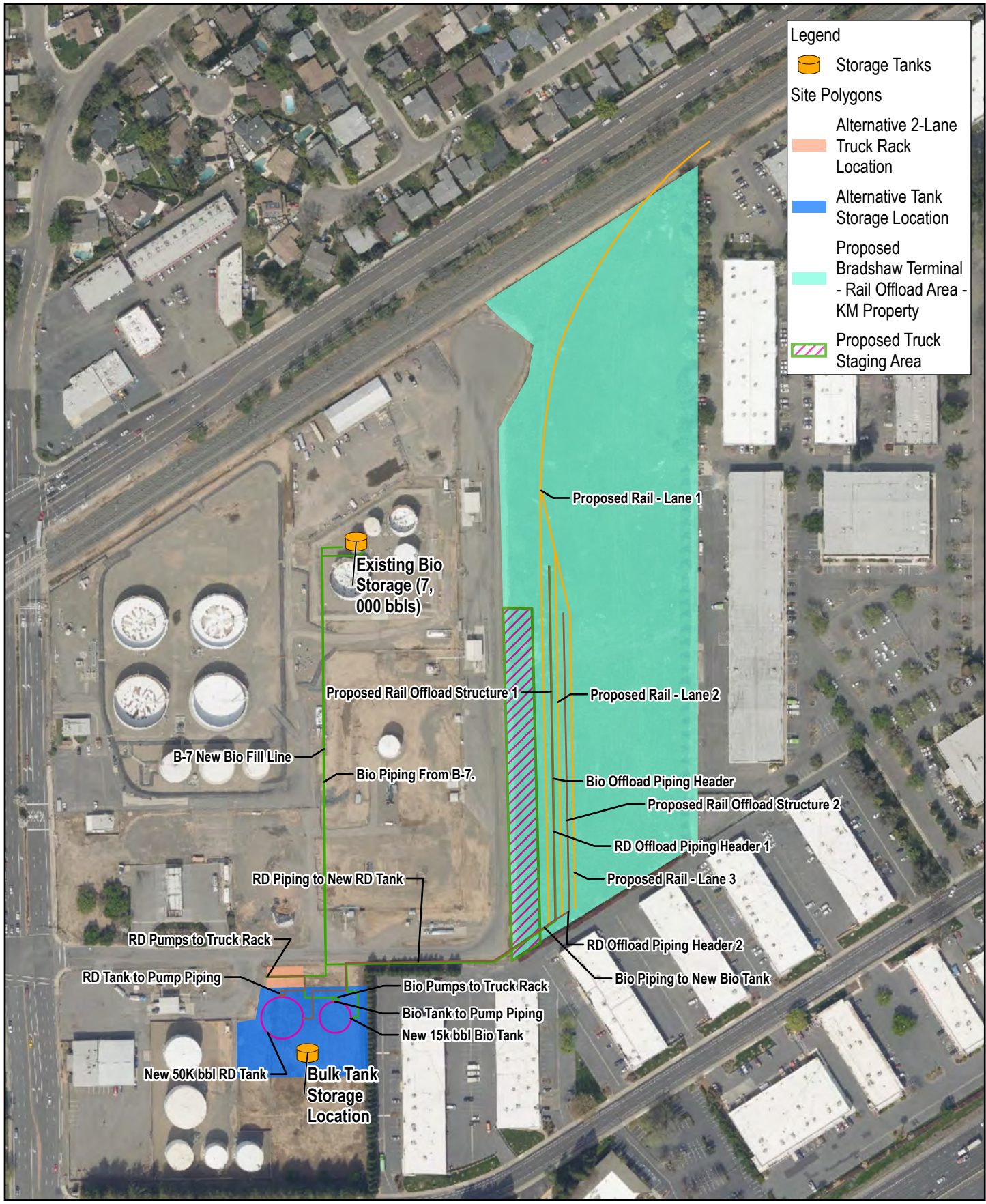
**Kinder Morgan
Bradshaw Terminal Renewable by Rail**

