

APPENDIX 2: APPLICABLE FEDERAL ACTS AND CONSULTATION CTV-V

National Historic Preservation Act (NHPA) – *National Historic Preservation Act (NHPA) §106*

First passed in 1966, the National Historic Preservation Act (NHPA; Public Law 89-665; 54 U.S.C. 300101 et seq.) is legislation intended to preserve historic and archaeological sites in the United States of America. The act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices.

Section 106 of the National Historic Preservation Act mandates federal agencies undergo a review process for all federally funded and permitted projects that will impact sites listed on, or eligible for listing on, the National Register of Historic Places. Specifically, it requires the federal agency to "take into account" the effect a project may have on historic properties. It allows interested parties an opportunity to comment on the potential impact projects may have on significant archaeological or historic sites. The main purpose for the establishment of the Section 106 review process is to minimize potential harm and damage to historic properties.

CRC has retained a qualified archaeologist to conduct an archival records search, pedestrian surveys, and to facilitate Native American tribal and the State Historic Preservation Office (SHPO) consultation. Prior to the proposed project undertaking, the archival records search will be conducted to determine: (i) known prehistoric or historical archaeological sites previously recorded within the proposed project study area; and /or (ii) areas within the project footprint that have been systematically surveyed by archaeologists prior to the initiation of this field study. Additionally, a record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* will be conducted to ascertain whether traditional cultural places or cultural landscapes have been identified within the proposed project site. Any historic findings will be evaluated to determine significance and a plan to avoid and mitigate any adverse impacts to archaeological resources will be prepared by the qualified archaeologist for the Project as applicable.

The proposed scope of this project involves only a very small surface footprint, and there is significant flexibility in the surface siting. Therefore, it is not anticipated that there will be any impact to cultural resources as a result of the implementation of this project.

Tribes within Area of Review

Based on the knowledge of our consultant and work experience in the area, we anticipate our Section 106 consultation to include the following Federally recognized tribes:

Buena Vista Rancheria of Me-Wuk Indians of
California
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200
Sacramento, CA 95811
(916) 491-0011
www.buenavistatribe.com

California Valley MiWok Tribe, California
Silvia Burley, Chairperson
14807 Avenida Central
La Grange, CA 95329
(209) 931-4567
office@cvmt.net
www.californiavalleymiwoktribe.us

Chicken Ranch Rancheria of Me-Wuk Indians of California

Lloyd Matheson, Chairman

P.O. Box 1159 (mail)

16955 Nelson Road

Jamestown, CA 93527

(209) 984-4806

chixrnch@mlode.com

Middletown Rancheria of Pomo Indians of California

Jose Simon III, Chairperson

P.O. Box 1035 (mail)

22223 Highway 29 @ Rancheria Road

Middletown, CA 95461

(707) 987-3670

www.middletownrancheria-nsn.gov

Ione Band of MiWok Indians of California

Sara Dutschke Setshwaelo, Tribal Chairperson

9252 Bush Street

Plymouth, CA 95669

(209) 245-5800

www.ionemiwok.net

Shingle Springs Band of Miwok Indians, Shingle Springs Rancheria (Verona Tract), California

Regina Cuella, Chairperson

P.O. Box 1340 - Verona Tract (mail)

Shingle Springs, Ca 95682

5281 Honpie Road, Placerville, CA 95667

(530) 676-8010

info@ssband.org

www.shinglespringsrancheria.com

Jackson Rancheria of Me-Wuk Indians of California

Adam Dalton, Chairperson

12222 New York Ranch Road

Jackson, CA 95642

(209) 223-1935; Fax (209) 223-5366

www.jacksoncasino.com

Tuolumne Band of Me-Wuk Indians of the Tuolumne Rancheria of California

Kevin Day, Chairman

P.O. Box 699 (mail)

19595 Mi-wu Street

Tuolumne, CA 95379

(209) 928-3475

www.miwok.com

This project will also trigger CEQA, which will require State and local permitting authorities to comply with CA AB52, which is not limited to Federally recognized tribes or native American individuals.

