

Appendix A: Biological Resources Assessment

DICA Partners Water Conveyance Project

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February 14, 2020

OLE-01

Mr. Ben R. Olson, Jr.
President
Olsen Engineering System, Inc.
P.O. Box 587
Indio, CA 92202

Subject: Biological Resources Report for the Tudor Ranch DICA Pipeline and Coachella Canal Outlet Project

Dear Mr. Olsen:

This report documents the results of a biological resources technical study completed by HELIX Environmental Planning, Inc. (HELIX) for the Tudor Ranch DICA Pipeline and Coachella Canal Outlet Project (project) located near the unincorporated community of Mecca, Riverside County, California.

DICA Partners (DICA), a California Partnership plans to install a water supply project to provide water for agricultural use in DICA's United States Public Land Survey System Section 17 lands. This project includes existing water pipeline owned by DICA and installed in Section 18, and a water pipeline segment proposed to be installed in Bureau of Reclamation (BOR) jurisdiction in Section 17. Although already installed during Coachella Valley Water District (CVWD)'s reconstruction of Wasteway No. 1, an existing bridge and pipeline crossing BOR's Wasteway No. 1 that will be used for the water supply project, are also being evaluated in this report. The project also includes a canal outlet, which will be owned by BOR and operated by the Coachella Valley Water District (CVWD). This report incorporates the biological analysis conducted for the existing pipeline by James W. Cornett Ecological Consultants (Cornett 2017).

This report is intended to summarize the existing biological resources within the project site and provide an analysis of the anticipated effects in accordance with National Environmental Policy Act (NEPA).

PROJECT DESCRIPTION AND LOCATION

DICA proposes a water supply project to provide water to irrigate agricultural land within Section 17. The project includes construction of an 18-inch diameter, groundwater supplied pipeline along an existing road (Riddle Way, also referred to as Coachella Canal Road) between Section 13 and two regulating reservoirs to be constructed in Section 17. This project makes use of an existing water pipeline in Riddle Way in Section 18, as well as an existing bridge and pipeline crossing BOR's Wasteway No. 1. New project components include an approximately 2,179-foot water pipeline segment in Bureau of Reclamation (BOR) jurisdiction in Section 17, two water storage reservoirs on private property in Section 17 (totaling approximately 3.4 acre), and a new outlet in the Coachella Canal (approximately 0.1

acre). Construction of the new pipeline segment (including trenching, spoils, staging, and access) would be restricted to within the 30-foot road right of way and disturbed areas associated with Riddle Way, except for approximately 132 feet where the pipeline leaves Riddle Way to connect to the reservoir.

The project site is generally located in the Chuckwalla community in northcentral Riverside County (Figure 1). It is depicted on the Mortmar, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle, within Sections 17 and 18, Township 7S, Range 10E (Figure 2). More specifically, the Tudor Ranch DICA Pipeline and Coachella Canal Outlet Project is located north of 70th Avenue, south of the Coachella Canal and Coachella Canal Road, east of Arthur Street, and west of Bounty Avenue (Figure 3). The Tudor Ranch DICA pipeline alignment crosses Wasteway No. 1, which occurs along Cleveland Street to the south of the project. The project passes through four Assessor's Parcel Numbers (APNs): 721-040-002, 721-040-003, 721-040-006, and 721-040-009.

The site is located outside of Critical Habitat designated by the U.S. Fish and Wildlife Service and outside of other lands targeted for conservation under the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) or other regional plans.

METHODS

Literature Review

Prior to conducting the general biological survey, HELIX performed an updated search of the California Natural Diversity Database (CNDDDB; California Department of Fish and Wildlife [CDFW] 2019a-b, 2018), U.S. Fish and Wildlife Service (USFWS) Carlsbad Fish and Wildlife Offices Species Status Lists (U.S. Fish and Wildlife Service [USFWS 2019a]), USFWS Critical Habitat Portal (USFWS 2019b), USFWS National Wetlands Inventory (USFWS 2019c), and USFWS Information for Planning and Consultation (IPaC; Attachment F) database applications to obtain information regarding sensitive biological resources known to occur within the vicinity of the study area.

General Biological Survey

A general biological survey of the study area, which encompassed the project site and immediate vicinity, was completed by HELIX biologists Karl Osmundson and Amy Mattson on December 6, 2019. The survey focused on inventorying existing vegetation communities; qualifying habitat suitability and potential for occurrence of sensitive species, including federally-listed species protected under the Endangered Species Act; preliminarily identifying potential wetlands and other potential jurisdictional waters, including waters of the U.S. protected under the Clean Water Act (CWA); and identifying other sensitive biological resources, such as potential nesting habitat for bird species protected under the Migratory Bird Treaty Act (MBTA). The study area was surveyed with the aid of binoculars and observed or detected plant and animal species were recorded in field notes. Animal identifications were made in the field by visual observation or detection of calls, burrows, tracks, scat, and other animal sign. Plant identifications were made in the field. Representative photos were taken and are included as Attachment A.