Project No. 12555811
Revision No. -
Date 9/14/2021

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

Vicinity Map

FIGURE 1



Kinder Morgan
Bradshaw Terminal Renewable by Rail

Project No. 12555811
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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

Project Area - Bradshaw Terminal

FIGURE 2.1

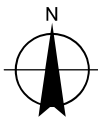
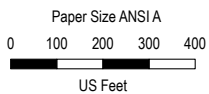


Legend

Site Polygons

- Proposed Rail Runaround Area - Sacramento Regional Transit

Proposed UPRR Rail Runaround (34 Railcars - 2040ft)



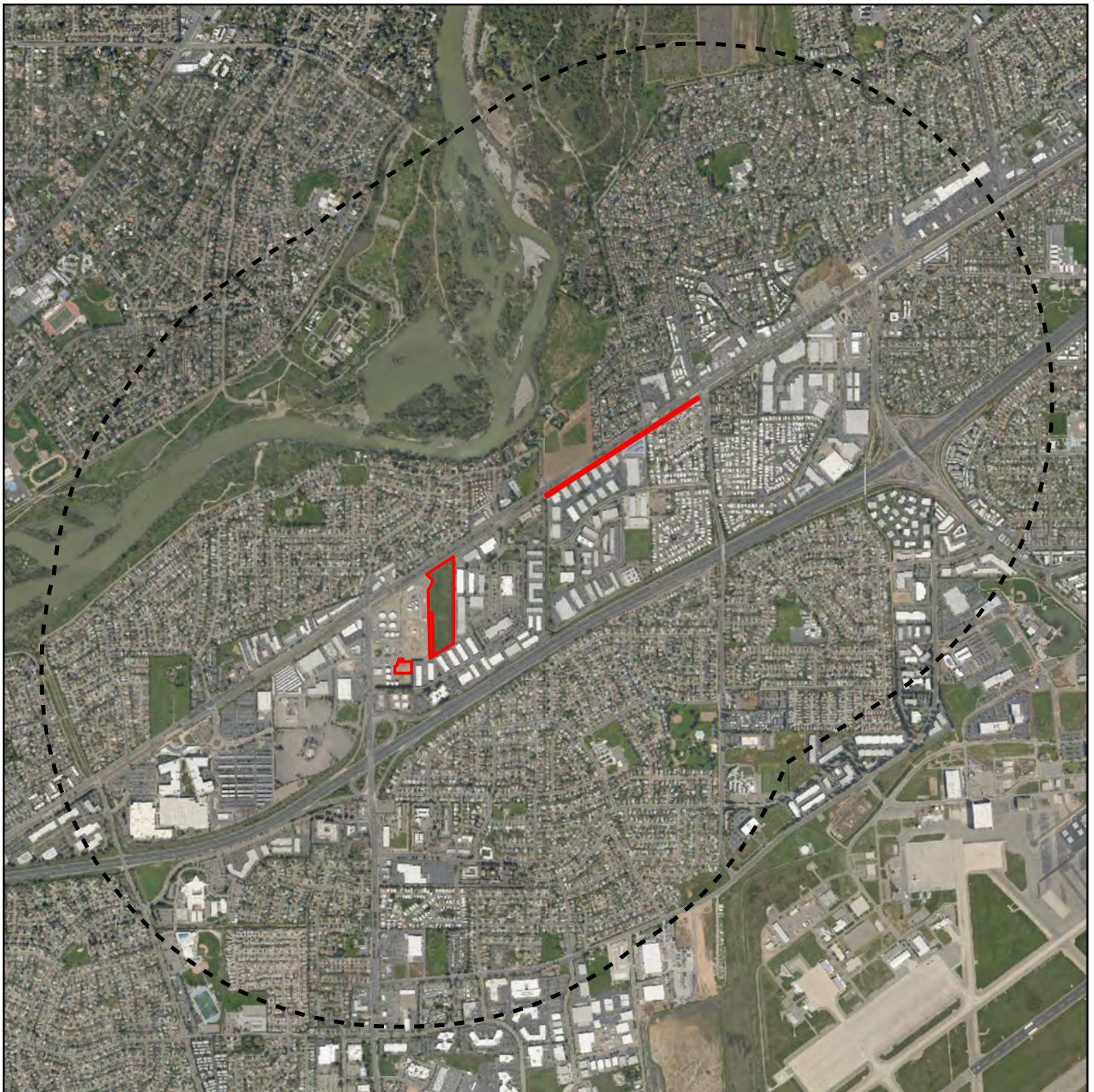
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Project Area - Rail Runaround