Wild and Scenic Rivers Act (WSR Act)

The Wild and Scenic Rivers Act (WSR Act) of 1968 (Public Law 90-542; 16 U.S.C. 1271 *et seq.*) was enacted by Congress to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The WSR Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

The National Wild and Scenic Rivers System (NWSRS) was created by the WSR Act and is managed by the National Park Service and the U.S. Forest Service. Rivers may be designated by Congress, or if certain requirements are met, they may be designated by the Secretary of the Interior. Designated segments need not include the entire river and may include tributaries. Each river is administered by either a federal or state agency. Section 2(b) of the WSR Act creates three classifications of protected rivers, which are defined as follows:

- “Wild River Areas” are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of America.
- “Scenic River Areas” are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- “Recreational River Areas” are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Regardless of the classification, each river in the National System is administered with the goal of protecting and enhancing the values for which it was designated.

Based on a review of the NWSRS National Park Service (NPS) Wild and Scenic River Management [GIS dataset](#), there are no designated wild, scenic, or recreational river areas in the Project site. The closest designated wild, scenic, or recreational rivers are approximately 76 miles northeast of the proposed project site (North Fork of the American) and approximately 63 miles east of the project site (Tuolumne) respectively. Therefore, the project will not have an impact on any designated Wild or Scenic River.

Endangered Species Act (ESA) – (16 U.S.C. 1531 *et seq.*)

Enacted in 1973, the ESA is administered by the USFWS and the National Oceanic and Atmospheric Administration Fisheries Service (formerly National Marine Fisheries Service). The purpose of the ESA is to conserve and recover endangered and threatened species, as well as the ecosystems upon which they depend. ESA requires all federal agencies to protect listed species and preserve their habitats. Section 4 of ESA sets forth a process for listing species as endangered or threatened, for designating critical habitat for listed species, and for preparing recovery plans for listed species. Section 7 requires federal agencies to consult with the USFWS or National Oceanic and Atmospheric Administration Fisheries Service to ensure their actions do not jeopardize listed species. Section 9 prohibits the “take” of a listed species. Section 10 provides a means whereby a nonfederal action with the potential to result in the incidental take of a listed species while carrying out an otherwise lawful activity may be authorized under a permit. Section 11 sets forth enforcement and penalty provisions. Under the ESA, “take” of listed wildlife species is prohibited, unless take authorization is first obtained from the USFWS. “Take” is broadly defined under the ESA and means to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.

CRC has conducted a preliminary search of the USFWS Information for Planning and Consultation (IPaC) website, a tool that streamlines the USFWS environmental review process. Based on initial review of the IPaC, the Area of Review (AOR) for the proposed project slightly overlaps one critical habitat (Delta Smelt) but the actual injection plume will be well outside the small portion of river where the Delta Smelt has potential to occur. The area does contain a total of 13 federally listed species that may be present and/or adversely impacted by the proposed project. In addition, there are known wetlands and other aquatic habitats within the proposed AOR. A species list obtained from the USFWS IPaC for listed species and critical habitats that may be present in or adversely affected by the proposed project is attached as reference (Figure ENV-1).

As the project planning progresses, CRC will obtain an official species list from the USFWS and resume review of the project’s effects on listed species pursuant to the ESA as part of the overall regulatory

review. Potential impacts on resources managed by the USFWS will be evaluated and applicable conservation measures will be designed to avoid or minimize effects to listed species, CRC has an existing contract with a qualified third-party environmental consultant to assist with biological pre-activity surveys, biological assessment/report preparation, and biological and mitigation compliance monitoring as necessary.

As previously stated, the proposed scope of this project involves only a very small surface footprint and there is significant flexibility in the surface siting. Therefore, it is not anticipated that there will be any impact to biological resources or their habitat as a result of the implementation of this project.

Coastal Zone Management Act (CZMA)

In 1972 Congress enacted the Coastal Zone Management Act (CZMA) (16 U.S.C. 1451 et seq.) to protect the coastal environment from growing demands associated with residential, recreational, commercial, and industrial uses (e.g., State and Federal offshore oil and gas development). The CZMA provisions help States develop coastal management programs (Programs) to manage and balance competing uses of the coastal zone. Federal Agencies must follow the Federal Consistency provisions as delineated in 15 CFR part 930.