Preliminary Jurisdictional Delineation

HELIX completed a preliminary jurisdictional delineation concurrent with the general biological survey. The preliminary delineation focused on assessing ordinary high-water mark and other hydrology indicators, riparian and wetland vegetation, surface soils, topography, and other data, but did not include excavation of soil pits and establishment of wetland sampling points, with the intent to establish conservative limits of potential jurisdiction.

Prior to beginning fieldwork, aerial photographs (1"= 100' scale), topographic maps and data (1"= 100' scale), and National Wetlands Inventory maps were reviewed to assist in determining the location of potential jurisdictional areas in the project site. The field delineations were conducted to identify and map potential water and wetland resources that could be subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the CWA (33 USC 1344) and RWQCB jurisdiction pursuant to CWA Section 401. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated.

Survey Limitations

The lists of species identified are not necessarily comprehensive accounts of all species that occur on the site, as species that are nocturnal, secretive, or seasonally restricted may not have been observed.

Nomenclature

Nomenclature for this report follows Baldwin et al. (2012) for Latin names of plants and Holland (1986) for vegetation communities. Animal nomenclature follows North American Butterfly Association (2017) for butterflies, Center for North American Herpetology (Taggart 2015) for reptiles and amphibians, American Ornithological Society (2018) for birds, and Bradley et al. (2017) for mammals. Sensitive plant and animal status is from the CDFW's CNDDDB (2019a-b, 2018).

ENVIRONMENTAL SETTING

Existing Conditions

Disturbance

The project site is generally composed of an existing roadway and areas immediately adjacent to the roadway that have been subjected to disturbance from roadway maintenance, off-highway vehicle (OHV) activity, dumping, and other disturbances. Several, maintained existing facilities occur in the vicinity of the study area.

Topography and Soils

The project site is flat, with an elevation of approximately 45 feet above mean sea level (AMSL) to 24 AMSL. Carsitas gravelly sand, 0 to 9 percent, is the predominant soil mapping unit reported within the project site. Small pockets of Myoma fine sand also occur. The entirety of the surface soils within the

project site show sign of significant disturbance and alteration from their native state as a result of vehicle use and maintenance for the roadway.

Vegetation Communities/Habitat Types

Three land covers or habitat types encompasses the project site: creosote bush scrub, disturbed land, and developed land (Figures 4a through 4c, Vegetation Communities).

Sonoran Creosote Bush Scrub

Creosote bush scrub or Sonoran creosote bush scrub is the most common creosote scrub of the Colorado Desert and consists of widely spaced shrubs, up to 3 meters tall. Growth of typical species within this vegetation community occurs from winter to early spring if rainfall is sufficient; otherwise, plant species may be dormant for long periods in times of drought. Many species of ephemeral herbs may flower in late February and March if the winter rains have been adequate. Sonoran creosote bush scrub occurs in well-drained soils of slopes, fans, and valleys rather than upland sites with thin residual soils. Characteristic species of this habitat type are creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), and ocotillo (*Fouquieria splendens*). Within the study area, portions of the creosote bush scrub were disturbed, with more sparse plant cover and/or an abundance of island plantain (*Plantago ovata*). This community also contained stands of blue paloverde (*Parkinsonia florida*).

Disturbed Land

Disturbed land or disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as non-native grasses and forbs, ornamentals, or other ruderal (weedy) exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat. Within the study area, disturbed land appears to include areas surrounding Wasteway No. 1 and other disturbed areas associated with the old borrow pits and tailings from the Coachella Canal.

Developed Land

Developed land includes land that has been constructed upon or otherwise physically altered to an extent that vegetation is no longer supported or limited to non-native ornamental plantings. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered developed. Within the study area, developed areas include Riddle Way (Coachella Canal Road), Wasteway No. 1, and the Coachella Canal.

Flora

A total of 49 plant species were observed within the study area by HELIX and during Cornett's survey of the existing pipeline (Attachment B). Ten of these are non-native species.

Fauna

A total of [REDACTED] animal species were observed or otherwise detected in the study area during HELIX and Cornett's biological surveys (Attachment C).

Sensitive Biological Resources

Sensitive Natural Communities

For the purposes of this assessment, sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants. USFWS-designated Critical Habitat and CVMSHCP Conservation Areas are also included here as sensitive community overlay types.

As depicted on Figure 4, the project site and expected pipeline work area is composed of disturbed and developed land associated with Riddle Way. Limited portions at the east end support Sonoran creosote bush scrub habitat that has re-established over the previous borrow pit and tailings areas from the Coachella Canal construction. None of land cover types that occur within the expected work areas for the project components meet the definition of sensitive. No sensitive natural communities occur on site.

Cornett reports remnants of what were once Desert Dry Wash communities off-site to the south of the western portions of the project site (Cornett 2017). Similar conditions were observed off site to the south of the eastern portions of the site. When the Coachella Canal was constructed in 1949 all upstream runoff from north to south was eliminated. The elimination of wash communities south of the canal transpired. Cornett reports a single large ironwood tree (*Olneya tesota*) as the sole vegetative evidence of the existence of former Desert Dry Wash Woodlands in the off-site areas. No viable woodlands exist on or immediately adjacent to the project site, as confirmed by HELIX during the 2019 surveys.