FIGURE 2.2

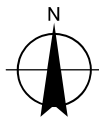
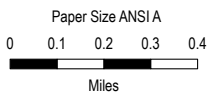


Data Disclaimer
 Data within the CNDDDB and Spotted Owl Database require biological expertise for proper analysis, interpretation, and application. It is the user's responsibility to ensure that the data obtained from CDFW are used correctly

Legend

-  Project Area
-  One Mile Buffer
- Species in CNDDDB within one mile of the project area
- Northern Hardpan
- Vernal Pool

- Sanford's Arrowhead
- Great Blue Heron
- Great Egret
- Hairy Water Flea
- Steelhead - Central Valley DPS
- Valley Elderberry Longhorn Neetle
- Vernal Pool Fairy Shrimp
- White-Tailed Kite



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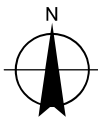
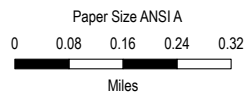
CNDDDB Species

FIGURE 3



Legend

- Project Area
- USA Wetlands**
- Marine
- Estuarine
- Palustrine
- Riverine
- Lacustrine



**Kinder Morgan
Bradshaw Terminal Renewable by Rail**

Project No. 12555811
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Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California II FIPS 0402 Feet

National Wetlands Inventory

FIGURE 4

Attachment 2

Database Searches

Appendix B, Table 1. Bradshaw Renewable Diesel & Bio by Rail Project – 1-Quad Database Search of CDFW CNDDDB centered on Project quad (Eureka) on 08.11.2021.

Scientific Name	Common Name	Taxon Group	FedList	CalList	GRank	SRank	CRPR	OthrStatus	Habitats	GenHab	MicroHab
<i>Accipiter cooperii</i>	Cooper's hawk	Birds	None	None	G5	S4		CDFW_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.
<i>Agelaius tricolor</i>	tricolored blackbird	Birds	None	Threatened	G1G2	S1S2		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BC C-Birds of Conservation Concern	Freshwater marsh Marsh & swamp Wetland	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.

<i>Aquila chrysaetos</i>	golden eagle	Birds	None	None	G5	S3		BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BC C-Birds of Conservation Concern	Broadleaved upland forest Cismontane woodland Coastal prairie Great Basin grassland Great Basin scrub Lower montane coniferous forest Pinon & juniper woodlands Upper montane coniferous forest Valley & foothill grassland	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
<i>Ardea alba</i>	great egret	Birds	None	None	G5	S4		CDF_S-Sensitive IUCN_LC-Least Concern	Brackish marsh Estuary Freshwater marsh Marsh & swamp Riparian forest Wetland	Colonial nester in large trees.	Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.

<i>Ardea herodias</i>	great blue heron	Birds	None	None	G5	S4		CDF_S-Sensitive IUCN_LC-Least Concern	Brackish marsh Estuary Freshwater marsh Marsh & swamp Riparian forest Wetland	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes.	Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.
<i>Athene cunicularia</i>	burrowing owl	Birds	None	None	G4	S3		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BC C-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.