The CZMA requires that Federal actions that are reasonably likely to affect any land or water use or natural resource of the coastal zone be consistent with enforceable policies of a State's federally approved coastal management program. The "effects test" is used to determine whether an activity is subject to Federal consistency provisions:

- Will the activity directly, indirectly, or cumulatively affect any natural resources, land uses, or water uses in the coastal zone?
 - If yes, then the activity is subject to Federal consistency.
 - If no, then the activity is not subject to Federal consistency

As per 16 U.S.C. § 1453. Definitions (1) The term "coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters, and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise.

The closest designated coastal zones are located approximately 17 miles west of the proposed project site (Sacramento River near Collinsville). Due to no designated coastal zones within the AOR, it is not anticipated that there would be project impacts on any coastal zone.

Fish and Wildlife Conservation Act (FWCA)

The Fish and Wildlife Conservation Act (FWCA) of 1980 (16 U.S.C. §§ 2901 *et seq.*) declares that fish and wildlife are of ecological, educational, esthetic, cultural, recreational, economic, and scientific value to the Nation. The Act acknowledges that historically, fish and wildlife conservation programs have focused on more recreationally and commercially important species within a particular ecosystem, without provisions for the conservation and management of nongame fish and wildlife. The purposes of this Act are to encourage all federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, and to conserve and to promote conservation of non-game fish and wildlife and their habitats. The FWCA defines "non-game fish and wildlife" as wild vertebrate animals in an unconfined state, that are not ordinarily taken for sport, fur, or food, not listed as endangered or threatened species, and not marine mammals within the context of the Marine Mammal Protection Act. Another purpose is to provide financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

The proposed carbon sequestration project does not include any surface impacts to lands covered by the FWCA nor conflicts with any lands covered by the Act. The project does provide a direct benefit to the regional protected lands and local communities via an immediate improvement of local and regional air quality through decarbonizing existing industries as well as attraction of new green-field projects to the region.

Hazardous Waste Management Program under RCRA

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave" which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The term RCRA is often used interchangeably to refer to the statutes and amendments, the regulations of the EPA policy and guidance.

The project as proposed does not anticipate any RCRA regulated wastes, but will comply with all applicable regulations, guidance, and policies to ensure safe management and cleanup of any solid and hazardous waste.

UIC Program

Under the Safe Drinking Water Act (SDWA) of 1974, EPA was required to develop minimum federal requirements for injection practices that protect public health and prevent contamination of underground sources of drinking water (USDWs). A USDW is defined in the Code of Federal Regulations (40 CFR 144.3) as:

an aquifer or its portion: (a)(1) Which supplies any public water system; or (2) Which contains a sufficient quantity of ground water to supply a public water system; and (i) Currently supplies drinking water for human consumption; or (ii) Contains fewer than 10,000 mg/l total dissolved solids; and (b) Which is not an exempted aquifer.

The UIC program implements this protective mandate through the UIC regulations.

The definition of a well is codified in the Underground Injection Control (UIC) regulations at 40 CFR 144.3.

Well means: A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

Injection wells are used to place fluids, hazardous wastes, or CO₂ into porous geologic formations; those that are used to inject CO₂ into deep isolated formations are designed to provide multiple layers of casing and cement in comparison to the simple construction of a shallow well.

The UIC program is comprised of six classes of injection wells, which are grouped based on the type and depth of the injection activity. UIC regulations mandate a variety of measures be considered to assure that injection will not endanger underground sources of drinking water (USDWs).

Class VI wells are used for the purpose of injecting CO₂ into underground subsurface rock formations for long-term storage, or geologic sequestration. EPA finalized regulations for geologic sequestration of CO₂ in 2010. The proposed project consists of Class VI injection wells and associated monitoring wells that will be administered by the EPA to ensure compliance with the UIC program.

NPDES

The National Pollutant Discharge Elimination System was created in 1972 by the Clean Water Act (CWA). The NPDES permit program addresses water pollution by regulation point sources that discharge pollutants to waters of the U.S. The NPDES Program is a federal program that has been delegated to the State of California for implementation through the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) level. NPDES permits are also referred to as waste discharge requirements (WDRs) that regulate discharges into waters of the U.S.

Although the project does not propose to directly discharge pollutants to waters of the U.S., program areas that apply to the project include Stormwater. Projects that disturb one (1) or more acres of soil or less than one acre but are part of a larger plan of development that in total disturbs one or more acres are required to obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities. An application will be submitted to obtain coverage under the Statewide 2022 Construction Stormwater General Permit (Order 2022-0057-DWQ), adopted September 8, 2022, and effective September 1, 2023.