USFWS Critical Habitat

No USFWS-designated Critical Habitat occurs on or immediately adjacent to the project site. The nearest Critical Habitat is mapped for the federally threatened desert tortoise (*Gopherus agassizii*) approximately 3.0 miles north of the site, on the north side of the Orocopia Mountains, within Shavers Valley and near Cactus City, Chiriaco Summit, and the I-10 corridor. The project site is physically separated from this Critical Habitat area by the Orocopia Mountains, but more importantly, by the Coachella Canal, which serves as a major physical impediment for desert tortoise and other species to move from the Orocopia Mountains south toward the Salton Sea and Coachella Valley.

CVMSHCP Conservation Areas

The CVMSHCP specifies multiple requirements for projects adjacent to identified Conservation Areas. The project site, however, does not lie within or adjacent to a Conservation Area, as shown on the CVMSHCP maps. Additionally, and according to the Coachella Valley Association of Governments, the project proponent is not required to pay CVMSHCP habitat mitigation fees, as the land is under the jurisdiction of the BLM (Cornett 2017).

Special-Status Plant and Animal Species

Special-Status Plant Species

Special-status plant species are those listed as federally threatened or endangered, or proposed candidates for listing by the USFWS. For the purposes of this assessment, special-status plant species may also include State listed as threatened or endangered or considered sensitive by the CDFW; and/or are California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) List 1A, 1B, or 2 species, as recognized in the CNPS Inventory of Rare and Endangered Vascular Plants of California.

A total of 20 special-status plant species known to occur in the region were evaluated for their potential to occur in the study area (Attachment D). Two of these species are federally endangered: Coachella Valley milk-vetch (*Astragalus lentiginosus coachellae*) and triple-ribbed milk-vetch (*Astragalus tricarinatus*).

No special-status plant species, including the two federally listed species, were observed on site during surveys completed in 2017 and 2019. None of the 20 species evaluated have potential to occur within the project site due to very poor habitat conditions for plant species. The site is predominately characterized by an existing roadway that is regularly used and maintained. The soils within the roadway and adjacent margins are compacted and evidently subjected to routine maintenance, including scraping. These disturbances have also altered the vegetation and hydrology of the project site, such that the appropriate vegetation community makeups and hydrology regimes associated with special-status plant species do not exist.

Special-Status Animal Species

Special-status animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and considered sensitive animals by the CDFW.

A total of 17 special-status animal species known to occur in the region were evaluated for their potential to occur in the study area (Attachment E). Five of these species are federally endangered: Casey's June beetle (*Dinacoma caseyi*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Epidonax traillii*), Yuma clapper rail (*Rallus longirostris yumanensis*), and desert pupfish (*Cyprinodon macularius*). One of these species is federally threatened: desert tortoise.

No special-status animal species, including the six federally listed species, were observed on site during surveys completed in 2017 and 2019. None of the 17 species evaluated have potential to occur within the project site due to poor habitat conditions for animals. As mentioned, the site is predominately characterized by an existing roadway that is regularly used and maintained. The road and immediate vicinity provide limited opportunity for breeding, foraging, dispersal, and other life history functions required by most animal species. The disturbances to the area have altered the vegetation, leaving limited shelter, breeding, and foraging opportunities for most animals.

Surveys completed by Cornett in 2017 for the western portions of the site did not yield observations or detections of any of the 17 special-status animal species, including the six federally listed species. HELIX's survey completed in 2019 within the entirety project site also did not yield any observations or detections and confirmed the lack of suitable habitat conditions.

In addition to negative survey results for the species in 2017, Casey's June beetle is not likely to occur due to its current range, which is restricted to areas west of Cathedral City, more than 30 miles west of the project site. Least Bell's vireo, southwestern willow flycatcher, Yuma clapper rail, and desert pupfish are also not likely to occur due to lack of riparian and aquatic habitat on or adjacent to the project site.

Nesting Birds and Raptors

Limited portions of the project site contain marginal nesting habitat (e.g., shrubs, fossorial burrows, structures) for several common bird species, including raptors, protected under the MBTA.

Jurisdictional Waters and Wetlands

The project site is characterized entirely by uplands that lack waters of the U.S., wetlands, and other potential jurisdictional aquatic resources. The project would avoid and span across Wasteway No.1, which is a man-made ditch, excavated predominately within uplands. The project requires a connection with the Coachella Canal, which is a man-made canal, also excavated predominately within uplands. The connection is anticipated to occur above the ordinary high water mark and controlled water surface elevation of the canal. When the Coachella Canal was constructed in 1949 all upstream runoff from north to south was eliminated. The modification of the hydrology regime and elimination of wash features south of the canal transpired. Several rivulets remain that convey localized ephemeral flows across the flat uplands that encompass the project site. These ephemeral rivulets were sporadic in their linear arrangement and did not display evidence of a continuous ordinary high water mark.

Wildlife Corridors and Linkages

Wildlife corridors connect isolated habitat and allow movement or dispersal of plant materials and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of the wildlife's daily routine and life history. For example, animals can use these corridors to travel between their riparian breeding habitats and their upland burrowing habitats. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species; it may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance.