<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Crustaceans	Threatened	None	G3	S3		IUCN_VU-Vulnerable	Valley & foothill grassland Vernal pool Wetland	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
<i>Branchinecta mesovallensis</i>	midvalley fairy shrimp	Crustaceans	None	None	G2	S2S3			Vernal pool Wetland	Vernal pools in the Central Valley.	
<i>Buteo regalis</i>	ferruginous hawk	Birds	None	None	G4	S3S4		CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BC C-Birds of Conservation Concern	Great Basin grassland Great Basin scrub Pinon & juniper woodlands Valley & foothill grassland	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.

<i>Buteo swainsoni</i>	Swainson's hawk	Birds	None	Threatened	G5	S3		BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BC C-Birds of Conservation Concern	Great Basin grassland Riparian forest Riparian woodland Valley & foothill grassland	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	Insects	Threatened	None	G3T2	S3			Riparian scrub	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>).	Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.
<i>Dumontia oregonensis</i>	hairy water flea	Crustaceans	None	None	G1G3	S1			Vernal pool	Vernal pools. In California, known only from Mather Field.	

<i>Elanus leucurus</i>	white-tailed kite	Birds	None	None	G5	S3S4		BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	Cismontane woodland Marsh & swamp Riparian woodland Valley & foothill grassland Wetland	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland.	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.
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<i>Emys marmorata</i>	western pond turtle	Reptiles	None	None	G3G4	S3		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Dicots	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Freshwater marsh Marsh & swamp Vernal pool Wetland	Marshes and swamps (freshwater), vernal pools.	Clay soils; usually in vernal pools, sometimes on lake margins. 4-2410 m.

<i>Hydrochara rickseckeri</i>	Ricksecker's water scavenger beetle	Insects	None	None	G2?	S2?			Aquatic Sacramento /San Joaquin flowing waters Sacramento /San Joaquin standing waters	Aquatic.	
<i>Juncus leiospermus var. ahartii</i>	Ahart's dwarf rush	Monocots	None	None	G2T1	S1	1B.2		Valley & foothill grassland	Valley and foothill grassland.	Restricted to the edges of vernal pools in grassland. 30-100 m.
<i>Legenere limosa</i>	legenere	Dicots	None	None	G2	S2	1B.1	BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley	Vernal pool Wetland	Vernal pools.	In beds of vernal pools. 1-1005 m.
<i>Lepidurus packardi</i>	vernal pool tadpole shrimp	Crustaceans	Endangered	None	G4	S3S4		IUCN_EN-Endangered	Valley & foothill grassland Vernal pool Wetland	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water.	Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.

<i>Linderiella occidentalis</i>	California linderiella	Crustaceans	None	None	G2G3	S2S3		IUCN_NT-Near Threatened	Vernal pool	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	Water in the pools has very low alkalinity, conductivity, and total dissolved solids.
<i>Northern Hardpan Vernal Pool</i>	Northern Hardpan Vernal Pool	Herbaceous	None	None	G3	S3.1			Vernal pool Wetland		
<i>Oncorhynchus mykiss irideus pop. 11</i>	steelhead - Central Valley DPS	Fish	Threatened	None	G5T2Q	S2		AFS_TH-Threatened	Aquatic Sacramento /San Joaquin flowing waters	Populations in the Sacramento and San Joaquin rivers and their tributaries.	
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	Monocots	Endangered	Endangered	G1	S1	1B.1	SB_CalBG/R SABG-California/Rancho Santa Ana Botanic Garden	Vernal pool Wetland	Vernal pools.	15-85 m.
<i>Riparia riparia</i>	bank swallow	Birds	None	Threatened	G5	S2		BLM_S-Sensitive IUCN_LC-Least Concern	Riparian scrub Riparian woodland	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.

<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Monocots	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp Wetland	Marshes and swamps.	In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m.
<i>Spea hammondii</i>	western spadefoot	Amphibians	None	None	G2G3	S3		BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	Cismontane woodland Coastal scrub Valley & foothill grassland Vernal pool Wetland	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.

<i>Taxidea taxus</i>	American badger	Mammals	None	None	G5	S3		CDFW_SSC- Species of Special Concern IUCN_LC- Least Concern	Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog & fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.
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Appendix B, Table 2. Bradshaw Renewable Diesel & Bio by Rail Project – 1-Quad Database Search of CNPS Rare Plant Inventory centered on Project quad (Eureka) on 08.11.2021.