PSD (Prevention of Significant Deterioration)

Under the EPA New Source Review (NSR) permitting, PSD applies to new major sources or major modifications at existing sources for pollutants where the area the source is located in is in attainment or unclassifiable with the National Ambient Air Quality Standards (NAAQS). PSD requires installation of BACT; an air quality analysis; an additional impacts analysis; and public involvement.

The purpose of PSD is to protect public health and welfare; preserve and protect air quality in national parks, national wilderness areas, national monuments, and other national or regional special areas designated for their natural, recreational, scenic, or historic values.

PSD is not applicable to the Project, since the source is in an area that is in nonattainment with the

NAAQS. Furthermore, the project is not within a national or regional area designated for specific values.

Clean Air Act (CAA) Nonattainment Program

Under the federal CAA, areas designated as Nonattainment for one or more National Ambient Air Quality Standards (NAAQS) are required to develop and implement Nonattainment Area Plans meeting specific requirements depending on the severity of the pollution. The California State Implementation Plan (SIP) and plans developed by area (corresponding air district) are available on the California Air Resource Board website (<https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans/nonattainment-area-plans>). For the San Joaquin Valley, there are specific plans for Ozone and PM2.5, PM10 and Carbon Monoxide Maintenance Plans, along with SIP for PM10 and 1-Hour Ozone.

The 2022 Plan for the 2015 8-Hour Ozone Standard was adopted by the San Joaquin Valley Air Pollution Control District (SJVAPCD) on December 15, 2022, satisfying the CAA requirements to attain the 70 parts per billion (ppb) 8-hour ozone standard.

The project will comply with the applicable standards set by the SJVAPCD.

NESHAPS Preconstruction Approval under the CAA

Pursuant to Section 112 of the Clean Air Act (CAA), National Emission Standards for Hazardous Air Pollutants (NESHAP) refers to the standards, regulations, guidelines and emission limitations promulgated by the EPA.

Pre-construction approval, referred to as an Authority to Construct (ATC), is required from the air pollution air regulatory agency (San Joaquin Valley Air Pollution Control District (SJVAPCD)) to ensure operations are in compliance with local, state and federal air pollution regulations.

For the Project, CTV will apply for CCS Permanence Certification with CARB.

CARB Carbon Capture and Sequestration Project Application Overview

https://ww2.arb.ca.gov/sites/default/files/2020-04/CCS_Application_Overview.pdf

Ocean Dumping Permits under MPRSA

The Marine Protection, Research and Sanctuaries Act (MPRSA), aka the Ocean Dumping Act, regulates the disposition of any material in the ocean. Section 101 of the MPRSA (33 U.S.C 1411) prohibits the transportation of any material for the purpose of dumping, except as authorized by a permit.

The Project does not propose to transport or dump any material into the ocean; therefore, no ocean dumping permits are being sought and the MPRSA is not applicable to the Project.

Section 404 Dredge and Fill Permits

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. This section of the CWA requires a permit before discharge. EPA develops policy, guidance and environmental criteria used in evaluating permit applications and the program is administered by the Army Corps of Engineers (ACOE).

The Project does not propose to discharge dredged or fill materials into waters of the U.S., including wetlands; therefore, no Section 404 permit is required for the Project.

Figure ENV-1

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

San Joaquin County, California



Local offices

San Francisco Bay-Delta Fish And Wildlife

☎ (916) 930-5603

📠 (916) 930-5654

650 Capitol Mall

Suite 8-300
Sacramento, CA 95814

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

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

NOT FOR CONSULTATION

Endangered species

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

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

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

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

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

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

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

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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:

Mammals

NAME	STATUS
Riparian Brush Rabbit <i>Sylvilagus bachmani riparius</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6189	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered

Reptiles

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

Amphibians

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

Fishes

NAME	STATUS
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Delta Smelt *Hypomesus transpacificus*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Longfin Smelt *Spirinchus thaleichthys*

Proposed Endangered

No critical habitat has been designated for this species.