The project site does not by itself serve as or contribute to any known or potential corridors or linkages. Surveys completed in 2017 included tracking stations to detect potential wildlife movement through the site. Smoothing of soil surfaces on Riddle Way was done to detect animal tracks and the possible existence of a wildlife corridor through or near the site. Cornett reported that the technique did not yield tracks of any mammals other than small rodents, coyote and a black-tailed jackrabbit (Cornett 2017). This evidence along with the inability to regularly observe or otherwise detect any medium to large-sized mammals resulted in the conclusion that no important wildlife corridor existed on or near the project site. This is in agreement with HELIX's 2019 survey findings.

APPLICABLE REGULATIONS

Based on the findings of this report, activities affecting the biological resources determined to exist or have the potential to exist within the project site could be subject to the federal regulations discussed below.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA as amended under the Migratory Bird Treaty Reform Act of 2004 (Federal Record [FR] Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

ANALYSIS OF PROJECT EFFECTS AND PROPOSED MITIGATION

This section provides an analysis of the potential project effects against federal policy issues

ISSUE 1: Federal Endangered Species Act, Section 7

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may affect federally listed threatened or endangered species or their critical habitat that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

No Effect. The project has been specifically sited and designed to occur primarily within the disturbed and developed footprint of an existing road and associated right-of-way. These existing roadway portions of the action area are not likely to support federally listed species. Limited areas within the eastern portion of the site will occur over land that has been previously disturbed but since re-established with low quality, native Sonoran creosote bush scrub habitat. Federally listed species are also not expected to occur in these areas due to lack of suitable habitat, poor quality habitat conditions, range restrictions, and the fact that they were not observed during 2017 or 2019 biological surveys. As such, no effect on federally listed threatened or endangered species is anticipated. Last, no portion of the action area occurs on or in the vicinity of USFWS-designated Critical Habitat; no adverse modification or other effect would occur. Additional analysis is provided below to support the no effect recommendation.

Federally Listed Plant Species

No Effect. The following federally listed endangered (FE) and federally listed threatened (FT) plant species were analyzed for their potential to occur:

- Coachella Valley milk-vetch (*Astragalus lentiginosus coachellae*) – FE
- triple-ribbed milk-vetch (*Astragalus tricarinatus*) – FE

Neither of these federally listed plant species were found during surveys completed in 2017 and 2019. The further do not have a high potential to occur due to very poor habitat conditions for plant species.

The project occurs in developed land currently being used as an active roadway. The soils within the roadway and adjacent margins are compacted and evidently subjected to routine vehicular activity and maintenance, including scraping. These disturbances have also altered the vegetation and hydrology of the project site, such that the appropriate vegetation community makeups and hydrology regimes associated with these two species do not exist. Therefore, no adverse direct or indirect effects on federally listed plant species are anticipated to occur as a result of proposed action.

Federally Listed Animal Species

No Effect. The following federally listed endangered (FE) and federally listed threatened (FT) animal species were analyzed for their potential to occur:

- Casey's June beetle (*Dinacoma caseyi*) – FE
- Least Bell's vireo (*Vireo bellii pusillus*) – FE
- southwestern willow flycatcher (*Empidonax traillii extimus*) – FE
- Yuma clapper rail (*Rallus longirostris yumanensis*) -FE
- desert pupfish (*Cyprinodon macularius*) – FE
- desert tortoise (*Gopherus agassizii*) – FT

None of these six federally listed species were observed on site during surveys completed in 2017 and 2019. None have potential to occur within the project site due to poor habitat conditions for animals. As mentioned, the site is predominately characterized by an existing roadway that is regularly used and maintained. The road and immediate vicinity provide limited opportunity for breeding, foraging, dispersal, and other life history functions required by most animal species. The disturbances to the area have altered the vegetation, resulting in limited shelter, breeding, and foraging opportunities for most animals.

Casey's June beetle was not observed during surveys in 2017 and is not likely to occur due to its current range, which is restricted to areas west of Cathedral City, more than 30 miles west of the project site. Least Bell's vireo, southwestern willow flycatcher, Yuma clapper rail, and desert pupfish are also not likely to occur due to lack of riparian and aquatic habitat on or adjacent to the project site.

Protocol-level surveys conducted by Cornett in 2017 yielded negative findings for the desert tortoise, including no observations or evidence of the species within the action area. No tortoise or tortoise sign were observed during HELIX's survey in 2019 either. The potential for desert tortoise to occur within the action area is substantially limited as a result of the project site occurring on the south side of the Coachella Canal and in close proximity to active agricultural zones within the Coachella Valley. The current range of tortoise occurs further to the north of the site, on the north side of the Canal and north and east of the Orocochia Mountains. The nearest reported record for the species occurs over five miles from the site. Therefore, the species is presumed to be absent from the action area and no effect on the species is anticipated.

Critical Habitat

No Effect. No USFWS-designated Critical Habitat occurs on or immediately adjacent to the project site. As such, no adverse modification or other effect would occur. The nearest Critical Habitat is mapped for the federally threatened desert tortoise approximately 3.0 miles north of the site, on the north side of the Orocopia Mountains, within Shavers Valley and near Cactus City, Chiriaco Summit, and the I-10 corridor. The site is physically separated from this Critical Habitat area by the Orocopia Mountains, but more importantly, by the Coachella Canal, which serves as a major physical impediment for desert tortoise and other species to move from the Orocopia Mountains south toward the Salton Sea and Coachella Valley.