Scientific Name	Common Name	Family	CRPR	GRank	SRank	CESA	FESA	Blooming Period	Habitat	Micro Habitat
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	1B.2	G3	S3	None	None	May-Oct(Nov)	Marshes and swamps	
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Plantaginaceae	1B.2	G2	S2	CE	None	Apr-Aug	Marshes and swamps, Vernal pools	
<i>Juncus leiospermus var. ahartii</i>	Ahart's dwarf rush	Juncaceae	1B.2	G2T1	S1	None	None	Mar-May	Valley and foothill grassland	
<i>Legenere limosa</i>	legenere	Campanulaceae	1B.1	G2	S2	None	None	Apr-Jun	Vernal pools	
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	Poaceae	1B.1	G1	S1	CE	FE	Apr-Jul(Sep)	Vernal pools	
<i>Brodiaea rosea ssp. vallicola</i>	valley brodiaea	Themidaceae	4.2	G5T3	S3	None	None	Apr-May(Jun)	Valley and foothill grassland, Vernal pools	Alluvial Terraces, Gravelly, Sandy, Silt

Endangered species

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

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

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

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

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

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

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

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Reptiles

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

Amphibians

NAME	STATUS
<p>California Red-legged Frog <i>Rana draytonii</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>https://ecos.fws.gov/ecp/species/2891</p>	Threatened
<p>California Tiger Salamander <i>Ambystoma californiense</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>https://ecos.fws.gov/ecp/species/2076</p>	Threatened

Fishes

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

Insects

NAME	STATUS
<p>Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>https://ecos.fws.gov/ecp/species/7850</p>	Threatened

Crustaceans

NAME	STATUS
<p>Conservancy Fairy Shrimp <i>Branchinecta conservatio</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>https://ecos.fws.gov/ecp/species/8246</p>	Endangered
<p>Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i></p> <p>Wherever found</p> <p>There is final critical habitat for this species. The location of the critical habitat is not available.</p> <p>https://ecos.fws.gov/ecp/species/498</p>	Threatened

Vernal Pool Tadpole Shrimp *Lepidurus packardii* Endangered

Wherever found

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

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

Flowering Plants

NAME

STATUS

Sacramento Orcutt Grass *Orcuttia viscida* Endangered

Wherever found

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

<https://ecos.fws.gov/ecp/species/5507>

Slender Orcutt Grass *Orcuttia tenuis* Threatened

Wherever found

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

<https://ecos.fws.gov/ecp/species/1063>

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/nationwidestandardconservationmeasures.pdf>

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

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

NAME

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

Bald Eagle *Haliaeetus leucocephalus*

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

California Thrasher *Toxostoma redivivum*

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 *Aechmophorus clarkii*

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

Breeds Jun 1 to Aug 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

<p>Golden Eagle <i>Aquila chrysaetos</i></p> <p>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.</p> <p>https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Long-eared Owl <i>asio otus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p>https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20
<p>Oak Titmouse <i>Baeolophus inornatus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15
<p>Olive-sided Flycatcher <i>Contopus cooperi</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Tricolored Blackbird <i>Agelaius tricolor</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Wrentit <i>Chamaea fasciata</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10
<p>Yellow-billed Magpie <i>Pica nuttalli</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9726</p>	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. Please make sure you read and understand the FAQ

"Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

Breeding Season (■)

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

Survey Effort (|)

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

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

No Data (—)

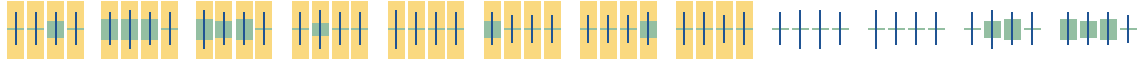
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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



Bald Eagle
Non-BCC
Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



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



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

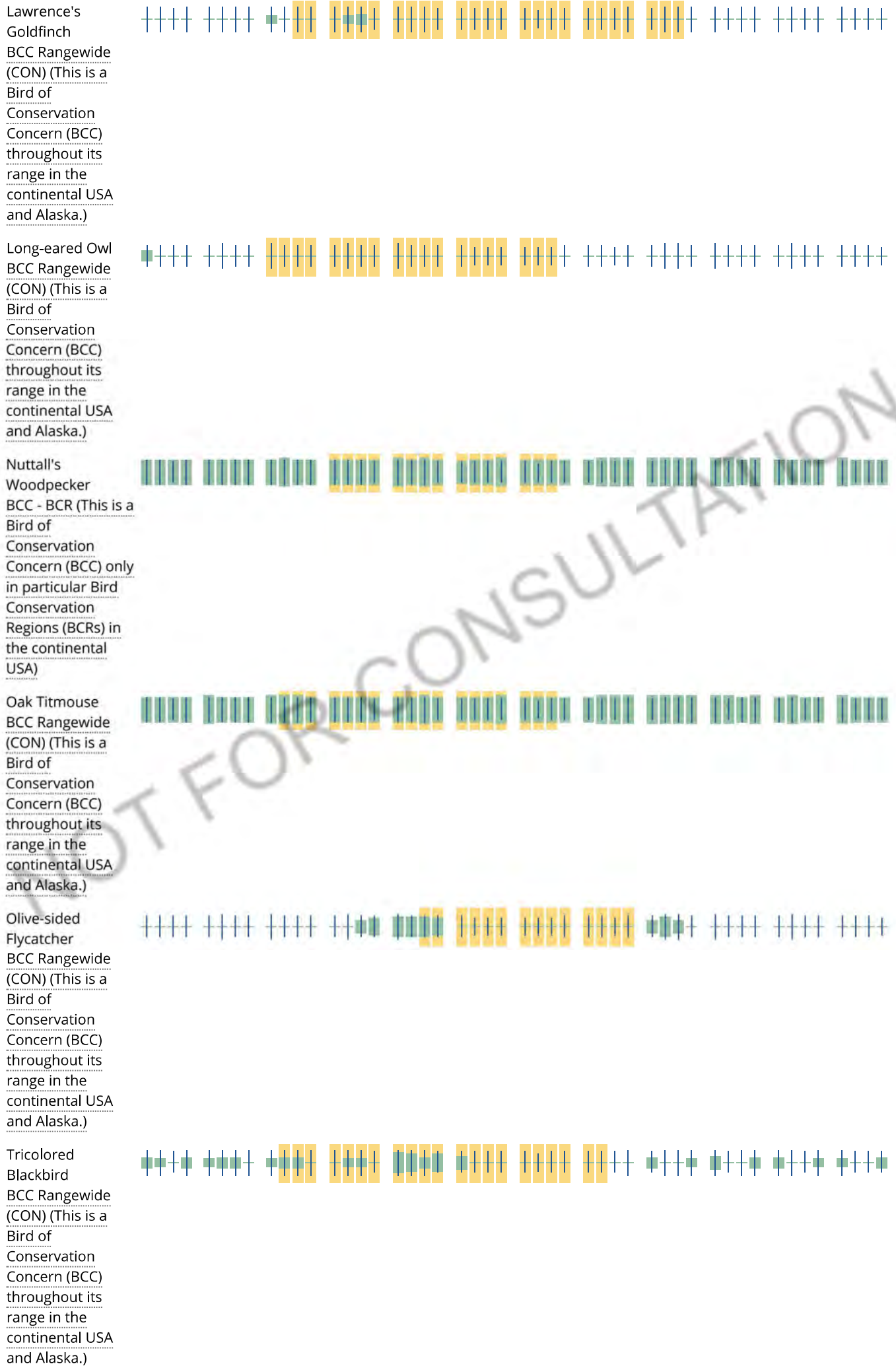


Common Yellowthroat
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Golden Eagle
Non-BCC
Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)





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



SPECIES

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

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



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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R4SBAX](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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

Quad Name **Carmichael**

Quad Number **38121-E3**

1. **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) -

2. **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

3. **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

4. **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

5. **ESA Sea Turtles**

- East Pacific Green Sea Turtle (T) -
- Olive Ridley Sea Turtle (T/E) -
- Leatherback Sea Turtle (E) -
- North Pacific Loggerhead Sea Turtle (E) -

6. **ESA Whales**

- Blue Whale (E) -
- Fin Whale (E) -
- Humpback Whale (E) -
- Southern Resident Killer Whale (E) -
- North Pacific Right Whale (E) -
- Sei Whale (E) -
- Sperm Whale (E) -

7. **ESA Pinnipeds**

- Guadalupe Fur Seal (T) -
- Steller Sea Lion Critical Habitat -

8. **Essential Fish Habitat**

- Coho EFH -
- Chinook Salmon EFH - **X**
- Groundfish EFH -
- Coastal Pelagics EFH -
- Highly Migratory Species EFH -

9. **MMPA Species (See list at left)**

10. **ESA and MMPA Cetaceans/Pinnipeds**

**See list at left and consult the NMFS Long Beach office
562-980-4000**

- MMPA Cetaceans -
- MMPA Pinnipeds -

Attachment 3

Tables

Table 1 Plant Species Observed On-site

Scientific Name	Common Name	Status	Family
<i>Ailanthus altissima</i>	tree of heaven	invasive non-native	Simaroubaceae
<i>Amaranthus blitoides</i>	prostrate pigweed	native	Amaranthaceae
<i>Avena fatua</i>	wildoats	invasive non-native	Poaceae
<i>Baccharis pilularis</i>	coyote brush	native	Asteraceae
<i>Brassica rapa</i>	common mustard	invasive non-native	Brassicaceae
<i>Celtis sinensis</i>	Chinese hackberry	non-native	Cannabaceae
<i>Centaurea solstitialis</i>	yellow starthistle	non-native	Asteraceae
<i>Cleome ruidosperma</i>	fringed spiderflower	invasive non-native	Capparaceae
<i>Convolvulus arvensis</i>	field bindweed	non-native	Convolvulaceae
<i>Croton setiger</i>	turkey mullein	native	Euphorbiaceae
<i>Cynara cardunculus</i>	artichoke thistle	invasive non-native	Asteraceae
<i>Cynodon dactylon</i>	Bermuda grass	invasive non-native	Poaceae
<i>Cyperus eragrostis</i>	tall flatsedge	native	Cyperaceae
<i>Daucus carota</i>	Queen Anne's lace	non-native	Apiaceae
<i>Epilobium brachycarpum</i>	willow herb	native	Onagraceae
<i>Erigeron bonariensis</i>	flax-leaved horseweed	non-native	Asteraceae
<i>Euphorbia maculata</i>	spotted spurge	non-native	Euphorbiaceae
<i>Galium sp.</i>	unknown bedstraw	unknown	Rubiaceae
<i>Juncus sp.</i>	unknown rush	native	Juncaceae
<i>Lactuca serriola</i>	prickly lettuce	non-native	Asteraceae
<i>Lathyrus latifolius</i>	perennial pea	non-native	Fabaceae
<i>Lepidium latifolium</i>	perennial pepperweed	invasive non-native	Brassicaceae
<i>Malva parviflora</i>	cheeseweed mallow	non-native	Malvaceae
<i>Photinia xfraseri</i>	Fraser's photinia	non-native	Rosaceae
<i>Plantago sp.</i>	unknown plantago	unknown	Plantaginaceae
<i>Populus fremontii</i>	Fremont cottonwood	native	Salicaceae
<i>Quercus douglasii</i>	blue oak	native	Fagaceae
<i>Quercus lobata</i>	valley oak	native	Fagaceae
<i>Rubus armeniacus</i>	Himalayan blackberry	invasive non-native	Rosaceae
<i>Rumex sp.</i>	unknown dock	unknown	Polygonaceae
<i>Salix sp.</i>	unknown species	native	Salicaceae
<i>Salsola australis</i>	Russian thistle	non-native	Chenopodiaceae
<i>Sequoia sempervirens</i>	coast redwood	native	Cupressaceae
<i>Tragopogon porrifolius</i>	purple salsify	non-native	Asteraceae
<i>Washingtonia robusta</i>	Mexican fan palm	invasive non-native	Arecaceae