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

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

Flowering Plants

NAME

STATUS

Fleshy Owl's-clover *Castilleja campestris* ssp. *succulenta* Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/8095>

Large-flowered Fiddleneck *Amsinckia grandiflora* Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/5558>

Palmate-bracted Bird's Beak *Cordylanthus palmatus* Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1616>

Critical habitats

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

This location overlaps the critical habitat for the following species:

NAME	TYPE
Delta Smelt <i>Hypomesus transpacificus</i> https://ecos.fws.gov/ecp/species/321#crithab	Final

Migratory birds

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

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

1. The [Migratory Birds Treaty Act](#) of 1918.

2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

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

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

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow <i>Passerculus sandwichensis beldingi</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole <i>Icterus bullockii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25

<p>California Gull <i>Larus californicus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>Clark's Grebe <i>Aechmophorus clarkii</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jun 1 to Aug 31
<p>Common Yellowthroat <i>Geothlypis trichas sinuosa</i></p> <p>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</p>	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. 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. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Marbled Godwit <i>Limosa fedoa</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<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 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. https://ecos.fws.gov/ecp/species/9656</p>	Breeds Mar 15 to Jul 15

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3914>

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

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

<https://ecos.fws.gov/ecp/species/9480>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

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

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

Western Grebe *aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

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

<https://ecos.fws.gov/ecp/species/6743>

Willet *Tringa semipalmata*

Breeds elsewhere

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

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

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

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

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

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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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

Survey Effort (|)

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

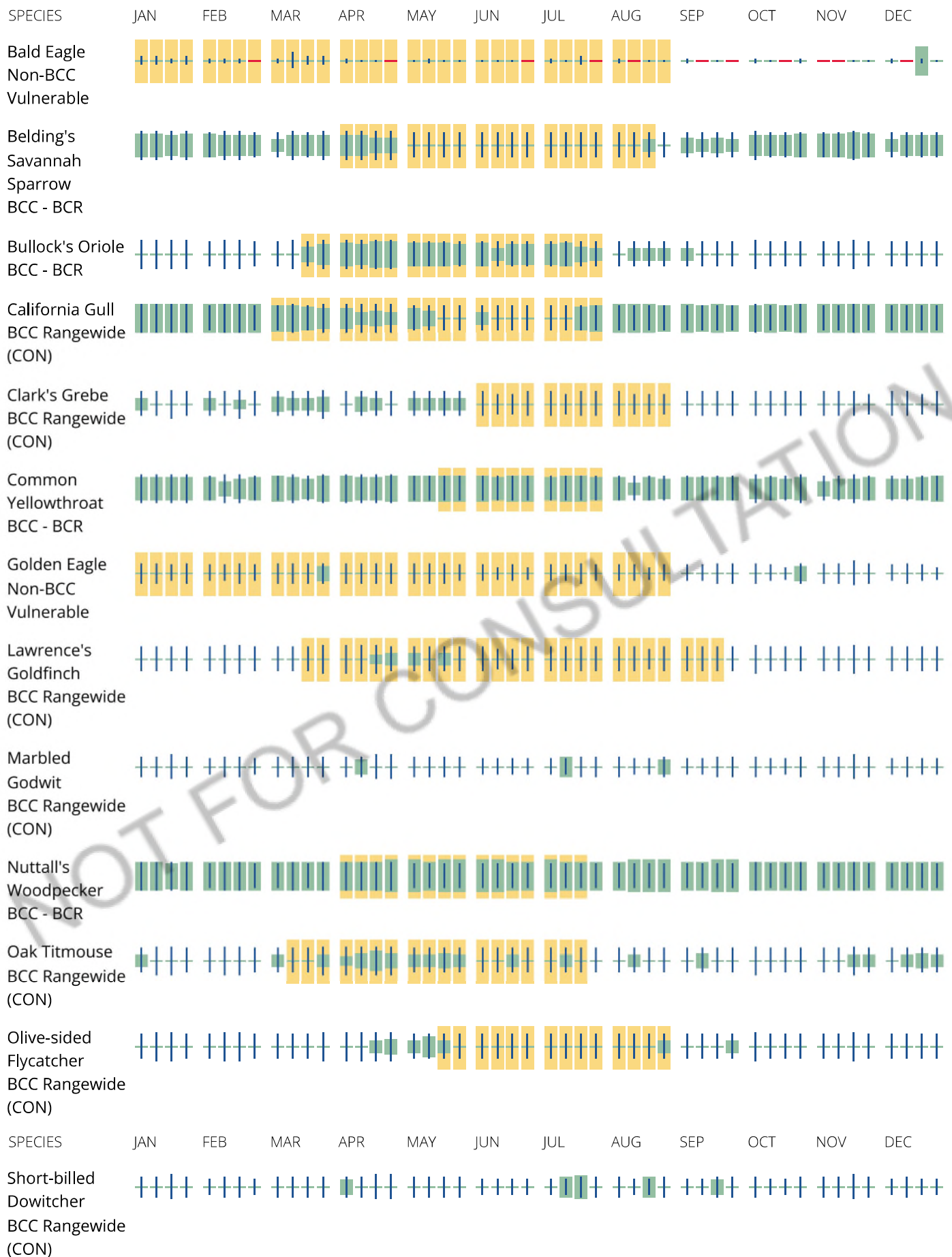
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