ISSUE 2: Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may adversely affect essential fish habitat?

No Effect. The proposed project would be constructed within areas that lack marine resources and Essential Fish Habitat regulated under the Magnuson-Stevens Fishery Conservation and Management Act. Therefore, the proposed project would not adversely affect Essential Fish Habitat and would be in conformance with the Magnuson-Stevens Fishery Conservation and Management Act.

ISSUE 3: Coastal Zone Management Act

Is any portion of the project site located within the coastal zone?

No Effect. No portion of the project site is located within the coastal zone. Therefore, the proposed project would have no effect on resources protected under the Coastal Zone Management Act.

ISSUE 4: Migratory Bird Treaty Act

Will the project affect protected migratory birds that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

No Effect. Compliance with the MBTA is a regulatory requirement of the project. Construction of the project may require the removal or trimming of trees and shrubs during the general bird nesting season of March 1 to September 15 (January 1 to July 31 for raptors). If avoidance measures are not implemented, these activities could directly and adversely affect an active nest in violation of the MBTA. Similarly, if avoidance measures are not implemented, the activities could indirectly and adversely affect an active nest during construction as a result of noise, such that the disturbance results in nest abandonment or nest failure.

With the implementation of mitigation measure BIO-1, the proposed action would have no effect on nesting birds and the project would be in conformance with the MBTA.

BIO-1 **Avoidance of Nesting Birds and Raptors.** To prevent potential adverse effects on nesting birds, including raptors, protected under the federal MBTA, the project proponent shall implement the following avoidance measures:

Project activities requiring the removal and/or trimming of vegetation suitable for nesting birds shall occur outside of the general bird breeding season of March 1 to September 15 (January 1 to July 31 for raptors) to the extent feasible. If the activities cannot avoid the general bird breeding season, a qualified biologist shall be retained to conduct a pre-activity nesting bird survey within seven days prior to the activities to confirm the presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities shall proceed with the reassurance that no violation to the MBTA would occur. If an active bird nest is found by the qualified biologist, then vegetation removal and/or trimming activities at the nest location shall not be allowed to occur until the qualified biologist has determined that the nest is no longer active. Avoidance buffers should start at 300 feet for passerine birds and 500 feet for raptors. However, buffers could be reduced at the discretion of the qualified biologist depending on the bird species and project activities required in the vicinity of the active nest.

ISSUE 5: Protection of Wetlands

Does any portion of the project boundaries contain areas that should be evaluated for wetland delineation or require a permit from the USACE?

No Effect. None of the proposed project components are planned within wetlands or other waters of the U.S. requiring a permit from the USACE pursuant to the Clean Water Act. Therefore, the proposed project would result in no effects on any waters of the U.S. and would be in conformance with the Clean Water Act.

ISSUE 6: Wild and Scenic Rivers Act:

Is any portion of the project located within a wild and scenic river?

No Effect. None of the proposed project components are planned on or in the immediate vicinity of areas designated as Wild and Scenic River. Therefore, the proposed project would result in no affects on any areas designated as Wild and Scenic River and would be in conformance with the Wild and Scenic Rivers Act.

CLOSING

We appreciate the opportunity to provide you with this letter report. Please do not hesitate to contact me at or Amy Mattson at (619) 462-1515 if you have any questions or require further assistance.

Sincerely,

Karl Osmundson
Principal Biologist/Biology Group Manager

Attachments:

- Figure 1: Regional Location
- Figure 2: Project Index Map
- Figure 3: Project Map
- Figure 4: Vegetation Communities

- Attachment A: Representative Site Photos **IN PROGRESS**
- Attachment B: Plant Species Observed
- Attachment C: Animal Species Observed or Detected **IN PROGRESS**
- Attachment D: Special Status Plant Species with Potential to Occur **IN PROGRESS**
- Attachment E: Special Status Animal Species with Potential to Occur **IN PROGRESS**
- Attachment F: IPaC Report

REFERENCES

- American Ornithological Society (AOS). 2018. Check-list of North and Middle American Birds (online). Retrieved from: <http://checklist.aou.org/>.
- Baldwin, B.G., et al editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.
- Bradley, R.D., Ammerman, L.K., Baker, R.J., Bradley, L.C., Cook, J.A., Dowler, R.D. Jones, C., Schmidly, D.J., Stangi, F.B., Van De Bussche, R.A., Wursig, B. (2014). Revised checklist of North American mammals north of Mexico. Museum of Texas Tech University Occasional Papers. 327:1-27.
- California Department of Fish and Wildlife (CDFW). 2019a. California Natural Diversity Database (CNDDDB). RareFind.
- 2019b. CNDDDB. Special Vascular Plants, Bryophytes, and Lichens List. Retrieved from: <http://www.dfg.ca.gov/whdab/pdfs/TEPlants.pdf>.
2018. California Natural Diversity Database (CNDDDB). Special Animal List. November. Retrieved from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>.
- James W. Cornett Ecological Consultants. 2017. Biological Inventory and Impact Assessment of the proposed Tudor Ranch Pipeline Easement. May 9.
- Holland R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, State of California, Department of Fish and Game, Sacramento. 156 pp.
- Taggart, T. W. 2015. The Center for North American Herpetology (CNAH): The Academic Portal to North American Herpetology. Retrieved from: <http://www.cnah.org/>.
- U.S. Department of Agriculture (USDA). 2017. Natural Resource Agency. Web Soil Survey. Retrieved from: <http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx>.
- U.S. Fish and Wildlife Service (USFWS). 2019a. Critical Habitat Portal. Retrieved from: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>.
- 2019b. Information for Planning and Consultation (IPaC). Retrieved from: <https://ecos.fws.gov/ipac/>
- 2019c. National Wetlands Inventory. Retrieved from: <https://www.fws.gov/wetlands/>

BOR LICENSE APPLICATION FOR WATER CONVEYANCE SYSTEM

PROJECT LOCATION

SECTION 17 & 18, T.7S., R.10E., SBM



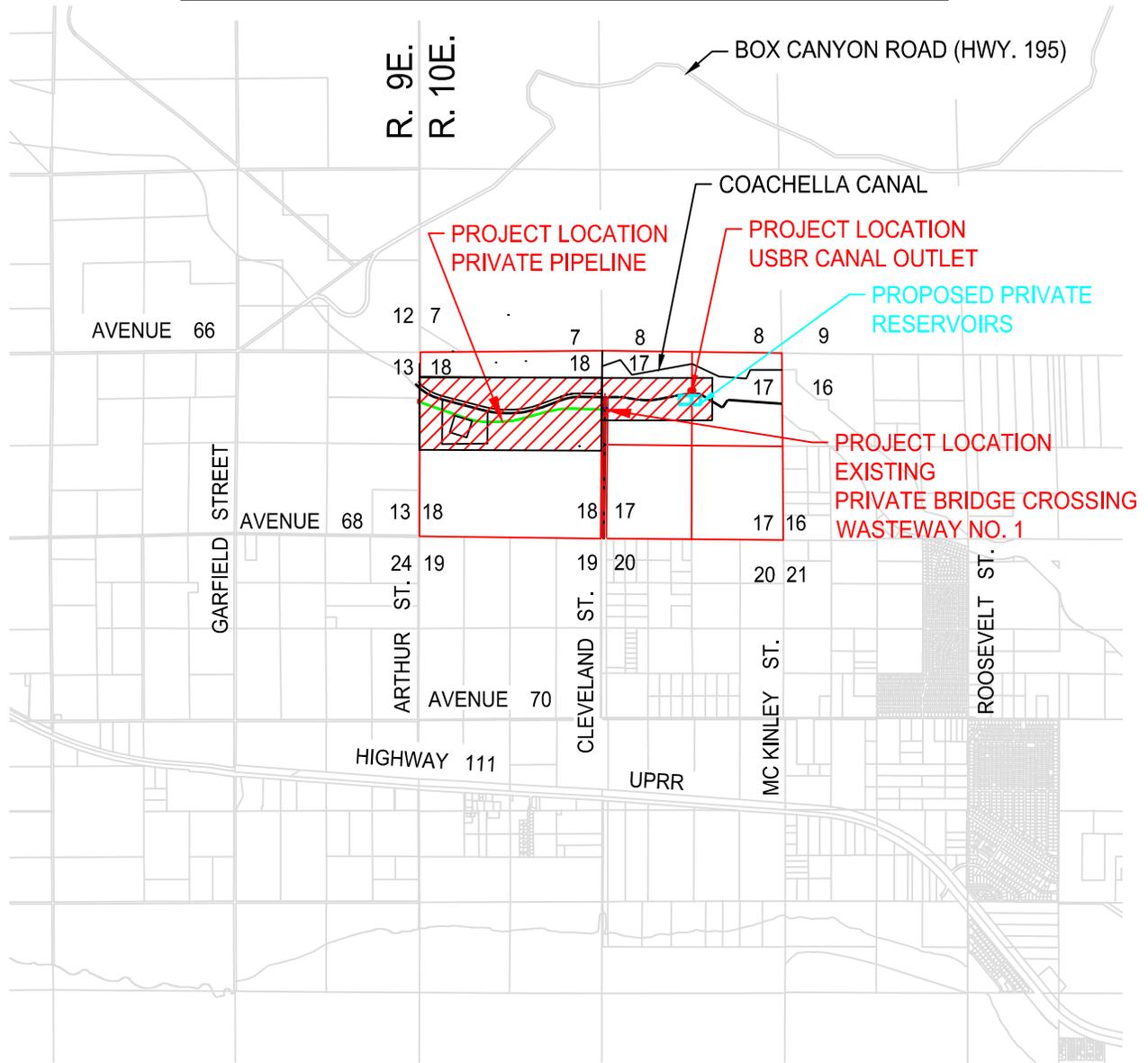
PROJECT LOCATION
N.T.S.

Date : 10-22-2019
JN : 16-34



P.O. BOX 587 INDIRIO, CA 92202 (760) 347-1113

BOR LICENSE APPLICATION FOR WATER CONVEYANCE SYSTEM
PRIVATE PIPELINE, BRIDGE CROSSING, AND CANAL OUTLET



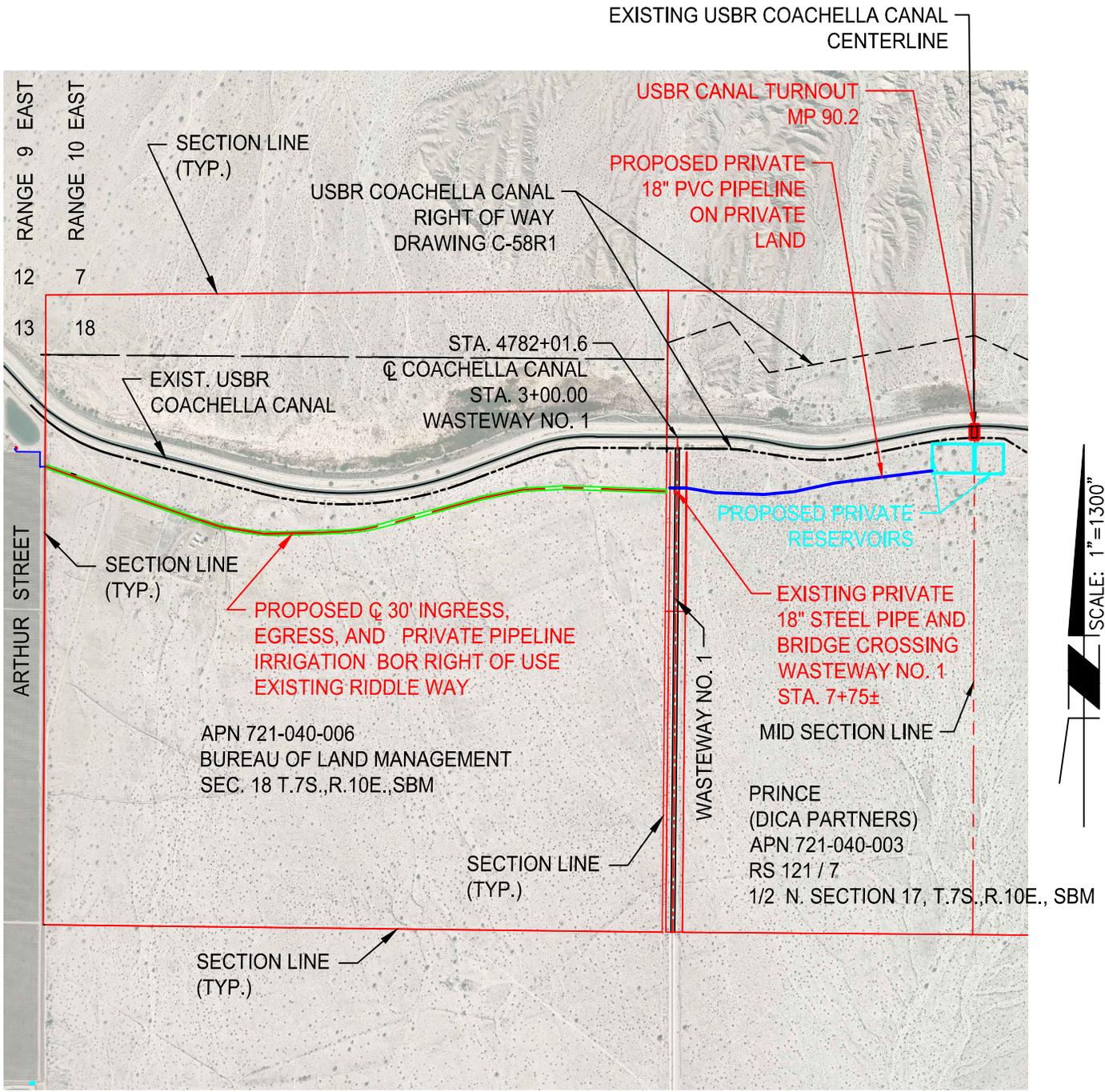
INDEX MAP

SCALE: 1" = 5000'

SECTION 17 & 18, T.7S., R.10E., SBM



**BOR LICENSE APPLICATION FOR WATER CONVEYANCE SYSTEM
PRIVATE PIPELINE, BRIDGE CROSSING, AND CANAL OUTLET**
SECTION 17 & 18, T.7S., R.10E., SBM



PROJECT MAP
SCALE: 1" = 1300'
SECTION 17 & 18, T.7S., R.10E., SBM



Date : 10-22-2019
JN : 16-34

P.O. BOX 587 INDIO, CA 92202 (760) 347-1113

Study Area

- Study Area (dashed yellow line)

Project Components

- Pipeline Work Area (orange outline)
- Proposed Pipeline (solid black line)

Vegetation

- Creosote Bush Scrub (purple fill)
- Disturbed Habitat (light grey fill)
- Developed Land (dark grey fill)

Figure Index



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Source: Aerial (DigitalGlobe, 2018)

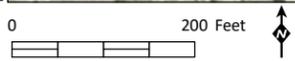


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Source: Aerial (DigitalGlobe, 2018)



Attachment B Plant Species Observed

Family	Scientific Name	Common Name
Eudicots		
Asteraceae	<i>Ambrosia salsola</i>	burrobrush
	<i>Atrichoseris platyphylla</i>	parachute plant
	<i>Bebbia juncea</i> var. <i>aspera</i>	sweetbush
	<i>Chaenactis fremontii</i>	desert pincushion
	<i>Encelia farinosa</i>	brittlebush
	<i>Erigeron canadensis</i>	horseweed
	<i>Malacothrix glabrata</i>	desert dandelion
	<i>Palafoxia arida</i> var. <i>arida</i>	Spanish-needle
	<i>Rafinesquia neomexicana</i>	desert chicory
	<i>Sonchus asper</i> *	prickly sow thistle
	<i>Sonchus oleraceus</i> *	common sow thistle
	<i>Stephanomeria exigua</i> ssp. <i>exigua</i>	small wreath-plant
Boraginaceae	<i>Cryptantha angustifolia</i>	narrow leaved forget me not
	<i>Cryptantha barbiger</i>	bearded cryptantha
	<i>Tiquilia plicata</i>	fanleaf crinklemat
Brassicaceae	<i>Brassica tournefortii</i> *	Sahara mustard
Cactaceae	<i>Cylindropuntia echinocarpa</i>	golden cholla
	<i>Cylindropuntia ramosissima</i>	pencil cholla
	<i>Opuntia basilaris</i>	beavertail cactus
Chenopodiaceae	<i>Atriplex canescens</i> ssp. <i>canescens</i>	shad scale
	<i>Atriplex polycarpa</i>	cattle spinach
	<i>Chenopodium murale</i> *	nettle-leaf goosefoot
	<i>Salsola tragus</i> *	Russian thistle
Euphorbiaceae	<i>Chamaesyce polycarpa</i>	desert sand mat
	<i>Croton californicus</i>	California croton
Fabaceae	<i>Lupinus arizonicus</i>	Arizona lupine
	<i>Olneya tesota</i>	desert ironwood
	<i>Parkinsonia florida</i>	blue paloverde
	<i>Psoralea argophylla</i>	smoke tree
Krameriaceae	<i>Krameria bicolor</i>	white rhatany
Lamiaceae	<i>Salvia columbariae</i>	chia
Malvaceae	<i>Eremalche rotundifolia</i>	desert five spot
Nyctaginaceae	<i>Abronia villosa</i>	desert sand verbena
Onagraceae	<i>Chylismia claviformis</i> ssp. <i>peirsonii</i>	brown-eyed evening primrose
Papaveraceae	<i>Eschscholzia minutiflora</i> ssp. <i>twisselmannii</i>	Red Rock poppy
Phrymaceae	<i>Mimulus bigelovii</i> var. <i>bigelovii</i>	desert monkey-flower
Plantaginaceae	<i>Plantago ovata</i>	island plantain

**Attachment B (cont.)
Plant Species Observed**

Family	Scientific Name	Common Name
Polygonaceae	<i>Chorizanthe brevicornu</i>	brittle spineflower
Polygonaceae	<i>Eriogonum inflatum</i>	desert trumpet
Solanaceae	<i>Datura wrightii</i>	jimson weed
Tamaricaceae	<i>Tamarix aphylla</i> *	evergreen saltcedar
Tamaricaceae	<i>Tamarix ramosissima</i> *	saltcedar
Zygophyllaceae	<i>Larrea tridentata</i>	creosote bush
Monocots		
Poaceae	<i>Aristida adscensionis</i>	six weeks, three-awn
	<i>Avena fatua</i> *	wild oats
	<i>Bromus madritensis ssp. rubens</i> *	red brome
	<i>Cynodon dactylon</i> *	Bermuda grass
	<i>Dasyochloa pulchella</i>	low woollygrass
	<i>Schismus barbatus</i> *	Mediterranean grass

*Non-native species

†Sensitive Species

Attachment C
Animal Species Observed or Detected

Taxon		Scientific Name	Common Name
Order	Family		
VERTEBRATES			
Birds			
Apodiformes	Trochilidae	<i>Calypte anna</i>	Anna's Hummingbird
Passeriformes	Corvidae	<i>Corvus brachyrhynchos</i>	American Crow
	Parulidae	<i>Setophaga coronata</i>	yellow-rumped warbler
Mammals			
Carnivora	Canidae	<i>Canis familiaris</i>	domestic dog

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IPaC resource list

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

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

Location

Riverside County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

<http://www.fws.gov/carlsbad/>

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 species

¹ 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.
 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:

Birds

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Yuma Clapper Rail <i>Rallus longirostris yumanensis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3505	Endangered

Reptiles

NAME	STATUS
Desert Tortoise <i>Gopherus agassizii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened

Fishes

NAME	STATUS
Desert Pupfish <i>Cyprinodon macularius</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/7003	Endangered

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 Act

¹ 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>

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

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

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

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

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

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 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

[R2UBHx](#)

[R4SBC](#)

[R5UBFx](#)

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.