Table 2 Terrestrial Wildlife Observed On-site

Scientific Name	Common Name	Nativity/Special Status	Observation Type
<i>Didelphis virginiana</i>	Virginia Opossum	Native/None	Carcass
<i>Spermophilus beecheyi</i>	California Ground Squirrel	Native/None	Burrow colony

Scientific Name	Common Name	Nativity/Special Status	Observation Type
<i>Sylvilagus bachmani</i>	Brush Rabbit	Native/None	Scat
<i>Tamiasciurus douglasii</i>	Douglas Squirrel	Native/None	Seen/heard
<i>Urocyon cinereoargenteus</i>	Gray Fox	Native/None	Scat and tracks

Table 3 List of breeding codes, associated bird behavior, and breeding status (the highest ranking code was recorded for each species during the survey).

Breeding Rank	Breeding Code	Description	Breeding Status
1	N	Active nest	Breeding
2	M	Carrying nesting material	Breeding
3	F	Carrying food or fecal sac	Breeding
4	D	Distraction display/feigning	Breeding
5	L	Local young fed by parents	Breeding
6	Y	Local young incapable of sustained flight	Breeding
7	C	Copulation or courtship observed	Breeding
8	T	Territorial behavior	Unconfirmed
9	S	Territorial song or drumming heard	Unconfirmed
10	E	Encountered in study area	Unconfirmed
11	O	Encountered flying over the study area	Unconfirmed

Table 4 Avian Species Detected On-site

Alpha Code	Common Name	Latin Name	Highest Breeding Status	Breeding Code	Special Status
ROPI	Rock Pigeon	<i>Columba livia</i>	Encountered in study area	E	None; invasive
MODO	Mourning Dove	<i>Zenaida macroura</i>	Encountered in study area	E	FGC
WEKI	Western Kingbird	<i>Tyrannus verticalis</i>	Encountered in study area	E	FGC
CSJA	California Scrub-Jay	<i>Aphelocoma californica</i>	Encountered in study area	E	FGC
AMCR	American Crow	<i>Corvus brachyrhynchos</i>	Encountered in study area	E	FGC
CORA	Common Raven	<i>Corvus corax</i>	Encountered flying over the study area	O	FGC
EUST	European Starling	<i>Sturnus vulgaris</i>	Encountered in study area	E	None; invasive
WEBL	Western Bluebird	<i>Sialia mexicana</i>	Encountered in study area	E	FGC
HOFI	House Finch	<i>Haemorhous mexicanus</i>	Encountered in study area	E	FGC

Definitions:
FGC = protected by California Fish and Game Code

Attachment 4

Representative Site Photographs



Image 1. View of large rectangular field, where the rail offload area is proposed at the Terminal site, facing south.



Image 2. View of large rectangular field, where the rail offload area is proposed at the Terminal site, facing south from middle of field.



Image 3. View of large rectangular field, where the rail offload area is proposed at the Terminal site, facing north (including view of Folsom Blvd).



Image 4. View of human trash in large rectangular field, where the rail offload area is proposed at the Terminal site, facing southeast.



Image 5. View of large rectangular field, where the rail offload area is proposed at the Terminal site, including drainage, facing east.



Image 6. View of large rectangular field, where the rail offload area is proposed at the Terminal site, including drainage, facing east from western culvert.



Image 7. View of large rectangular field, where the rail offload area is proposed at the Terminal site, facing west towards existing Kinder Morgan facilities.