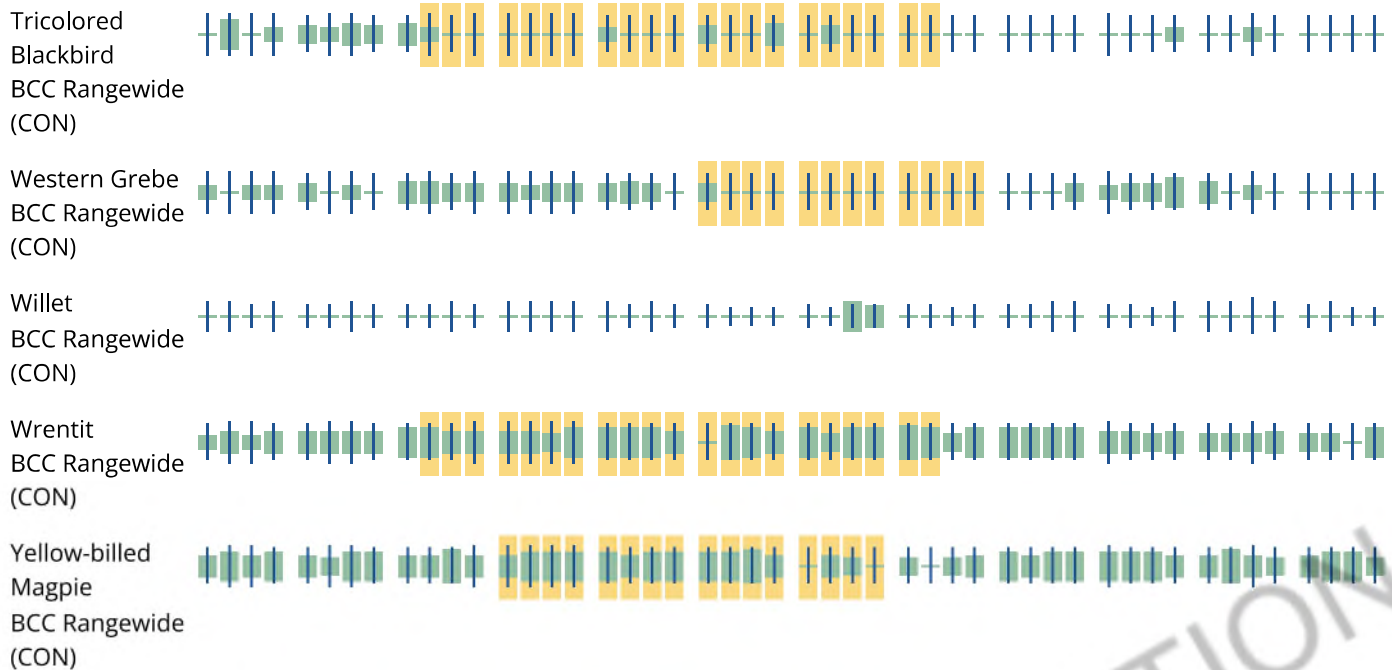
No Data (—)

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

Survey Timeframe

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





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 list of migratory birds that potentially occur 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 [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

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

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

How do I know if a bird is breeding, wintering or migrating in my 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 query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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 (NWI)

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](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

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

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

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

Data exclusions

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

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION